

SOAH DOCKET NO. 582-15-2082

TCEQ DOCKET NO. 2015-0069-MSW

APPLICATION OF	)	BEFORE THE STATE OFFICE
130 ENVIRONMENTAL PARK,	)	
LLC, FOR PROPOSED	)	OF
PERMIT NO. 2383	)	
	)	ADMINISTRATIVE HEARINGS

HEARING ON THE MERITS

Monday, August 15, 2016

BE IT REMEMBERED THAT at 9:05 a.m., on Monday, the 15th day of August 2016, the above-entitled matter came on for hearing at the State Office of Administrative Hearings, William P. Clements, Jr., Building, 300 West 15th Street, Room 404, Austin, Texas, before KERRIE JO QUALTROUGH and CASEY BELL, Administrative Law Judges, and the following proceedings were reported by Lorrie A. Schnoor and Jodi Cardenas, Certified Shorthand Reporters.

Volume 1

Pages 1 - 277

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## P R O C E E D I N G S

MONDAY, AUGUST 15, 2016

(9:05 a.m.)

(Exhibit Applicant Nos. 1 through 19, Worrall Nos. 1 through 11, Halliburton Nos. 1 through 12, Welch Nos. 1 through 2, Maroney Nos. 1 through 3, Snyder Nos. 1 through 7, Adams Nos. 1 through 5, Parker Nos. 1 through 6, Traw Nos. 1 through 2, Marusak Nos. 1 through 4, Skinner Nos. 1 through 2, O'Brien Nos. 1 through 2, Hobby Nos. 1 through 6, and Denholm Nos. 1 through 2 marked)

JUDGE QUALTROUGH: All right. This is SOAH Docket No. 582-15-2082, TCEQ Docket No. 2015-0069-MSW in the Application by 130 Environmental Park, LLC, for Proposed Permit No. 2383. It's August 15, 2016. It is 9:05 a.m. We are in Austin, Texas. My name is Judge Qualtrough, and with me today is Judge Bell. We are here to convene the hearing on the merits on this application.

If I could please get the parties to identify themselves for the record and let me know if they're ready to proceed today.

MR. RYAN: Your Honor, my name is Brent

1 Ryan. I represent the Applicant, 130 Environmental  
2 Park, LLC. And we are ready to proceed.

3 JUDGE QUALTROUGH: All right. For TJFA  
4 and EPICC.

5 MS. PERALES: Good morning, Your Honors.  
6 My name is Marisa Perales, and with me is Eric Allmon  
7 and Bradley Rockwell. And we represent TJFA, EPICC, and  
8 there are a number of individuals who are aligned with  
9 EPICC. And we are ready to proceed.

10 JUDGE QUALTROUGH: All right. For  
11 Caldwell County.

12 MR. MAGEE: Good morning, Your Honors.  
13 I'm Eric Magee, and with me is Jordan Powell from the  
14 county -- district attorney's office. We represent  
15 Caldwell County.

16 JUDGE QUALTROUGH: Thank you.  
17 For Plum Creek.

18 MR. WILSON: Good morning. I'm Robert  
19 Wilson. I'm here representing Plum Creek Conservation  
20 District. We are ready to proceed.

21 JUDGE QUALTROUGH: For the Executive  
22 Director.

23 MR. TATU: Good morning, Your Honor. On  
24 behalf of the Executive Director, I'm Anthony Tatu, and  
25 I have with me today Kayla Murray and Aaron Vargas. We

1 are ready to proceed.

2 JUDGE QUALTROUGH: And for OPIC.

3 MR. TUCKER: Good morning, Your Honors.  
4 My name is Aaron Tucker with the Office of Public  
5 Interest Counsel. And we're ready to proceed -- or I'm  
6 ready to proceed.

7 JUDGE QUALTROUGH: All right. So any  
8 preliminary matters that we need to take up before we  
9 begin this hearing?

10 MS. PERALES: Actually, there is a  
11 preliminary matter that I just remembered.

12 JUDGE QUALTROUGH: Okay.

13 MS. PERALES: And that is that the  
14 Colliers have sold their property, and so they've sent  
15 me a letter that I will attach to a motion that request  
16 that they withdraw as individual property -- or  
17 individual parties.

18 JUDGE QUALTROUGH: All right. Thank you.  
19 Anything else?

20 (No response)

21 JUDGE QUALTROUGH: All right. Opening  
22 statements.

23 Mr. Ryan, you have the burden of proof.  
24 You get to go first. You may make an opening statement,  
25 if you would like.

1 MR. RYAN: Your Honor, I'd like to reserve  
2 my statement for close.

3 JUDGE QUALTROUGH: Okay. Anybody else at  
4 this point? You can wait and do an opening statement at  
5 the beginning of your case. Anybody? All right. Thank  
6 you.

7 You may call your first witness.

8 MR. RYAN: Thank you, Your Honor. We'll  
9 call John Worrall.

10 JUDGE QUALTROUGH: All right. I need to  
11 swear you in.

12 THE WITNESS: Yes, ma'am.

13 (Witness sworn)

14 JUDGE QUALTROUGH: All right. Could you  
15 please have a seat?

16 THE WITNESS: Yes.

17 JUDGE QUALTROUGH: And state your name for  
18 the record.

19 THE WITNESS: My name is John Worrall.  
20 It's spelled W-O-R-R-A-L-L.

21 JUDGE QUALTROUGH: All right. Can  
22 everyone hear?

23 THE WITNESS: Can you hear me okay?

24 JUDGE QUALTROUGH: You can hear?

25 THE REPORTER: Yes.

1 JUDGE QUALTROUGH: All right. You may  
2 proceed.

3 PRESENTATION ON BEHALF OF APPLICANT

4 JOHN WORRALL,

5 having been first duly sworn, testified as follows:

6 DIRECT EXAMINATION

7 BY MR. RYAN:

8 Q Mr. Worrall, do you have in front of you what  
9 is labeled Worrall -- Exhibit Worrall 1 in Volume 6 of  
10 the Applicant's exhibits?

11 A Yes, I do.

12 Q And what is that?

13 A Exhibit 1, Worrall 1, is my prefiled testimony.

14 Q You don't need to go through them individually,  
15 but just as a group, what are Exhibits Worrall 2 through  
16 Worrall 10 -- I'm sorry, Worrall 11?

17 A You want me to identify them? Is that correct?

18 Q No. If you could just describe them as a  
19 group.

20 A Okay. As I -- they appear to me to be all  
21 attachments, I would say, to my prefiled testimony.

22 Q Okay. They're exhibits that are referenced in  
23 your prefiled testimony?

24 A Yes, that's correct.

25 Q Okay. And looking specifically at Exhibit



1 Worrall 1, your prefiled testimony, are there any  
2 corrections you need to make to that?

3 A There is one change I would like to note or  
4 suggest that be -- that we make. It's on -- excuse  
5 me -- Page 12 of my Exhibit 1, Line 15, one-five.

6 Q Okay. And what's the change?

7 A That sentence, that first line, says, Caldwell  
8 County will continue to be by far the smallest county in  
9 CAPCOG. That should read, Caldwell County will continue  
10 to be by far the smallest county in the MSA -- capital  
11 M, capital S, capital A. That stands for, if I may  
12 clarify, Metropolitan Statistical Area, which I defined  
13 earlier in my testimony, the previous page, just so you  
14 know that it's defined in my testimony on Line 31 of  
15 Page 11. So what I'm suggesting is that Caldwell County  
16 is the smallest county in the MSA rather than CAPCOG.

17 Q Okay. Do you have a pen that you can make that  
18 change with --

19 A Yes, I do.

20 Q -- on the exhibit?

21 A Yes. Shall I do so?

22 Q Yes.

23 A So I'm going to cross out "CAPCOG" and write in  
24 "the MSA."

25 Q Okay.

1 A All right. Okay. I've done so.

2 Q Mr. Worrall, with that change, if you were  
3 asked orally today each of the questions in your  
4 prefiled testimony, would your answers be the ones that  
5 are set out in Exhibit Worrall 1?

6 A Yes, they would be.

7 MR. RYAN: Your Honor, I'm -- I don't know  
8 if all of the exhibits were -- have been offered and  
9 admitted into evidence or if we want to go through and  
10 do that with each of the witnesses.

11 JUDGE QUALTROUGH: They have not. We just  
12 ruled on the objections. We're waiting for the parties  
13 to actually offer them.

14 MR. RYAN: Okay. Then I'll offer Exhibits  
15 Worrall 1 through 11.

16 JUDGE QUALTROUGH: Any objections? As I  
17 said, we've already ruled. You don't have to restate.

18 MS. PERALES: No further objections.

19 JUDGE QUALTROUGH: All right. Exhibits --  
20 let me make sure I mark this correctly. These are 130EP  
21 Worrall 1 through 11. Those are admitted.

22

23 (Exhibit Applicant Worrall Nos. 1 through  
24 11 admitted)

25 MR. RYAN: And, Your Honor, I think it

1 likely that Mr. Worrall is probably going to be  
2 referring to some information in the permit application,  
3 so at this time I'm going to go ahead and offer Exhibits  
4 130EP-1 through 130EP-5, which are the permit  
5 application.

6 JUDGE QUALTROUGH: So this is all five  
7 volumes of the application?

8 MR. RYAN: Yes, ma'am.

9 JUDGE QUALTROUGH: All right. Any  
10 objections to that?

11 MS. PERALES: Your Honor, I would object  
12 at this time to all of those portions being offered for  
13 the truth of the matter asserted, because they need --  
14 most of them need to be sponsored by an expert witness.  
15 And so if they're being offered just to show that the  
16 application is what was on file with the TCEQ, that --  
17 and only for that purpose at this time, I don't have a  
18 problem with that.

19 JUDGE QUALTROUGH: All right. Response?

20 MR. RYAN: Yeah, Your Honor. The time for  
21 making objections to prefiled testimony and exhibits has  
22 passed.

23 JUDGE QUALTROUGH: Well --

24 MR. RYAN: Those were not objected to.

25 JUDGE QUALTROUGH: Were there any

1 objections to the Volumes 1 through --

2 MR. RYAN: 5.

3 JUDGE QUALTROUGH: -- 5 of the  
4 application?

5 MR. RYAN: No.

6 JUDGE QUALTROUGH: Okay. I'm going to go  
7 ahead and admit those. I'm assuming, though, that there  
8 will be sponsoring witnesses that will be able to  
9 testify to each portion of the application that's being  
10 admitted. Is that correct, Mr. Ryan?

11 MR. RYAN: Yes. They do in their prefiled  
12 testimony.

13 JUDGE QUALTROUGH: Okay. So -- and I  
14 didn't try to correlate everything, each witness with  
15 each part of the application. But based on your  
16 representation, I'm going to go ahead and admit those.  
17 All right. And that was Volume --

18 MR. RYAN: 130EP-1, 2, 3, 4, and 5.

19 JUDGE QUALTROUGH: So just for clarity,  
20 for all the binders, those are all 130EP-1?

21 MR. RYAN: No.

22 JUDGE QUALTROUGH: Okay. So Volume --  
23 there's 130EP-1 that correlates to your first volume.  
24 There's 130EP-2 that's the second volume?

25 MR. RYAN: Second volume.

1 JUDGE QUALTROUGH: Okay. Good. So I'm  
2 admitting 130EP-1, 2, 3, 4, and 5.

3 MR. RYAN: Yes, ma'am.

4 (Exhibit Applicant Nos. 1 through 5  
5 admitted)

6 JUDGE QUALTROUGH: All right.

7 MR. RYAN: I'll pass the witness.

8 JUDGE QUALTROUGH: Okay. And just for --  
9 can everybody hear?

10 MR. MAGEE: This thing is on right above  
11 our ears.

12 JUDGE BELL: Just kicked in, didn't it?

13 JUDGE QUALTROUGH: All right. Mr. Ryan,  
14 you're going to have to speak into that microphone.

15 MR. RYAN: Oh, I'm sorry.

16 JUDGE QUALTROUGH: I know it's annoying,  
17 but with that blower, they can't hear anything.

18 MR. WILSON: Judge, if it's okay, I'm  
19 first on cross-examination. I'm Robert Wilson, and I'd  
20 like to move to the table over there.

21 JUDGE QUALTROUGH: That's fine.

22 JUDGE BELL: Please do.

23 JUDGE QUALTROUGH: That is fine.

24 MR. WILSON: I don't think Mr. Ryan will  
25 object too strongly.

1 MR. RYAN: Not at all. Come on over.

2 JUDGE QUALTROUGH: And you'll need to  
3 speak into that microphone as well.

4 MR. WILSON: I understand. We're ready.

5 JUDGE QUALTROUGH: You ready? All right.  
6 You may proceed.

7 THE WITNESS: Yes, Your Honor.

8 CROSS-EXAMINATION

9 BY MR. WILSON:

10 Q Mr. Worrall, my name is Bob Wilson. I'm  
11 representing Plum Creek Conservation District, and Plum  
12 Creek Conservation District is a party to this matter.

13 A Good morning.

14 Q And -- good morning. And I have a few  
15 questions that I'd like to ask about your work. And --  
16 first question: I notice that you have worked on at  
17 least 30 landfill applications. Is that correct?

18 A That's correct.

19 Q Have any of those other landfill applications  
20 involved an application that was involved in a small  
21 watershed protection plan formulated and put in place by  
22 Natural Resources Conservation Service?

23 A Not that I'm aware of. I couldn't say either  
24 way, sir.

25 Q I notice that there were a lot of references to

1 soil conservation service Site 21 all scattered  
2 throughout the testimony. Do you know if Plum Creek  
3 Conservation District has an easement for any property  
4 involved in the application?

5 A I don't know the status of, you know, the  
6 ownership or the easement status of your conservation  
7 district in the area, sir.

8 Q Did somebody else prepare the list of ownership  
9 that you referred to?

10 A I didn't -- don't think I actually referred to  
11 ownership, per se, but I did not prepare that list.  
12 That's correct.

13 Q Okay. The rules on land compatibility that you  
14 have in your testimony make reference to surface water  
15 structures. How did you consider the Site 21 structure  
16 of NRCS that's Plum Creek Conservation District's  
17 structure in doing your compatibility analysis?

18 A My recollection of the land use rules as it  
19 pertains to surface water is it -- I'm asked to estimate  
20 how many -- how much area is comprised of surface water.  
21 And that's my simple answer to your question. I don't  
22 regard -- I don't get involved in the structural  
23 considerations of the -- oh, I don't know, you know, the  
24 dams or the tanks and that sort of thing.

25 Q In your testimony, I think you said that you

1 calculated that 1.5 percent of the area that you were  
2 considering is involved in surface water structures?

3 A I can refer to that, but I'm happy to take you  
4 at your word, sir. If you want me to specifically look  
5 at it, I'd be happy to. Why don't I do that.

6 Q All right. All right. I'll refer you to Page  
7 10 of your testimony, and it's Line 23 and 24.

8 A Very good. Thank you for that.

9 JUDGE QUALTROUGH: I'm sorry, what page?

10 MR. WILSON: Page 10 of his prefiled  
11 testimony, Lines 23 and 24.

12 A Yes, sir, I see that.

13 Q (BY MR. WILSON) And the response that you gave  
14 is there are numerous water bodies and you have  
15 1.5 percent within one mile of the site.

16 A Yes.

17 Q And my question is: How did you calculate the  
18 area within one mile of the site in terms of the area of  
19 surface water bodies?

20 A That would be the -- using aerial photography.  
21 Does that respond to your question?

22 Q That -- if that's what you did, that responds  
23 to my question, yes, sir.

24 A Yes. Okay.

25 Q Do you have any idea what the area of



1 inundation behind the Site 21 site that's on the Hunter  
2 tract is? Do you have any idea how many acres are  
3 involved in it?

4 A Your specific question, area of inundation. Is  
5 that correct?

6 Q Yes, sir. How many acres can be inundated  
7 under the easement held by Plum Creek for Site 21?

8 A I do not know that specific answer. I could  
9 refer you to, if I would, Worrall Exhibit 3, my land use  
10 analysis, which would indicate that we estimated within  
11 one mile on Page 3 of that testimony -- or that exhibit  
12 that there were 65 acres of water bodies comprising that  
13 1.5 percent we talked about. But I couldn't tell you  
14 your specific question as to the areas of inundation of  
15 any particular water body.

16 Q Do you know what a small watershed protection  
17 plan is?

18 A Just based on the semantics of it, yes, I think  
19 I would.

20 Q Do you know that -- do you have any idea that a  
21 small watershed protection plan involves stormwater  
22 retarding structures to regulate streamflow?

23 A That seems to me to be a reasonable aspect of a  
24 watershed protection plan.

25 Q When you look at areas inundated in water

1 bodies, do you take into account the area that could be  
2 inundated by one of those structures at -- in periods of  
3 high rainfall?

4 A That would be beyond the scope of my analysis.

5 Q So the fact that some of the area of land could  
6 be flooded at various times because of one of these  
7 structures is not something you look at when you were  
8 considering whether a water body is present?

9 A I don't understand your question.

10 Q All right. Let me see if I can phrase it a  
11 little differently, because you're kind enough to  
12 provide us with the rules, I think, and I just need to  
13 find out where I have those. And the rules ask -- of  
14 TCEQ ask for -- here they are -- every effort to show  
15 the location of residences, commercial establishments,  
16 schools, licensed daycare facilities, churches,  
17 cemeteries, ponds, or lakes.

18 A Yes, sir.

19 Q When you look for the area where a pond or a  
20 lake could be --

21 A Yes.

22 Q -- do you look just at aerial photography to  
23 see what was there on the day the picture was taken?

24 A That's correct.

25 Q So the fact that larger areas could be covered

1 with water at other times when it hadn't rained as much  
2 is just outside the scope of your investigation?

3 A Well, it would still be included in the acreage  
4 totals of the entire area that I'm looking at, but  
5 you're fundamentally correct in your initial assertion  
6 that I would calculate the surface water body area to be  
7 the area on the day that that aerial photograph was  
8 taken.

9 Q Did you make any analysis or do any evaluation  
10 of how the use of the site for a landfill portion of the  
11 Hunter tract for a landfill is or is not compatible with  
12 any easement rights of Plum Creek Conservation District?

13 A Well, sir, I considered as -- you know, you  
14 just read a portion of the rules, and in those rules it  
15 does suggest or require that I look at a number of  
16 factors regarding land use compatibility. Easement  
17 rights, per se, are not an issue that I examined but  
18 rather the land use as it were.

19 Q And so if Plum Creek has a right to use a  
20 portion of the land for water storage after rainfall,  
21 that's not something you have -- that's not something  
22 you look at?

23 A Would you repeat that for me?

24 Q Yes, sir.

25 A Thank you.

1 Q If my client, Plum Creek Conservation District,  
2 has a right to use area of the Hunter tract for water  
3 storage after periods of rainfall, that's not something  
4 that is of concern to you for land use compatibility  
5 question --

6 A I don't think that would be a factor of  
7 consideration.

8 Q Is it a good idea to have a landfill where  
9 stormwater is going to back up over it?

10 A I don't have an opinion on that.

11 Q Okay. Let me ask you a few other questions  
12 about terms.

13 A Okay.

14 Q The Hunter tract itself I believe is 1229  
15 acres, according to your testimony. Is that correct?

16 A Yes, sir.

17 Q And a smaller portion of that, approximately  
18 520 acres, is part of the permit boundary?

19 A Correct.

20 Q And a smaller portion of the permit boundary is  
21 then part of the landfill footprint?

22 A That's correct. As I recall, it's about 202  
23 acres.

24 Q Right. Well, I'll ask somebody else about the  
25 easement questions --

1 A Good.

2 Q -- because -- and ownership questions.

3 I believe I saw a statement that no  
4 existing site-specific conditions exist that require  
5 special design considerations. Was that your statement  
6 or somebody else's?

7 A I don't recall making that statement, sir. I'd  
8 be happy to -- if you can point it out to me, I'd be  
9 happy to search it out.

10 Q Did you look at the design of the landfill as  
11 it would lie on the Hunter tract?

12 A Yes.

13 Q Did you notice that there is the intrusion in  
14 the northeast portion of the landfill area that is  
15 carved out to take into account something?

16 A You'd have to refer me to something more  
17 specific.

18 Q Let me see if I can show you a map.

19 A Terrific. Thank you.

20 MR. WILSON: Your Honor, may I approach  
21 the witness?

22 JUDGE QUALTROUGH: Yes, you may. Is that  
23 a --

24 MR. WILSON: It's part of an exhibit of  
25 his report. It's got a label down at the bottom, and I

1 don't mind identifying it.

2 JUDGE QUALTROUGH: Yeah, if you could  
3 identify this for the record so everybody can follow  
4 along.

5 MR. WILSON: Okay.

6 Q (BY MR. WILSON) Mr. Worrall, I'm going to hand  
7 you a land use analysis. It says a -- from a  
8 technically complete application of October 28, 2014,  
9 Figure LU-2, land use, one mile.

10 A Okay.

11 Q Do you have that in front of you?

12 A I do. Would you like me to compare what you  
13 have to what I have in the exhibit here?

14 Q Sure.

15 JUDGE QUALTROUGH: And what exhibit are  
16 you looking at?

17 THE WITNESS: I'm current -- Madam Judge,  
18 I'm looking at Worrall 3, and it is an exhibit within  
19 there called LU-2, labeled LU-2. And I'm just -- I'm  
20 sorry.

21 MR. RYAN: Does that say Page 8 in the  
22 bottom right-hand corner?

23 THE WITNESS: My copy does, yes. It's  
24 quite similar to Mr. Wilson's copy, although I would  
25 note that Mr. Wilson's copy doesn't have the updated

1 aspects of it.

2 Q (BY MR. WILSON) Okay.

3 A So -- well.

4 Q Let me look at the copy that you're looking at,  
5 Mr. Worrall.

6 A Yes, sir.

7 Q And the area that I'm asking about is there is  
8 a cross-hatched area, is there not, in the exhibit that  
9 shows the landfill footprint within the permit area?

10 A Correct.

11 Q There is what appears to be an intrusion into  
12 that area.

13 A Okay.

14 Q It's carved out so that there is no landfill  
15 activity taking place --

16 A Sir --

17 Q -- in that particular --

18 A Mr. Wilson, would you point to it on my map,  
19 just to make sure we're talking about the same thing?

20 Q Sure, I'll be glad to.

21 A Then we can describe it to everybody else.

22 Q Sure. It's this intrusion right there  
23 (indicating).

24 A Okay.

25 Q You understand --

1           A     I do see that. So we're talking about -- if we  
2 look at the landfill footprint, it's kind of an  
3 irregular, organic shape, you might say. And there's  
4 one area that is, well, an intrusion, I guess, is a  
5 pretty good word. There's an area that's kind of carved  
6 out, you might say, on the eastern side of the  
7 footprint.

8           Q     Do you know whether that area that's carved out  
9 on the eastern side is related to conditions that exist,  
10 land use conditions, at the site?

11          A     I don't think it has to do with land use  
12 conditions; I think it has to do with engineering  
13 considerations.

14          Q     So you wouldn't have an opinion about what is  
15 the land use for that particular area that requires that  
16 kind of indentation?

17          A     Well, by my analysis, I listed that, as  
18 indicated here, as open land. So that was the extent of  
19 my land use analysis of that portion of the site and  
20 environs.

21          Q     And you have no idea about why that area was  
22 omitted from the shape of the landfill itself?

23          A     I have ideas, but I'd be just speculating.

24          Q     All right. And I should ask the engineer that  
25 question, is what you're saying?



1           A       I wish you would.

2           Q       All right. Mr. Worrall, you also talked about  
3 buffers.

4           A       Yes.

5           Q       Page 10, Line 39. And I had some confusion  
6 about --

7           A       Okay.

8           Q       -- the references. And that's really what I  
9 wanted to ask you about. Let me turn to it. And on  
10 Page 9, by the way, at Line 41, I see you described the  
11 shape as organically shaped landfill area for the  
12 landfill.

13          A       Yes.

14          Q       Is that a reference to the -- to the irregular  
15 perimeter boundary?

16          A       Yes, that's exactly right. That's correct.

17          Q       Okay. As to -- and on Page 10, you say there  
18 is -- be a buffer, and you say the buffers far exceed  
19 TCEQ standards. Then you say on the south and west, the  
20 site exceeds any landfill project you have seen in terms  
21 of buffer. Are you talking about buffer areas from the  
22 landfill footprint, or are you talking about buffer  
23 areas from the permit area or buffer areas from the  
24 entire tract under Option?

25          A       I've tried to be consistent with what I

1 understand to be TCEQ testimony -- or regulatory  
2 language. My understanding, a TCEQ-defined buffer is  
3 that area between the footprint and the permit boundary  
4 or facility boundary. So that's what I'm referring to.

5 Q Okay. So my understanding, to understand your  
6 testimony, is that then there is at least 125 feet  
7 between the landfill footprint and something?

8 A Between the landfill footprint and the -- allow  
9 me to start over.

10 The required 125-foot buffer as required  
11 by TCEQ is, as I understand it, the distance between the  
12 footprint and the boundary.

13 Q And the question that I have is: The boundary  
14 of what?

15 A The permit boundary.

16 Q And the reason I ask that in terms -- because  
17 you said -- particularly on the south and east sides,  
18 there is a large buffer area, and I was confused about  
19 whether you meant between the landfill boundary and the  
20 permit boundary or the landfill boundary and the tract  
21 site.

22 A Well, sir, I meant -- in the narrow sense, I  
23 meant the boundary as we've talked -- excuse me -- the  
24 buffer as we've defined it. From an effective point of  
25 view, we end up with a much larger effective buffer that

1 I will use in a more generic sense than the required  
2 buffer, which is to say we've got very large setbacks  
3 from the footprint to the property boundary. So that's  
4 in addition to what are still large setbacks and buffers  
5 between the footprint and the facility boundary.

6 Q Okay. Do you know whether the drainage from  
7 the landfill site will go into the Plum Creek watershed  
8 Site 21?

9 A I believe most of it ultimately will, yes.

10 Q Is that something you took into consideration  
11 in your analysis of land use compatibility?

12 A No, not explicitly.

13 Q Is it not relevant?

14 A Is the fact that the drainage goes into this  
15 stormwater facility or pond not relevant? Is that what  
16 you asked?

17 Q Yes, sir.

18 A It's -- I don't believe it's relevant to the  
19 land use analysis.

20 Q Even though the TCEQ rules asked for water body  
21 analysis?

22 A Well, as -- the TCEQ rules ask for a lot of  
23 water information. As far as the land use is concerned,  
24 they asked me to characterize the land use within one  
25 mile of the facility, including the water bodies, which

1 I have done. It doesn't ask me which way the drainage  
2 is going or how that might impact that. It asks me to  
3 characterize that land use, and I've done so.

4 Q So the fact that the drainage goes into this  
5 lake down there is not a land use compatibility  
6 question, in your mind?

7 A There is so many other rules and regulations  
8 regarding stormwater drainage that other experts are  
9 dealing with that I believe the short answer would  
10 therefore be I don't consider that. Correct.

11 Q All right.

12 A It's a long short answer, wasn't it?

13 Q I understand long short answers. I'm a lawyer.

14 MR. WILSON: I believe that's all the  
15 questions I have for Mr. Worrall.

16 JUDGE QUALTROUGH: All right. Thank you.  
17 Actually, I think the ED should have gone first in the  
18 questioning, as the most adverse witness would be the  
19 last party to cross. So it's okay.

20 MR. WILSON: We worked this out last week  
21 after Your Honor's suggestion just because of the way  
22 presentation is going to be and because my client is not  
23 in favor or opposed.

24 JUDGE QUALTROUGH: Okay. All right. So  
25 then you're -- for the -- y'all have agreed that for the

1 Applicant's witness, you're going to go first?

2 MR. WILSON: Yes, ma'am.

3 JUDGE QUALTROUGH: And then the ED?

4 MR. WILSON: We haven't specifically  
5 mentioned the ED. We ignored the ED.

6 (Laughter)

7 MR. TATU: We don't object to that.

8 JUDGE QUALTROUGH: So you'll go next. All  
9 right?

10 MR. TATU: Yes.

11 JUDGE QUALTROUGH: All right. And then I  
12 guess OPIC and then TJFA.

13 JUDGE BELL: And Caldwell County.

14 JUDGE QUALTROUGH: Oh, yeah, whichever.

15 MR. MAGEE: We've kind of worked it out  
16 amongst us just how to go in order between TJFA and  
17 EPICC and the County.

18 JUDGE QUALTROUGH: All right. Good deal.

19 MR. WILSON: And, Your Honor, in order of  
20 presentation of cases, the plan is, because of  
21 Mr. Halliburton, is that Plum Creek would go immediately  
22 after the Applicant.

23 JUDGE QUALTROUGH: Right. And that's  
24 fine. We can take people out of order, but as far as  
25 cross goes, the most adverse needs to go last.

1 MR. WILSON: Thank you.

2 JUDGE QUALTROUGH: So the ED is up.

3 MR. TATU: Your Honor, Aaron Vargas will  
4 be handling the cross-examination for the ED.

5 JUDGE QUALTROUGH: All right. You may  
6 proceed.

7 CROSS-EXAMINATION

8 BY MR. VARGAS:

9 Q Good morning. So in your application, you  
10 state that you've worked on 30 solid waste projects?

11 A Yes, approximately. Actually more, probably.

12 Q Okay. Out of all of those, have you ever  
13 worked on a project that's gone before the State Office  
14 of Administrative Hearings?

15 A Yes, sir, I have.

16 Q Do you know a number, by any chance?

17 A I would say roughly a dozen.

18 Q Roughly a dozen?

19 A Uh-huh.

20 Q Okay. And out of those, have you ever found a  
21 project that has been incompatible with land use?

22 A Not in a contested case hearing. I have been  
23 asked to participate or work on projects that I did not  
24 believe would be compatible; and, therefore, I did not  
25 continue to work on them.

1 Q Okay. Can you maybe give me some general  
2 factors that led to your determination that it was  
3 incompatible with land use?

4 A Would you repeat that? I'm sorry.

5 Q Sorry. What factored into your decision in  
6 those cases that you found incompatible? What factored  
7 into that decision?

8 A Oh, that's a good question. The main  
9 consideration -- well, really the only consideration I  
10 have is I start with the TCEQ rules regarding land use  
11 compatibility. They're the only standard to use here.  
12 So in those cases where I did not proceed to work on, I  
13 just felt that they would in some way have difficulty  
14 complying with the land use compatibility rules of the  
15 TCEQ and that ultimately I would have a hard time  
16 testifying truthfully as to their compatibility.

17 Q Okay.

18 A So I only testify truthfully about  
19 compatibility. That's all I can do.

20 Q Were there any maybe trends? Was it maybe more  
21 water bodies or transportation issues?

22 A I would say more -- not water bodies but rather  
23 more transportation -- let's say access issues --

24 Q Okay.

25 A -- or proximity issues.

1 Q Okay. On Page 7 of your Exhibit Worrall 1,  
2 Line 21, you talk about updating the application.

3 A Yes, sir.

4 Q Or the analysis. Excuse me.

5 A Yeah, but I lost your reference. Would you  
6 repeat your reference for me, please?

7 Q Page 7 --

8 A Yes.

9 Q -- Line 21, starting there, where we're talking  
10 about Exhibit Worrall 3, you stated that you updated  
11 your analysis to note and that a lot of the update was  
12 insignificant except for the fact that there were 17  
13 houses built. My question is: You stated that building  
14 of the 17 residences was not significant?

15 A Correct.

16 Q What would you consider to be a significant  
17 change?

18 A That's a good question. I don't think I have  
19 an answer to that, because it's hypothetical, I guess.  
20 I'm having a hard time answering your question,  
21 truthfully.

22 Q Okay. So on Page 9 --

23 A Yes.

24 Q -- starting at Line 34, Do you consider that to  
25 be significant change? You say no. Is that correct?



1 A Allow me to read the preceding part --

2 Q Sure.

3 A -- for a moment, if you would, please.

4 Q Yes.

5 (Pause)

6 A Okay. Correct.

7 Q (BY MR. VARGAS) And you're not sure what would  
8 be a significant change, in your mind?

9 A Well, I do know what's insignificant, and I  
10 believe that these are insignificant. I guess that's --

11 Q Okay.

12 A -- my answer.

13 Q Okay. Regarding growth trends --

14 A Yes, sir.

15 Q -- on Page 12, Lines 2 through 5, you reference  
16 the Caldwell County capital area planning council,  
17 CAPCOG. What's the significance of the CAPCOG  
18 analysis -- or I guess let me ask you: What is their  
19 role in reviewing this application?

20 A CAPCOG is the -- is acronym for the Capital  
21 Council of Governments, Capital Area Council of  
22 Governments. And CAPCOG has -- prepares regional solid  
23 waste management plans for the ten-county region of  
24 Central Texas. And what they do -- CAPCOG's role is to  
25 review the application, many aspects of the application,

1 and make findings regarding whether it's in compliance  
2 or in conformance with their plans, their regional solid  
3 waste plans.

4 And so they do a conformance review of the  
5 application. And in this case I believe CAPCOG has  
6 indicated that the application is in conformance with  
7 the regional solid waste management plan that CAPCOG has  
8 prepared.

9 Q Okay. Do you know if they consider land use  
10 issues?

11 A They consider many issues, and one of those  
12 issues is definitely land use, yes.

13 Q Okay. Last thing. You reference buffer zones?

14 A Correct.

15 Q What is the -- what is the significance of  
16 having the extra 200 feet of buffer zone?

17 A Well, I believe that the larger the buffer  
18 zones that we have, generally speaking, the better off  
19 we're going to be in terms of being a compatible land  
20 use.

21 MR. VARGAS: Pass the witness. Thank you.

22 THE WITNESS: Thank you.

23 JUDGE QUALTROUGH: All right. Who's next?  
24 OPIC?

25

## CROSS-EXAMINATION

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BY MR. TUCKER:

Q Good morning -- good morning, Mr. Worrall. My name is Aaron Tucker with the Office of Public Interest Counsel. Thank you for being here this morning.

A Good morning. Thank you.

Q Sorry.

JUDGE QUALTROUGH: That's okay. I know it's awkward.

Q (BY MR. TUCKER) All right. I'd like you to turn to Page 4 of your testimony, if you would. And starting with Line 13, you describe some of the elements that you believe lead to good visual screening. And so I'd like you to take a look at this. One of the items you say is that the very large buffer zones contribute to some of the best visual screening you've seen. Are you referring to -- when you describe buffer zones, are you using the TCEQ definition there?

A Well, sir, that's a good question. Of course, Mr. Wilson was kind of asking about this, too.

I would say frankly, in this context, I'm referring to, first of all, the TCEQ-required buffer zones, which are defined as that minimum 125-foot distance between the footprint and the facility boundary, the permit boundary.

1           In addition, I would suggest I'm more  
2 informally referring to it as the large setbacks. Let's  
3 call them setbacks, maybe, to differentiate from the  
4 regulatory definition of buffer -- they're serving as  
5 buffers, but we might talk about them as being setbacks.  
6 So in this case I'm referring both to the regulatory  
7 buffer as we -- as defined, as well as additional  
8 setbacks that act as buffers.

9           Q     So using that definition buffer zone, would you  
10 still describe -- using the TCEQ definition of buffer  
11 zones, would you still describe the TCEQ-defined buffer  
12 zones as very large, or would it be more correct to say  
13 very large setbacks and buffer zones? Sorry. That's  
14 two questions. Let me start over.

15                     Would you still describe the TCEQ-defined  
16 buffer zones as very large, disregarding setbacks?

17           A     Yes, in certain -- yes, I would.

18           Q     And how do you define "very large"?

19           A     Well, two, three, four times, five times larger  
20 than the required minimum.

21           Q     And we're just talking about the buffer zone.  
22 Is that correct?

23           A     The TCEQ --

24           Q     TCEQ buffer zones.

25           A     -- defined buffer zone. That's correct. I did

1 think that your initial use of, you know, combining the  
2 buffer zones and the setbacks does make some sense here.  
3 But if we talk about very specifically the TCEQ-defined  
4 buffer zones, if you would look at the -- an exhibit  
5 that we previously referred to, Worrall Exhibit 3, Page  
6 8, you can see there's very large buffer zones to the  
7 west and to the east which would be those distances  
8 between the landfill footprint and the facility  
9 boundary. So those are very large TCEQ-defined -- or  
10 buffer zones in the TCEQ definition.

11 Q So is it your testimony that the -- that the  
12 zone free of municipal solid waste processing and  
13 disposal activities within and adjacent to the facility  
14 boundary is three times the 125 -- is two to three times  
15 the 125-foot requirement?

16 A Oh, I don't believe it is everywhere, no.

17 Q Okay.

18 A But it's far greater than that, as I say, on  
19 both the east and the west sides.

20 Q And are the buffer zones and setbacks the same  
21 on all sides of the facility?

22 A No, sir. They're highly irregular. There's  
23 many -- again, because of the irregular shape of the  
24 landfill footprint on the one hand, the facility  
25 boundary on the other, and then even the property

1 boundary, we get widely varying distances in terms of  
2 both buffer zones and setbacks.

3 Q So given the irregular nature of the buffer  
4 zone and setback, would you say that it's very large on  
5 all sides?

6 A No, sir, I would not say that.

7 Q Okay. Which sides would you say it's not  
8 large?

9 A Well, it's -- I want to stress that it meets  
10 all the -- you know, regulatory minimum meets or exceeds  
11 the regulatory requirements for the 125-foot buffer.  
12 Those areas where the buffer is the smallest is on the  
13 north and on the south sides, the regulatory buffer.

14 Q Okay. Is it true that on the north side, they  
15 are the closest residence? Is that correct?

16 A That's correct.

17 Q And how many residences are on the north side?

18 A If you'll take -- allow me a moment, I'll  
19 estimate that.

20 Q Okay. Thank you.

21 A And when you say "on the north side," you mean  
22 every residence north of the -- do you have a specific  
23 area you want me to look at?

24 Q Let's say within one mile.

25 A Okay. Well, they're all within one mile.

1 Q Okay.

2 A If you want, what I'm referring to again is  
3 Worrall Exhibit 3, Page 8.

4 Q And so the -- yeah, I don't need the number.  
5 I'm sorry.

6 But the collection of residences north of  
7 the property are --

8 A Yes.

9 Q -- have a smaller buffer zone and setback than  
10 some of the others. Correct?

11 A The buffer zone -- well, that's correct, yes.  
12 Uh-huh.

13 Q And it's your testimony that the nearest  
14 residence to the proposed facility is approximately  
15 185 feet west of the facility boundary?

16 A That's correct.

17 Q And 345 feet from the landfill footprint?

18 A That's my recollection, yes, sir.

19 Q And if we could turn to Worrall Exhibit 3, Page  
20 8, that you were referring to just a moment ago.

21 A Yes, sir.

22 Q Could I get you to circle the closest residence  
23 that you've -- that you're referring to?

24 A I'd be delighted to.

25 Q Okay.

1 MR. TUCKER: Can I approach?

2 JUDGE QUALTROUGH: Yes, you may.

3 MR. TUCKER: Thank you.

4 A You'd like me to circle the residence in  
5 question?

6 Q (BY MR. TUCKER) Yes, please.

7 A Shall I put like an X through it? Would that  
8 help it read better. Do you --

9 Q No, the circle is fine.

10 A Okay. Very good. Uh-huh.

11 Q And so the house you've identified is on the  
12 north side at the -- where there's sort of a corner of  
13 the property. Is that correct?

14 A That's correct.

15 Q Okay. In your analysis, what did you identify  
16 as the likely impacts on nearby property owners and  
17 individuals?

18 A What I've done is characterized the land use  
19 within one mile of the facility and didn't attempt to  
20 specifically document impacts between the facility and a  
21 particular residence, if I'm understanding your  
22 question.

23 Q Okay.

24 A So what I'm trying to do is characterize the  
25 area within one mile, by and large, and then look at



1 these other required elements, including the most  
2 proximate residence. So --

3 Q Yeah, thank you.

4 A Okay.

5 Q In your analysis, did you identify the impacts  
6 to human health on nearby property owners and  
7 individuals?

8 A Yes, to the extent that it's required by the  
9 rules.

10 Q And how did you -- what was your analysis --

11 A Well --

12 Q -- on human health?

13 A Well, I analyzed all of the rules, and you're  
14 seeing the results of the analysis I did by  
15 characterizing land use, by looking at zoning, looking  
16 at growth trends, and examining proximity to various  
17 uses, whether it be schools, cemeteries, churches,  
18 recreational areas and the like.

19 Q So you identified those elements, but you did  
20 not identify the impacts to human health. Is that  
21 correct?

22 A Well, again, what I did was I looked at the --  
23 it says -- if I may refer to the rules?

24 Q Sure.

25 A Which I've -- my summary of those rules, which

1 I believe is accurate, is on Page 2 of -- excuse me --  
2 Page 3 of Applicant's Exhibit No. 3. And so what I'd  
3 like to refer to is, if you're following where I'm --  
4 are you tracking --

5 JUDGE QUALTROUGH: Can you give the exact  
6 cite for the rule?

7 THE WITNESS: I'd be happy to. I'll have  
8 to dig it out.

9 JUDGE QUALTROUGH: Is it 330.61?

10 THE WITNESS: 330.61, Subset (h), is what  
11 my notes say.

12 JUDGE QUALTROUGH: Okay.

13 THE WITNESS: Madam, you'd prefer that I  
14 use the rule book for that? Happy to do it.

15 I'm referring to the Texas Administrative  
16 Code 330.61, Paragraph (h). And it reads, Impact on  
17 surrounding area: A primary concern is that the use of  
18 any land for a municipal solid waste facility not  
19 adversely impact human health or the environment. The  
20 owner or operator shall provide information regarding  
21 the likely impacts of the facility on cities,  
22 communities, groups of property owners or individuals,  
23 by analyzing the compatibility of land use, zoning in  
24 the vicinity, community growth patterns, and other  
25 factors associated with the public interest.

1                   And then it goes on to say, To assist the  
2 Commission in evaluating the impact of the site on the  
3 surrounding area, the owner or operator shall provide  
4 the following -- and then it lists several elements,  
5 which I would summarize as zoning, character of  
6 surrounding land uses, growth trends, proximity, and  
7 then on to other factors as well.

8           Q       (BY MR. TUCKER) Good. Thank you.

9                   So do you believe that an owner or  
10 operator has a duty to identify the likely impacts on  
11 human health?

12          A       Yes, I do.

13          Q       Okay. And do you believe your analysis has  
14 done that?

15          A       I do believe it has, consistent with the rules,  
16 yes.

17          Q       All right. If I could get you to turn to --  
18 back to Page 14 of your testimony. And on Line 14, one  
19 of the other elements you talked about contributing to  
20 compatibility was the proposed visual screening berm?

21          A       Yes, sir.

22          Q       And the proposed visual screening berm you're  
23 referring to is Worrall Exhibit 10. Is that correct?

24          A       Yes, sir, that's correct.

25          Q       And how would the visual screening berm

1 contribute to compatibility?

2 A Well, you were asking me earlier about the  
3 nearest residences. And what the visual screening berm  
4 was designed to do was to minimize the visual  
5 interaction or the visibility of the facility to these  
6 nearest residences to the north that we were discussing  
7 before.

8 Q And how tall will the screening berm be?

9 A It varies. If you'd like, I could give you  
10 some estimates.

11 Q Yeah, if you could give me some estimates,  
12 please.

13 A Okay. I would say it's as high as 50 feet  
14 tall.

15 Q And this proposal is not in the application --  
16 correct -- that was submitted to TCEQ?

17 A I don't -- I don't know for sure. I would  
18 think it would have been, though. I thought it was.

19 Q Could you show me in the application where I  
20 can find -- that was submitted to TCEQ where I can find  
21 this visualization?

22 A I will certainly attempt to do so. It'll take  
23 me a moment.

24 Q Thank you.

25 A Okay. And I might need some help.

1 Q Okay.

2 A Okay. I see one reference to it, sir, in  
3 Applicant's Exhibit 130EP-1, Page 143.

4 Q Okay. And looking at that map --

5 A Yes.

6 Q -- on this map, how would I tell how tall the  
7 screening berm was going to be?

8 A I don't believe you could tell very  
9 specifically from this map. Let me examine this more  
10 carefully. You couldn't tell from this map.

11 Q Does this map indicate that visual features  
12 such as the trees and landscaping on your -- on Exhibit  
13 Worrall Exhibit 10 are present?

14 A No, it does not -- it does not show that.

15 Q Are you aware of any other portions of the  
16 application that show the screening berm?

17 A You know, sir, I'm not really familiar with the  
18 entire application and the various volumes. I focus on  
19 the land use aspect. So I'm not aware of any other  
20 places that it's located.

21 Q All right. So based on this map, could the  
22 screening berm be shorter than 50 feet?

23 A Well, in spots, as per the exhibit we just  
24 looked at, it will be shorter than 50 feet in some spots  
25 anyway, per the design.

1 Q Okay. Could the whole -- based on this map,  
2 could the screening berm be constructed at five feet  
3 across the whole property or -- sorry.

4 Q Could the height only be five feet?

5 A You know, it just -- if we're looking at Page  
6 143 --

7 Q Yes, only at 143.

8 A Yeah, I would say that it's awfully hard to say  
9 anything about it other than there will be present a  
10 screening berm. There will be a screening berm present.

11 Q Okay. And staying on Page 153 --

12 A 143.

13 Q Sorry, 143. Thank you. Could you look at the  
14 legend?

15 A Yes.

16 Q And the bottom part of the legend shows a  
17 shade, and the caption is Existing Wooded Area Not  
18 Disturbed.

19 A Correct.

20 Q Do you see the shaded area where the screening  
21 berm will be?

22 A Yes, I do.

23 Q Is the -- how can the screening berm be  
24 compatible with not disturbing the wooded area that's  
25 present?

1           A     I think that that's a good point. I think it's  
2 kind of a confusing legend, but if you do look at the  
3 screening berm itself, it specifically indicates that  
4 the whole screening berm would be wooded, and that is,  
5 in fact, the proposal. So I would suggest that the  
6 legend could be clarified, but I don't think it's  
7 inaccurate.

8           Q     Okay. And as part of your exhibits, you  
9 prepared pictures showing visual representations of the  
10 proposed facility. Correct?

11          A     That's correct.

12          Q     So looking at Worrall Exhibit 11, how did you  
13 choose the various points to construct these visual  
14 depictions?

15          A     Well, as I stated in my testimony, there's a  
16 couple criteria we used to select these points. One is  
17 that we want to select points of view that essentially  
18 surround the landfill. So we're looking at it from the  
19 northeast, south and west and various directions so we  
20 get kind of a three-dimensional sense of it.

21                     And the second thing is that we select  
22 locations that are publicly accessible. I don't -- I  
23 don't trespass to do these photographs, and we believe  
24 it's probably in the -- not only for my safety but also  
25 for the -- you know, we're trying to represent the view

1 to the public. And so we take these from publicly  
2 accessible points of view, typically roadways. So  
3 roadways -- the short answer is typically roadways from  
4 as many directions as possible.

5 Q And looking at Page 3 of Worrall Exhibit 11, it  
6 shows the on-site survey base point --

7 A Correct.

8 Q -- used as the 00-degree point in all photos?

9 A Correct.

10 Q That's the center point, is that correct, of  
11 the photos? Is that what that means?

12 A Oh, yeah, that's a good way to describe it.  
13 Yeah. It's not the center point of the landfill, but  
14 it's the center point of the photos. That's correct.

15 Q And can you tell me why you chose that point as  
16 a reference?

17 A We just asked the surveyors to set up a base  
18 point, if you will, within the footprint -- you know,  
19 near the center of the mass of the landfill. So it's  
20 arbitrary.

21 Q But you consider it the center point?

22 A Well, it's close to it.

23 Q Okay.

24 A But it would be awfully hard to say what a  
25 center point is. And, frankly, it's arbitrary. It



1 could be left, right, up, down from that. It really  
2 wouldn't matter as far as the visualizations are  
3 concerned.

4 Q Is there a reason you didn't choose the peak  
5 elevation point as the survey base point?

6 A There's no reason to select it or not. And I  
7 think we selected a different -- I mean, we wanted a  
8 survey base point on the ground within the footprint of  
9 the landfill, and it didn't matter to us what it was  
10 relevant to the peak elevation or not.

11 Q Would using the peak elevation as the on-site  
12 survey base point produce different visual  
13 representations?

14 A No, sir.

15 Q Okay. Okay. I'd like you to turn to View C on  
16 Page 6 of Worrall Exhibit 11.

17 A Page 6, you say? Yes, sir, got it.

18 Q Yes. And these two -- the top photo shows a  
19 picture from the north side of the proposed landfill --

20 A Correct.

21 Q -- on Homannville Trail?

22 A Correct.

23 Q And if we -- if you turn to -- sorry -- Page 2,  
24 the map of all the survey points.

25 A Yes, sir.

1 Q Site C and Site D are close to where many of  
2 the residents north of the landfill will be?

3 A Correct.

4 Q So turning back to View C --

5 A Yes.

6 Q -- the bottom picture shows what the -- what --  
7 the visuals from the proposed landfill. And in the --  
8 the picture is the visual screening berm. Is that  
9 correct?

10 A In View C, that's correct.

11 Q Okay. And the visual screening berm depicted  
12 here is based on the screening berm visualization in  
13 Worrall Exhibit 10?

14 A That's exactly right.

15 Q And View D also has the -- I'm sorry.

16 Okay. So looking back -- staying on View  
17 C with the proposed visualization, if the screening berm  
18 is not constructed to the height -- is constructed at a  
19 lower elevation, would the visualization change?

20 A That's correct. Well, View C -- View C would  
21 change. I mean, there would be no -- the bottom half of  
22 View C on Page 6 would look differently, but, you know,  
23 the process would remain the same. The outcome would be  
24 somewhat different.

25 Q If the screening berm were only constructed to

1 five or ten feet, would you be able to see the landfill?

2 A From View C?

3 Q From View C.

4 A Yes, sir.

5 Q Okay.

6 MR. TUCKER: I have no further questions.

7 JUDGE QUALTROUGH: All right. All right.

8 Who's next? All right.

9 CROSS-EXAMINATION

10 BY MS. PERALES:

11 Q Good morning, Mr. Worrall.

12 A Good morning, Ms. Perales.

13 Q As you noted, I am Marisa Perales, and I am  
14 here representing a number of parties who are opposed to  
15 the proposed landfill. Thank you for being here.

16 A It's my pleasure.

17 Q You testified that you've served as a land use  
18 compatibility expert for a number of solid waste  
19 applications. Isn't that right?

20 A That's correct.

21 Q And you've worked on more than 30 solid waste  
22 projects. Is that right?

23 A Yes, ma'am.

24 Q And you've been involved in land use and land  
25 use compatibility, in particular of landfills, for the

1 past 33 years, I believe I read. Is that right?

2 A I believe that's correct, yes.

3 Q So that's almost one landfill project per year  
4 of experience. Is that right?

5 A Yes, that sounds correct.

6 Q And you've testified as a land use  
7 compatibility expert in support of a number of solid  
8 waste applications perhaps as many as 20 times. Is that  
9 right?

10 A I earlier testified more than a dozen, so I'd  
11 say between 12 and 20, let's say. I haven't really  
12 counted them up.

13 Q And, in fact, you've testified in a number of  
14 landfill cases where I've represented the opponents.  
15 Isn't that right?

16 A We have met under these circumstances. That's  
17 correct.

18 Q It might even be every landfill case I've been  
19 involved in.

20 (Laughter)

21 So on Exhibit 2 -- or Worrall 2, that  
22 is -- you list a number of the landfill cases that  
23 you've worked on.

24 A Many of which you worked on. Is that correct?

25 Q (BY MS. PERALES) Perhaps.

1 A Okay.

2 Q So at the bottom -- are you there?

3 A Yes, ma'am.

4 Q At the bottom, you have a list of -- at the  
5 bottom of Page 2 and continuing on to Page 3, you list a  
6 number of landfills that you provided an analysis for.  
7 Is that right?

8 A That's right. Some are Type I, some are Type  
9 IV, and some are transfer stations as well. So they're  
10 not -- I guess transfer station isn't a landfill,  
11 technically.

12 Q Okay. We'll call it a solid waste facility.

13 A Great.

14 Q And so for all of the cases that you have  
15 listed here, did your analysis find that the proposed  
16 solid waste facility was compatible with surrounding  
17 land uses?

18 A Yes. For those cases listed here, that's  
19 correct.

20 Q And is it correct that you've never testified  
21 as an expert on behalf of a protesting party or an  
22 opposing party in a solid waste case?

23 A That's correct. I've never been asked to.

24 Q Have you ever performed a land use  
25 compatibility analysis on a -- for a party protesting a

1 solid waste project?

2 A I've never been asked to.

3 Q And among the solid waste applications that  
4 you've testified in support of, at least one of those  
5 applications was denied. Is that right?

6 A As far as I know, one of them was denied, yes.

7 Q And it was -- that was the Spring Cypress case,  
8 wasn't it?

9 A That's correct. Spring Cypress, Type IV  
10 facility, as I listed on Page 3.

11 Q Okay. And that was denied, at least in part,  
12 based on land use incompatibility. Is that right?

13 A That's correct.

14 Q So you testified earlier -- you referred  
15 earlier to the rule that provides the standards that you  
16 rely on in conducting your analysis. And I believe you  
17 cited us to 330.61, Subsection (h). Is that right?

18 A Let me just -- yes, that sounds -- that's  
19 right. That's correct.

20 Q And according to that rule, the application --  
21 or the Applicant must assess the impact of the proposed  
22 facility on the surrounding area. Right?

23 A Among other things, that's correct.

24 Q So -- and according to your testimony, in order  
25 to assess the likely impacts of the proposed facility,

1 you analyze the zoning in the vicinity. Is that right?

2 A That's correct.

3 Q And in a situation like this where the proposed  
4 facility is not within the jurisdiction of any  
5 municipality, there's generally no zoning that applies.  
6 Isn't that right?

7 A That's correct.

8 Q And so you also mentioned that you analyze  
9 community growth patterns. Is that right?

10 A Yes, that's correct.

11 Q How do you define community when you conduct  
12 that analysis?

13 A Well, if I may, I think I misspoke. I don't --  
14 the rules do not ask me to identify community growth  
15 patterns; they ask me to identify growth trends within  
16 five miles.

17 Q Okay.

18 A So I misspoke, and I apologize.

19 Q Well, I'm going to read a portion of the rule  
20 to you.

21 A Okay.

22 Q The owner or operator shall provide information  
23 regarding the likely impacts of the facility on cities,  
24 communities, groups of property owners or individuals by  
25 analyzing the compatibility of land use, zoning in the

1 vicinity, community growth patterns, and other factors  
2 associated with the public interest.

3 Do you see that? It's the second  
4 sentence.

5 A Yes.

6 Q Okay. So is that sentence -- does that guide  
7 your analysis?

8 A It does. And then further -- the immediately  
9 following sentence I think is even more to the point.  
10 It says, To assist the Commission in evaluating the  
11 impact of the site on the surrounding area, the  
12 owner-operator shall provide the following.

13 Q Okay.

14 A So that's what I shall provide. That's what I  
15 do provide, therefore.

16 Q Okay. So then do you attempt to define a  
17 community growth pattern in your analysis?

18 A Frankly, no. What I try to do is specifically  
19 talk about Subset (3) under Paragraph (h), which is  
20 information about growth trends within five miles of the  
21 facility with directions of major development.

22 Q Okay.

23 A The previous version of these rules -- which  
24 you would be too young to remember -- used to say, in  
25 this case, identify the growth trends of the nearest



1 community. But they changed it some years back to  
2 indicate growth trends within five miles. So it used to  
3 be more specific about the nearest community, but now  
4 they ask -- the TCEQ asks about growth within five  
5 miles.

6 Q So do you have an opinion about whether five  
7 miles is intended to define the community?

8 A I don't have an opinion --

9 Q Okay.

10 A -- about that.

11 Q Okay. And then the rule also states that the  
12 owner or operator must analyze other factors associated  
13 with the public interest. Is that right?

14 A Correct.

15 Q And correct me if I'm wrong, but my  
16 recollection is that with regard to this last factor --  
17 that is, factors associated with the public interest --  
18 you generally don't consider other factors associated  
19 with the public interest unless you're asked to do so by  
20 the Executive Director. Is that right?

21 A That's my recollection, yes, as to our previous  
22 discussion about this actually.

23 Q Right. Maybe a few months ago.

24 A Yeah, right.

25 Q And in this case, did the Executive Director

1 ask you to look at other public interest factors?

2 A No.

3 Q Has the Executive Director ever asked you to  
4 look at other public interest factors?

5 A I don't think that the ED has ever specifically  
6 asked that. There's certainly in some cases other  
7 factors that are of interest or concern to the  
8 community, and those tend to bubble up in the analysis,  
9 let us say.

10 Q Okay.

11 A But I don't recall being explicitly asked by  
12 the ED to evaluate other factors.

13 Q Can you give me an example of some other  
14 factors that bubble up in the analysis?

15 A Oh, visual -- visual impacts, you know, which  
16 are really above and beyond what these rules and  
17 regulations specifically call for. So that's probably  
18 one of the more typical ones.

19 Q Okay. Anything else?

20 A We also do analyses above and beyond those  
21 indicated here, not just with the visual analysis, but  
22 as we did in this case a video analysis as well to try  
23 to be more intentional -- well, not intentional but more  
24 thorough in documenting the character of the land uses  
25 within the area. So those are things that are kind of

1 above and beyond the requirements here.

2 Q So what -- how is the video analysis intended  
3 to address factors associated with the public interest?

4 A Well, for instance, as I said, the -- some  
5 factors or issues of interest kind of bubble up, for  
6 lack of a better word, that we've become aware of.

7 Q Right.

8 A So one of the concerns that we -- that I became  
9 aware of was that the city of Lockhart, which is some  
10 seven miles away -- off the top of my head, I'll say  
11 it's seven miles away. I might have to double-check  
12 that number. Shall I do that?

13 Q Sure.

14 A Okay. Let me do that and then proceed with my  
15 point, if I might.

16 Q Okay.

17 A Thank you.

18 No, it's not seven miles. It's more like  
19 four and a half miles, so I was wrong about that.

20 So one of the things that -- in answer to  
21 your question how that helps us discuss the community  
22 interest is we have -- we would otherwise have no  
23 mechanism within the strict purview of the rules to talk  
24 about Lockhart's concerns because they're beyond one  
25 mile. So I might be able to talk about them in terms of

1 growth trends because they're within five miles. But  
2 the video allows us to talk about land uses beyond one  
3 mile that would not otherwise be addressed in the rules.

4           So the video allows us to analyze, for  
5 instance -- as does the visual analysis impacts -- land  
6 use impacts beyond one mile that might be in the  
7 community interest.

8           Q     And when we're talking about land use issues  
9 within one mile, you're talking specifically about  
10 visual impacts. Is that right?

11          A     No, I'm not. I'm talking about visual impacts  
12 at much greater distances than that.

13          Q     I'm sorry. You're right. I'm not talking  
14 about the distance. The specific public interest factor  
15 that you're allowed to address by your video analysis  
16 going beyond a mile is the visual impacts. Is that  
17 right?

18          A     As well as the neighboring land uses and the  
19 land uses beyond one mile. And I think that's probably  
20 one of the most important reasons to do the video  
21 analysis. The rules require me explicitly to  
22 characterize land use within one mile. When I do a  
23 visual analysis, for instance, that goes beyond a mile,  
24 that's above and beyond the rules, for lack of a better  
25 description.

1                   And more to the point, the video analysis  
2 helps us see what the land uses are up and down State  
3 Highway 130 at distances greater than one mile that  
4 allows the ALJs and ultimately the Commission to  
5 understand land use in a larger context beyond those  
6 just specifically outlined by the rules.

7           Q       So did you look at land uses up to five miles  
8 away, as in the city of Lockhart?

9           A       Insofar as it's a -- you know, that I discussed  
10 it and documented it in the video analysis, certainly,  
11 yes.

12          Q       Okay. Did you consider or consult with anyone  
13 from Lockhart to determine what their preferred growth  
14 trends or growth patterns or land uses are?

15          A       Well, I'm familiar with the comprehensive plan  
16 for the city of Lockhart, for instance. I didn't  
17 consult with anybody specifically; however, I'm  
18 certainly familiar with the long-term plans and  
19 aspirations, if you will, of not only the city of  
20 Lockhart but the Lockhart ISD all is publicly accessible  
21 to me through their websites.

22          Q       Okay. Did you also consider the -- any county  
23 aspirations with regard to land uses?

24          A       Not explicitly other than the growth trends  
25 that we talked about before. I'd say county

1 aspirations, no.

2 Q Okay. Are you aware whether the county has a  
3 landfill siting ordinance?

4 A I'm not aware of that.

5 Q Okay. Would you agree with me that it's  
6 possible that there are other -- we'll call them public  
7 interest factors that could adversely impact human  
8 health or the environment related to land use?

9 A Would you rephrase that for me --

10 Q Sure.

11 A -- or repeat it?

12 Q Could there be other public interest factors  
13 related to land uses that could adversely impact human  
14 health or the environment?

15 A It's conceivable, but, again, I -- I strive to  
16 adhere to the standards of the TCEQ as appropriate in  
17 this case -- or in all these cases.

18 Q So just to maybe take you back a couple of  
19 months, if a proposed landfill were to have some impact  
20 on the availability of water supply from an aquifer,  
21 could that be a public interest factor that's associated  
22 with land use and that could adversely impact human  
23 health or the environment?

24 A I'm so sorry, Ms. Perales. I'll have to ask  
25 you to kind of break that question down or repeat it.

1 You kind of -- it feels kind of --

2 Q Okay.

3 A -- tentative or tenuous to me, these  
4 connections we're talking about.

5 Q Okay. Well, let's talk about the presence of  
6 water wells.

7 A Okay.

8 Q Water wells. That's a land use, isn't it?

9 A The Commission includes it in their land use  
10 categories. It's not -- it's not an analysis I  
11 performed.

12 Q Okay.

13 A There's other hydrologists and geohydrologists  
14 as a part of the Applicant's team, and they're better  
15 qualified to analyze water wells.

16 Q Okay. So would it be fair to say that you  
17 don't analyze whether a proposed landfill might impact  
18 the water supply to those water wells?

19 A Well, when I do the land use analysis, I think  
20 it's important to note that I presume that the landfill  
21 is or will operate in accordance with the other  
22 voluminous rules and regulations concerning, among other  
23 things, water quality and water supply and many of the  
24 other factors that Mr. Wilson referred to.

25 I have to presume it's going to be

1 compliant in those other factors in order for me to do  
2 the land use analysis I do.

3 Q And is there a rule, a TCEQ rule, that you know  
4 of that addresses whether the proposed landfill can  
5 impact recharge to water supply?

6 A I'm not aware of it.

7 Q So if it's not in the rules, but we know that  
8 it's possible that a proposed landfill could impact  
9 recharge to water supply, no one's considering it?

10 A Well, if it's not in the rules, you know, I'll  
11 just -- if I stick with that premise, I'd say that's  
12 probably true. Now, in some cases, as in the case of my  
13 analysis, we go beyond the rules. So people may be  
14 going beyond the rules in analyzing aquifer impacts,  
15 but, again, that's not my area of expertise so I don't  
16 know. Even though you and I sat through two weeks of  
17 that many months ago, I'm still not an expert on that.

18 Q Right. Okay. And so just to be clear, water  
19 wells, I think, as you already testified, that's not  
20 something that you review even though it's part of the  
21 330.61, Subsection (h) analysis?

22 A That's correct.

23 Q So you rely on somebody else to do that?

24 A Yes.

25 Q Okay. What about access to adequate emergency



1 facilities and personnel? Is that something you look  
2 at?

3 A No.

4 Q Okay.

5 A I do look at access, but you talked about  
6 specifically access to emergency personnel. Is that  
7 what you said?

8 Q Right?

9 A Okay. That's correct. My answer is correct.

10 Q So when you look at access, what are you  
11 looking at?

12 A Well, in this case, of course we've got  
13 transportation and traffic experts as well, but land use  
14 and traffic and transportation interact pretty  
15 intimately, I guess I'd say.

16 And in this case, in particular, the  
17 access was pretty easy for me to see and understand and  
18 believe that it contributes to the compatibility of the  
19 proposal in that our access is only -- our access I  
20 say -- the access to the 130 Environmental Park  
21 process -- or project -- will only be from the frontage  
22 road of State Highway 130, which I believe is an  
23 excellent situation from a land use point of view.

24 Q So would you consider -- so are you talking  
25 about the proposed access road on the property?

1           A       Yes, the access to the facility. That's  
2 correct.

3           Q       And that road has not been constructed. Right?

4           A       That's correct, but I'm talking about the road  
5 that that road would be constructed to --

6           Q       Okay.

7           A       -- which is in existence, the frontage road of  
8 IH -- State Highway 130.

9           Q       So have you considered at all the adequacy of  
10 the access road that's proposed, the access road to the  
11 facility?

12          A       No, not the access road. It's called -- in  
13 other words, within the private road, in other words?

14          Q       Well, there's an access road that's outside of  
15 the permit boundary --

16          A       Okay.

17          Q       -- that hasn't been constructed.

18          A       Yes.

19          Q       Okay.

20          A       And, no, I haven't considered that explicitly.

21          Q       Okay. So you don't know at this point whether  
22 it provides adequate access -- or it's proposed to  
23 provide access?

24          A       Again, I'd reiterate the access I was talking  
25 about was that the road immediately prior to that, the

1 public road, which was the frontage road, which is  
2 actually U.S. Highway 183, I should point out, also.

3 Q Right.

4 A Yeah.

5 Q So with regard to zoning, once you determine  
6 that the proposed facility is outside the jurisdiction  
7 of any municipality or ETJ, is that the end of your  
8 zoning inquiry?

9 A Yes.

10 Q And you've testified that you haven't checked  
11 to see whether a county landfill siting ordinance has  
12 been enacted by the county. Is that right?

13 A That's correct.

14 Q Would you agree with me that a landfill siting  
15 ordinance by a county government reflects the desires of  
16 the county regarding where they believe landfills should  
17 be sited within the county?

18 A Yes, I would agree with that.

19 Q And yet you didn't check to see whether there  
20 was one in existence here. Is that right?

21 A Not explicitly. That's correct.

22 Q Do you know whether Caldwell County has any  
23 development ordinance that would apply here?

24 A Not that -- that would apply here. Let me  
25 think. Not that I'm aware of.

1 Q Do you know whether the 130 Environmental Park,  
2 or the Applicant, has submitted any applications or  
3 preliminary plats to the county for approval?

4 A I do not know that.

5 Q Do you know if they need to obtain any further  
6 approvals from the county?

7 A I don't -- I guess I specifically don't know  
8 that. I know that if they don't intend to subdivide the  
9 land, then of course they wouldn't need a preliminary  
10 plat. I don't believe there's -- intention is to  
11 subdivide, so I don't believe they'd need a development  
12 permit from that perspective. There may be other  
13 requirements that I'm not aware of.

14 Q But you just don't know whether the Applicant  
15 has taken any steps towards securing any authorizations  
16 from the county?

17 A Nothing comes to mind. That's correct.

18 Q Okay. Did you also conduct the land use  
19 compatibility analysis for the Pintail landfill in  
20 Waller County?

21 A Yes, that's a pending project. That's correct.

22 Q Okay. When you say "pending," what do you  
23 mean? Pending where?

24 A I believe it's pending with the TCEQ as a -- as  
25 a pending application, MSW application.

1 Q For that project, did you -- were you involved  
2 in selecting the site for that landfill?

3 A No.

4 Q Did you conduct a land use analysis for the  
5 application?

6 A We're talking about Pintail. Is that correct?

7 Q Yes.

8 A Yes.

9 Q And in that case, did you review or did you  
10 check to see if there were any applicable landfill  
11 siting ordinances by either the county or the nearest  
12 municipality?

13 A The nearest municipality is Hempstead. The  
14 county is Waller. I know that Waller County has  
15 landfill siting ordinances. I know it's the subject of  
16 some considerable legal wrangling that I'm thankfully  
17 not involved in. I could not tell you the status of the  
18 standing of that ordinance vis-a-vis the proposal, but  
19 I'm certainly aware of the...

20 Q Okay. So would it be fair, then, to say that  
21 you haven't provided any advice or analysis regarding  
22 the Waller County landfill siting ordinance in relation  
23 to the Pintail project?

24 A I'm not sure that would be fair to say. I  
25 certainly am opinionated.

1 Q Okay. So you did look at the ordinance in that  
2 case, then?

3 A Yes. Uh-huh.

4 Q And you provided an opinion?

5 A Yeah, I think that's fair to say.

6 Q Okay. So on Page 6 of your prefiled testimony,  
7 you talk about how you've -- on Line 9, you talk about  
8 how you've never worked on a landfill or a proposed  
9 landfill with better access to transportation network.  
10 Which other landfill projects were you comparing it to?

11 A I was comparing them to most of the -- most or  
12 all the other projects I've worked on, I guess.

13 Q Okay. So were you also comparing it to the  
14 Ponderosa landfill in Webb County?

15 A Sure.

16 Q And that proposed landfill had pretty good  
17 access to Highway 359. Isn't that right?

18 A Sure did. Good point. Yeah.

19 Q Do you examine traffic patterns when performing  
20 your land use compatibility analysis?

21 A No, not specifically. I rely on the  
22 transportation experts to do so.

23 Q And so when you talk about -- as in Line 10  
24 here, when you talk about landfill traffic --

25 A Uh-huh.

1 Q -- you're talking about access to the highway  
2 from the property. Is that right?

3 A Correct.

4 Q Because you can't possibly know the various  
5 routes that the landfill traffic is taking before it  
6 gets to that property. Isn't that right?

7 A Well, in this case we can, of course, because  
8 it all has to use that -- that State Highway 130  
9 frontage road. So immediately before it enters, it's  
10 real straightforward to figure that out.

11 Q So the landfill traffic -- and that's my  
12 question. The landfill traffic only refers to accessing  
13 the property -- immediately accessing the property?

14 A Yes, I believe that's correct, as I understand  
15 your point.

16 Q So why is it significant to you that the  
17 landfill traffic doesn't go through residential areas,  
18 for example, before reaching the highway?

19 A Because it would -- when you have increased  
20 truck traffic going through residential areas, you start  
21 to create compatibility problems.

22 Q How so?

23 A Well, as many people -- well, as many  
24 protestants have talked about over the years on these  
25 things, they -- people are unhappy with landfill traffic

1 through their neighborhood. No great surprise. Right?  
2 Nobody would -- nobody likes increased traffic of any  
3 kind in their neighborhood.

4           The way this landfill is set up, it's not  
5 possible that that could happen on the immediate  
6 approach to the landfill, because there's no residential  
7 areas there. There's no opportunity for other  
8 development there. So we're not going to have any  
9 conflicts or potential conflicts between residential  
10 areas, schools, churches, what have you, and landfill  
11 traffic.

12           Q     Okay. So you're --

13                   MR. MAGEE: Your Honor, can he speak up  
14 just a little bit? It trails off right at the end.

15                   JUDGE QUALTROUGH: All right. Thank you.

16                   THE WITNESS: I'm so sorry. I thought it  
17 was -- I'm sorry.

18           Q     (BY MS. PERALES) So when you talk about  
19 landfill traffic not going through a residential area,  
20 it's because of complaints by residences -- residents.  
21 That's what leads to the incompatibility?

22           A     Potentially, yes.

23           Q     So do you have an opinion at all about whether  
24 landfill traffic in residential areas is incompatible  
25 because of creating more risky conditions?



1           A       Well, we should be clear about this. I mean,  
2 landfill traffic to some degree is inevitable in all  
3 residential areas. Right? We all have our solid waste  
4 collected weekly, let us say, most of us, unless we're  
5 burning it in the backyard. I don't think any of us are  
6 doing that anymore. So we all have some element of  
7 landfill traffic as a part of our Western civilized  
8 lives, you might say.

9                        People get concerned if they have a  
10 disproportionate amount. Also, school districts have in  
11 the past expressed concerns about conflicts between  
12 landfill traffic and bus routes. Both ubiquitous  
13 transportation users, both hallmarks of Western  
14 civilization, if you will. And so I've never quite  
15 understood that particular concern.

16                       So do people complain about increased  
17 traffic? Is that a compatibility issue? Yes.

18           Q       Because people complain about the traffic?

19           A       Yeah.

20           Q       Okay. So in determining or in providing an  
21 opinion that, in terms of access, this is one of the  
22 best utilities you've ever seen, did you consider at all  
23 any information related to traffic accidents that have  
24 occurred along this stretch of 183?

25           A       No, I did not look at traffic reports on there.

1 Q Okay. Do you happen to know, from anecdotal  
2 information or otherwise, whether this particular  
3 stretch of U.S. 183 is known to be prone to accidents?

4 A No, I do not know that. That's anecdotally or  
5 otherwise.

6 Q Might that be an important consideration when  
7 determining whether the proposed landfill site is the  
8 best you've seen in terms of access to a major  
9 transportation route?

10 A If I knew that that was the case anecdotally or  
11 otherwise, I'd be less inclined to what otherwise seems  
12 to be hyperbolic information or --

13 Q Okay. Otherwise seems to be hyperbolic  
14 information?

15 A Well, in other words, you know, I'm saying here  
16 that this is a better access than any that I've ever  
17 seen. If you were to bring to my attention that there's  
18 accidents or anecdotal information or concerns  
19 otherwise, then I would reconsider my statement.

20 Q Okay.

21 A But I'm not aware of anything that makes me  
22 reconsider my statement.

23 Q Okay.

24 A Yeah.

25 Q So you also mentioned that the landfill traffic

1 or access completely avoids other sensitive land uses.  
2 And we've talked about residential areas. Are there any  
3 other sensitive land uses that you're referring to  
4 there?

5 A Well, in almost all cases -- well, not almost  
6 all -- in many projects I work on, when I look at land  
7 uses within a mile, we'll find schools or churches or  
8 day care centers or cemeteries. None of that exists  
9 here, which is a big factor from my point of view  
10 considering that this is compatible. We don't have  
11 these other land uses, sensitive land uses -- I regard  
12 those as sensitive land uses because the TCEQ does, but  
13 we have none of those factors here.

14 Q So those sensitive land uses -- schools,  
15 churches, cemeteries -- those all contribute to what  
16 makes this site superior in terms of landfill traffic?

17 A In terms of landfill compatibility, certainly  
18 land use compatibility --

19 Q I'm sorry. I'm still on Lines 9 through 11 --

20 A Okay.

21 Q -- of Page 6.

22 A Okay.

23 Q So I'm still referring to that statement.

24 A Okay.

25 Q And you talk about, The landfill traffic

1 completely avoids residential and other sensitive land  
2 uses.

3                   So my question is: What are you referring  
4 to there?

5           A       My answer is those other sensitive land uses as  
6 enumerated in the rules by the TCEQ.

7           Q       Okay. So schools, churches, cemeteries?

8           A       Yeah. Yes.

9           Q       Anything that isn't listed in the TCEQ rules --  
10 is there anything you can think of that isn't listed in  
11 the TCEQ rules that might be a sensitive land use that  
12 could impact landfill traffic?

13          A       Yes. I would say the one thing that they don't  
14 really talk about but that I typically will analyze are  
15 hospitals, is another sensitive land use. I don't think  
16 they're enumerated in these rules.

17          Q       Okay. What about the existence of a  
18 floodplain? Could that be a land use that could impact  
19 landfill access?

20          A       It's possible.

21          Q       Okay. Could a dam that's been designated as  
22 high hazard near a proposed landfill, could that be a  
23 sensitive land use?

24          A       Not in the way I'd normally think of a  
25 sensitive land use. Again, I'm thinking of schools,

1 hospitals, churches. That doesn't jump out at me as a  
2 sensitive land use. It seems to me that it -- you know,  
3 there are other concerns associated with -- what did you  
4 call it? A high hazard dam? Is that what you said?

5 Q Yes.

6 A That doesn't -- that wouldn't enter into my  
7 analysis as a sensitive land use, per se.

8 Q Okay. So just to be clear, when you talk about  
9 this site as being one of the best sites you've seen in  
10 your career, these are not factors you're considering:  
11 floodplain, the impacts of a floodplain on access, high  
12 hazard dam, the proximity of a high hazard dam. These  
13 are things you just don't consider?

14 A I generally don't consider those in any of the  
15 land use analyses I do, so the statement stands as it's  
16 written here.

17 Q Okay.

18 A But what you said is true. I wouldn't normally  
19 consider a floodplain or a high hazard dam, per se,  
20 although the floodplain -- I want to say about the  
21 floodplain is it does have an important land use  
22 function, typically. In many cases it ends up forming  
23 an important buffer or -- buffer or setback function,  
24 because you can't otherwise have development in a  
25 floodplain, typically. It's not unusual to find

1 floodplains offering setback benefits, let us say, or  
2 setback buffers just by virtue of the fact they're  
3 undevelopable.

4 Q And, in fact, that's what we have here, isn't  
5 it? Many of the setbacks are not developable and  
6 therefore serve as a buffer?

7 A In some cases that's certainly true. That's  
8 right, not just in this case but in many landfill cases  
9 certainly, as well as other land development projects  
10 throughout, you know, all kinds of land development  
11 projects.

12 Q Okay. Again, you didn't consider whether the  
13 access road is proposed to be in a floodplain. Is that  
14 right?

15 A That's correct. That's right.

16 Q So staying on Page 6 of your testimony, on Line  
17 28, you talk about access to the markets that the  
18 facility will serve?

19 A Yes.

20 Q What information do you have related to the  
21 markets that the facility will serve?

22 A Nothing other than anecdotally. I have no  
23 market studies or analysis. I know this is intended to  
24 serve the very high growth areas of the Austin and San  
25 Antonio region. Simple as that.

1 Q Okay. So you also talk about -- and I don't --  
2 let me see if I can direct you to a particular line. So  
3 on -- one example is on Line 38 of Page 6 where you  
4 mention the design of the proposed landfill and how it  
5 contributes to the excellent land use compatibility. Do  
6 you see that?

7 A I'm sorry. Would you refer me to the reference  
8 again? Page 6?

9 Q It's Page 6 --

10 A Yes.

11 Q -- Line 38. You --

12 A Yes.

13 Q -- mention design is one of the factors that  
14 contributes to the excellent land use compatibility.

15 A Right.

16 Q So first of all, do you recall what depth of  
17 the excavation for this landfill is proposed to be?

18 A No, I do not know that.

19 Q Okay. Do you have any idea whether it seemed  
20 to you to be relatively shallow or deep?

21 A I don't really pay much attention to depth of  
22 excavation. If I may, when I'm speaking of design here,  
23 I'm talking about that which is visible --

24 Q Okay.

25 A -- not below the surface. And so what I'm

1 trying to do -- and also Mr. Wilson pointed out in his  
2 questioning -- was that we've got this what I called  
3 organic shape, or maybe OPIC had mentioned it, but so  
4 many of the landfills that we've worked on -- and I know  
5 you've seen them too, Ms. Perales -- they're real  
6 rectilinear. You know, they almost look like Mayan  
7 temples or something.

8                   This one doesn't really. It's an unusual  
9 design, I think, and I think that's, to its credit, from  
10 certainly a visual point of view.

11           Q       Well, what about the height of the landfill?  
12 Do you recall what the proposed height is?

13           A       I don't recall off the top of my head, but I  
14 could certainly -- we could find it.

15           Q       So do you have 130EP-3 up there? It'll be  
16 Volume 3.

17           A       Volume 3? Is that what you're asking about?

18           Q       Yes.

19           A       Okay. I'll get it. I don't think I have it  
20 here. Would you like me to get it?

21           Q       Please.

22           A       Okay. Certainly. I've got that phone book.  
23 Where would you like me to start looking?

24           Q       Page 25, please.

25           A       Page 25. Okay. I'm looking at Applicant's



1 Exhibit 130EP-3, Page 025.

2 Q Okay.

3 A 025.

4 Q So if you look at the -- let's say the  
5 northwestern area just offsite of the proposed  
6 facility --

7 A Offsite? Is that what you said?

8 Q Yes.

9 A Yes.

10 Q -- it appears that the elevation there is about  
11 570 feet. Is that right?

12 A That looks higher than some of these -- oh,  
13 yes. Yes, I see some 570 elevations off the facility --

14 Q Okay.

15 A -- but within the permit boundary but outside  
16 the footprint we're talking about.

17 Q Right.

18 A Yes.

19 Q And that's where some of the residences are  
20 currently located -- isn't that right -- in that  
21 vicinity?

22 A No, there's no residences in that vicinity. If  
23 I'm looking at the same place you are, to the west, no.

24 Q Okay. So what about -- can you identify what  
25 the highest elevation for the landfill is?

1 A Yes, it's 736 -- 736.

2 Q Now, if we return to your exhibit -- let's  
3 see -- Worrall Exhibit 3, Page 8.

4 A Yes.

5 Q And you identified, I think it was, for -- I --  
6 one of the TCEQ attorneys, you identified the nearest  
7 residence, and I believe you marked it on that exhibit.  
8 Is that right?

9 A That's correct.

10 Q And isn't that in about the northwest area of  
11 the property?

12 A Yes. We might -- it definitely is, but I did  
13 not think that that was the area you and I were talking  
14 about just a moment ago, so --

15 Q Okay.

16 A -- a better way to describe that might be the  
17 north --

18 Q Okay.

19 A -- edge of the project.

20 Q Well, in the general vicinity of where you've  
21 identified the closest residences, can you tell me what  
22 the elevation is?

23 A It appears to be, as you had indicated earlier,  
24 about 570.

25 Q Okay.

1           A     Give or take.

2           Q     So those nearest residences are about 570, and  
3 the height of the proposed landfill goes up to about  
4 736. Is that right?

5           A     That's right.

6           Q     How many stories, roughly, is that equivalent  
7 to?

8           A     Well, let's do the math, shall we? So we're  
9 talking in very rough -- we should understand, first of  
10 all, that that 570 is an approximation based on the  
11 numbers we've been looking at. Right? We don't know  
12 that elevation based on that information. So if we're  
13 looking at the difference between 570 and let us say  
14 740, that's 170 feet, roughly. Okay. So that would  
15 be -- be less than 17 stories. Most people count a  
16 story as being ten feet. That's not really a good way  
17 to do it.

18          Q     How would you do it?

19          A     What is that?

20          Q     How would you do it?

21          A     I think a better way to estimate it, it would  
22 be about 12 feet, probably.

23          Q     Okay.

24          A     So if we took 170 as a general number and  
25 divided it by 12, that would be my estimate of the

1 number of stories. Do you want me to do that on the  
2 back of my hand?

3 Q I think earlier you said maybe about 17  
4 stories?

5 A I doubt that I said that.

6 Q Okay. All right.

7 A But it's a little less than 170 feet based on  
8 the discussions and the elevations we just have talked  
9 about.

10 Q How does that height compare to other  
11 structures in the Lockhart area?

12 A What do you mean "Lockhart area"? What do you  
13 mean "structures"?

14 Q Well, let's start with the five-mile area.

15 A Okay.

16 Q How does that height compare to other  
17 structures?

18 A Okay. Well, there's probably no buildings that  
19 tall within five miles, off the top of my head. There  
20 are certainly a lot of power lines in the area, and they  
21 may very well be that tall or taller. The area is rife  
22 with power lines because of the substations there and  
23 what have you. So I'd say that it's probably taller  
24 than most of the structures with -- taller than most of  
25 the structures within five miles, with the exception of

1 the power lines.

2 Q Okay.

3 A And maybe antennas as well, antennae.

4 Q Now, you also described the shape of the  
5 landfill as organic or organically shaped.

6 A Right.

7 Q So when you say "organic," what are you  
8 referring to? Organic to what?

9 A Well, what I'm referring to again is the  
10 irregular outline, kind of amoeba-shaped, blob-shaped  
11 outline of it is what I would call organic, which I  
12 think helps it from a visual point of view. It doesn't  
13 look like a manmade structure, per se. It doesn't  
14 certainly look like a power line tower. It doesn't look  
15 like a building. It's just going to look like a hill.  
16 And the design and the outline of it, whether  
17 intentionally or not, will, I believe, result in a more  
18 visually compatible facility.

19 Q So landfills -- are you suggesting, then, that  
20 the proposed landfill at a height of 736 feet is going  
21 to appear to be organic?

22 A More than it'll appear to be manmade, yeah, I  
23 think that's right, if that's the distinction we want to  
24 make.

25 Q And you're talking about after it's been

1 covered and closed. Right?

2 A Well, that's the elevation we're talking about,  
3 so that would be the elevation pond completion, correct.

4 Q Well, will it look organic before it's covered  
5 and closed?

6 A Well, it's going to look like a construction  
7 site probably more than anything. Now, whether you call  
8 that organic or not, I don't know. It doesn't seem to  
9 be applicable, though.

10 Q Okay. So when you talk about the landfill  
11 appearing to be organic, to whom is it that you are  
12 hoping -- who is the audience you're hoping it will  
13 appear organic to?

14 A Life forms of earth.

15 Q So everyone should consider it organic?

16 A I think so, yeah.

17 Q And you talked earlier about how most  
18 landfills -- in fact, maybe all the landfills I've been  
19 involved in -- are typically rectangular or have  
20 straight lines --

21 A A lot of them really are. They are -- it's not  
22 invariable, but a lot of them have very kind of  
23 rectilinear shapes, inorganic shapes, I might dare to  
24 call them.

25 Q Okay. Any idea about whether the landfill will

1 smell organic versus, let's say, a construction site?

2 A No idea.

3 Q Do you have any idea what -- why the landfill  
4 has been designed in this amoeba shape?

5 A No, I don't know the specific constraints or  
6 opportunities that presented themselves.

7 Q Could it be because of the surrounding  
8 floodplain?

9 A It certainly could be.

10 Q So the floodplain could, in fact, impact the  
11 design of the landfill?

12 A I'm sure they were striving to have that be the  
13 case.

14 JUDGE QUALTROUGH: Ms. Perales, about how  
15 much more do you have? I'm trying to figure out if this  
16 is a good time to break.

17 MS. PERALES: I have several pages,  
18 although I'll say that some of my questions have already  
19 been covered, so it could be -- we should take a break.

20 JUDGE QUALTROUGH: So you're not going to  
21 re-plow --

22 MS. PERALES: Right. Yeah.

23 JUDGE QUALTROUGH: All right. Then we  
24 will take a ten-minute break. We will be back here at  
25 11:10.

1 (Recess: 11:01 a.m. to 11:17 a.m.)

2 JUDGE QUALTROUGH: All right. We are back  
3 on the record. And you may continue, Ms. Perales.

4 MS. PERALES: Thank you.

5 Q (BY MS. PERALES) So, Mr. Worrall --

6 JUDGE QUALTROUGH: Can you speak a little  
7 louder?

8 MS. PERALES: Sure.

9 MR. MAGEE: Thank you.

10 Q (BY MS. PERALES) To be clear, the proposed  
11 landfill is not an agricultural use, is it?

12 A That's correct.

13 Q And it's not -- it's not a residential use,  
14 obviously. Right?

15 A Right.

16 Q Would you consider it a commercial use?

17 A You know, they're kind of hard to classify, but  
18 I would tend to classify it as industrial, by and large.

19 Q Okay. And speaking of industrial  
20 establishments, I think you noted that those have  
21 decreased within a mile of the facility since your  
22 initial 2013 analysis. Isn't that right?

23 A I don't think I was referring to industrial,  
24 per se; I think I was talking about commercial. I  
25 understand why you might make -- you know, kind of get



1 those confused, but we documented that the number of  
2 commercial land use has decreased, is my recollection.

3 Q Okay. And I'm looking at your Exhibit Worrall  
4 3 on Page 4. You have a little chart there.

5 A Yes.

6 Q And you do, in fact, refer to  
7 commercial/industrial?

8 A Yes, you are correct.

9 Q Okay. So let's see. Those have decreased  
10 since 2013. Right?

11 A The number of establishments stayed the same  
12 but the acreage declined.

13 Q Okay.

14 A So some changed out -- you know, some bigger  
15 ones left and some smaller ones came in.

16 Q On the other hand, residential uses within a  
17 mile have increased in those couple of years. Is that  
18 right?

19 A That's right.

20 Q And we went from 126 residences to 143.

21 A That's correct.

22 Q So there is some community residential growth  
23 going on here. Right?

24 A Yes, there definitely is residential growth  
25 occurring within one mile.

1 Q Can you -- do you know what the rate of  
2 community growth is?

3 A Well, you know, I wouldn't call it "community  
4 growth." I will tell you that we know that we went from  
5 126 residences in 2013 to 143 residences in 2015. So we  
6 know it increased by 17 residences over two years.

7 Q Okay. Are you familiar with the new Alma  
8 Brewer Strawn Elementary School?

9 A Yes.

10 Q And that was just recently constructed, wasn't  
11 it?

12 A Yes. I believe the kids get to go to school  
13 there next Monday for the first time.

14 Q Okay.

15 A That's kind of exciting, I would think.

16 Q And can you tell us where it is in relation to  
17 the proposed landfill?

18 A It's about two and a half to three miles east,  
19 northeast, I would say.

20 Q Is it along 1185?

21 A That's right. Beyond a mile, so you won't see  
22 it in any of those analyses.

23 Q Is it fair to say that schools are usually  
24 located in areas where growth is anticipated?

25 A I don't know.

1 Q Okay. Wouldn't you agree that the development  
2 of a new elementary school generally attracts or spurs  
3 residential growth?

4 A Well, I think it does to some degree. I think  
5 it is also in response to growth. So I'm not sure, you  
6 know, it's not that clear if it's a causative -- you  
7 know, what the causal relationship is, I guess.

8 Q Okay. But elementary schools do not generally  
9 attract industrial growth. Isn't that right?

10 A Generally, that's true, although -- I mean,  
11 generally that's true, yes.

12 Q Okay. And is it also generally true that  
13 highways affect growth trends?

14 A Yes.

15 Q Isn't it also true that landfills, on the other  
16 hand, they tend to pull market demand down?

17 A Market demand for what?

18 Q For development, residential development, for  
19 instance?

20 A Maybe for residential development but not  
21 necessarily for other types of urban development.

22 Q And, in fact, the visibility of a solid waste  
23 facility could impact growth trends. Isn't that right?

24 A It could.

25 Q And in a sense, a solid waste operator might

1 actually hope for a landfill to affect growth trends.

2 Isn't that right?

3 A I'm not aware of that.

4 Q Well --

5 A Hope.

6 Q -- if a landfill is not compatible with its  
7 surrounding land uses, couldn't that affect the  
8 operation of the facility?

9 A If an operation is not compatible with its  
10 surrounding land uses, could that --

11 Q If a landfill is not compatible with  
12 surrounding land uses, couldn't it impact the operation?

13 A The operation of what?

14 Q The facility.

15 A I don't understand your question. I'm sorry,  
16 Ms. Perales.

17 Q Okay. Do you have an opinion as to if -- in  
18 those instances where you've found that a proposed  
19 landfill project is not compatible with surrounding land  
20 uses, you talked about how on some occasions you've  
21 found -- or your analysis has concluded that a proposed  
22 project is not compatible with surrounding land uses.  
23 Right?

24 A Right. And then I would decline to work on the  
25 project.

1 Q Okay. So in those instances, how would that --  
2 if there's an incompatibility of land uses, how would  
3 that impact the proposed project?

4 A If it -- if it would be determined by the  
5 TCEQ -- the ALJs and the TCEQ that it's incompatible, it  
6 presumably wouldn't get a permit.

7 Q Okay. So your concern is really just whether  
8 you can support an application in its quest to get a  
9 permit?

10 A My concern is to determine the land use  
11 compatibility and be able to truthfully testify to it.

12 Q Okay. So it's for purposes of obtaining a  
13 permit?

14 A Yes. Yes, it is. That's right.

15 Q So you mentioned earlier that a landfill could  
16 impact growth trends. Could you give us an example of  
17 how a landfill might impact growth trends?

18 A Well, you asked me if it could, and I said,  
19 yes, I guess it could. No, you asked me about the  
20 visibility, as I recall. In fact, I'm not quite --

21 Q You're right.

22 A Could you rephrase your question?

23 Q Sure. I actually have it written down so I can  
24 remind us both.

25 A Outstanding.

1 Q Visibility of solid waste facilities could  
2 affect growth trends. Isn't that right?

3 A Visibility of solid waste facilities could  
4 affect growth trends, and I think my answer was, yes, it  
5 could.

6 Q Okay. And so can you give us an idea or some  
7 examples of how that might occur?

8 A Well, mostly I was just trying to be agreeable  
9 with you --

10 Q Okay.

11 A -- so let me think if I can give you some  
12 examples. None come to mind, frankly.

13 Q Okay. Well, it could impact residential  
14 growth. Isn't that right?

15 A Yeah, I guess it could. But, again, I'm trying  
16 to think of where -- you know, you asked me for  
17 examples, and I'm trying to think of where that would be  
18 the case. I'm sorry, nothing specifically comes to mind  
19 as to how visibility would have affected growth trends.

20 Q Have you ever heard of the leapfrog effect?  
21 Does that ring any bells?

22 A Leapfrog effect? Yes. Uh-huh.

23 Q Okay. And what does that refer to?

24 A Presumably, we're not talking about -- well,  
25 anyway, leapfrog development, let us say -- I don't know

1 about leapfrog effect -- is noncontiguous development  
2 that, you know, development that skips over parcels of  
3 land and proceeds, you know, leapfrog fashion as opposed  
4 to in a contiguous and/or orderly fashion.

5 Q Okay. When you're looking at growth trends,  
6 would you agree that it's not really feasible to look  
7 only within a mile of the proposed facility -- or even  
8 within five miles? I'm sorry.

9 A Well, again, the rules say that we should  
10 examine growth trends within five miles. I do  
11 believe -- and it was certainly the case here -- that  
12 looking within five miles was inadequate. Because when  
13 we look within five miles, we found historically the  
14 growth within five miles was historically low and  
15 uniformly low from the year 2010. So it seemed like it  
16 was important to look beyond that five miles to try to  
17 put it in some other context.

18 Q Okay. What about when looking at land uses?  
19 Is it also more useful to look beyond a mile and look at  
20 the larger context?

21 A Not -- not as much, I don't think, again, for  
22 the very simple reason the TCEQ doesn't require us to do  
23 that. Now, in some cases, as I said, we do look beyond  
24 a mile. But, frankly, it gets very difficult to do so  
25 because, of course, the area that you have to examine

1 increases by the square of the distance. So it starts  
2 to become a real huge task. As you change the radius,  
3 of course, it goes from one mile to five miles, it goes  
4 from, let us say, one square mile to 75 square miles.  
5 It's a big difference. So as a rule, because the TCEQ  
6 doesn't require it, we don't do it.

7 Q Okay. And that's why, for instance, we didn't  
8 see any mention of the elementary school into your  
9 discussion of land uses. Right?

10 A That's correct. And, of course, it wasn't  
11 there initially anyway, and it's just now being  
12 completed. So you wouldn't have seen it in my initial  
13 analysis, I don't believe. You would have seen it in my  
14 secondary analysis -- or my updated analysis, had I been  
15 required to go out that far, but I was not and did not.

16 Q Okay. So on Worrall 3, Page 5, you include a  
17 discussion about how Caldwell County is growing at the  
18 slowest rate of the five counties in the Austin MSA.  
19 Right?

20 A That's correct.

21 Q And you have a chart here that shows that it's  
22 growing at 17 percent. Right?

23 A That it did grow 17 percent from 2000 to 2010.  
24 That's correct.

25 Q Right. And is it your intent to depict or to



1 state that the growth rate of 17 percent is a slow rate  
2 of growth?

3 A Certainly relative to the other counties in the  
4 MSA, again, from a historical point of view. I believe  
5 in my testimony I updated that to indicate that Caldwell  
6 County is no longer the slowest growing county in the  
7 MSA, which was that very correction that I talked about  
8 in my testimony.

9 So relative to the others, yeah, it's  
10 slow.

11 Q It's no longer the slowest growing county?

12 A That's my recollection, yes.

13 Q Okay. Which is the slowest growing?

14 A I believe it was Travis County.

15 Q Okay.

16 A Going forward -- I'm sorry to interrupt.

17 Q Okay.

18 A Page 5 that we're talking about is historical  
19 information.

20 Q Right.

21 A My testimony speaks to that but also is  
22 forward-looking projections, and that's where those  
23 growth rates are different than what we just -- I'm just  
24 trying to clarify.

25 Q Thank you. I appreciate that.

1                   Do you know what the national average is  
2 for cities in the U.S.?

3           A       No, I do not.

4           Q       Okay. So you wouldn't know, then, whether  
5 17 percent is higher or lower than the national average?

6           A       Well, if you look on Page 5 of my exhibit, the  
7 very one we're looking at, you'll see that I have got  
8 information here indicating that the Austin MSA is the  
9 fastest-growing metropolitan area in the state of Texas  
10 through the year 2010, growing more than 37 percent. I  
11 guess that doesn't really speak to your question.  
12 You're talking about U.S. cities?

13          Q       Yes.

14          A       Okay. I wouldn't -- I couldn't tell you that  
15 answer. I don't know how Caldwell County compares to  
16 U.S. city averages.

17          Q       Or U.S. counties?

18          A       No. Again, other than it's, you know, for that  
19 decade, it was the slowest growing of those five  
20 counties.

21          Q       What about -- do you have an idea of how  
22 Caldwell County's growth rate compares to the average  
23 among state counties?

24          A       No, I do not. No.

25          Q       I believe in your testimony you also refer to

1 the -- the registered transfer station. Let's see. Let  
2 me make sure I'm referring to the right page. So -- and  
3 I am. Page 10 of your Worrall 1. And let me refer you  
4 back to Page 9 at the bottom. That's where your  
5 discussion starts.

6 A You want to talk about your organically shaped  
7 landfill?

8 Q I want to talk about the inorganically shaped  
9 proposed transfer station.

10 A Okay.

11 Q So you mentioned that -- you described the  
12 transfer station as a land use. Is that right?

13 A It was an approved land use, not an existing  
14 land use.

15 Q Okay. And does the transfer station exist, as  
16 far as you know?

17 A As far as I know, it does not.

18 Q Do you know whether there is any intention to  
19 construct it?

20 A I presume there is, but it's just a presumption  
21 on my part.

22 Q Okay. Did you take into consideration at all  
23 how the transfer station might impact traffic?

24 A Above and beyond or different than the -- well,  
25 no. The answer would be, no, I did not.

1 Q So when you describe it as an approved land  
2 use, is -- are you referring to the fact that the TCEQ  
3 issued a registration for the transfer station?

4 A That's my understanding, yes.

5 Q And so it's because TCEQ issued a registration  
6 that you call it an approved land use?

7 A That's -- that's correct.

8 Q And what kind of land use compatibility  
9 analysis was performed by the TCEQ for that transfer  
10 station?

11 A I don't know if it's the same.

12 Q So you don't know?

13 A No, I guess I don't.

14 Q Okay. Do you know -- do you have any  
15 information about the closest residence, what their --  
16 how they use their property?

17 A No, I don't.

18 Q Okay. Do you know whether the operator, 130  
19 Environmental Park, intends to use alternative daily  
20 cover?

21 A I don't know.

22 Q So among the exhibits that you've included with  
23 your prefiled testimony are various videos. Is that  
24 right?

25 A Yes. There's two videos, as I recall.

1 Q And who prepared those videos?

2 A I did.

3 Q And when did you do that?

4 A I believe I got the dates indicated in the --  
5 for instance, if you look at Exhibit 5, Page 2, it  
6 indicates that they were prepared on October 7, 2015.

7 Q And who was with you at the time that you  
8 prepared these?

9 A The videographer and myself. I think that's  
10 it. Maybe John Moore. I can't remember.

11 Q Maybe who?

12 A Maybe John Moore.

13 Q Okay.

14 A Certainly the videographer and myself.

15 Q Is that a videographer that you supervised?

16 A Yes. Uh-huh.

17 Q And you retained?

18 A Yes, that's correct.

19 Q And in the transcript of your -- of Exhibit 5,  
20 Worrall 5, on Page 3 --

21 A Exhibit 5, Page 3, yes.

22 Q -- you make the comment that, Visibility is  
23 confined to the highway corridor.

24 A I believe you're right. Can you tell me where  
25 it says that?

1 Q It's at 8:22.

2 A Thank you. Let's see here. Right.

3 Q Okay. And there -- that's your assumption  
4 or --

5 A Well, it was my observation, and I think you  
6 could see that from the video as well.

7 Q Okay.

8 A It's an extremely -- it's extraordinarily wide  
9 right of way.

10 Q Okay. So when you talk about the visibility --  
11 okay. You're talking about what's there now as opposed  
12 to what you presume the visibility will be?

13 A Well, if we're talking about 8:22 specifically,  
14 what my remarks are intended to convey is that you  
15 cannot see beyond the corridor of the highway --

16 Q Okay.

17 A -- so it doesn't matter really --

18 Q Okay.

19 A -- what's going to happen, unless it happens  
20 within the corridor, then you can see it.

21 Q And then to be clear, the photos that you have  
22 included with your prefiled, those are -- I guess  
23 it's -- they're in Worrall 11 -- those photos are  
24 intended to depict what the landfill might look like  
25 once it's closed. Right?

1           A       Well, they're showing two things.  Of course,  
2 one is the existing condition, obviously.  And then the  
3 other is to show it upon completion.

4           Q       Okay.  And so that's -- that's assuming that  
5 all of the vegetation has matured and that the landfill  
6 is no longer in operation.  Right?

7           A       That would be correct.

8           Q       So it's not intended to depict what it would  
9 look like while it's in operation.  Right?

10          A       Correct.

11          Q       You testified earlier about the proposed  
12 screening for the facility.  First, do you know whether  
13 the screening berm is within the permitted boundary  
14 area?

15          A       I believe it's mostly within the permit  
16 boundary.

17          Q       So can I refer you to Applicant's Exhibit  
18 130EP-1, Page 143?

19          A       I'm sorry.  Repeat that citation for me.

20          Q       Sure.  It's Exhibit 130EP-1, so Volume 1.

21          A       Volume 1.  Thank you.

22          Q       And it's Page 143.

23          A       Okay.

24          Q       And it's the facility screening plan that I  
25 believe you referred to earlier.

1 A Oh, yes. Right.

2 Q So if you look at that figure --

3 A Uh-huh.

4 Q -- there is the screening berm that's reflected  
5 on there. Right?

6 A Right.

7 Q And to my eyes, it appears to be beyond the  
8 facility boundary. Isn't that right?

9 A That's the way it looks to me, too, and that's  
10 my recollection, was it was both within the permit  
11 boundary and beyond it. That's my recollection.

12 Q And so any proposed screening that is beyond  
13 the permitted area, that's something that's not going to  
14 be included in the permit. Right?

15 A You mean beyond the permit boundary? Is that  
16 what you mean?

17 Q Right.

18 A Uh-huh. And then your question is would it be  
19 in the application?

20 Q No. Would it be enforceable in the permit?

21 A I don't know. I don't know if that's  
22 enforceable.

23 Q Okay.

24 MS. PERALES: I think those are all my  
25 questions. I'll pass the witness.



1 Thank you, Mr. Worrall.

2 THE WITNESS: Thank you.

3 JUDGE QUALTROUGH: Mr. Magee?

4 MR. MAGEE: I need that.

5 JUDGE QUALTROUGH: Oh, yeah. And if it's  
6 easier for you, you're welcome to move to this table,  
7 but it's up to you.

8 MR. MAGEE: I may do that real quick.  
9 I'll just move over there. Brent is not going to bite.

10 MR. RYAN: Come on.

11 MR. MAGEE: Don't worry. I'm not asking  
12 you questions on all of this, just half of it.

13 (Laughter)

14 THE WITNESS: But I'm not worried.

15 CROSS-EXAMINATION

16 BY MR. MAGEE:

17 Q I can still say good morning because we're  
18 still in the morning.

19 A Indeed.

20 Q Mr. Worrall, I think we know each other also  
21 from Ponderosa Pines. That brought back some memories  
22 of ten years ago probably, if not longer.

23 A Yes, at least that long, yes.

24 Q I'm Eric Magee. Just so you know, I represent  
25 Caldwell County in this matter. I'm going to try not to

1 duplicate a bunch of questions that's already been  
2 asked. I think it's been pretty thorough so far, but I  
3 want to make sure that I cover some of the bases that  
4 we -- that I had some questions on.

5           First, when you look at Worrall Exhibit 1,  
6 the prefiled testimony, and you referred to Worrall  
7 Exhibit 3, this is an updated land use analysis.

8 Correct?

9           A     Correct.

10          Q     And then if you look at Application Volume 1 --  
11 and I believe it's on Pages 144 through 153, which is  
12 under Tab 2B --

13          A     Yes.

14          Q     -- that was your original land use analysis  
15 report. Correct?

16          A     Correct.

17          Q     And then what we're looking at here in Worrall  
18 3 is this updated one. Correct?

19          A     Correct, prepared approximately two years  
20 later.

21          Q     Okay. And the only changes or differences  
22 between Pages 144 through 153 -- and this you've  
23 highlighted in red for us to review. Correct?

24          A     That's correct. I -- it was my intent to  
25 highlight every change that occurred.

1 Q Okay. And so what we're looking at in Worrall  
2 3, this has not been submitted to the TCEQ as part of  
3 the application. Correct?

4 A I don't know, honestly, if it has been or not.  
5 I know it was prepared in anticipation of this hearing.  
6 I don't know what the procedures are for changing or  
7 amending or -- the application.

8 Q Okay. And then on Page 3 of Worrall 3, this is  
9 the section where you've provided the Texas  
10 Administrative Code rule relating to land use  
11 compatibility. Correct?

12 A Correct.

13 Q Okay. I just want to make sure I have an  
14 understanding of when you prepared these various  
15 reports. If you look at Section 8 -- H, I'm sorry,  
16 Section H -- the second sentence says, The owner or  
17 operator shall provide information regarding the likely  
18 impacts of the facility on cities, communities, groups  
19 of property owners, individuals, by analyzing the  
20 compatibility of land use zoning in the vicinity,  
21 community growth patterns, and other factors associated  
22 with the public interest.

23 Did I read that correctly?

24 A Pretty much, yeah.

25 Q What -- what things did you analyze to look at

1 community growth patterns?

2 A Well, the data I analyzed included data from  
3 the census bureau, from the Texas State Data Center. I  
4 believe I looked at CAPCOG -- well, no, that was from  
5 the Texas State Data Center. My recollection is census  
6 bureau and Texas State Data Center were the primary data  
7 sources for growth trends.

8 Q And so that's the information that typically  
9 must be provided within the one and/or five-mile radius.  
10 Correct?

11 A Five miles regarding growth trends  
12 specifically.

13 Q Okay. And that's found under H3 that says  
14 information about growth trends within five miles of the  
15 facility?

16 A Correct.

17 Q Okay. So if you'll turn to the next page, Page  
18 4, where it talks about character of the surrounding  
19 land uses --

20 A Yes.

21 Q -- and you've developed this chart here with  
22 percentages.

23 A Right.

24 Q Okay. What did -- what data did you review to  
25 come up with the open and agricultural land use?

1           A       A combination of the field inventories as  
2 documented there that occurred on June 3, June 27, 2013,  
3 as well as September 24, 2015. So part of it -- part of  
4 the analysis is based on those field inventories. And  
5 then I used -- I supplement that or use aerial  
6 photography to help me understand what I'm seeing in the  
7 field inventory. So it's a combination of the two bits  
8 of data.

9           Q       So field inventories, is that just you driving  
10 around and --

11          A       Right.

12          Q       -- making notes?

13          A       Yes.

14          Q       Okay.

15          A       With the aerial photography and documenting the  
16 land uses that I'm seeing, yes.

17          Q       And that's where you came up with those  
18 percentages?

19          A       Correct.

20          Q       Okay. The line where it talks about  
21 residential -- and under Remarks it shows 126 to 143  
22 residences --

23          A       Correct.

24          Q       -- do you see that?

25          A       Yes.

1 Q What information did you review to determine  
2 that there had been that 17-resident increase?

3 A Well, again, it was a combination of the field  
4 inventories, or as you say, driving around, which I like  
5 field inventories a lot better, but -- and aerial  
6 photography, updated aerial photography.

7 Q I got to break it down for me, because then I  
8 get confused what inventory means.

9 A Sure. Sure.

10 Q I got to know what you mean by that, just  
11 driving around.

12 A Driving around. You got it.

13 (Laughter)

14 Q (BY MR. MAGEE) I'm from East Texas. We ride  
15 around.

16 A Yeah, riding around, drive around.

17 (Laughter)

18 Q (BY MR. MAGEE) So there was no other data that  
19 you reviewed to determine the number of residents that  
20 had gone into that area?

21 A That's right. But, again, I've got very  
22 detailed information as a result of having prepared the  
23 analysis in the first place. So it is a thorough and  
24 comprehensive driving around. I want to emphasize.  
25 It's not just cruising around. I'm looking at every --

1 everything within a mile. And so I know, you know, when  
2 a residence has been built in that area within the last  
3 two years. It feels incumbent upon me to know more  
4 about the land use within a mile than anybody. So I  
5 have to study it.

6           So it's not hard to determine how the  
7 change is occurring, particularly over a course of two  
8 years.

9           Q     And I just want to make sure I'm clear. That  
10 change that you're observing is by observation, not by a  
11 piece of paper that I can go look at to see where you  
12 got that. For example, in the city, you would go look  
13 at a building permit that would show you something got  
14 built over there?

15          A     Right. That's a good point. You could  
16 actually refer to pieces of paper here in the sense  
17 that -- although the resolution might not be very good,  
18 but I would have used an aerial from 2013 the first time  
19 I did it and an aerial from 2015 the second time I did  
20 it. So if you did nothing other than look at those  
21 pieces of paper, what you do is you start to see where  
22 change has occurred and then you use that as a basis to  
23 figure out what that change is. So it's kind of an  
24 image processing, really, as much as anything.

25          Q     So Ms. Perales asked you some questions about

1 the county landfill siting ordinance. I'm not going to  
2 go back through that. My understanding is you're not  
3 aware that the county has one of those?

4 A That's correct.

5 Q Okay. Then Ms. Perales asked you some  
6 questions about the Caldwell County development  
7 ordinance.

8 A Uh-huh.

9 Q Have you reviewed that ordinance?

10 A No, sir, I have not.

11 Q Okay. So you haven't reviewed any of the  
12 Caldwell County development ordinances as they deal with  
13 subdivision regulations?

14 A That's correct.

15 Q Or as they deal with septic permits?

16 A Correct.

17 Q But we could go back within a one-mile radius  
18 and review all the permits that have been granted in  
19 Caldwell County for subdivisions and/or septic permits,  
20 and we could determine if there's any anticipated growth  
21 based on that information. Correct?

22 A You could, but I want to stress that that would  
23 be anticipated growth. That's not necessarily what I'm  
24 doing within a mile. I'm trying to document land uses.  
25 So I would suggest, if I might, that if I go to document



1 a building -- you know, document land use for building  
2 permits, it may or may not have been built yet, for  
3 instance. Or a permit might have been pulled, but it's  
4 not built, and that's not therefore a land use.

5           If you have -- like in the case of the --  
6 we talked about the Type V facility being an approved  
7 land use here but not an existing one. So it's kind  
8 of -- to me it's a lot more important to understand  
9 what's happening on the ground rather than whether a  
10 permit was pulled. Because the TCEQ isn't asking me  
11 what is the proposed land uses here; they say what are  
12 the existing land uses.

13       Q     You also have to look at those growth trends --

14       A     Correct.

15       Q     -- and those were areas where we could match up  
16 the growth trends with what actually has been passed at  
17 the county level. Correct?

18       A     That's true. That would be one way to do it,  
19 yes.

20       Q     Okay. So when we look at the data on the next  
21 page, Worrall Exhibit 3, Page 5, I think Ms. Perales was  
22 pretty thorough about the chart in the middle of the  
23 page, but this chart only reflects what occurred from  
24 2000 through 2010. Correct?

25       A     That's correct. And I hope I was clear about

1 that.

2 Q Okay. And so when we look at the third  
3 paragraph down, it says, Within five miles of the  
4 site -- I'm reading about mid-sentence -- population  
5 growth from 2000 through 2010 was uniformly less than  
6 5 percent.

7 A Correct.

8 Q Okay. And if we make the correlation here to  
9 your maps that's attached, we would look at Page -- it's  
10 the third and final map of that section. Right?

11 A Right. It's labeled LU-3, I believe is the one  
12 you're talking about.

13 Q LU-3. And this is the 2000 through 2010 growth  
14 trends?

15 A Correct.

16 Q And so we see on this map the dark red  
17 indicates a growth trend in various areas -- if you look  
18 at Buda, Kyle, parts of Austin near Creedmoor -- of over  
19 15 percent?

20 A Correct.

21 Q And then we see the same thing for the very  
22 dark orange color which shows growth trends of 10.01 to  
23 15 percent. Correct?

24 A Correct.

25 Q In various places.

1           A     Right.

2           Q     So if we looked back at the number of  
3 residences, according to your exhibit, and you're  
4 driving-around inventory, that's 17. So from 126 to  
5 143, my math shows that's about a 13.5 percent increase.  
6 Does that sound fair?

7           A     Yes. Let's -- I believe your math, yes.

8           Q     Okay. So if you'll agree with me it's like a  
9 13.5 percent, then we would see this map would look very  
10 different for the growth trends within the last two  
11 years. We'd anticipate seeing that dark orange color  
12 within a one-mile radius of the facility. Right?

13          A     You built a lot -- packed a lot of assumptions  
14 into what you're saying there. And it is very hard to  
15 compare what you're saying to the growth data here  
16 because this is data by, as I recall, census block  
17 group. Right. So if we look at the census block  
18 groups, which are pretty large out here, and you put  
19 those 13 -- 17, excuse me -- new residences in that  
20 block group, I don't know that we know what that would  
21 look like. So I can't -- you're using a little bit  
22 apples and oranges here.

23          Q     Okay. But you would agree with me even using  
24 the apples and oranges, this data isn't showing the  
25 coloration for one mile within the facility or even five

1 miles within the facility. You actually emphasize kind  
2 of the point I was going to make next is, these are  
3 census blocks. So you're pooling larger places of  
4 population to even come up with these colors?

5 A That's correct. They're aggregated. Right.

6 Q So then if we only looked specifically at what  
7 had occurred in the last several years rather than going  
8 back six years and even 16 years to 2000, we would see  
9 the colors would look differently --

10 A It would look different, no doubt about that.  
11 But it's very hard to anticipate how they would look  
12 different.

13 And as I said, the block groups out here  
14 are relatively large. And so if -- particularly in this  
15 area, because there just hasn't -- I don't know why the  
16 census bureau has got such large block groups. I can  
17 speculate on it. But if you look at LU-3 and go up to  
18 the north end and look up in Austin, see how small the  
19 units are up there?

20 Q Yes, based on population. It's census data.

21 A Right. So if you added our 17 residents in  
22 this case to what is admittedly a very large block group  
23 down by Lockhart, it might not change that color.  
24 That's all.

25 Q So in other words, by comparing this chart,

1 this census data chart that looks at very large block  
2 groups, you're actually not giving an accurate  
3 reflection of what's occurring in the one-mile radius of  
4 the site, as far as growth trends are?

5 A Right. And what I'm trying to do is provide a  
6 picture to the ALJs and the Commission and others as to  
7 what the land use is looking like out here and try to be  
8 real explicit about how and where growth is occurring  
9 and what the land use characterizations are, in some  
10 cases occurring within a mile as per the regs. Other  
11 cases it's within five miles as per the regs. Where  
12 possible, I'm trying to help us understand that it's 17  
13 residences within a mile, but that's kind of above and  
14 beyond the call in some sense. I'm just trying to paint  
15 a complete picture.

16 So you're right. There's nothing here  
17 that shows current or future growth trends within a mile  
18 of the facility.

19 Q Okay. This is just census data?

20 A Right, which is, you know, the gold standard.  
21 I mean...

22 Q Well, except for your detailed, thorough  
23 analysis of driving around to see that there's actually  
24 a higher percentage of that, which is 13.5 percent.  
25 Correct?

1           A       There's more than one gold standard here, I  
2 guess.

3           Q       Okay. And then if you look back a page at your  
4 map LU-2.

5           A       Yes, sir.

6           Q       Okay. So if I'm looking at the facility due  
7 north, you have four circles of red that shows several  
8 residences.

9           A       As being constructed within the last two years  
10 when that analysis had been updated.

11          Q       Okay. And same thing if I'm looking kind of  
12 almost northeast or almost east. There's one big circle  
13 that shows quite a few residences and a commercial  
14 establishment that have been constructed.

15          A       That's correct, in a subdivision out there.

16          Q       Okay. And you didn't go back to Caldwell  
17 County to look at how large that subdivision was or any  
18 other permits that have been approved for that area?

19          A       Correct. I just looked at them in the flesh.

20          Q       And I would make that same assumption if you  
21 look just southeast, off Barth Road, where there's a  
22 collection of houses. I know none of them you've  
23 indicated as new --

24          A       Correct.

25          Q       -- you've not gone back and reviewed any

1 proposed subdivisions along Barth Road or septic permits  
2 in Caldwell County?

3 A Correct.

4 Q Okay. Ms. Perales asked you a question about  
5 Strawn elementary?

6 A Yes.

7 Q What data did you review concerning the  
8 construction and the proposed capacity of Strawn  
9 elementary?

10 A The only information I looked at was the  
11 website information contained -- or that Lockhart ISD  
12 website information about Strawn.

13 Q And did that provide you any information to  
14 update your report on growth trends in the area?

15 A No, it did not.

16 Q And did you do any analysis on Plum Creek  
17 elementary?

18 A No, I did not.

19 Q Do you know if the landfill site is in Strawn  
20 elementary or if it's in Plum Creek elementary?

21 A The attendance zones, you mean?

22 Q Yes.

23 A I believe it's in the Plum Creek attendance  
24 zone, currently. They didn't used to have attendance  
25 zones, I don't think.

1 Q And now with the change in Lockhart ISD with  
2 attendance zone, do you know what Lockhart ISD is  
3 anticipating the growth within those two attendance  
4 zones of Strawn elementary and Plum Creek elementary?

5 A No, I don't, but I do want to be clear that the  
6 Strawn attendance zone does not include the landfill  
7 area at all. It's to the north and east of the  
8 landfill.

9 Q Okay.

10 A But I do not know the projections for those  
11 elementary attendance zones.

12 Q So that's not data that you looked at for  
13 either one of those --

14 A Correct.

15 Q -- in looking at your land use compatibility?

16 A That's correct. Well, so I looked at it, but I  
17 would be hard pressed to point -- you know, I  
18 couldn't -- there's no reference to it in here  
19 specifically.

20 Q Do you know if Plum Creek is within five miles  
21 of the proposed landfill site?

22 A Within five miles?

23 Q Yes.

24 A No, I do not know.

25 Q And I think your testimony earlier was Strawn



1 elementary was within two and a half to three miles of  
2 the proposed --

3 A That's my estimate, yes.

4 Q I'm going to ask you if you would help me look  
5 at Exhibit -- let's see -- 4, 5, and 6 of your prefiled  
6 testimony. This is your video analysis that you said  
7 that you did.

8 A Correct.

9 Q Okay. And that's depicted on Worrall 6 in the  
10 map. Correct?

11 A That's correct.

12 Q And so not only the video but as well as the  
13 narrative that's in Exhibit 5, this shows that you  
14 traveled from Lockhart -- the city of Lockhart along  
15 Highway 130?

16 A 183, and then it merged to 130 combined with  
17 183.

18 Q The dotted line that we see around this, is  
19 that the five-mile radius of the facility?

20 A That's correct.

21 Q Okay. And so no portion of this map or video  
22 analysis that you did encompasses the information about  
23 the growth trend showing the new residences that have  
24 been constructed within the one-mile radius?

25 A Correct.

1 Q Okay. Then if you'll look at Worrall 7, 8, and  
2 9, this is what you refer to as the southbound.

3 Correct?

4 A Correct.

5 Q So this video analysis shows you coming south  
6 on toll road 130, exiting FM 1185, and then turning back  
7 north on Homannville Trail. Correct?

8 A Correct.

9 Q And so if we compare this map to your map on  
10 LU-2 in Worrall 3 --

11 A Yes.

12 Q -- that path would lead you right next to the  
13 permit boundary along Homannville Trail. Right?

14 A Right, as well as by a number of the new houses  
15 that we were talking about before.

16 Q And then it does not take you along 1185 to  
17 that new subdivision you referenced by the large circle  
18 and the new commercial establishment?

19 A Well, to be clear, that wasn't a new  
20 subdivision; it was just development that was occurring  
21 in what I determined to be an older subdivision,  
22 frankly, number one. Number two, it does not go by that  
23 growth that we saw on the far eastern side of the one  
24 mile of LU-3. It does go by the residences, as I said,  
25 that were constructed north of the facility along

1 Homannville Trail.

2 Q Well, if you didn't go back and look at  
3 Caldwell County's development plan or any of its  
4 subdivision regs approved or not approved or even septic  
5 permits, how do you know those weren't current ones that  
6 had just been applied for rather than old ones?

7 A Current what? I'm sorry.

8 Q Current residential plans to build a residence.  
9 You said it's an old subdivision, not a new subdivision.

10 A Right, because it was there when I was there in  
11 2013. So I don't mean to say it's ancient or anything,  
12 but the subdivision was there in 2013; it just didn't  
13 have homes built in it.

14 Q And do you know if that had been approved for  
15 septic permits?

16 A I do not know that, no.

17 Q Okay. So you don't know when those were issued  
18 for that area?

19 A The septic permits?

20 Q Right.

21 A Correct, I do not --

22 Q And you're not aware of any others that have  
23 been permitted along Farm to Market Road 1185 or on  
24 Barth Road?

25 A Any other septic permits?

1 Q Right.

2 A No, I'm not aware of that.

3 Q Or any subdivision plans that have been  
4 approved by the county?

5 A Correct, do not know.

6 Q By that same token, your video analysis did not  
7 go 2.5 to three miles up to Strawn elementary and the  
8 growth that had occurred along FM 1185 up to Lytton  
9 Springs and that new elementary school?

10 A Correct.

11 Q Okay. Mr. Rogers (sic) asked you a question,  
12 from the Executive Director, about general factors that  
13 you look for for incompatibility, and one of those  
14 was -- you listed were proximity issues.

15 A Correct.

16 Q Proximity to what?

17 A Proximity to the facility, the proposed MSW  
18 facility.

19 Q And what things are you looking for that are in  
20 proximity to the facility?

21 A Everything. I mean, just generally speaking,  
22 the closer it is, the more the concern would be.

23 Q So the number of residences, schools, churches,  
24 all those things listed?

25 A There you go. Correct.

1 Q Okay.

2 MR. MAGEE: I don't think I have any  
3 further questions.

4 JUDGE QUALTROUGH: All right. I think  
5 that should be all the cross. Right? I haven't missed  
6 anybody?

7 (No response)

8 JUDGE QUALTROUGH: All right. I think  
9 this is a good time to break for lunch unless you have  
10 an extremely short redirect.

11 MR. RYAN: I think you'd rather go to  
12 lunch.

13 JUDGE QUALTROUGH: All right. Okay, then.  
14 We'll be back here at 1:10. Okay? Thanks.

15 (Lunch Recess: 12:08 p.m. to 1:15 p.m.)  
16  
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1 AFTERNOON SESSION

2 MONDAY, AUGUST 15, 2016

3 (1:15 p.m.)

4 (Exhibit Protestants Nos. 16 through 20  
5 marked)

6 JUDGE QUALTROUGH: All right. We are back  
7 on the record. It's about 1:15, and we are starting  
8 with 130EP's redirect case.

9 PRESENTATION ON BEHALF OF THE APPLICANT (CONTINUED)

10 JOHN WORRALL,

11 having been previously duly sworn, testified as follows:

12 REDIRECT EXAMINATION

13 BY MR. RYAN::

14 Q Mr. Worrall, do you have Volume 1 of the  
15 Applicant's exhibits there?

16 A I do.

17 Q Okay. Would you turn to Exhibit 130EP-1?

18 JUDGE QUALTROUGH: I can guarantee you a  
19 lot of people can't hear you.

20 MR. RYAN: Oh, how is that?

21 JUDGE BELL: That's better, much better.

22 MR. RYAN: That's okay.

23 Q (BY MR. RYAN) Would you turn to  
24 Exhibit 130EP-1, Page 131?

25 A Yes. I've done so.

1 Q And do you see the shaded area there that's  
2 identified in the legend as the PCCD inundation area?

3 A I do.

4 Q Now, if that represents the area in the  
5 vicinity of the landfill permit boundary for which Plum  
6 Creek Conversation District holds an easement for  
7 inundation of water during large flood events, do you  
8 see anything incompatible about that use of that area  
9 and the proposed landfill project?

10 A No. I see no incompatibility vis-a-vis the  
11 landfill footprint certainly.

12 Q You testified this morning about the Capital  
13 Area Council of Governments and their review of  
14 municipal solid waste permit applications?

15 A Yes.

16 MR. RYAN: May I approach the witness?

17 JUDGE QUALTROUGH: (Nods head).

18 Q (BY MR. RYAN) I'm going to hand you two  
19 exhibits at once for efficiency's sake here.

20 A Thank you.

21 Q So, Mr. Worrall, do you have the multipage --  
22 whatever it is -- probably four or five pages that's  
23 been marked as Exhibit 130EP-20?

24 A Yes, I do.

25 JUDGE QUALTROUGH: And these have been

1 marked?

2 MR. RYAN: Yes.

3 JUDGE QUALTROUGH: Okay.

4 MR. RYAN: His have.

5 JUDGE QUALTROUGH: Only his have?

6 MR. RYAN: Yes.

7 JUDGE QUALTROUGH: Our copies are not  
8 marked.

9 THE WITNESS: EP- --

10 MR. RYAN: The one with about five pages  
11 is Exhibit 130EP-20.

12 JUDGE QUALTROUGH: Let's go off the  
13 record.

14 (Discussion off the record)

15 JUDGE QUALTROUGH: All right. We are back  
16 on the record.

17 (Exhibit Applicant Nos. 20 and 21 marked)

18 Q (BY MR. RYAN) Mr. Worrall, do you have what's  
19 been marked as Exhibit 130EP-20?

20 A Yes.

21 Q And does that relate to your testimony this  
22 morning about the cause and consideration of land use  
23 issues?

24 A Yes.

25 MR. RYAN: Your Honor, at this time, I'd



1 offer Exhibit 130EP-20.

2 JUDGE QUALTROUGH: Any objections?

3 (No response)

4 JUDGE QUALTROUGH: All right. That is  
5 admitted.

6 (Exhibit Applicant No. 20 admitted)

7 Q (BY MR. RYAN) Mr. Worrall, could you just  
8 briefly explain what it is about this that relates to  
9 your testimony regarding the Capital Area Planning  
10 Council of Governments' consideration of land use  
11 compatibility issues?

12 A Yes. This document is -- has got a cover sheet  
13 from TCEQ indicating acceptance of the CAPCOG, Capital  
14 Area Planning Council of Governments' acceptance of  
15 their Regional Solid Waste Management Plan. And then  
16 the following pages document the goals of the Regional  
17 Solid Waste Management Plan.

18 And as you move through the goals, you'll  
19 get to Goal No. 15. Goal No. 15 addresses land use  
20 compatibility. So the COG has adopted a plan that  
21 discusses and anticipates. It has as a goal land use  
22 compatibility issues.

23 Q And do you have in front of you there what's  
24 been marked as Exhibit 130EP-21?

25 A Yes, I do.

1 Q And how does that relate to CAPCOG's review  
2 of -- of the 130 Environmental Park landfill permit  
3 application?

4 A EP-21 is on the letterhead of CAPCOG, and it is  
5 sent to the -- addressed to the TCEQ indicating that the  
6 COG -- the CAPCOG has reviewed the permit application  
7 and finds it to be in compliance with the CAPCOG  
8 Regional Solid Waste Management Plan.

9 Q As you had testified to this morning?

10 A Correct.

11 MR. RYAN: Your Honor, at this time, I'd  
12 offer Exhibit 130EP-21.

13 JUDGE QUALTROUGH: Any objections?

14 MS. PERALES: No.

15 JUDGE QUALTROUGH: All right. Exhibit  
16 130EP-21 is admitted.

17 (Exhibit Applicant No. 21 admitted)

18 THE WITNESS: Based on the instructions,  
19 is there something I should specifically do with these  
20 now at this point?

21 Q (BY MR. RYAN) You can just keep them there for  
22 now.

23 A Okay.

24 JUDGE QUALTROUGH: Don't take them with  
25 you.

1 THE WITNESS: Do not do that?

2 JUDGE QUALTROUGH: Do not do that.

3 THE WITNESS: Okay. All right.

4 Q (BY MR. RYAN) With regard to the screening  
5 berms that you testified about this morning, how did you  
6 determine the location for that screening berm?

7 A We determined that the screening berm would be  
8 most effective in those areas that -- it's most  
9 effective in screening land uses that are relatively  
10 close to the landfill. So we recommended that the  
11 screening berm be placed on the north side of the  
12 landfill.

13 Q In general proximity to those residences up  
14 there?

15 A Right. The residences that we're talking --  
16 certainly the closest residence -- we were also talking  
17 about a few other residences along Homannville Trail.  
18 So we felt that the screening berm would be most  
19 effective in terms of mitigating the visual impact of  
20 the facility on those closest residents up on  
21 Homannville Trail.

22 Q Why is that?

23 A Why is it effective?

24 Q Yeah. Why is it most effective?

25 A Well, I guess ironically -- I'm not sure if

1 it's ironic or not, but screening berms are most  
2 effective in screening things that are closest to the  
3 landfill itself. So the further away you get from the  
4 facility, the less effective that berm is because  
5 it's -- well, it's just kind of a geometry of the  
6 situation, I guess. So the way I think about it is if  
7 you're in a crowd of people and there's somebody who is,  
8 say, 6-foot tall in front of you, immediately in front  
9 of you, you're going to be screening the performers, you  
10 know, the Grateful Dead, whoever it is you're watching.  
11 If that person -- if you're much further back, watching  
12 the band or the performance, that 6-foot person isn't  
13 going to impact you so much.

14                   So the proximity of the screening berm to  
15 the person who is -- who you're trying to screen, the  
16 closer it is, the more effective it will be.

17           Q       Is there a requirement in TCEQ's rules that  
18 landfills not be visible?

19           A       No, sir, there's no such requirement.

20           Q       And in your experience, do you know of  
21 landfills that aren't visible from off site?

22           A       I can't envision any that are not visible.

23           Q       You testified this morning about an assumption  
24 that you make that a landfill facility will be operated  
25 in accordance with the TCEQ requirements.

1 A Right. Correct.

2 Q Would that include rules in TCEQ's municipal  
3 solid waste management rules regarding liners to protect  
4 groundwater quality?

5 A Yes.

6 Q Would it also include provisions in TCEQ's  
7 rules applicable to protection of water surface quality?

8 A Yes.

9 Q Your updated land use analysis in Exhibit  
10 Worrall 3 refers to 143 residences within one mile of  
11 the proposed landfill permit boundary. How does that  
12 compare with numbers of residences and their density on  
13 other landfill projects you've worked on?

14 A I would say it's at the low end of the number  
15 of residences within one mile. I've worked on projects  
16 that have had more than -- well, residences in the  
17 thousands -- within one mile.

18 Q Looking at your prefiled testimony, Worrall  
19 Exhibit 1 in Volume 6, I'm going to ask you about a  
20 couple of things there. First off, would you flip back  
21 to Exhibit -- I'm sorry. Would you look on page 12 of  
22 Exhibit Worrall 1? And the revision that you made to  
23 your prefiled testimony on Line 15, I just want to make  
24 sure the record is clear.

25 If you also look back in Exhibit

1 Worrall 3, at the table that's on Page 5 of Worrall  
2 Exhibit 3 --

3 A Yes.

4 Q -- how does the table and the discussion there  
5 on Page 5 of Worrall Exhibit 3 relate to the discussion  
6 on Page 12 of your prefiled testimony, Worrall  
7 Exhibit 1, beginning there at Line 15?

8 A Well, the correction I made initially to my  
9 prefiled testimony, Page 12 of Exhibit 1, as you recall,  
10 I wanted that first line at 15 to say that Caldwell  
11 County will continue to be the smallest county in the  
12 MSA. That's what it's supposed to read. Now, we --  
13 I'll agree to correct that.

14 And one reason we made that correction is  
15 not only is it true, but then it also relates more  
16 explicitly and more properly to the table in -- on  
17 Page 5 of Exhibit 3.

18 Q Okay. Thank you. Do you have Volume 7 there?

19 A Not yet. I can get it.

20 Q Wait. Do you have 6?

21 A Yes, I have 6.

22 Q Do you have Volume 5? I'm going to ask you to  
23 look at Exhibit 130EP-8.

24 A Okay.

25 Q And what is Exhibit 130EP-8?

1           A       It is a registration document for the Type V  
2 transfer station approved at the 130 Environmental Park.

3           Q       Okay. And you testified about that during your  
4 testimony this morning. Correct?

5           A       Correct.

6           Q       Now if you would look on your prefiled  
7 testimony, Exhibit Worrall 1 --

8           A       Okay.

9           Q       -- in Volume 6 --

10          A       Okay.

11          Q       -- at Page 9.

12          A       Okay.

13          Q       Can you see on the last line there, there's a  
14 reference to Exhibit 130EP-7?

15          A       Yes, I see that.

16          Q       Should that correctly be a reference to  
17 130EP-8, the transfer station registration we just  
18 talked about?

19          A       Yes. That's correct. I should make that  
20 change in my prefiled testimony.

21          Q       Okay. Will you do that?

22          A       Okay. So I'm going to change the last --  
23 Line 46. The reference to the exhibit should be  
24 130EP-8.

25          Q       Okay. Did you handwrite that change on the

1 exhibit?

2 A I did.

3 Q You testified this morning about the fact that  
4 you don't focus on things like building permits,  
5 subdivision plats, and septic tank permits when you're  
6 identifying land uses. Why is that?

7 A Those are all useful indicators, but they don't  
8 necessarily describe the land use. So that's not  
9 unusual for somebody to have a building permit or a  
10 septic permit or, for that matter, a permit for a  
11 transfer station. And you go out there and you find  
12 that the land uses -- it's the same. So just because  
13 somebody pulls a permit doesn't mean the land use has  
14 changed. So what I'm trying to document isn't -- in the  
15 case of documenting and characterizing land use, I'm  
16 trying to determine what's really on the ground up. And  
17 permits are not necessarily a good way to do that.  
18 They're a good way to express intent but not necessarily  
19 the facts on the ground.

20 MR. RYAN: Thank you. I'll pass the  
21 witness.

22 JUDGE QUALTROUGH: Ms. Wilson?

23 MS. WILSON: No.

24 JUDGE QUALTROUGH: No recross. ED?

25 MR. VARGAS: No, Your Honor.



1 JUDGE QUALTROUGH: All right. OPIC?

2 MR. TUCKER: Yeah. I have a few  
3 questions.

4 RECROSS-EXAMINATION

5 BY MR. TUCKER::

6 Q You testified that screening berms work best  
7 closest to a point, I guess, to residences. Is that  
8 correct?

9 A Well, to whatever it is you're trying to  
10 screen.

11 Q Would you turn to Exhibit 11, Worrall  
12 Exhibit 11?

13 A (Witness complies).

14 Q Is the residence noted on this exhibit the same  
15 as the -- you identified earlier as the closest  
16 residence, the one at the corner?

17 A I bet you're looking at Exhibit 10.

18 Q I'm sorry. You're correct. Exhibit 10.

19 A Okay. Just a minute, please.

20 Yes, sir. You can see -- you had me  
21 circle that residence. Correct?

22 Q Yes. Correct.

23 A You can see that residence on this drawing,  
24 that's correct.

25 Q That's the same one you circled on Page 2?

1           A       Well, there's several residences shown here,  
2 but, yes. It's obvious from this, I think, what is the  
3 closest residence.

4           Q       And it says "close view" just to the -- to the  
5 right and down?

6           A       That's correct.

7           Q       Can you tell me how close the screening berm is  
8 to that residence?

9           A       Which part of the screening berm, any  
10 particular part? Because it's kind of variable. You  
11 see the screening berm obviously turns the corner there.

12          Q       I guess, what is the -- what do you believe to  
13 be the closest part.

14          A       Okay. The closest?

15          Q       Yes. Correct.

16          A       Okay. I would say approximately 80 feet.

17          Q       And the screening berm could possibly be up to  
18 50 feet tall?

19          A       At the highest point.

20          Q       At that height and at that close of a distance,  
21 could the berm cast a shadow over the -- that residence?

22          A       No, I don't believe so.

23          Q       You don't believe so?

24          A       No.

25          Q       Okay. Can a berm be too close to a residence

1 where it would create a nuisance?

2 A Yeah, I think it probably could. Sure.

3 Q Would you believe this berm is -- had -- at a  
4 close distance would create a nuisance?

5 A No, I don't believe so. I think it's  
6 appropriate.

7 MR. TUCKER: All right. Thank you. No  
8 more questions.

9 JUDGE QUALTROUGH: All right. TJFA, any  
10 questions?

11 MS. PERALES: I do have a couple of  
12 questions.

13 RE-CROSS-EXAMINATION

14 BY MS. PERALES::

15 Q Mr. Worrall, I have only really a couple of  
16 questions.

17 A Really?

18 Q Really.

19 So I was curious about your response when  
20 you compared the number of residences at this proposed  
21 landfill project to others where there were as many as  
22 thousands of residences within a mile. In those other  
23 hypothetical projects that you were thinking of, did you  
24 also find compatibility with the proposed solid waste  
25 project?

1 A Yes.

2 Q Is there a number -- is there -- can there be  
3 like a number of residences within a mile where you  
4 would cut it off and say, "This is no longer  
5 compatible"?

6 A No.

7 Q Okay. You also talked about how you didn't  
8 look at development permits or septic tank permits  
9 because what's on the ground is more -- tell me if I'm  
10 summarizing this fairly. What's on the ground is more  
11 useful in determining land uses than any permits. Is  
12 that right?

13 A I thought I stated it more artfully than that.

14 Q I bet you did.

15 (Laughter)

16 Q (BY MS. PERALES) I bet you did.

17 A No. What I would like to say, if I might --

18 Q Sure.

19 A -- is it's the best way to characterize land  
20 use, I believe. And that's what the regulations require  
21 me to do, characterize land use.

22 Q And when you say that's the best way to  
23 characterize land use, you're talking about what's on  
24 the ground?

25 A Correct.

1 Q Okay. And just to be clear, the transfer  
2 station that has been approved is not on the ground?

3 A Correct.

4 Q That's only been approved?

5 A Correct.

6 Q Okay.

7 A Therefore, it's not characterized as a solid  
8 waste land use. It's characterized as open and  
9 agricultural land use because that's what's on the  
10 ground.

11 Q Okay.

12 A Yeah.

13 Q So it's not -- right now it's not a land use?

14 A That's correct.

15 MS. PERALES: Okay. Thank you. I'll pass  
16 the witness.

17 THE WITNESS: You're welcome.

18 JUDGE QUALTROUGH: Caldwell County?

19 MR. MAGEE: I just have a couple real  
20 quick.

21 RE-CROSS-EXAMINATION

22 BY MR. MAGEE:

23 Q Mr. Ryan asked you a question about the  
24 building permit, subdivision regulations, and septic  
25 tank permits. Do you recall that?

1 A Yes.

2 Q You said they were useful indicators, but they  
3 didn't describe what was actually happening out on the  
4 ground. I'm probably not being as artful as you.

5 But you don't know if the septic tank  
6 permits describe whether they're residential or  
7 commercial because you didn't go pull any. Correct?

8 A Correct.

9 Q And you didn't pull any subdivisions that had  
10 been approved out in the one-mile radius to determine  
11 whether it was residential subdivisions or commercial.  
12 Correct?

13 A Correct.

14 Q And same thing with any type of building  
15 permits or Caldwell County development plan requirements  
16 as to whether they are residential development or  
17 commercial development out in that area because you  
18 didn't pull any of those either. Correct?

19 A I did not use those sources of data --

20 Q Okay.

21 A -- to does the land use analysis.

22 MR. MAGEE: Thank you. No further  
23 questions.

24 JUDGE QUALTROUGH: All right. That should  
25 do it. Thank you very much.

1 THE WITNESS: Thank you.

2 JUDGE QUALTROUGH: You're free to go.

3 THE WITNESS: May I take these with me?

4 JUDGE QUALTROUGH: No.

5 (Laughter)

6 JUDGE QUALTROUGH: All right. Who is your  
7 next witness?

8 MR. RYAN: Kerry Maroney.

9 (Pause in proceedings)

10 JUDGE BELL: I'll swear you in.

11 (Witness Maroney sworn)

12 JUDGE BELL: All right. Very good. If  
13 you'll have a seat, and, Mr. Ryan, whenever you're  
14 ready.

15 MR. RYAN: Thank you.

16 KERRY D. MARONEY, P.E.,  
17 having been first duly sworn, testified as follows:

18 DIRECT EXAMINATION

19 BY MR. RYAN::

20 Q Mr. Maroney, do you have in front of you the  
21 binder that's marked Applicant's Exhibits Volume 6?

22 A I do.

23 Q And if you would, turn to Exhibit Maroney 1.

24 A Okay.

25 Q Can you identify that?

1           A       It appears to be my direct testimony.

2           Q       And are Exhibits Maroney 2 and 3 exhibits that  
3 are referenced in Maroney 1?

4           A       They are.

5           Q       If you were asked during this hearing orally  
6 each of the questions that set out in Exhibit Maroney 1,  
7 would your answers be the same as set out in that  
8 exhibit?

9           A       Yes, they would.

10                   MR. RYAN: Your Honor, at this time I  
11 would offer Exhibits Maroney 1, 2, and 3.

12                   JUDGE BELL: Any objections?

13                           (No response)

14                   JUDGE BELL: They are admitted.

15                           (Exhibit Applicant Maroney Nos. 1, 2, and  
16 3 admitted)

17                   MR. RYAN: I'll pass the witness.

18                   JUDGE BELL: All right. Are we going in  
19 the same order of cross for Mr. Maroney as we did for  
20 Mr. Worrall?

21                   MR. WILSON: We have agreed -- ED and I  
22 have spoken, and he's agreed to let me go first.

23                   JUDGE BELL: Sounds fine to me. Come on  
24 up.

25                   Mr. Ryan, if you will let Mr. Wilson



1 borrow your mic...

2 MR. RYAN: Sure. It's not even mine.

3 MR. WILSON: Thank you.

4 CROSS-EXAMINATION

5 BY MR. WILSON::

6 Q Good afternoon, Mr. Maroney. My name is Bob  
7 Wilson. I'm representing Plum Creek Conservation  
8 District. I'm glad you're here today to answer my  
9 questions.

10 A Good afternoon. Thank you.

11 Q Thank you. Mr. Maroney, first starting off, I  
12 noticed from the application that you were the original  
13 permit engineer associated with this facility. Is that  
14 correct?

15 A I was not the original permitting engineer.

16 Q But you were the engineer when it was first  
17 filed with TCEQ?

18 A Parts of it. Parts 3 and 4.

19 Q All right. Let me get my book over here. I'm  
20 sorry. I left it. Mr. Maroney, I'm looking at  
21 Applicant's Exhibit 1, Page 6. This is your prefiled  
22 testimony?

23 A Yes, sir.

24 Q And it says, "I prepared and supervised  
25 preparation of several portions of the application."

1 And it goes ahead and lists several things: Part 1;  
2 Part 2; Part 2, Appendix 2K; Part 3; Part 4, site  
3 operating plan. Do you see all that?

4 A Correct.

5 Q So I could ask you questions about any of those  
6 things and you'll be able to answer it. All right?

7 A Yes, sir.

8 Q All right. That's what I was trying to get at,  
9 to see who it was that I needed to ask my questions of  
10 because this thing has sort of been put together, and I  
11 notice your testimony that you supervise a lot of other  
12 people's work.

13 A Correct.

14 Q Right. One thing I want to compliment you on,  
15 I appreciate your filing in March of 2015 a document  
16 that corrects the fact that Plum Creek Conservation  
17 District had an easement on the site that was never  
18 identified to the original property owners. Is that  
19 correct?

20 A That's correct.

21 Q All right. I'm glad to know we finally got  
22 your attention.

23 I have some questions about some of the  
24 things primarily in the operating plan, and my first one  
25 is I noticed in your operating plan you're going to have

1 a truck tire wash. Is that correct?

2 A That's correct.

3 Q You're also going to have provisions in there  
4 for hosing down and washing, if you need to, the  
5 leachate collection system tanks. Right?

6 A That's correct.

7 Q All right. What's the source of water that  
8 you're going to be using?

9 A Depending -- at that -- at that location right  
10 there, we -- we will use Polonia Water.

11 Q Do you have a current agreement with Polonia  
12 Water Supply Corporation to supply water to you?

13 A I believe we've made the application for  
14 service to that site.

15 Q Do you know what kind of service you've made  
16 application for?

17 A No.

18 Q Have you received a response?

19 A I personally haven't, no.

20 Q Do you know if anybody with the Applicant has  
21 received a response?

22 A Not that I can say.

23 Q Are you planning to use on-site surface water  
24 for any of your water supply needs?

25 A No.

1 Q You're going to -- as I understand your  
2 operating plan, you're going to be diverting water  
3 around the site just continually as run-on is going to  
4 be diverted around it. Is that correct?

5 A There will be run-on and run-off controls on  
6 the site.

7 Q I also notice that you plan to have detention  
8 basins on site.

9 A That's correct.

10 Q What's going to go into the detention basins?

11 A That would generally be the run-off from the  
12 landfill site.

13 Q And is the plan for all of the water in the  
14 detention basins to be retained on site and either  
15 evaporated or hauled off?

16 A No. Those are stormwater detention ponds. And  
17 so those will run off of the footprint area into  
18 those -- into the ponds and then be discharged at a --  
19 at a controlled rate.

20 Q I was a bit confused when I saw the description  
21 because my reading of what the narrative said was that  
22 contaminated water was defined as water that got into  
23 contact with the landfill waste. Is that correct?

24 A That's correct.

25 Q Is there no other way for water from the

1 landfill to become contaminated except in contact with  
2 the landfill waste?

3 A In accordance with TCEQ definition, that is  
4 contaminated water when it comes in contact with waste.  
5 We will also -- that's surface water, for example. We  
6 will also have leachate that leaches down through the  
7 solid waste within the cells, and that will also be  
8 contaminated water.

9 Q My question is, aside from the leachate water  
10 and the water that's in contact with the waste, is  
11 there, by definition, no other contaminated wastewater  
12 from your site?

13 A I think -- I think that would be true.

14 Q Before the discharges are going to happen that  
15 you're talking about, are you going to sample the water  
16 that you contain in the detention ponds to determine its  
17 characteristics?

18 A I don't believe so.

19 Q So you're going to go under the assumption that  
20 if it's in the detention pond and has not been in  
21 leachate or in connection with the waste, it is  
22 therefore uncontaminated regardless of its  
23 characteristics?

24 A We will -- we will consider that to be  
25 uncontaminated.

1 Q Do you have any plans to test the water quality  
2 before discharging it?

3 A From the detention ponds?

4 Q Yes, sir.

5 A Not to my knowledge.

6 Q How many point source discharges from detention  
7 ponds do you plan to have?

8 A As far as I know, there will be one from each  
9 pond.

10 Q How many ponds do you have?

11 A I'd have to look here.

12 Q Sure.

13 A It appears there's going to be three ponds,  
14 Pond 1, 2, and 3.

15 Q The -- is the Applicant going to eventually  
16 obtain TPDES discharge permits for those three ponds?

17 A I'm not sure I can answer that.

18 Q Who can?

19 A That would be the drainage engineer.

20 Q And that is who, if you don't mind my asking  
21 you?

22 A That would be Tyson Traw.

23 Q At the time if, in fact, you made application  
24 for TPDES permits, would those permits then characterize  
25 the water that you would be discharging?

1 A He would be the one to answer that.

2 Q Okay. Do you know how -- do you know if there  
3 is a current Polonia Water Supply Corporation supply to  
4 the Hunter Tract?

5 A To the best of my knowledge, there was at one  
6 time a three-quarter-inch supply.

7 Q Do you know where that line supplying the  
8 Hunter Tract ties into the Polonia line?

9 A Not for sure. It's my understanding off of  
10 1185.

11 Q Is it on the south side of 1185?

12 A I'm not sure.

13 Q Okay. So you don't know a lot of the detail  
14 about where the current water supply comes from for the  
15 Hunter Tract for usage?

16 A That's correct.

17 Q Is there run-on water to the Hunter Tract from  
18 above it?

19 A Yes.

20 Q Are there any plans to sample the water quality  
21 of the run-on water to determine if there is a change  
22 across the operations at the site?

23 A For surface water?

24 Q Yes, sir.

25 A Not to my knowledge.

1 Q Would that be a good idea, Mr. Maroney?

2 A I don't have a -- an opinion on that.

3 Q Okay. Did you also participate in the  
4 development of the groundwater monitoring plan?

5 A I did not.

6 Q Mr. Snyder did that?

7 A He did.

8 Q Okay. The original application that was  
9 submitted contained a list of property owners. Is that  
10 correct?

11 A That's correct.

12 Q And I noticed it had a listing of one easement,  
13 an LCRA power line easement. Is that correct?

14 A I believe that's correct.

15 Q So at the time, there was no listing that Plum  
16 Creek Conservation District had an easement on the  
17 Hunter Tract?

18 A I think that's correct.

19 Q All right. When did you discover that we did?

20 A When -- I believe when Plum Creek provided that  
21 to us in the form of a GIS document.

22 Q When was the first time you contacted Plum  
23 Creek Conservation District in -- with respect to  
24 these -- this application?

25 A I don't recall for sure, but it would have been



1 late -- for myself, it would have been late in 2013.

2 Q Had the application been submitted to TCEQ  
3 before the first time you made contact with Plum Creek?

4 A No. I'm thinking, as best I remember, only  
5 Part 1 and Part 2 had been submitted for land-use  
6 compatibility.

7 Q Do you understand what Plum Creek Conservation  
8 District is?

9 A It's a conservation district that maintains and  
10 operates the flood control of Pecan Creek there for --  
11 and owns and maintains and operates the -- the dam.

12 Q Right. Do you know that it also has  
13 groundwater regulatory authority in the area of your  
14 site?

15 A I was -- I'm not aware of that.

16 Q Is it practice -- your practice as an engineer  
17 when you prepare these applications to try to discover  
18 if there are local sources of information and knowledge  
19 related to ground and surface water that might be  
20 relevant or helpful to you in preparing the  
21 applications?

22 A It typically is.

23 Q Did you reach out to Plum Creek before you  
24 prepared Parts 1 and 2 of this application?

25 A Parts 1 and 2 were prepared before I came on

1 board, so I -- I would have to defer to Mr. Welch on  
2 that.

3 Q Okay. So I could ask Mr. Welch that  
4 question?

5 A Sure.

6 Q All right. And do you know whether Plum Creek  
7 has any specialized knowledge of geology in the vicinity  
8 of your site that might be helpful to you?

9 A I'm not aware of that.

10 Q All right.

11 MR. WILSON: That's all the questions I  
12 have at this time.

13 JUDGE BELL: Thank you, Mr. Wilson.

14 Any questions for this witness from the  
15 ED?

16 MR. TATU: Just a few.

17 CROSS-EXAMINATION

18 BY MR. TATU::

19 Q Good afternoon. Can you hear me okay?

20 A I can.

21 Q Anthony Tatu on behalf of the Executive  
22 Director. I just had a few questions for you.

23 On Page 4 of your Exhibit 1, Line 8, you  
24 were asked if you have worked as a professional engineer  
25 on applications for permits or other authorizations for

1 landfills for other MSW facilities, and you answered  
2 yes.

3 THE REPORTER: I'm sorry. I can't hear  
4 you.

5 JUDGE QUALTROUGH: She can't hear you.

6 MR. TATU: How is that? Is that a little  
7 better?

8 THE REPORTER: Thank you.

9 Q (BY MR. TATU) You answered yes. Are those all  
10 listed in your resumé, the other facilities that you  
11 worked on, which I believe is Maroney Exhibit 2?

12 A I believe that's correct.

13 Q So on your Exhibit No. 2, on your resumé, you  
14 list approximately eight or nine different projects that  
15 you've worked on. Is that correct?

16 A That's correct.

17 Q Of those projects that you worked on, how many  
18 of those went before SOAH for a contested-case hearing?  
19 Do you recall?

20 A I believe the TASWA project did.

21 Q And did you testify during that hearing?

22 A I believe that -- as best I recall, that  
23 settled at -- I mean, at the facility.

24 Q So you did not testify?

25 A Correct.

1 Q Okay. Which -- which cases did you actually  
2 testify as an expert witness, if you recall?

3 A I don't think I have in the solid waste part of  
4 it.

5 Q Okay. So on Page 4 of Maroney Exhibit No. 1,  
6 Lines 35 through 37, you're talking about other  
7 contested cases where you testified. Is that  
8 correct?

9 A Correct.

10 Q Okay. Thank you.

11 I just wanted to follow up on a few  
12 questions that were asked by Plum Creek.

13 On Page 5 of Exhibit 1, you talk about  
14 when you came on board as the engineer of record.

15 A What page are you looking at?

16 Q I'm sorry. Page 5, Exhibit 1, Lines 7 through  
17 12.

18 A What page? I'm sorry.

19 Q Page 5 on your first exhibit, Maroney  
20 Exhibit 1.

21 A Okay. Sorry.

22 Q No worries. So on Lines 7 through 12, you  
23 discuss at what point you came on board as the engineer  
24 of record. Is that correct?

25 A That's correct.

1 Q And you -- the application was filed  
2 September 4th, 2013. When did you actually come on  
3 board as the engineer of record?

4 A Towards the latter part of 2013, probably  
5 around the December time frame.

6 Q Okay. Can you explain to me what it means to  
7 be an engineer of record, just for my understanding?

8 A Yeah. An engineer of record is the -- the --  
9 is the engineer that signs and seals certain pieces of  
10 the document that were performed under his direct  
11 control and supervision -- or relied on other  
12 professionals. It's part of assembling the documents,  
13 putting those together in the -- in the format and in  
14 the order that -- required by TCEQ.

15 Q So when you talk about sealing the  
16 application -- signing and sealing it, what does that  
17 represent?

18 A Well, the signing and sealing represents that  
19 you have knowledge of it and that it was -- it was  
20 performed under your control and supervision and/or your  
21 review, that you had final say of the product.

22 Q Okay. Same exhibit, same page and same line  
23 numbers. You talk about working on notice of  
24 deficiencies. Is that correct?

25 A That's correct.

1 Q So you -- you assisted in preparing response to  
2 the NODs. Is that correct?

3 A When the NODs came in, then I would assist and  
4 coordinate the response for the NODs.

5 Q Do you recall how many official NODs there were  
6 in this case?

7 A I do not.

8 Q Typically, in your experience, how many notices  
9 of deficiencies are issued by TCEQ?

10 A On the order of three to five.

11 Q And when you talk about one NOD issue, for  
12 example, you -- that could contain more than a few  
13 comments from the agency. Is that correct?

14 A Absolutely.

15 Q Would you characterize the review by the  
16 Executive Director as being thorough in this case?

17 A I would.

18 Q In fact, there were -- let me withdraw that.  
19 Sorry.

20 MR. TATU: No further questions. Thank  
21 you.

22 JUDGE BELL: Thank you.

23 Any cross from OPIC?

24 MR. TUCKER: Yes.

25 JUDGE BELL: Go right ahead.

## 1 CROSS-EXAMINATION

2 BY MR. TUCKER::

3 Q Good afternoon, Mr. Maroney.

4 A Good afternoon.

5 Q My name is Aaron Tucker with the Office of  
6 Public Interest Counsel. Could I get you to turn to  
7 Applicant's Exhibit 130EP-1, Page 49? Let me know when  
8 you're there.

9 A I'm sorry. What page did you say?

10 Q Page 49, Section 5. This is the Part 1  
11 narrative.

12 A Did you say EP-1, Page 40?

13 Q Page 49.

14 MR. RYAN: Is that page not there?

15 THE WITNESS: I'm sorry?

16 MR. RYAN: Is that page not there?

17 THE WITNESS: I haven't gotten to it.

18 JUDGE BELL: Let's go off the record while  
19 he tries to find this page.

20 (Off the record)

21 JUDGE BELL: Let's go back on the record.

22 Q (BY MR. TUCKER) Okay. So you found Page 49 of  
23 Applicant's Exhibit 130EP-1?

24 A Yes.

25 Q Correct? Would you mind speaking up just a

1 little bit?

2 A Yeah. It's labeled "Legal Authority"?

3 Q Yes, labeled "Legal Authority."

4 A Okay.

5 Q And so this is -- this page is part of the Part  
6 1 narrative. Correct? And you're -- sorry. Correct?

7 A Correct.

8 Q And you're the sponsoring witness for this  
9 section?

10 A Correct.

11 Q Okay. So 130 Environmental Park, LLC, is both  
12 the operator and owner of the facility?

13 A Correct.

14 Q And on Page 49 you state, "No other person or  
15 entity has over a 20 percent ownership of the proposed  
16 facility," at the bottom?

17 A Correct.

18 Q And this narrative is in support of the Rule  
19 30TAC, Section 330.59(e)?

20 A Correct.

21 Q All right. Are you aware of any entity that  
22 owns 130 Environmental Park, LLC?

23 A From my understanding, the Green Group owns it.

24 Q So 130 -- I'm sorry. Green Group Holding  
25 Company. Is that correct?



1 A Correct.

2 Q Okay. Is the -- has an ownership stake in 130  
3 Environmental Park, LLC?

4 A My understanding, that's the parent company.

5 Q Do they have more than a 20 percent stake in  
6 130 Environmental Park, LLC?

7 A I don't know that.

8 Q Do you think you have a responsibility to know  
9 that as the person sponsoring this page?

10 A I can't answer that.

11 Q As part of your -- creating the application,  
12 you were -- you're supposed to be aware of all the rules  
13 of the Commission and laws pertaining to the  
14 application?

15 A Correct.

16 Q Are you aware of the definition of person in  
17 the TCEQ rules?

18 A No.

19 Q I'll point you to 330 of the Texas  
20 Administrative Code, Section 3.2, No. 25, that defines a  
21 person. I'll read this for you.

22 "A person is an individual, corporation,  
23 organization, government, or governmental subdivision or  
24 agency, business trust, partnership, association, or any  
25 other legal entity."

1                   Based on that definition, does that change  
2 your answer of how -- of whether you should know if an  
3 entity owns more than 20 percent of 130 Environmental  
4 Park, LLC?

5           A       Yes.

6           Q       But you don't know if Green Group Holding  
7 Company owns more than 20 percent?

8           A       I don't.

9           Q       Do you know if Green Group Holding Company  
10 is -- operates any other solid waste management  
11 facilities?

12          A       I do not.

13          Q       If Green Group Holding Company owned more than  
14 20 percent of 130 Environmental Park, LLC, would that  
15 need to be noted in the application?

16          A       I can't answer that.

17          Q       I'm sorry. Could you repeat your answer?

18          A       I can't answer that.

19                   I need to take a break.

20          Q       I'm sorry. Could you speak up?

21          A       I said I need to take a break, if you don't  
22 mind.

23                   MR. MAGEE: We're having a hard time  
24 hearing him.

25                   THE WITNESS: I need to take a break, if

1 you don't mind.

2 JUDGE BELL: Sure. We can take a break.  
3 Let's take a break until 2:30. Off the record.

4 (Recess: 2:30 p.m. to 2:37 p.m.)

5 (Exhibit Nos. ED-SO-1 through ED-SO-9 and  
6 Nos. ED-AA-1 through ED-AA-6 marked)

7 JUDGE BELL: Let's go back on the  
8 record.

9 Mr. Ryan, do you want to address the  
10 witness situation?

11 MR. RYAN: Yes. Your Honors, with your  
12 permission, we'd like to interrupt Mr. Maroney's  
13 testimony and proceed with Mr. Parker at this point.

14 JUDGE BELL: And I understand, based on  
15 our conversation off the record, that none of the other  
16 parties had any objection to moving to Mr. Parker's  
17 testimony at this time.

18 MS. PERALES: That's correct.

19 JUDGE BELL: All right. Hearing none,  
20 let's go ahead with Mr. Parker.

21 MR. RYAN: Thank you.

22 (Witness Parker sworn)

23 JUDGE BELL: All right. Thank you very  
24 much. If you will, have a seat.

25 Mr. Ryan, whenever you're ready.

1 J. HEATH PARKER, P.E.,  
2 having been first duly sworn, testified as follows:

3 DIRECT EXAMINATION

4 BY MR. RYAN::

5 Q Would you state your name for the record,  
6 please?

7 A Keith Parker.

8 Q And, Mr. Parker, do you have in front of you  
9 Volume 7 of the Applicant's exhibits?

10 A I do.

11 Q And do you see Exhibits Parker 1 through Parker  
12 6?

13 A Yes, sir.

14 Q What is Exhibit Parker 1?

15 A Exhibit Parker 1 is my prefiled testimony.

16 Q And are Exhibits Parker 2 through 6 exhibits  
17 that are referenced in that prefiled testimony?

18 A They are.

19 Q If you were asked each of the questions in  
20 Exhibit Parker 1 orally here today, would your answers  
21 be the same as set out in Exhibit Parker 1?

22 A They would.

23 MR. RYAN: Your Honor, at this time, I'd  
24 offer Exhibits Parker 1 through 6.

25 JUDGE BELL: Thank you. Any objections to

1 Exhibits Parker 1 through 6?

2 (No response)

3 JUDGE BELL: Hearing none, those exhibits  
4 are admitted.

5 (Exhibit Applicant Parker Nos. 1 through 6  
6 admitted)

7 MR. RYAN: I'll pass the witness.

8 JUDGE BELL: Thank you. Any  
9 cross-examination for this witness by Plum Creek?

10 MR. WILSON: One question.

11 JUDGE BELL: All right. Come on up.

12 CROSS-EXAMINATION

13 BY MR. WILSON::

14 Q Mr. Parker, good afternoon. My name is Bob  
15 Wilson. I represent Plum Creek Conservation District.  
16 We just have a passing interest in this, but I notice  
17 the EPA has recently published -- or is suggesting some  
18 revisions to the new source performance standards for  
19 municipal solid waste facilities. And I'm not that  
20 familiar with the changes. I know there's been a  
21 reduction in methane trigger for compliance. And I  
22 assume that a municipal solid waste site does not  
23 substitute for a permit that you would get for air  
24 emissions from a facility, does it?

25 A Well, there's multiple air permits, per se.

1 Q So my question is, do you anticipate filing  
2 applications for permits from the TCEQ for Clean Air Act  
3 emissions?

4 A Not to TCEQ. There's already been a Subchapter  
5 U. There would be no need for a permit under NSPS until  
6 they should exceed those thresholds.

7 Q And if the thresholds promulgated by EPA are  
8 revised downward as they are suggested, then you've  
9 reached those thresholds, didn't you?

10 A Correct.

11 Q And at that time you would have to go in for  
12 the NSPS review and possible permitting?

13 A That's correct.

14 Q Is that the intent?

15 A Yes, sir.

16 Q All right.

17 MR. WILSON: That's all the questions I  
18 have.

19 JUDGE BELL: All right. Thank you,  
20 Mr. Wilson. Any cross-examination from the ED?

21 MS. MURRAY: Yes. I have a couple of  
22 questions.

23 CROSS-EXAMINATION

24 BY MS. MURRAY::

25 Q Hi. I'm Kayla Murray representing the ED.

1 Let's see. Mr. Parker, I see that in your prefiled  
2 testimony you've managed the landfill gas collection for  
3 about 15 landfills throughout Texas. Have you -- have  
4 you worked on any other types of MSW facilities before,  
5 or is it just the landfills that you mainly focus on?

6 A It's mainly landfills.

7 Q Okay. Have you ever testified before on -- on  
8 any of the work you've done with landfills?

9 A No. This is the first.

10 Q Okay. Okay. And then let's see. On Page 5 of  
11 your testimony, Lines 36 through 37 -- or 36 through 39,  
12 rather, you talk about a landfill gas management plan  
13 that either you or someone working under your direction  
14 prepared. So that entire plan was not prepared just by  
15 you; others worked on it as well?

16 A Correct.

17 Q But you agree with everything that's in its  
18 contents?

19 A Yes, ma'am.

20 MS. MURRAY: All right. That's all I  
21 have. Thank you.

22 JUDGE BELL: Thank you, Ms. Murray. Any  
23 cross from OPIC?

24 MR. TUCKER: No questions.

25 JUDGE BELL: Thank you. How about from

1 TJFA, EPICC?

2 MR. ALLMON: Yes, Your Honor.

3 CROSS-EXAMINATION

4 BY MR. ALLMON::

5 Q Good afternoon, Mr. Parker. My name is Eric  
6 Allmon, I represent the protestants in this matter TJFA.  
7 How are you doing?

8 A I'm great. How are you?

9 Q Doing well. First, just some background.  
10 Could you identify what type of gases -- is there a  
11 potential for gases to be produced at a landfill?

12 A Yes, sir.

13 Q And what types of gases may be produced at a  
14 landfill?

15 A Generally, landfill gas consists of methane and  
16 carbon dioxide.

17 Q Is there a potential for any other constituents  
18 to be produced?

19 A Generally there's trace constituents within the  
20 landfill gas.

21 Q And what type of trace constituents would those  
22 be?

23 A There could be NMOCs. There could be carbon  
24 monoxide. There could be a number of trace  
25 constituents.



1 Q And when we say "NMOC," that's a non-methane  
2 organic compound?

3 A Yes, sir.

4 Q Could there be metals in there?

5 A Not in the gas.

6 Q Have you found metals before in the gas  
7 condensate?

8 A On a rare occasion.

9 Q Okay. Now, is there a potential for a gas to  
10 leak from a landfill?

11 A Leak from the bottom?

12 Q Either way. Either from the bottom --

13 A Landfills are designed to allow gas initially  
14 to go through the soils out the surface. There's -- on  
15 a -- on a landfill such as this, I have not witnessed  
16 gas penetrating through a Subtitle D plastic lining.

17 Q Now -- and what do we mean when we say a  
18 Subtitle D lining?

19 A That's a membrane liner as opposed to a  
20 compacted clay liner.

21 Q Are there some landfills -- let me clarify.  
22 What is Subtitle D?

23 A Subtitle D were regulations put out by the EPA.

24 Q In around 1993 or so?

25 A Yes, sir.

1 JUDGE BELL: Mr. Parker, could you make  
2 sure that you're speaking directly in that microphone?

3 THE WITNESS: I will give it a whirl.

4 JUDGE BELL: That's better. Thank you.

5 Q (BY MR. ALLMON) So generally, there are  
6 certain liner types required Under Subtitle D that  
7 aren't required for non-Subtitle D cells?

8 A Well, cells prior to Subtitle D had different  
9 regulations than cells post-Subtitle D.

10 Q In our prior conversations you made reference  
11 to Subtitle D landfills. I want to make sure we're  
12 clear on what that was.

13 A Correct.

14 Q Now, were you involved in the remediation of a  
15 landfill gas leak at the DFW landfill?

16 A Yes, sir.

17 Q And was that a Subtitle D landfill?

18 A Yes, sir.

19 Q So it had a lining?

20 A It does.

21 Q And in that case, did the gas migrate from the  
22 landfill into the surrounding soil?

23 A Yes, but not through the liner.

24 Q What was the mechanism by which gas migrated to  
25 the soil in that landfill?

1           A       Gas migrated up the liner through the drainage  
2 geocomposites and came out through -- it --

3           Q       And then it moved to the soil in the vicinity  
4 of the landfill?

5           A       Correct.

6           Q       Are soil conditions relevant to the design of  
7 the landfill gas management system?

8           A       Yes, sir.

9           Q       What -- did you consider the soil conditions at  
10 this site in the design of the landfill gas management  
11 system?

12          A       Yes, sir.

13          Q       What -- did you do any work yourself to examine  
14 the soil conditions?

15          A       No, sir. That would be outside my expertise.

16          Q       How did you -- did you talk to anyone about the  
17 soil conditions at the site?

18          A       Yes, sir.

19          Q       Okay.

20          A       Mike Snyder.

21          Q       Mike Snyder? And based on your conversations  
22 with him, what type of soils did you assume were  
23 dominant at the site?

24          A       Clay.

25          Q       And based on your conversations with him --

1 well, what is meant when we say "secondary feature" in  
2 reference to soils?

3 A If there's a -- cracks or fissures or such that  
4 gas could travel through those would be considered  
5 secondary features.

6 Q And what was your assumption based on your  
7 conversations with Mr. Snyder regarding the potential  
8 for secondary features to be present at the site?

9 A There's no secondary features present.

10 Q Do you know what the basis was for his  
11 conclusion there were no secondary features present?

12 A I do not.

13 Q Okay. I'm going to hand you an exhibit. This  
14 was previously marked for the court reporter.

15 JUDGE BELL: Is it 19 or 20? Is this for  
16 something else?

17 (Pause in proceedings)

18 Q (BY MR. ALLMON) Mr. Parker, I have placed  
19 before you what's been marked Protestants' Exhibit 19.  
20 Do you recognize this?

21 A It appears to be from our deposition  
22 conversation.

23 Q And so is this a soil map taken from the  
24 application?

25 A It's a soil map. I'm not aware of whether it's

1 part of the application or not.

2 Q Okay. Now, in that deposition, did you mark  
3 and outline in red the general rough outline of the  
4 landfill footprint?

5 A I did.

6 Q And how is that indicated on here?

7 A By a red line.

8 Q And so that roughly represents the outline of  
9 the landfill footprint at the site?

10 A Very roughly, but, yeah.

11 Q In general. Do you see -- well, how does gas  
12 travel through -- how quickly does gas travel through  
13 gravel in comparison to clay?

14 A It travels through gravel more quickly than it  
15 travels through clay.

16 Q Okay. Looking at Protestants' Exhibit 19, what  
17 is the type of soil that's designated by the initials  
18 WGC?

19 A Wilson gravelly loam.

20 Q And where is that soil type located at the  
21 facility in relation to the landfill footprint?

22 A Portions of it are inside, and portions of it  
23 are outside.

24 Q Looking at the north and northeast, is most of  
25 the landfill bordered by that type of soil?

1 A It appears so.

2 Q And did you make any determination of how deep  
3 that gravelly soil is in those areas?

4 A Based on the source of this, I would assume  
5 it's a shallow soil.

6 Q But did you do any evaluation to determine  
7 that?

8 A No, not personally.

9 Q And did you ask Mr. Snyder how deep that  
10 gravelly soil went?

11 A I did.

12 Q What did he say?

13 A This particular is probably no more than 3- to  
14 5-foot deep.

15 Q And do you know what the basis was for his  
16 opinion?

17 A My understanding would be based on samples he  
18 took at the site.

19 Q Now -- and can gas travel through soil that's  
20 3- to 5-feet deep?

21 A Typically, no, that gas would vent to the  
22 surface if it were in gravelly soil that deep -- or that  
23 shallow.

24 Q Do you know the extent of gravel beneath that  
25 soil?

1 A Beneath what soil?

2 Q Beneath the Wilson gravelly loam.

3 A Based on conversations with Mr. Snyder, I  
4 understand there's not much of any gravel below there.

5 Q And as well, do we have -- do you see FeE on  
6 this figure?

7 A Yes, sir.

8 Q Is that maroon?

9 A We'll go with that.

10 Q What type of soil is that?

11 A That's gravelly soil.

12 Q Is that present in much of the area around the  
13 site?

14 A It looks like there's a decent bed outside of  
15 the landfill.

16 Q And did you determine the depth of that soil at  
17 the site?

18 A I've made no determination of it.

19 Q Now, in looking back at the Wilson gravelly  
20 clay loam, had you made any determination of those  
21 depths prior to your -- did you make any determination  
22 of those depths when you were developing the landfill  
23 gas management plan?

24 A I did not use this drawing to develop the  
25 landfill gas management plan.

1 Q So did you consider these types of soils when  
2 developing the landfill gas management plan at all?

3 A I only considered the soils that were in  
4 Mr. Snyder's geology report.

5 Q And did he identify these gravelly soils in his  
6 geology report?

7 A He did not.

8 Q So you didn't consider the soil types when  
9 developing your landfill gas management plan?

10 A No, sir.

11 MR. ALLMON: Your Honor, we would offer  
12 Protestants' Exhibit 19 into the record.

13 JUDGE BELL: Any objections to  
14 Protestants' Exhibit 19?

15 MR. RYAN: No.

16 JUDGE BELL: Protestants' Exhibit 19 is  
17 admitted.

18 (Exhibit Protestant No. 19 admitted)

19 Q (BY MR. ALLMON) What is meant by the term  
20 radius of influence when we're dealing with landfill gas  
21 monitoring probes?

22 A For monitoring probes, that would be the area  
23 that they're essentially evaluating.

24 Q And would they have a different radius of  
25 influence if they were located in gravel soils as



1 opposed to clay soils?

2 A They could.

3 Q If you're placing the monitoring probes within  
4 gravelly soils, how does that influence the distance  
5 between your probes?

6 A If the gravelly soil were deep, then we would  
7 probably place the probes closer together.

8 Q So you wouldn't be able to space them as far  
9 out as, say, you were if you assumed a clay soil?

10 A Correct.

11 Q Do TCEQ rules require the consideration of  
12 hydraulic conditions of that facility with regard to the  
13 landfill gas management plan?

14 A They do.

15 Q And did you consider hydraulic conditions at  
16 the site to influence the design of your landfill gas  
17 monitoring network?

18 A I evaluated it. Yes, sir.

19 Q Is that the answer you provided in deposition?

20 A I believe my answer in deposition was I  
21 evaluated it, and it had no effect.

22 MR. ALLMON: If I may approach, Your  
23 Honor?

24 JUDGE BELL: Yes, you may.

25 Q (BY MR. ALLMON) Now, in deposition, were you

1 asked whether the hydraulic conditions of the site  
2 influenced the design of the landfill gas monitoring  
3 network?

4 A That sounds familiar.

5 Q Did they have any influence on the design of  
6 the network?

7 A They didn't impact.

8 Q Did you evaluate the potential for the  
9 contamination of surface water in designing the landfill  
10 gas management system at the site?

11 A No, sir.

12 Q Can landfill gas contain constituents that  
13 would contaminate surface water?

14 A It can.

15 Q Can landfill gas contain metals that would  
16 contaminate surface water?

17 A It can.

18 Q Okay. I'm going to hand you another exhibit.  
19 Do you have Protestant Exhibit 20 there in front of you?

20 A I do.

21 Q Do you recognize this document?

22 A Yes, sir.

23 Q What is this document?

24 A This is the landfill completion plan from the  
25 application.

1 Q Does this show the location of the landfill gas  
2 monitoring probes?

3 A It does.

4 Q Now, could you turn in Volume 1 of the  
5 application up there, Exhibit 130EP-1? Look with me on  
6 page 118 of 130EP-1.

7 JUDGE BELL: What page is that,  
8 Mr. Allmon?

9 MR. ALLMON: Page 118.

10 JUDGE BELL: Thank you.

11 Q (BY MR. ALLMON) Do you see on Page 118, it's  
12 got a topographic map of the landfill?

13 A Yes, sir.

14 Q Are there intermittent streams shown on that  
15 map?

16 A Could you repeat that? I couldn't hear you.

17 Q Within the boundaries of the facility, does  
18 that map indicate the presence of intermittent streams?

19 A Intermittent streams?

20 Q Streams, yes.

21 A There's surface water bodies. I'm no expert at  
22 telling what is intermittent streams or not.

23 Q On this map, do blue lines generally represent  
24 surface streams on such a map?

25 A Yes, sir.

1 Q And are some of those surface streams located  
2 within the site?

3 A I see some within the facility boundary, yes,  
4 sir.

5 Q And do those generally -- looking at Page 118  
6 of Protestants' Exhibit 20, do those streams generally  
7 run within the floodplain that's marked here?

8 A Could you repeat that question?

9 Q Yes. Let's look to the -- just to the west of  
10 the landfill footprint.

11 A (Witness complies).

12 Q As we look at Page 118, is there an  
13 intermittent stream that runs from north to south just  
14 to the west of the landfill footprint?

15 A I do see a stream there.

16 Q And now looking at -- on Protestants'  
17 Exhibit 20, do you see, is the floodplain indicated by  
18 blue lines?

19 A Yes, sir.

20 Q And would that intermittent stream flow come  
21 generally through that floodplain there just to the west  
22 of the site?

23 A It appears so.

24 Q Now, how are the landfill gas probes marked on  
25 Exhibit -- Protestants' Exhibit 20?

1           A       With a dark circle and then circled by a  
2 lighter circle.

3           Q       And we just discussed the dark blue lines here  
4 represent the extent to the 100-year floodplain.

5                   THE REPORTER: I'm sorry. I can't hear  
6 you.

7           Q       (BY MR. ALLMON) I said and the dark blue lines  
8 on Protestants' Exhibit 20 designate the extent of the  
9 100-year floodplain?

10          A       Correct.

11          Q       Now, as we look -- do you see where Gas Probe  
12 23 is located there just to the west of the floodplains?

13          A       Yes, sir.

14          Q       Is the intermittent stream in between the  
15 landfill and that probe?

16          A       Yes, sir.

17          Q       Is the floodplain in between the landfill and  
18 that probe?

19          A       Yes, sir.

20          Q       So could gas reach that -- could landfill gas  
21 from the landfill reach that stream without being  
22 detected at that probe?

23          A       Theoretically.

24          Q       Well, based on the physical presence of the  
25 soils and the configuration of landfill footprint at

1 this site, could landfill gas reach that intermittent  
2 stream without being detected by that probe?

3 A It's unlikely gas would reach that stream, but,  
4 yes. If it were to, it would be undetected by the  
5 probe.

6 Q Is there any other probe that would detect  
7 landfill gas before reaching that stream?

8 A No, sir.

9 Q Now, you said you think it's unlikely. What is  
10 the basis of your opinion that it's unlikely?

11 A The only likely mechanism of gas migrating out  
12 of this site is through the drainage geocomposite as we  
13 talked about prior. Gas that comes through the drainage  
14 geocomposite is generally a shallow migration that  
15 doesn't migrate very far before it vents out at the  
16 surface.

17 Q So why did you place these gas monitoring  
18 probes around the vicinity of the site?

19 A That's a requirement of TCEQ rules, to monitor  
20 for gas.

21 Q And does TCEQ require that type of monitoring  
22 due to the potential for gas to reach that distance?

23 A Absolutely.

24 Q So there is the potential for that landfill gas  
25 to reach the intermittent stream at that point?

1           A       Just because there's a probe at a -- at a  
2 boundary doesn't make it likely that gas will reach that  
3 point.

4           Q       But your monitoring would not detect that?

5           A       Would not detect what?

6           Q       That gas would reach the intermittent stream.

7           A       If gas should reach the stream, correct, the  
8 probe would not detect it.

9           Q       And is that also true as we look at the  
10 southwest corner of the site?

11          A       Just in the lower left-hand area of this  
12 figure. Is what correct?

13          Q       The -- the intermittent stream is more  
14 proximate to the landfill footprint than the gas  
15 monitoring probe.

16          A       The stream is between the probe and the  
17 landfill, yes, sir.

18          Q       And is -- are you doing -- is the Applicant  
19 doing the monitoring of the stream to determine whether  
20 landfill gas has contaminated that waterway?

21          A       Not to my knowledge, no.

22          Q       Are there gas monitoring probes located within  
23 what's been determined to be 100-year floodplain?

24          A       Yes, sir.

25          Q       Which probes are located within the 100-year

1 floodplain?

2 A 17, 21 and 22 and 24.

3 Q Could you repeat those again?

4 A GP17, GP20, GP21 -- no. GP22 and GP24.

5 Q What about GP25?

6 A GP25 is outside the floodplain.

7 Q Just basically on the border. Is that correct?

8 A How do you define "on the border"? It's  
9 outside of the floodplain and not right on the line,  
10 so --

11 Q Now, what about GP12?

12 A Yes. 12 and 13 appear to be as well.

13 Q Also within the floodplain?

14 A Correct.

15 Q And GP9?

16 A Yes.

17 Q So to review, GP9, GP12, GP13, GP14, GP17,  
18 GP20, GP21, GP22 and GP24 are all located within the  
19 floodplain?

20 A Yes, sir. That's correct.

21 Q So a total of nine of your monitoring probes  
22 within the floodplain?

23 A Now you're going to make me count. I got  
24 eight, but maybe I missed one.

25 Q Well, let's go -- let's begin on the western



1 side. So we've got GP9 in the floodplain?

2 A Oh, there's your other one.

3 Q And then we've got -- is GP11 in the  
4 floodplain?

5 A No.

6 Q It's GP12 that's in the floodplain?

7 A 12, 13, 14. Correct.

8 Q 12, 13, 14. Then we've got GP17 within the  
9 floodplain; GP20, 21, 22, 24. By my count, that's nine.  
10 Is that correct?

11 A Correct.

12 Q Now, how well do these monitoring probes  
13 function when they're under water?

14 A Surface water would have no effect on these  
15 probes.

16 Q If this probe was inundated from above by  
17 water, would that flood the probe?

18 A Only if it -- no. They're sealed.

19 Q How are they sealed?

20 A They're sealed with a cap on top.

21 Q At what height is the cap?

22 A They're generally 3 to 4 foot above ground.

23 Q Are these airtight?

24 A Yes, sir.

25 Q Are they watertight?

1           A       If they're airtight, they're watertight.

2           Q       Did you consider anyway the location of the  
3 floodplain in your design of the monitoring system?

4           A       I think if it was possible to avoid a probe  
5 being in there, we did. But to maintain spacing, there  
6 was no choice but to be inside the floodplain.

7           Q       So there would be no way to reorient the design  
8 in order to avoid the floodplain?

9           A       There may have been a way to do it but not a  
10 preferred way.

11          Q       Did you make any attempt to do that?

12          A       I did not.

13          Q       In developing the landfill gas management plan,  
14 did you consider the location of the floodplain?

15          A       I considered it.

16          Q       How did it factor into your design?

17          A       I think I just ran through that. I try to  
18 avoid putting probes in it. But where I couldn't, then  
19 I did it.

20          Q       Are the probes -- generally what's the distance  
21 between the probes?

22          A       They are generally 600 foot apart on most of  
23 the landfill and 300 foot apart on the north side.

24          Q       And is 600 foot the minimum distance required  
25 by the TCEQ?

1           A       TCEQ doesn't have a minimum required distance,  
2 but generally on most sites, the minimal distance is  
3 1,000 feet.

4           Q       Now, if you could, pull out Volume 3 of the  
5 application, so Exhibit 130EP-3.

6           A       (Witness complies).

7           Q       And turn with me to Page 34 of 130EP-3.

8           A       Okay.

9           Q       Could you please describe what is shown on this  
10 page?

11          A       This is a cross section of the landfill.

12          Q       And is there an area designated as Pond 5 here?

13          A       Yes, sir.

14          Q       Is that one of the stormwater detention ponds?

15          A       I do not know.

16          Q       Well -- now, in considering the hydraulics at  
17 the site, did you look at the location of the stormwater  
18 detention pond?

19          A       The stormwater detention pond wouldn't have  
20 been a factor in the gas management plan outside making  
21 sure I didn't --

22          Q       Okay. Similarly, we looked at the potential  
23 for gas to reach the intermittent stream earlier. Would  
24 it be -- would there be a potential for landfill gas to  
25 reach, say, water contained in Pond 5?

1 A It would be theoretically possible.

2 Q And would any gas monitoring probe detect that?

3 A No.

4 Q And you're not doing any -- the Applicant is  
5 not doing any monitoring of the water in Pond 5 or the  
6 other stormwater ponds to detect the presence of  
7 contaminants from landfill gas?

8 A I wouldn't see any need to.

9 Q But would such monitoring be able to tell you  
10 whether that landfill gas has contaminated a stormwater  
11 pond?

12 A It depends on the type of monitoring you did.

13 Q If you were to monitor for the proper  
14 constituents, would it be able to alert you to whether  
15 landfill gas has reached that pond?

16 A Potentially.

17 Q Potentially if you chose the proper  
18 constituents?

19 A And if you chose the proper location and if it  
20 was sufficient quantities within the pond, too.

21 Q So technically, it would be feasible?

22 A Technically, yes, sir.

23 Q Now, as we look at this figure, are there -- do  
24 you see the label "Proposed Gas Well"?

25 A Yes, sir.

1 Q What is that indicating?

2 A Landfill gas extraction wells.

3 Q Are there several of those shown on this cross  
4 section?

5 A Yes, sir.

6 Q Now, did you have any role in the design of  
7 those?

8 A Yes, sir. I oversaw the design of the  
9 extraction wells.

10 Q Would these wells contain a perforated --  
11 perforations?

12 A Yes, sir.

13 Q And how would that -- how would the pipe -- how  
14 would the well be designed?

15 In other words, as we look at the  
16 wellbore, we're going to be seeing perforations on the  
17 outside. What type of material would be on the inside  
18 of the gas well?

19 A Well, the gas well would actually have gravel  
20 around the outside and then a perforated pipe.

21 Q And then would there also be gravel on the  
22 inside?

23 A No, sir.

24 Q What would be on the inside?

25 A Nothing.

1 Q Now, could these provide a conduit for the  
2 movement of leachate within the landfill?

3 A Absolutely.

4 Q Would that leachate be a conduit downward in  
5 the landfill?

6 A Yes, sir.

7 Q Do you know whether that was considered in the  
8 design of the leachate collection system?

9 A I believe someone else would have to speak to  
10 that.

11 Q You didn't consider that -- did you consider  
12 the interaction between these wells and the leachate  
13 collection system in designing this?

14 A I wouldn't see any need to, no, sir.

15 Q Does the landfill gas management plan contain  
16 any instruction for the process of installing these  
17 wells?

18 A It includes a description of how they have to  
19 be constructed during installation, yes, sir.

20 Q But it contains ultimate design and details.  
21 Is that correct?

22 A Along with size of borings and -- pretty much  
23 everything they would need to know, yes, sir.

24 Q What about the process of installation?

25 A It doesn't have a step-by-step description of

1 how to install it, no, sir.

2 Q Is there any specification of landfill gas  
3 management plan for the spacing of these pipes -- the  
4 spacing of these wells?

5 A There's a drawing that shows the location of  
6 all of them.

7 Q Where is that drawing?

8 A G3.1 which is Page 33 in Exhibit 130EP-5.

9 JUDGE QUALTROUGH: Did you say 5?

10 THE WITNESS: Yes, ma'am.

11 JUDGE QUALTROUGH: I'm sorry. That's 130.

12 THE WITNESS: 130EP-5, Page 33.

13 MR. RYAN: It's in Volume 4. Sorry.

14 Q (BY MR. ALLMON) What page were you referencing  
15 again?

16 A Page 33.

17 Q Are you saying Exhibit 130EP --

18 JUDGE BELL: It's in Volume 4.

19 Q (BY MR. ALLMON) Are you referring to 130EP-4?

20 A 130EP-5.

21 JUDGE QUALTROUGH: It's in Volume 4.

22 JUDGE BELL: It's in Volume 4.

23 MR. ALLMON: Okay.

24 MR. ROCKWELL: There it is.

25 JUDGE QUALTROUGH: Page 33.

1 Q (BY MR. ALLMON) Now, to be clear, this isn't  
2 the landfill gas management plan. Is that correct?

3 A Yes. This is Appendix G3 of the landfill gas  
4 management plan.

5 Q Now -- and where are the wells demonstrated  
6 here?

7 A The extraction wells are demonstrated by  
8 circles with Xs through them.

9 Q Is there anything in the plan regarding the  
10 timing for the installation of these wells?

11 A It says they'll be installed -- actually, let  
12 me go to the language.

13 On Page 21, "They will be installed as  
14 needed to control landfill gas and meet regulatory  
15 requirements." So as any need arises, either  
16 regulatorily or for other reasons, that's when they  
17 would be installed.

18 Q And is there any more specificity than just  
19 saying "as needed"?

20 A No, sir.

21 Q So how does the operator determine when it's  
22 needed?

23 A They'll just have to determine that based on --  
24 well, from a regulatory standpoint, it will be pretty  
25 obvious when they're needed. Otherwise, if there's



1 sufficient odor, should there be landfill gas migration  
2 detected. It's a possible remedy.

3 Q But is there any direction on whether it would  
4 be an appropriate remedy?

5 A No. It's an option.

6 Q So it's just as needed. No further  
7 specificity?

8 A Correct.

9 Q Now, if we could, look at 130EP-3 again.

10 A Yes, sir.

11 Q And looking at Page 43 of 130EP-3.

12 A 43 or 34?

13 Q 43.

14 A Okay.

15 Q Is this a detail of the liner design at the  
16 facility?

17 A Yes, sir.

18 Q Now, does this have a gas collection pipe  
19 depicted?

20 A Yes, sir.

21 Q And how is that depicted on this drawing?

22 A It's a circle and lines within a gravel trench.

23 Q Is this part of the gas collection system?

24 A Potentially.

25 Q Now, when will these pipes be installed?

1           A       My understanding is they will be installed as  
2 the liner is installed.

3           Q       Did you examine this system as you were pulling  
4 together the landfill gas management plan?

5           A       I was aware of it, yes, sir.

6           Q       But did you specifically consider it in any way  
7 in putting together the plan?

8           A       We stated in the plan that they may potentially  
9 be connected to the gas system, so, yes, sir.

10          Q       Did you provide any direction on the operation  
11 of this collection system in the landfill gas management  
12 plan?

13          A       What was the question?

14          Q       Within the landfill gas management plan you  
15 developed, did you provide any direction for the  
16 operation of this system?

17          A       The operation of the gas collection system?

18          Q       Yes.

19          A       Yes, sir.

20          Q       And where is that?

21          A       It would be in Section 6 on Page 21.

22          Q       Section -- so in the -- and what does that say  
23 with regard to this particular system?

24          A       It says it will be performed consistent with  
25 industry guidelines and practices.

1 Q Are any particular guidelines given?

2 A No. We don't reference any particular  
3 guidelines.

4 Q So it's just up to the operator to determine  
5 which guidelines are out there?

6 A Yes. It's up to them to determine which  
7 guidelines they want to follow.

8 Q Is there any way -- anywhere in the landfill  
9 completion plan that it designates these particular  
10 collection pipes to be installed at the time of liner  
11 installation?

12 A I'm not aware of whether it says that they have  
13 to be installed during liner or not.

14 Q What would be the general construction -- what  
15 would be the general design of these pipes within the  
16 lining?

17 A They would sit just above the liner to serve --  
18 to prevent the one method of landfill gas migration that  
19 can happen on a Subtitle D landfill.

20 Q Now could leachate move through these pipes?

21 A It could, but it's in such a shallow area, it's  
22 unlikely.

23 Q And it wasn't your role to consider the  
24 influence of these pipes on the leachate collection  
25 system?

1 A Correct.

2 Q And you did no such examination?

3 A Correct.

4 Q Could these pipes become fouled by leachate?

5 THE REPORTER: I'm sorry?

6 Q (BY MR. ALLMON) Could these pipes become  
7 fouled by leachate?

8 A I suppose it's potentially possible.

9 Q And how would that impact the operation of the  
10 pipes?

11 A It's not likely to have a huge impact. There's  
12 a riser every hundred foot, so it's a redundant system  
13 that would allow vacuum to come from multiple  
14 directions.

15 MR. ALLMON: Your Honor, if I could have  
16 just a minute?

17 JUDGE BELL: Sure. Take your time.

18 (Pause in proceedings)

19 MR. ALLMON: Your Honor, if I may  
20 approach?

21 JUDGE BELL: Yes, you may.

22 Q (BY MR. ALLMON) Do you recall a discussion of  
23 this plan, this --

24 MR. MAGEE: Talk way up.

25 JUDGE BELL: Mr. Allmon, you're going to

1 have to speak quite a bit louder.

2 JUDGE QUALTROUGH: Or share the  
3 microphone.

4 Q (BY MR. ALLMON) Do you recall a discussion of  
5 this collection system at the time of your deposition?

6 JUDGE BELL: Mr. Allmon, we still can't  
7 hear you down at the end of this table.

8 Q (BY MR. ALLMON) Do you recall a discussion of  
9 this collection system during the deposition?

10 A Yes, sir.

11 Q Okay. If I could refer you to your deposition  
12 as we're discussing it.

13 JUDGE BELL: Mr. Allmon?

14 MR. ALLMON: Yes.

15 JUDGE BELL: I'm sorry. I hate to keep  
16 saying it, but I can barely hear you, and they're right  
17 up underneath that vent over there.

18 Q (BY MR. ALLMON) As we discussed this in your  
19 deposition -- I'm looking at Page 39 of your  
20 deposition -- do you see where I asked, "Will these  
21 pipes be installed at the landfill?"

22 A Yes, sir.

23 Q And what was your answer?

24 A At that time, I couldn't speak to whether they  
25 would or wouldn't be installed.

1 Q Because that drawing was not by you, was it?

2 A Correct.

3 Q This system was designed by Mr. Adams?

4 A Correct.

5 Q To your knowledge?

6 A Right.

7 Q And then I asked -- if you looked at this  
8 portion, that -- "So you did not look at this portion of  
9 the landfill gas collection system?"

10 A And my answer was I had seen it before, but I  
11 didn't design it.

12 Q And as we went on -- now, and then I asked you,  
13 "Did the existence of this potential system play any  
14 role in your development of the landfill gas management  
15 plan." And what was your answer?

16 A Where is that?

17 Q (Indicating).

18 A "Only to the extent that we included texts that  
19 these could be potentially" --

20 JUDGE BELL: We can't -- okay. We're  
21 going to have to redo that one.

22 JUDGE QUALTROUGH: We can't hear.

23 THE WITNESS: The question or the answer?

24 JUDGE QUALTROUGH: Both.

25 JUDGE BELL: Well, unfortunately both.

1 And maybe, Mr. Allmon, if you could either kneel down,  
2 pick the mic up.

3 JUDGE QUALTROUGH: Or the witness could  
4 read the question.

5 JUDGE BELL: Or you can let the witness  
6 read the question and the answer if that would make it  
7 easier.

8 Q (BY MR. ALLMON) Well, it may be be easier. I  
9 will scream the question out that I asked.

10 "Did the existence of this potential  
11 system play any role in your compilation? Did this play  
12 any role in your development of the landfill gas  
13 management plan?"

14 A And the answer was, "Only to the extent that we  
15 included text that these could potentially be connected  
16 to the system."

17 Q And then I asked you whether there's any  
18 direction as to the timing of the installation of this  
19 system for this type of collection pipe?

20 A Correct.

21 Q And what was your answer?

22 A I stated that there's nothing related to --  
23 "No, there's nothing related to the installation."

24 Q And then I asked you, "Is there anything  
25 related to the spacing between these pipes in the plan?"

1           A       Correct.  And then I stated that there was  
2 nothing within the gas management plan about the  
3 spacing.  Correct.

4           Q       Okay.

5           A       And I still stand by those statements.

6           Q       So the gas management plan --

7                    JUDGE BELL:  Sir.  Mr. Allmon, speak into  
8 the mic, if you would, please.

9                    MR. ALLMON:  I think I can return to my  
10 seat.

11                   JUDGE BELL:  Right.  Very good.

12                   (Pause in proceedings)

13           Q       (BY MR. ALLMON)  So in short, the landfill gas  
14 management plan itself did not address the design of  
15 this system?

16           A       Correct.

17           Q       Did the landfill gas management plan contain  
18 back-up procedures for the monitoring system?

19           A       Yes, sir.

20           Q       And where is that set forth?

21           A       On Page 17, Section 3.4, "Back-up plan for  
22 monitoring probes and continuous monitors."

23           Q       Okay.  And which -- page -- exhibit page is  
24 that?

25           A       It's Exhibit EP-5, Page 17.



1 MR. MAGEE: That's in Volume 4.

2 MR. ALLMON: Volume 4.

3 MR. MAGEE: It's at the very back.

4 MR. ROCKWELL: Volume 5.

5 MR. MAGEE: No. Volume 4, but it's back  
6 here.

7 (Pause in proceedings)

8 Q (BY MR. ALLMON) So here -- we're on Page 17 of  
9 130EP-5.

10 A Yes, sir.

11 Q And so what is the back-up plan for the  
12 stationary permit or probes? What generally is  
13 required?

14 A What is required or what is our back-up plan?

15 Q What is the back-up plan there in 3.4?

16 A If they're damaged, they will either be  
17 repaired within 30 days or a permit model will be  
18 submitted and will then be replaced within 60 days of  
19 approval of that permit model.

20 Q So this is just a back-up plan for if a  
21 particular probe goes out?

22 A Correct.

23 Q Is there a back-up plan for when the system is  
24 ineffective?

25 A What system are you referring to?

1 Q The landfill gas monitoring probe system -- the  
2 probe network.

3 If your implementation of the network of  
4 monitoring probes proves to be ineffective, is there any  
5 back-up system that you have set forth?

6 A What would you term as the probes being  
7 ineffective?

8 Q Did the TCEQ rules require the inclusion of a  
9 back-up plan?

10 A Yes, sir. That's what this section is, is the  
11 back-up plan if a probe fails.

12 Q And so your understanding is that back-up  
13 system requirement applies only to a particular probe?

14 A Yes. The probes are the primary. And if a  
15 probe is damaged, then you go to the back-up plan.

16 Q So if the system itself were to be ineffective,  
17 you don't have an alternate system you've proposed as a  
18 back-up?

19 A Well, I think terming it "system" is the  
20 problem there. These are individual probes meant to  
21 identify what's going on in those individual areas. So  
22 they don't perform as a connected system, per se.

23 Q But -- now, but you've designed this  
24 comprehensibly to detect a leak from the gas -- from the  
25 facility. Correct?

1           A     Correct.

2           Q     And if the -- if the system -- if this  
3 collection of monitoring probes prove to be ineffective  
4 at detecting a leak, have you provided any type of  
5 alternate plan?

6           A     Not clear as to how it would be ineffective to  
7 finding a leak.

8           Q     If it were to prove to be ineffective, do you  
9 have any type of a back-up plan?

10          A     Can you give me a scenario where it would be --  
11 where that would happen?

12          Q     Now, the rules say you're to have a back-up  
13 plan if it proves ineffective. And so I'm asking you to  
14 assume that the plan was to proven to be ineffective.  
15 Do you have any kind of back-up?

16          A     I believe we've met what the rules require was  
17 in here, but I don't believe what you're stating is  
18 required under the rules.

19          Q     So -- but again, I'm asking you to assume  
20 with me that the system was ineffective at detecting a  
21 leak.

22          A     Okay.

23          Q     Do you have any back-up system put in place?

24          A     Yes. If it were ineffective, we would put  
25 boreholes and drill another probe, which --

1 Q But --

2 A As this states.

3 Q Does the landfill gas management plan -- but  
4 that is a particular probe replacement. Correct?

5 A Correct.

6 Q That doesn't address the failure of -- a  
7 system-wide failure?

8 A Where all the probes stop working at once?

9 Q Where your system is ineffective.

10 A All it is is a perforated pipe buried in the  
11 soil. I'm not clear how that system could be  
12 ineffective.

13 Q The system effectiveness depends on the spacing  
14 of the probes.

15 A I don't know that I would say the system  
16 effectiveness depends on the spacing of the probes, but  
17 it's possible the spacing of the probes could have an  
18 effect.

19 Q In other words, if it -- we've got probes  
20 spaced at approximately 600 feet through much of the  
21 site. Is that correct?

22 A Uh-huh.

23 Q If it turns out upon implementation that the  
24 radius of influence for any probe is 50 feet -- let me  
25 ask you to assume -- does that leave 500 feet for which

1 the probes are not monitoring?

2 A I suppose it would.

3 Q And do you have any type of back-up plan if you  
4 were to discover that situation were occurring?

5 A Well, I can't theoretically think how you  
6 would determine that that was happening, but if it's  
7 determined that the probes need to be closer  
8 together, then additional probes could be added to  
9 the system.

10 Q But the landfill gas management plan you put  
11 together does not address that?

12 A No, we don't go through that many what ifs, no,  
13 sir.

14 Q Well, and I guess -- that's not your  
15 understanding, what's required for a back-up plan, the  
16 TCEQ rules?

17 A No, sir. This was approved by TCEQ, so they  
18 stated that it meant the rules.

19 Q Now -- and we've also walked through here  
20 certain elements of a gas collection system.

21 A Correct.

22 Q This back-up plan contained in the landfill gas  
23 management plan, do you have any type of back-up plan  
24 for the collection system?

25 A Technically, the collection system is the

1 back-up plan.

2 Q But you don't have a back-up plan if the  
3 collection system were to prove ineffective?

4 A Well, again, under the rules, it's really  
5 referring to landfill gas control, not landfill gas  
6 collection system. The control mechanism at the site is  
7 the landfill liner and the soils on top. That's the  
8 initial control mechanism. The back-up plan is if those  
9 aren't sufficient that we'll install a gas collection  
10 system.

11 Now, that gas collection system will be  
12 designed with a loop, with multiple redundant loops  
13 within the system so that if any portion of that gas  
14 collection system failed, that the remainder of the  
15 system can control and bring vacuum around to those  
16 areas through other parts of that loop. Often they're  
17 also designed with multiple blowers in case one blower  
18 should fail.

19 So there are redundancies within the gas  
20 collection system to serve as back-ups as well.

21 Q And so that collection system is part of the  
22 gas control system?

23 A It is. Right.

24 Q But there's no particular back-up system  
25 proposed for the gas collection structure as we've been

1 discussing?

2 A Right. There's no third back-up system.  
3 Correct.

4 Q Well, there's -- you have monitoring -- you  
5 have certain elements that are part of monitoring at the  
6 landfill and other elements that are part of collection  
7 at the landfill?

8 A Of control. Yes, sir.

9 Q Control. The collection being a means of  
10 control?

11 A Right.

12 Q And you don't have a back-up plan for that  
13 collection system?

14 A No. The back-up -- the -- the collection  
15 system is the back-up control mechanism.

16 Q As you interpret the rules?

17 A That's my approach to the rules, yes, sir.

18 Q Is it possible for landfill gas to contain  
19 non-methane organic chemicals?

20 A Absolutely.

21 Q And does the gas management plan call for any  
22 monitoring for those constituents?

23 A The gas management plan states that the  
24 landfill will stay in compliance with EPA and NSDS  
25 regulations, which, in turn, do require that testing.

1 Q But the plan itself doesn't require any type of  
2 monitoring for NMOCs?

3 A No. This is a state plan, so it does not.

4 Q Now, if it's a landfill of sufficient size, do  
5 the regulations require an operator to calculate the  
6 potential for NMOCs being produced?

7 A Yes, sir.

8 Q Is that requirement addressed anywhere in your  
9 landfill gas management plan?

10 A Just where we state that the landfill will  
11 follow those rules.

12 Q So generally, you have a reference to the new  
13 source performance standards without any requirement for  
14 that calculation?

15 A Yes. We don't try to get into the federal  
16 rules within this document.

17 MR. ALLMON: Your Honor, that's all of my  
18 questions. I pass the witness.

19 JUDGE BELL: Thank you. Any  
20 cross-examination from Caldwell County?

21 MR. MAGEE: We don't have any cross on  
22 landfill gas stuff.

23 JUDGE BELL: Okay. How about any redirect  
24 from the Applicant?

25 MR. RYAN: Yes. Thank you, Your Honor.



## REDIRECT EXAMINATION

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BY MR. RYAN::

Q Let's see. Do you see that set of the rules there, the green book? I'm going to ask you about 30 TAC 330.371, which is in Subchapter (i).

A Yes, sir.

Q Look at -- first, let's look at Subsection (a)(1). And that relates to methane gas generated by a landfill facility in structures located on the facility. Right?

A Correct.

Q And is -- is that one of the types of facilities or structures that -- that this rule requires monitoring of on-site facilities? Are they required to be monitored?

A Yes, sir.

Q Okay. And does your landfill gas management plan provide for that?

A Yes, sir.

Q And the purpose of that monitoring is to ensure compliance with Subsection (a)(1)?

A Correct.

Q Then Subsection (a)(2) addresses concentration of methane gas in the subsurface at the facility boundary. Is that right?

1 A Correct.

2 Q And does your landfill gas management plan  
3 include a monitoring system to ensure compliance with  
4 that rule?

5 A It does.

6 Q And is that the system of gas probes that  
7 you've testified about here today?

8 A Yes, sir.

9 Q Are all of the gas probes that have been  
10 included in the landfill gas management plan system  
11 design, are they all located between the waste  
12 management unit, the landfill footprint, and the  
13 facility boundary?

14 A Yes, they are.

15 Q And that rule applies at the facility boundary?

16 A Correct.

17 Q Not anywhere within 50 feet of the footprint or  
18 halfway to the facility boundary. That rule applies at  
19 the boundary?

20 A That is correct.

21 Q Have you prepared and submitted to TCEQ for  
22 review gas management plans for other municipal solid  
23 waste landfills?

24 A I have.

25 Q Approximately how many?

1 A From scratch?

2 Q Well, either from scratch or amendments to the  
3 plans that were submitted for TCEQ review.

4 A Including modifications, probably 20 or 30  
5 landfills.

6 Q Have all of those been approved by TCEQ?

7 A Yes, sir.

8 Q Are the designs of -- the designs set out in  
9 the landfill gas management plan for those ones that  
10 have been approved by TCEQ similar to the designs that  
11 you have proposed in this landfill gas management plan?

12 A Yes, sir, they are.

13 Q I'd like you to take a look in Applicant's  
14 Exhibits Volume 5. It might be the one you don't have  
15 up there.

16 A Okay.

17 Q And I'd like you to look in Applicant's  
18 Exhibit 130EP-7 at Page 9.

19 A (Witness complies).

20 Q I'd like you to read the first full  
21 paragraph there, and then I'm going to ask you some  
22 questions about it, the big paragraph in the middle of  
23 the page.

24 A Okay.

25 Q Now at the time you designed the landfill gas

1 management plan, Exhibit 130EP-7 hadn't even been  
2 prepared yet. Right?

3 A Correct.

4 Q In looking at that first full paragraph on  
5 Page 9 of Exhibit 130EP-7, does anything in there cause  
6 you to change any of your opinions, or would you want to  
7 make any changes to the design of the landfill gas  
8 management system based on anything in there?

9 A Well, based on this, I wouldn't make any  
10 changes to the gas management system.

11 MR. RYAN: Thank you. I'll pass the  
12 witness.

13 JUDGE BELL: Thank you. Any recross from  
14 Plum Creek?

15 MR. WILSON: No recross.

16 JUDGE BELL: Thank you. How about from  
17 the ED?

18 MS. MURRAY: No.

19 JUDGE BELL: OPIC?

20 MR. TUCKER: No questions.

21 JUDGE BELL: TJFA?

22 MR. ALLMON: Just a few real quick ones.  
23 No, Your Honor. I pass the witness.

24 JUDGE BELL: Still no cross from Caldwell  
25 County?

1 MR. MAGEE: I think I have one.

2 JUDGE BELL: Oh, all right.

3 RE-CROSS-EXAMINATION

4 BY MR. MAGEE::

5 Q Since you've got the rule book out --

6 A Never mind.

7 Q -- look at Section 330.371(g). Are you with  
8 me?

9 A Yes, sir.

10 Q So it says, "A landfill gas management plan  
11 shall be prepared that includes the following." And  
12 then under Subsection 3, it says, "A back-up plan should  
13 be used if the main system breaks down and becomes  
14 ineffective."

15 Did I read that correct?

16 A Yes, sir.

17 Q Okay. So the back-up plan you're referring to  
18 is the one that is in 130EP-5, Page 17.

19 A Well, keep in mind, this section involves  
20 control and monitoring. So for the monitoring portion,  
21 yes. That Section 3.4 on Page 17 is our back-up, yes.

22 Q And that's the back-up plan if -- if the  
23 individual probe breaks, it sets out the guidelines for  
24 how you will repair or replace that individual probe.  
25 Correct?

1           A     Right.  If any portion of the system breaks,  
2 then, yes.

3           Q     So is there anywhere else in the application  
4 where it talks about the back-up plan, if the main  
5 system breaks down as proposed in this rule, or is this  
6 the only place we can turn to find the language "back-up  
7 plan"?

8           A     In reference to this rule, this is probably the  
9 only place.

10          Q     Okay.

11                   MR. MAGEE:  No further questions.

12                   JUDGE BELL:  Mr. Ryan, did you need a  
13 redirect after that?

14                   MR. RYAN:  Just one.

15                   FURTHER REDIRECT EXAMINATION

16 BY MR. RYAN::

17          Q     Mr. Parker, Page 17 of Exhibit 130EP-5 does not  
18 address the collection system that would serve as the  
19 back-up plan for the primary gas control technique  
20 that's proposed.  Right?

21          A     That's correct.

22          Q     It's addressed elsewhere in the landfill gas  
23 management?

24          A     Correct.

25                   MR. RYAN:  Thank you.

1                                   FURTHER RECROSS-EXAMINATION

2 BY MR. MAGEE::

3           Q       Does the collection system say it's the back-up  
4 plan, or does it call itself the collection system?

5           A       It calls itself the collection system.

6                   MR. MAGEE:   Okay.   Thank you.

7                   JUDGE BELL:   All right.   Thank you,  
8 Mr. Parker.   I appreciate your time.

9                   THE WITNESS:   Thank you.

10                   JUDGE QUALTROUGH:   Who is your next  
11 witness?   Do you have a short one that could go?   Is  
12 there such a thing?

13                   JUDGE BELL:   If not, we can start with the  
14 long one.

15                   JUDGE QUALTROUGH:   Do y'all have much for  
16 Mr. Skinner?

17                   MS. PERALES:   I have some questions and a  
18 couple of exhibits that I'll need to get marked.

19                   JUDGE QUALTROUGH:   Okay.   Let's -- why  
20 don't we take a break?

21                   JUDGE BELL:   All right.

22                   JUDGE QUALTROUGH:   We're off the record.

23                   (Recess:   3:53 p.m. to 4:08 p.m.)

24                   (Exhibit Protestants Nos. 21 through 28  
25 marked)

1 JUDGE BELL: All right. We're back on the  
2 record. And, Mr. Ryan, would you like to go ahead and  
3 call your next witness?

4 MR. RYAN: Yes. Dr. Alan Skinner.

5 (Witness Skinner sworn)

6 JUDGE BELL: Thank you very much. If  
7 you'll have a seat.

8 Whenever you're ready, Mr. Ryan.

9 S. ALAN SKINNER, Ph.D.,  
10 having been first duly sworn, testified as follows:

11 DIRECT EXAMINATION

12 BY MR. RYAN::

13 Q Dr. Skinner, do you see in front of you there  
14 in that binder Exhibit Skinner 1?

15 A I do.

16 Q And what is that?

17 A That is my direct testimony.

18 Q And what is Exhibit Skinner 2?

19 A Skinner-2 is my resumé.

20 Q Okay. Now, on Exhibit Skinner 1, are there any  
21 corrections that need to be made to that?

22 A Yes. On Page 4, Line 30, Mark Hall should be  
23 made Mark Wolfe.

24 Q How do you spell Wolfe?

25 A W-O-L-F-E.



1 Q Okay. On -- on --

2 A This one?

3 Q -- the copy in the binder there, if you have a  
4 pen with you, would you cross out Hall and write in  
5 Wolfe?

6 JUDGE BELL: What page was that on?

7 MR. RYAN: Page 4 of Exhibit Skinner 1.

8 JUDGE BELL: Very good. Thank you.

9 MR. RYAN: In Volume 7.

10 JUDGE BELL: We've got it.

11 Q (BY MR. RYAN) Did you make that change,  
12 Dr. Skinner?

13 A Yes, sir.

14 Q Thank you.

15 MR. RYAN: Your Honor, at this time, I  
16 would offer Exhibits Skinner 1 and Skinner 2.

17 JUDGE BELL: Any objections to Skinner 1  
18 or Skinner 2.

19 MS. PERALES: No.

20 JUDGE BELL: Skinner 1 and Skinner 2 are  
21 admitted.

22 (Exhibit Applicant Skinner Nos. 1 and 2  
23 admitted)

24 MR. RYAN: I'll pass the witness.

25 JUDGE BELL: All right. Thank you.

1 MR. MAGEE: No questions.

2 JUDGE BELL: From the ED?

3 MS. MURRAY: Yeah, we just have a couple  
4 of questions.

5 CROSS-EXAMINATION

6 BY MS. MURRAY::

7 Q Hi, Dr. Skinner. My name is Kayla Murray, and  
8 I am representing the ED. Have you worked on any other  
9 landfill or any other type of MSW facilities?

10 A Yes, I have.

11 Q Do you know about how many?

12 A Maybe a dozen.

13 Q Okay. Have you ever testified on any of those?

14 A Once.

15 Q Okay. Do you remember the name of that case?

16 A Blue Hills.

17 Q Okay. And then can you tell me what you were  
18 looking for? Like is -- as a layperson, like, what are  
19 you looking for as part of your archaeological  
20 investigation in a case like this?

21 A What am I looking for?

22 Q Yeah.

23 A Well, I'm looking for evidence that people  
24 lived there more than 50 years ago. And that's  
25 typically in the form of standing structures or

1 foundations or artifacts that are commercially  
2 manufactured. And we're talking about historic  
3 archaeological sites or prehistoric archaeological  
4 sites, vis-a-vis, arrowheads, dart points, pieces of  
5 pottery, bones, a variety of those sorts of things.

6 MS. MURRAY: Okay. Those are all the  
7 questions I had. Thank you.

8 THE WITNESS: Thank you.

9 JUDGE BELL: Any cross from OPIC?

10 MR. TUCKER: No questions.

11 JUDGE BELL: All right. How about from  
12 TJFA?

13 MS. PERALES: I do have some questions.

14 JUDGE BELL: All right. Go ahead.

15 CROSS-EXAMINATION

16 BY MS. PERALES::

17 Q Good afternoon, Dr. Skinner.

18 A Good afternoon.

19 Q So you and I met before. Isn't that right?

20 A I believe that's true.

21 Q In fact, I took your deposition, I believe it  
22 was late last year?

23 A Uh-huh.

24 Q And --

25 A It was not a landfill project, though.

1 Q It was for this project, wasn't it?

2 A Oh, yes, it was. You're right, yes.

3 Q Okay.

4 A Okay.

5 Q So -- and for this project, you conducted a  
6 survey of the proposed landfill site with a couple of  
7 your colleagues. Isn't that right?

8 A Correct.

9 Q And you're -- I believe you described your  
10 first impression upon your site visit of the ground  
11 surface as a large part of the property being covered  
12 with gravel?

13 A That's correct. Uh-huh.

14 Q And then there's part of the property that's  
15 not covered in gravel, though it has scattered gravel in  
16 it. Is that right?

17 A Correct.

18 Q And there was indications that gravel had been  
19 farmed or quarried. Is that right?

20 A It had been quarried. Yes.

21 Q Okay. So it appeared that there were two  
22 distinct types of surface present on the property. Is  
23 that right?

24 A Yes.

25 Q And initially, you indicated in an early draft

1 of your report that perhaps it was indicative of a  
2 fault. Is that right?

3 A That's correct.

4 Q And one of the ways that we know what your  
5 initial impressions were is because you and your  
6 colleagues maintained field notes when you visited the  
7 site. Is that right?

8 A That's correct.

9 Q And in those field notes, you documented the  
10 environment you were observing and any -- well, let's  
11 start with that. You documented the environment you  
12 were observing. Right?

13 A That's correct.

14 Q And I noted that you stated that you would also  
15 include anything unusual that occurred as -- such as if  
16 you encountered a rattlesnake?

17 A That's correct. Although I didn't encounter  
18 that rattlesnake.

19 Q Okay.

20 A One of my associates did.

21 Q Okay.

22 A And it scared the living daylights out of her.

23 Q It would have done the same to me. And in --  
24 in those notes you -- that's where you documented the  
25 types of rock material that you noticed out there. Is

1 that right?

2 A That's correct.

3 Q And in those notes, would you also have  
4 included photos?

5 A Oh, yes.

6 Q And ultimately you relied on your notes to  
7 prepare your report. Isn't that right?

8 A Well, the notes and -- yes. Uh-huh.

9 Q And photos that were taken as well. Right?

10 A Right.

11 MS. PERALES: May I approach?

12 JUDGE BELL: Yes, you may.

13 MS. PERALES: There's two copies of 27.

14 JUDGE QUALTROUGH: 27? 27 and a copy of  
15 Protestants' 28.

16 MR. RYAN: Okay. 27.

17 MS. PERALES: And 28.

18 MR. RYAN: Okay.

19 Q. (BY MS. PERALES) So you have in front of you  
20 two documents, one that's been labeled Protestants'  
21 Exhibit 27 and one that's been labeled Protestants'  
22 Exhibit 28.

23 A Correct.

24 Q Do you see that?

25 A Uh-huh.

1 Q Can you describe what these are?

2 A These are field -- daily field notes which  
3 describe the conditions and the observations about what  
4 was done on a particular day in the field.

5 Q And who drafted these field notes? So let's  
6 start with 27.

7 A 27 is written by Molly Hall.

8 Q And is Molly Hall someone who was working with  
9 you or under your supervision?

10 A She certainly is -- was -- is.

11 Q Okay. And the Exhibit 28?

12 A Is by Nick Coleman who also is working with  
13 us --

14 Q Okay.

15 A -- and was working with us then.

16 Q And are these examples of the types of field  
17 notes that you and your colleagues would collect as you  
18 surveyed a site to prepare a report?

19 A As we cover the ground, yes. Uh-huh.

20 Q Now, you also -- during your deposition, you  
21 also -- I believe you also told me that you still have  
22 original field notes such as the ones we're looking at  
23 that you first generated back in 1983. Is that right?

24 A Not -- from this project?

25 Q Of course.

1 A Oh, yes. Uh-huh. Yeah.

2 Q So do you -- does that mean that you generally  
3 retain all of your original field notes and field logs  
4 indefinitely?

5 A Indefinitely, yes, but we also -- particularly  
6 on antiquities, permit projects or Corps of Engineers'  
7 projects, they are forwarded to -- the original in many  
8 cases goes directly to the Texas Archaeological Research  
9 Laboratory at the University of Texas.

10 Q Okay. So your notes go there?

11 A The notes go there.

12 Q Okay. And then do you retain a copy for your  
13 own files?

14 A We do.

15 Q What about samples? Do you collect samples  
16 when you're out surveying the site?

17 A We do sometimes; sometimes we don't.

18 Q Do you recall whether you collected samples in  
19 this case?

20 A In the historic site we have here, we did  
21 collect samples, and those samples are still in our  
22 office, as a matter of fact.

23 Q Can you give us an example of the types of  
24 samples you collected? What were you collecting?

25 A Now, the historic site is a house site that was



1 occupied between the late 1800s and probably the  
2 Depression. And in the course of excavation or  
3 attesting there -- and we're talking about shovel  
4 testing, we came up with pieces of glass, pottery,  
5 various pieces of wire and square-cut nails, a little  
6 bit of barbed wire, some -- a little bit of animal bone,  
7 that sort of thing.

8 Q Why is it that you collected this -- these  
9 pieces of glass, pottery, wire, nails, and animal bone?

10 A Because we want to -- to collect sufficient  
11 amount of information to be able to reconstruct what was  
12 going on at the archaeological site and date that time  
13 when it was being occupied or was built.

14 Q And were you able to do that in this case?

15 A We think so. Yes.

16 Q And what was going on?

17 A Well, it was a house site, probably built --  
18 I'm saying, roughly -- sometime after the Civil War,  
19 probably even a little later than that, maybe 1880 or  
20 so. It may have been a log cabin, but it might well  
21 easily have been a frame -- a one-room framed structure  
22 that had a -- a rock chimney, which means that it was --  
23 it could have been earlier because chimneys go out in  
24 the mid 1800s and are replaced by metal stoves. And --  
25 and whether that chimney was used in the house after,

1 let's say, 1900, at which time it may have only been  
2 used as a flue for a metal stove, that tells us at least  
3 that it was probably a -- lived in -- or built initially  
4 in the late 1800s.

5                   However, we found not only square-cut  
6 nails, which is an artifact that goes out of use in  
7 about 1900 and is replaced by wire nails, we found about  
8 50 percent square-cut nails and 50 percent wire nails,  
9 which says that it probably was repaired sometime in the  
10 1900s.

11           Q       So was the -- the presence of this -- or  
12 indications of the presence of this structure, was this  
13 significant for your survey or for your report?

14           A       Yes, I think so. Yes.

15           Q       Okay. And what did you do with this  
16 information?

17           A       Well, the information is in a report. The  
18 artifacts will ultimately go back to the landowner  
19 because it's still private land.

20           Q       And the report is what's included in the solid  
21 waste application materials we have here?

22           A       Yes, it is.

23           Q       Okay. And you mentioned you still have the  
24 samples in your office. Is that right?

25           A       That's correct.

1 Q And you'll retain those samples until this --  
2 this whole process is over?

3 A Correct.

4 Q Do you retain those samples in the event that  
5 you need to consult them in order to prepare for your  
6 testimony or to refresh your memory?

7 A Well, I certainly could, but I think that the  
8 description in the report is sufficient for me to do  
9 that generally.

10 Q Okay. And the photographs help, too, don't  
11 they?

12 A Oh, they certainly do, yes.

13 Q So for what purpose do you retain those  
14 samples?

15 A Well, in part because we see ourselves having a  
16 responsibility for curating those artifacts which are a  
17 part of the archaeological record until it's passed on  
18 to wherever curation facility it passes on to, or in  
19 this particular case, back to the landowner who has  
20 expressed an interest in having them back.

21 Q Okay.

22 MS. PERALES: I think those are all my  
23 questions. I'll pass the witness. Thank you.

24 THE WITNESS: Thank you.

25 JUDGE BELL: Thank you. Does TJFA want to

1 offer any of these exhibits that they've handed up?

2 MS. PERALES: Thank you. I'm sorry. Of  
3 course, I do.

4 JUDGE BELL: First, we've got Mr. Allmon's  
5 examination of Mr. Parker, Protestants' Exhibit 20.

6 MR. ALLMON: Yes, we intended to offer  
7 that.

8 JUDGE BELL: Any objection to Protestants'  
9 Exhibit 20?

10 MR. RYAN: No objection.

11 JUDGE BELL: All right. Protestant  
12 Exhibit 20 is admitted.

13 (Exhibit Protestant No. 20 admitted)

14 JUDGE BELL: Now, Ms. Perales, you'd like  
15 to offer Protestants' Exhibits 27 and 28?

16 MS. PERALES: Yes.

17 JUDGE BELL: Any objections to 27 and 28?

18 MR. RYAN: No.

19 JUDGE BELL: All right. Hearing none,  
20 Protestants' Exhibit 27 and 28 are admitted.

21 (Exhibit Protestants Nos. 27 and 28  
22 admitted)

23 JUDGE BELL: Thank you. Any  
24 cross-examination for Dr. Skinner from Caldwell County?

25 MR. MAGEE: No questions, Your Honor.

1 JUDGE BELL: All right. Very good. Did  
2 you have any redirect, Mr. Ryan?

3 MR. RYAN: Yes, sir, I do.

4 JUDGE BELL: Okay.

5 REDIRECT EXAMINATION

6 BY MR. RYAN::

7 Q Dr. Skinner, if you would get in front of you  
8 this other binder here, Applicant's Exhibits Volume 1.  
9 And I think that is opened to Tab 2F which starts on  
10 Page 758.

11 A (Witness complies).

12 Q And if you would, look at Page 784.

13 A Okay.

14 Q The photograph there, the caption below it  
15 refers to chert cobbles. When you use the term  
16 "cobbles," what do you mean by that?

17 A I mean a rock that is normally less than  
18 4 inches in diameter and is typically rounded and  
19 probably was stream rolled.

20 Q And you also use in this report the term  
21 "gravel." What do you mean when you use that word?

22 A Typically that's a smaller piece of -- that's  
23 smaller than a cobble. That's the way geologists use  
24 the term.

25 Q Okay. So would the photograph on Page 784,

1 does that have pictures of some cobbles and some gravel?

2 A Yes. Uh-huh.

3 Q Okay. And would you say that -- well, let's  
4 see. You've also got -- on page -- I'm actually looking  
5 for the page that has the results of the gravel  
6 transects.

7 A Two pages later, three -- actually it's on 787.

8 Q 787, okay; 787, and then it carries over to  
9 788. Right?

10 A Right.

11 Q And if you turn back to 786, this shows the  
12 approximate locations of the 19 places where you  
13 actually did gravel samples. Right?

14 A Right.

15 Q Okay. And do I understand correctly that what  
16 you did at each of these places was to put the little  
17 half-meter diameter circle on the ground and then count  
18 the pieces of gravel and cobbles, if there were any that  
19 were present on the surface of the ground, inside that  
20 half-meter circle?

21 A That's correct.

22 Q And so on Pages 21 -- I'm sorry -- Pages 787  
23 and 788 is the results of that -- of those gravel  
24 surveys at those 19 different locations?

25 A Uh-huh. That's correct.

1 Q So at any one of these locations if I wanted to  
2 determine roughly what percentage of the ground was  
3 covered with gravels or cobbles, I could -- first, I  
4 could determine the area of a half-meter circle?

5 A Uh-huh.

6 Q And then I could do some rough estimates of the  
7 size of the pieces of rock that were found inside that  
8 circle?

9 A Correct.

10 Q And I could do a simple calculation to  
11 determine the percentage?

12 A Uh-huh.

13 Q So is it true that at all of these gravel  
14 transect locations, the percentage of the surface area  
15 that was covered by gravels and cobbles is less than  
16 half?

17 A I'd say that's true, yes.

18 Q Now, there was one location or -- or one  
19 general area of the property that you looked at where  
20 the surface was completely covered with --

21 A Where it was quarried.

22 Q Okay. Yeah. Where the surface was completely  
23 covered with -- I guess those would be cobbles. Right?

24 A Right.

25 Q Were they large enough to be cobbles?

1           A     Typically, yes.

2           Q     Okay. Now, you don't have a photograph of  
3 those in your report. Right?

4           A     No.

5           Q     Could I get you -- well, let's just use Page  
6 786, the map on Page 786. Do you have a pen with you  
7 there?

8           A     Oh, yes.

9           Q     Would you outline the approximate area where  
10 you found pieces of rock covering the surface?

11          A     Okay.

12          Q     Okay. And you drew sort of a circular area?

13          A     Right. If you were to locate that, if you come  
14 from the -- the south boundary of the property and go  
15 through gravel collection Location 17, you'll see a road  
16 there, a two-track road that's indicated. It goes up to  
17 the property corner and then goes on up north just a  
18 short distance and stops. And this gravel was collected  
19 in that area between where it crosses the drainage or  
20 was mined actually. It wasn't deeply mined, but there  
21 was a -- a real accumulation of these Uvalde gravels in  
22 that area, and somebody mined it, or at least that's  
23 what it looked like, that they had done with a front-end  
24 loader.

25          Q     So that's generally the area that has the --



1 the last four two-track road marks?

2 A Correct.

3 Q Okay. Just north and east of the cross symbol  
4 above --

5 A Yes.

6 Q -- transect Location 16?

7 A Uh-huh.

8 Q Okay. Was there any place else on the property  
9 that you observed that sort of concentration of gravels  
10 and cobbles at the surface?

11 A No. I expected to find a bit at higher  
12 elevations because that's typically where Uvalde gravels  
13 will occur as a real layer of gravel and -- on ridge  
14 tops, but that didn't prove to be the case.

15 Now, if you were to go onto the property  
16 to the west, northwest of where we found that, at the  
17 600 contour, you might find a deep bed of gravel up  
18 there, but that's well out of the -- our study area.

19 Q Okay. Now, up in the area of the two northern  
20 transects, the one that's 01 through 06 and 07 through  
21 012, did you find that sort of concentration of gravel  
22 on the surface anywhere up in that part of the site?

23 A We did not.

24 Q I want to try and get a visual impression of  
25 that. So in the area where you did find the gravels and

1 cobbles covering the surface down there, would you  
2 describe that as a layer of -- of cobbles and maybe some  
3 gravel?

4 A I would describe it as a mantel of cobbles, to  
5 be exact.

6 Q Okay. And -- and mantel being a layer sitting  
7 on top of the surface soils?

8 A Yes.

9 Q Okay.

10 A And -- and probably extending into that surface  
11 soil some as well a short distance.

12 Q Okay. Now I want to ask you about gravel and  
13 cobbles below the surface. In addition to these surface  
14 gravel sampling that you did, you did at least two  
15 series of shovel tests -- right -- one near the old  
16 house in Chimney Fall (phonetic) --

17 A Uh-huh.

18 Q -- and then another one up more in the northern  
19 part of the site to the east of that west drainage?

20 A We ran two transects up the east side of that  
21 western drainage. They were running north, south, and  
22 they're not -- they're not presented on a map in here  
23 because we didn't find any artifacts in them. But --  
24 but we excavated them because we had originally  
25 predicted that because of the -- the nature of the ridge

1 between Dry Creek and this unnamed tributary that there  
2 might be the possibility that there would be prehistoric  
3 campsites in there as opposed to quarry sites.

4 Q But you did not find any of them?

5 A We did not find them.

6 Q Okay.

7 A It was disappointing.

8 Q Okay.

9 A I want to find stuff, guys.

10 (Laughter)

11 Q (BY MR. RYAN) While you've got your pen there,  
12 would you mark with a hand-drawn X the approximate  
13 location of the Chimney Fall that you found and did some  
14 shovel tests near?

15 A Okay.

16 Q And you placed an X there?

17 A Yes.

18 Q And how can you generally describe that  
19 location with regards to something else shown on the map  
20 there?

21 A That location is north of nine and ten in the  
22 transects -- in the east-west transects where there is a  
23 corner in the fence.

24 Q Okay. And the fence is shown with that brown  
25 dashed line?

1 A Yes.

2 Q Okay.

3 A You can see the road is just to the east of the  
4 site itself.

5 Q Okay.

6 A That two-track road that runs north, south  
7 there.

8 Q Okay. What did you find in terms of cobbles  
9 and gravel in connection with the shovel test that you  
10 did near the Chimney Fall?

11 A We found that there was a little bit of gravel  
12 on the surface. But if we went down to 15 to 20  
13 centimeters, we ran into a layer of gravel in that area,  
14 and it was gravel -- it was dense enough that we could  
15 not easily proceed through it with a shovel, which is  
16 what we were digging with.

17 Q Okay.

18 A And that typically says to us there's not going  
19 to be -- there's going to be clay right there because  
20 we're talking about a loam, essentially, on the surface.  
21 So there was no reason to proceed deeper.

22 Q Okay. So you -- you get down to a layer of  
23 gravel in clay, and you're not interested in going  
24 deeper because you're not going to find any artifacts  
25 down there.

1           A     Right.  At a hundred thousand years ago, we  
2 don't care.  There ain't no Indians here.

3           Q     Okay.

4           A     And that's what that gravel would indicate.

5           Q     Now, do I understand correctly from looking at  
6 the table on Page 793 and 794 of Exhibit 130EP-1 --

7           A     Uh-huh.

8           Q     -- it looks like the deepest any of the shovel  
9 tests went was approximately 40 centimeters.  Is that  
10 right?

11          A     That's correct.  Uh-huh.

12          Q     And that is at shovel test Location B223?

13          A     Let's see.

14          Q     About halfway down Page 27, B223?

15          A     There's 40 there.  Yes.

16          Q     Okay.

17          A     Typically, it was not that deep.

18          Q     Okay.  Most of them terminated before they got  
19 that deep?

20          A     That's correct.

21          Q     Okay.  And the reason for terminating these  
22 where they -- at the depth where they stopped was that  
23 you got to the gravel in the hard clay and couldn't  
24 easily dig with the hand tools?

25          A     Correct.

1 Q Okay. Okay.

2 A And we had also run out of artifacts.

3 Q And you knew you had run out of artifacts?

4 A Yes.

5 Q Okay.

6 MR. RYAN: I'll pass the witness.

7 JUDGE BELL: Thank you. Any further cross  
8 for Dr. Skinner?

9 MR. MAGEE: Not from me.

10 JUDGE BELL: From any party?

11 (No response)

12 JUDGE BELL: All right. Very good. Thank  
13 you, Dr. Skinner. Appreciate your time.

14 THE WITNESS: Thank you.

15 JUDGE BELL: Do you want to start with  
16 another witness, or would you rather do that first thing  
17 in the morning?

18 MR. RYAN: We're -- we're here. Whatever  
19 y'all want to do.

20 JUDGE BELL: Well, let's go ahead if  
21 you've got one ready.

22 MR. RYAN: Okay. Mr. Denholm, John  
23 Denholm.

24 JUDGE BELL: Very good.

25 MR. RYAN: Can we take just a minute?

1 JUDGE BELL: Sure. We're off the record.

2 (Off the record)

3 JUDGE BELL: All right. Back on the  
4 record.

5 (Witness Denholm sworn)

6 JUDGE BELL: When you're ready, Mr. Ryan.

7 MR. RYAN: Thank you, Your Honor.

8 JOHN P. DENHOLM,  
9 having been first duly sworn, testified as follows:

10 DIRECT EXAMINATION

11 BY MR. RYAN::

12 Q Mr. Denholm, do you have in front of you  
13 there the binder that's labeled Applicant's Exhibit  
14 Volume 7?

15 A Yes, sir, I do.

16 Q And if you would -- if you would turn back to  
17 Exhibit Denholm 1, do you see that?

18 A Yes, sir, I do.

19 Q What is that?

20 A That is my direct testimony.

21 Q And what is Exhibit Denholm 2?

22 A That is a copy of my resumé.

23 Q Okay. Do you need to make any corrections on  
24 Exhibit Denholm 1?

25 A Yes, sir, I do.

1 Q Okay. Where is the first one?

2 A On Exhibit Denholm 1, Page 2 -- actually, I'm  
3 sorry -- Page 3, Line 3, I'm a project manager with Lee  
4 Engineering. I'm no longer a project engineer.

5 Q Okay. So would you cross through the word  
6 "engineer" and write "manager" on Line 3 of Page 3?

7 A (Witness complies).

8 Q Did you do that?

9 A Yes, sir, I did.

10 Q Okay. What's the next change?

11 A On Line 20, I earned a bachelor of arts degree  
12 in mathematics from the University of St. Thomas, not  
13 from Texas A&M University. And that was in the year  
14 1999.

15 Q Okay. Would you take your pen and make those  
16 corrections?

17 A (Witness complies).

18 And then continuing on Line 21 and 22 in  
19 that same sentence, I earned my master of engineering  
20 degree in civil engineering from Texas A&M University in  
21 2001.

22 Q Okay. Would you make that change?

23 A (Witness complies).

24 Q Did you make that change?

25 A Yes, sir, I did.



1 Q Any others?

2 A I believe so. Yes. On Page 5, Line 17, on the  
3 facts set out or shown in the facility surface drainage  
4 report, that should be replaced with transportation  
5 study.

6 Q Okay. Will you make that change?

7 A (Witness complies).

8 Q Did you make that change?

9 A Yes, sir, I did.

10 Q That reference to transportation study, is that  
11 the same transportation study that's in your answer that  
12 begins on Line 11?

13 A Yes, sir, it is.

14 Q With those changes, if you were asked orally  
15 here today each of the questions in Exhibit Denholm 1,  
16 would your answers be the same as set out in that  
17 exhibit?

18 A Yes, sir.

19 MR. RYAN: Your Honor, at this time we'd  
20 offer Exhibits Denholm 1 and Denholm 2.

21 JUDGE BELL: Any objections to Denholm 1  
22 or Denholm 2?

23 (No response)

24 JUDGE BELL: Hearing none, Denholm 1 and  
25 Denholm 2 are admitted.

1 (Exhibit Applicant Denholm Nos. 1 and 2  
2 admitted)

3 MR. RYAN: I'll pass the witness.

4 JUDGE BELL: Any cross-examination from  
5 Plum Creek?

6 MR. MAGEE: No questions.

7 JUDGE BELL: All right. How about from  
8 the ED?

9 MR. TATU: No questions.

10 JUDGE BELL: Cross from OPIC?

11 MR. TUCKER: Yes, I have a few questions.

12 JUDGE BELL: Go right ahead.

13 CROSS-EXAMINATION

14 BY MR. TUCKER::

15 Q Good afternoon, Mr. Denholm. My name is Aaron  
16 Tucker, with the Office of Public Interest Counsel.  
17 Thank you so much for being here.

18 In your analysis of traffic, did you  
19 review accidents or incidents in forming any  
20 conclusions?

21 A Not in forming any conclusions. At some point  
22 in time, I believe CAPCOG had submitted a question  
23 related to crashes at the intersection of FM 1185 and US  
24 183. I downloaded a crash extract from the Texas  
25 Department of Transportation just to see if there were a

1 number of crashes at the location that would -- that  
2 would be cause for concern. And from the data I pulled,  
3 it did not seem that there were -- there was a  
4 significant crash problem at the time.

5 Q When you say it wasn't a problem, did you look  
6 at the number?

7 A Yes, sir.

8 Q Okay. Were there any fatalities?

9 A Yes, sir, there were.

10 Q And that wasn't a concern to you?

11 A Fatal crashes are random and rare events. As  
12 engineers, we try to prevent them in designing a safe  
13 system, but on occasion, they do occur.

14 Q So the fact that there were fatalities did not  
15 influence your analysis. Is that correct?

16 A No, sir, that did not.

17 MR. TUCKER: No further questions.

18 JUDGE BELL: Thank you. Any cross for  
19 Mr. Denholm from TJFA, EPICC, at all?

20 MR. ALLMON: Yes, Your Honor.

21 CROSS-EXAMINATION

22 BY MR. ALLMON::

23 Q Good afternoon, Mr. Denholm. My name is Eric  
24 Allmon. I represent some of the protestants in this  
25 matter. How are you?

1 A Good. Could you speak up, sir?

2 Q Yes, I will.

3 A Thank you.

4 Q Do you consider yourself an expert on the TCEQ  
5 regulations?

6 A On regulations themselves, I consider myself to  
7 be able to interpret the traffic and transportation  
8 clauses of the regulations. The regulations as a whole,  
9 as we discussed earlier, I don't think myself an expert  
10 on those regulations. I look to the lawyers and judges  
11 as experts in those.

12 MR. ALLMON: Your Honor, may I approach?

13 JUDGE BELL: Yes, you may. Remember to  
14 speak into the microphone.

15 Q (BY MR. ALLMON) Perhaps we can refresh your  
16 memory from the deposition. I'm looking at Page 13,  
17 Line 10, of your deposition. And I'll read the question  
18 and you can go ahead and read the answer.

19 "In this case, were you evaluated in  
20 compliance with TCEQ regulations?"

21 A My answer is, "Strictly, I was given the  
22 passage of the regulations related to transportation and  
23 was asked to scope a study that would assess whether or  
24 not we were meeting the adequacy of the -- you know,  
25 whether the -- the roadways surrounding the facility are

1 adequate for the traffic generated by the facility."

2 Q Do you consider yourself an expert in  
3 interpreting that regulation?

4 A In the regulation, no.

5 Q And then I asked, "Do you consider yourself an  
6 expert in determining compliance with that regulation"?

7 A "No, I -- no."

8 Q So at least at the time of your deposition, you  
9 said you were not an expert of the traffic regulations  
10 of the TCEQ?

11 A I was familiar with the passage related to the  
12 traffic and transportation, and I collected a traffic  
13 engineering study to address whether we were adequate  
14 for -- you know, whether we met those regulations. As I  
15 was trying to explain a minute ago, I believe I was a  
16 little bit confused in our uses of expert in determining  
17 an interpretation. I -- I -- I kind of operate in a  
18 realm where it's judges that are interpreting rules and  
19 regulations and laws. So that was kind of how I was  
20 couching that phrase.

21 Q Now, was your report intended to express an  
22 opinion on compliance with the regulations?

23 A The compliance of whether -- whether the  
24 roadway facilities are adequate, yes.

25 Q Are you familiar with the interpretation of the

1 term "adequate" and "available" under the TCEQ  
2 regulations?

3 A No, sir.

4 Q So you're not opining on whether this is  
5 adequate under the proper regulatory interpretation of  
6 those requirements?

7 A No, sir. It's strictly traffic engineering.

8 Q Okay. Now, could you turn with me in  
9 Applicant's Exhibit 130EP-1, Page 63?

10 A What page?

11 Q Page 63. That's the general site plan, Drawing  
12 18.6.

13 A Okay.

14 Q Okay. Do you see -- where is US Highway 183 on  
15 this site plan?

16 A It's in the lower-left corner.

17 Q And do you see, is the boundary of the facility  
18 indicated -- is there a legend for a facility boundary?

19 A Yes, sir.

20 Q Now, is there a roadway over private property  
21 in between Highway 183 and the facility boundary?

22 A Yes, sir.

23 Q How is that labeled here?

24 A It's labeled in at least one location as  
25 "entrance road."

1 Q Did you do any evaluation of the capacity of  
2 that roadway?

3 A On the property, no, sir.

4 Q Did you do any evaluation on the impact of the  
5 site terrain traffic on the structural integrity of that  
6 roadway?

7 A The entrance roadway on the private property,  
8 no, sir.

9 Q So did you do any evaluation of that entrance  
10 roadway at all?

11 A I evaluated the exit capacity at the  
12 intersection of US 183, which is the type of analysis  
13 typically conducted in a traffic impact analysis.

14 Q A normal traffic impact analysis, say, for if  
15 you're putting in -- say, for a development you did --  
16 for a city, say a Walmart or something?

17 A For any type of development such as a Walmart,  
18 any type of driveway permit with TxDOT, typically  
19 requires a traffic impact analysis. In this instance,  
20 they've granted that driveway permit.

21 Q And so that's the terminus of the entrance road  
22 with Highway 183?

23 A Yes, sir.

24 Q Did you do any evaluation of any other part of  
25 that entrance road inside the property?

1 A No, sir.

2 Q Now, are there roadways depicted here within  
3 the facility boundary?

4 A I believe there is, yes, sir.

5 Q Do you do any analysis of those roadways?

6 A No, sir.

7 Q So none from either a traffic standpoint or a  
8 structural integrity standpoint?

9 A No, sir.

10 Q So your study was strictly limited to use of  
11 the area public roadways. Would that be accurate?

12 A Yes, sir.

13 Q Did you do any evaluation of potential impact  
14 on the structural integrity of those roadways?

15 A No, sir.

16 Q And let's stay with this drawing on Page 63.  
17 Is there another roadway adjacent to the property on the  
18 south side?

19 A Yes, sir. FM 1185 appears to border the  
20 property. It's -- it's a little difficult to tell in  
21 this exhibit, but I believe it did.

22 Q As a technical matter, would it be possible to  
23 construct a road from the facility to terminate at FM  
24 1185?

25 A I would suspect it would, but I don't design



1 the actual roadway like that, so --

2 Q Since that -- well, did you do any evaluation  
3 of the sufficiency from 1185 if the entrance to the  
4 facility were to be on 1185?

5 A No, sir.

6 Q What type of roadway is FM 1185?

7 A It's a TxDOT farm-to-market roadway.

8 Q And generally, how would that be designed?

9 A I mean, a typical TxDOT roadway, the FM roadway  
10 is going to be designed -- if you're designing it today,  
11 it's going to be anywhere from 24 to 28, maybe 30 feet  
12 wide for -- if you only have two lanes of traffic, which  
13 is the case we have here. It's designed to handle  
14 probably a design life in the 30- to 50-year range. You  
15 know, it's -- TxDOT designs good roadways.

16 Q Are trucks -- the site-generated traffic here,  
17 the trucks, are they going to be traveling both  
18 northbound and southbound on 183?

19 A Yes, sir.

20 Q If the roadway was to connect -- if the  
21 entrance to the facility were to connect at FM 1185,  
22 would that make it a shorter route headed south on 183?

23 A To head south on 183, yes, sir, it would.

24 Q And could you please explain why it would make  
25 for a shorter route?

1           A       Right now, all traffic that exits the facility  
2 turns right and travels northbound on US 183. Any  
3 traffic that's destined to the south will then have to  
4 make a U-turn at Schuelke Road.

5           Q       Whereas if you had an entrance on 1185, you  
6 could simply travel straight underneath 183 and make a  
7 left turn and head south?

8           A       You could. Yes.

9           Q       So there are some advantages for the Applicant  
10 of having that entrance on 1185?

11          A       It's possible. Yes, the -- the travel time to  
12 the south would be less.

13                   MR. ALLMON: I do have an exhibit, Your  
14 Honor.

15                   JUDGE BELL: All right.

16                   MR. ALLMON: What number are we at?

17                               (Discussion off the record)

18                               (Exhibit Protestants No. 29 marked)

19          Q       (BY MR. ALLMON) I've placed in front of you --

20                               JUDGE BELL: No, you didn't.

21          Q       (BY MR. ALLMON) Now you should have before you  
22 Exhibit Protestants' 29. Do you see that?

23          A       Yes, sir.

24          Q       Do you recognize this document?

25          A       It looks like the cover page from the 2000

1 Highway Capacity Manual.

2 Q And are there certain excerpts from that manual  
3 contained here?

4 A There appears to be, yes, sir.

5 Q Is this manual considered authoritative in the  
6 field?

7 A Yes, sir.

8 Q Do you --

9 A I'm sorry. This one is just not the current  
10 one.

11 Q Okay. Now, if you could, turn with me to  
12 Page 2-4 of this document.

13 A Okay.

14 Q At the bottom of this page, the last section,  
15 does it -- do you see where it's got vehicle type?

16 A Yes, sir.

17 Q And the final paragraph there, does it  
18 generally discuss the impact of heavy traffic -- of  
19 heavy vehicles on traffic?

20 A Yes, sir.

21 Q And were the two main adverse impacts of heavy  
22 vehicles on traffic discussed here?

23 A I'm going to just read the introductory  
24 sentence and then the actual two bullets that I believe  
25 you're referring to.

1 Q Yes.

2 A "Trucks, buses, and recreational vehicles, RVs,  
3 are the three groups of heavy vehicles addressed by the  
4 methods in this manual. Heavy vehicles adversely affect  
5 traffic in two ways. They are larger than passenger  
6 cars and occupy more roadway space, and they have poorer  
7 operating capabilities than passenger cars, particularly  
8 with respect to acceleration, deceleration, and the  
9 ability to maintain speed on upgrades."

10 Q Would these type of issues apply to the route  
11 trucks and transfer trucks utilizing this facility?

12 A Yes, sir.

13 Q All right. If you could review -- looking at  
14 the top of the next page, 2-5 --

15 A (Witness complies).

16 Q Looking at that paragraph -- the top two  
17 paragraphs, do you want to take a quick minute to review  
18 those? Then I'm going to ask you questions regarding  
19 them.

20 A Okay.

21 Q Now, does this speak to the relevance of grades  
22 with regard to the degree of impact from heavy vehicles?

23 A Yes, especially steep grades.

24 Q And how does a grade affect the potential  
25 impact of a heavy vehicle?

1           A       Heavy vehicles have difficulty operating on  
2 sustained grades.

3           Q       Now, could you look with -- back with me again  
4 to Page 63 of 130EP-1?

5           A       (Witness complies).

6           Q       As we look at the entrance road, as we go from  
7 183 to the facility boundary, is the topography level --  
8 or does it change?

9           A       I'm sorry. Could you repeat that?

10          Q       As the entrance road traverses from Highway 183  
11 to the facility boundary, is that level ground, or does  
12 that topography change over that distance?

13          A       It appears to change over that distance. As I  
14 mentioned before, I'm having a hard time seeing the --  
15 the facility boundary on this exhibit.

16          Q       Do you see where there's a scale house and  
17 scales labeled here?

18          A       Yes.

19          Q       I'll ask you to -- and do you see a legend on  
20 the right that says facility boundary?

21          A       Yes, sir. And that line -- it's -- you can  
22 clearly see it on portions of this exhibit. But then  
23 kind of along the southern end of the exhibit, for me at  
24 least, I'm having difficulty determining where -- where  
25 it is.

1 Q Well, now, and does it appear that the facility  
2 boundary is shortly south of where the scale house and  
3 scales are labeled?

4 A I see the facility boundary located west of the  
5 scale house.

6 Q And let me ask you for -- to assume for  
7 purposes of my questioning the facility boundary is that  
8 line immediately to the south of the scale house and  
9 scales or the southern border of the facility boundary.

10 A Okay.

11 Q Now -- and I guess just to review, so the  
12 topography does change from the -- that -- assuming that  
13 is the facility boundary, we have changes in topography  
14 from Highway 183 to the facility boundary?

15 A Yes.

16 Q How will the road be graded to account for  
17 those changes in topography?

18 A I do not know. I have not seen the design of  
19 this roadway.

20 Q If that roadway -- well, could that roadway  
21 require changes in grade in order to account for those  
22 changes in topography?

23 A Yes.

24 Q And could those grades impact the performance  
25 of the heavy vehicles used to access the facility?

1           A       Depending on the length and the steepness of  
2 the grade, yes.

3           Q       And have you -- but you've done no evaluation  
4 of that?

5           A       No, sir.

6           Q       Now in EP-1, could you turn with me to  
7 Page 169?

8           A       Okay.

9           Q       And I guess, just background, so is this an  
10 excerpt from a portion of your traffic impact analysis?

11          A       This specific page, yes, that would be an  
12 excerpt. But I believe this entire section has got some  
13 of the correspondence from TxDOT, and then it has my  
14 entire study.

15          Q       So essentially Appendix 2C is primarily your  
16 traffic impact analysis?

17          A       Yes, sir.

18          Q       And this presents some of the trip generation  
19 assumptions that you used?

20          A       Yes, sir.

21          Q       Did you develop those yourself, or were those  
22 provided to you?

23          A       They were provided to me.

24          Q       Did you do any independent work to develop  
25 those -- well, who provided those to you?

1 A 130 Environmental.

2 Q Did you do any independent work to determine  
3 the trip generation?

4 A No, sir. The -- the landfill land use is not  
5 contained in our typical traffic engineering trip  
6 generation manual.

7 Q Uh-huh.

8 A So in this instance, we defer to the operator  
9 to tell us how many vehicles they are expecting. Based  
10 on my experience, though, those are in the realm of what  
11 we've been seeing at other facilities.

12 Q Now, but you did no specific evaluation in this  
13 case to determine the level of traffic that would be  
14 generated?

15 A No, sir.

16 Q And similarly, if we were to turn to the next  
17 page, Page 170...

18 A Okay.

19 Q Look at Table 2. Are those percentages for  
20 daily site traffic? Did you develop those, or are those  
21 based on numbers given by the Applicant?

22 A Those are based on numbers given by the  
23 Applicant.

24 Q And did you do any independent work to  
25 determine whether those were appropriate?



1           A       No, sir. That's based on what they -- what  
2 they expect the facility to operate like.

3                        It's, I guess, noteworthy that we  
4 generally assume for just any type of traffic situation  
5 that roughly about 10 percent of traffic would be  
6 occurring in a peak hour. So like the morning or p.m.  
7 peak hour. And so seeing that the facility peak hour  
8 has 11 percent, the a.m. has 8 percent, and then their  
9 operations actually taper off later in the afternoon,  
10 these numbers seem reasonable to me.

11           Q       In looking at Page 2C-16 which is on Page  
12 172 --

13           A       Okay.

14           Q       Again, trip distribution, so this kind of  
15 proportion of traffic going each direction?

16           A       Yes, sir.

17           Q       Is this, again, just based on an assumption  
18 provided to you by the Applicant?

19           A       Yes, sir, it is.

20           Q       You didn't do your own independent work to  
21 develop that?

22           A       No, sir. I figure as an operator that they  
23 know best where their customers are going to be coming  
24 from.

25           Q       Now, look with me, if you would, to Page 196,

1 Applicant's Exhibit 130EP-1, Page 196.

2 A Okay.

3 Q Does this show the estimated traffic volume  
4 projections over the life of the facility?

5 A Yes, sir, it does.

6 Q And I would like to call your attention  
7 specifically to Note 3 at the top. Does that state that  
8 each traffic category increases in an annual rate of  
9 1.58 percent?

10 A Yes, sir, it does.

11 Q Did you have any hand in the selection of that  
12 number?

13 A No, sir.

14 Q Why was that particular number selected?

15 A I don't know. That -- that is from 130.

16 Q So you have no opinion as to the  
17 appropriateness or inappropriateness of that number?

18 A No, sir.

19 Q Do you know if there's any limit on the waste  
20 acceptance at the landfill?

21 A I do not.

22 Q So do you have any opinion as to whether these  
23 are the maximum traffic counts that can be associated  
24 with the landfill?

25 A No, sir, I do not.

1 Q So in that sense, do you yourself have an  
2 opinion as to whether these are the worst case-scenario  
3 impacts of the landfill?

4 A No, I do not.

5 Q Do you know whether traffic from the transfer  
6 station was included in these numbers you were provided?

7 A I believe it was.

8 Q Now, let's look at that real quick. Turn with  
9 me to Page 195.

10 A Okay.

11 Q Does that -- is this an estimated site traffic  
12 for year one?

13 THE REPORTER: I'm sorry. What was  
14 your -- what is your -- I didn't hear you.

15 MR. ALLMON: I'll repeat it.

16 THE REPORTER: Thank you.

17 Q (BY MR. ALLMON) So we're looking at  
18 Applicant's Exhibit 130EP-1, Page 195. Is this the  
19 estimated site traffic for year one?

20 A Yes, sir, it is.

21 Q And what is the incoming waste volume here?

22 A It looks to be 1500 tons per day.

23 Q Is the Executive Director's testimony up there?

24 JUDGE BELL: I don't believe it is.

25 Q (BY MR. ALLMON) Let me ask: Are you familiar

1 with the projected waste acceptance rate at the  
2 commencement of operations?

3 A No, sir.

4 Q Did you look at that at all in your  
5 calculations?

6 A No, sir.

7 Q Do you know what the waste acceptance rate at  
8 the transfer station is?

9 A No, sir, I do not.

10 Q If this 1500 were equivalent to the waste  
11 acceptance rate at the landfill, would you have any  
12 conclusion as to whether that included the transfer  
13 station or not?

14 A The second line in the table references  
15 transfer trucks.

16 Q Are those transfer trucks the -- you know, when  
17 we have a -- when you have a landfill, you have route  
18 trucks and transfer trucks. Is that not correct?

19 A Yes, sir.

20 Q So do you have an opinion as to transfer trucks  
21 or trucks associated with the landfill or trucks  
22 associated with the transfer station?

23 A I believe -- I believe that these traffic  
24 numbers include both, but if you give me a minute to  
25 look back through my narrative, I believe I may have

1 addressed it in the study.

2 Q Okay. Go ahead and take a minute to do that.

3 A Okay. If you'll refer to Exhibit 130EP-1,  
4 Page 164, Introduction, in the very first paragraph --  
5 in that paragraph, I reference both the landfill, the  
6 transfer station. And this traffic report addresses the  
7 requirements for all three facilities within the 130  
8 Environmental Park. So the -- the traffic volumes that  
9 I've been provided, it's my understanding that it  
10 includes all of those.

11 Q Okay. And let's take a look and see if that is  
12 true.

13 MR. ALLMON: Your Honor, may I take a  
14 quick break?

15 Well, the draft permit is solely in the  
16 Executive Director's testimony, as I understand it. I  
17 would like to provide the witness a copy of the draft  
18 permit for him to review.

19 JUDGE BELL: Sure. Let's go off the  
20 record.

21 (Discussion off the record)

22 (Exhibit Protestants No. 30 marked)

23 Q (BY MR. ALLMON) Mr. Denholm, do you recognize  
24 what I've placed before you?

25 A No, sir, I do not.

1 Q Is this -- let me represent to you this is an  
2 excerpt from --

3 JUDGE BELL: Mr. Allmon? Judge Qualtrough  
4 can't hear you. I don't know if anybody down here can.  
5 So make sure you get that microphone right in your mouth  
6 almost.

7 MR. ALLMON: Yes, sir. Will do.

8 Q (BY MR. ALLMON) Let me represent -- I have  
9 placed before you Protestants' Exhibit 30. Is that  
10 correct?

11 A It is labeled Protestant 30, yes.

12 Q And let me represent to you this is an excerpt  
13 from the draft permit. Could you look with me at Page 3  
14 of the draft permit?

15 A (Witness complies).

16 Q And under Roman Numeral IID, do you see where  
17 it's labeled "Waste Acceptance Rate"?

18 A Yes.

19 Q And could you please read what that waste  
20 acceptance rate is?

21 A It says, "D, Waste Acceptance Rate. Authorized  
22 wastes will be accepted on an anticipated/initial rate  
23 of approximately 1500 tons per day and may increase to a  
24 maximum of 29 -- of 2,943 tons per day. These estimated  
25 acceptance rates are not a limiting parameter to the

1 permit."

2 Q So is that 1500 tons per day equivalent to the  
3 amount used for this estimation of initial traffic?

4 A I believe it matched the number that you had me  
5 reference on the one exhibit, on Page 196, incoming  
6 waste volume, 1500 tons per day.

7 Q So that 1500 is equivalent to the landfill  
8 waste acceptance in year one?

9 A Is it limited? I don't know that.

10 Q So if the transfer station were taking in waste  
11 in addition to the waste being taken in by the landfill,  
12 that number would be on top of the 1500?

13 A I have to take your word for it. I don't know  
14 that.

15 Q I guess I'm just looking at the map. If the  
16 landfill is accepting 1500 tons per day and we've got a  
17 calculation of the vehicles associated with 1500 tons  
18 per day, then our vehicle numbers are equivalent to the  
19 maximum acceptance rate at the landfill?

20 A Oh, okay. I'm not sure I necessarily agree  
21 with that, but --

22 Q Well, what would be your basis for  
23 disagreement?

24 A The -- the traffic projections that I've been  
25 provided, they include transfer trucks. So that 1500

1 tons per day that's at the top of -- of that  
2 tabulation --

3 Q Uh-huh.

4 A -- I don't know -- I don't know how that is  
5 comprised.

6 Q So you're saying the transfer trucks listed  
7 here would be different traffic than that associated  
8 with the landfill?

9 A I'm saying the transfer trucks are included in  
10 the numbers that I've used in my analysis.

11 Q The 1500?

12 A There were 15 transfer trucks, not 1500.

13 Q And are those transfer trucks associated with  
14 the 1500 tons per day?

15 A I would assume so, but I don't know that. I  
16 don't -- the -- I did not generate the waste  
17 calculations. I didn't have anything to do with waste  
18 calculations.

19 Q So do you yourself know whether or not they  
20 included the traffic from the transfer station?

21 A I believe them to include the transfer.

22 Q And what is the basis for that opinion?

23 A It states transfer trucks in the tabulation.

24 Q So if those transfer trucks were to refer to a  
25 type of vehicle accessing the landfill, your assumption



1 would be incorrect?

2 A I'm sorry. Say that again.

3 Q If those transfer trucks were to be a reference  
4 to a particular type of vehicle used at the landfill,  
5 then your assumption would be incorrect?

6 A I guess so. Yes. The -- but based on the  
7 narrative throughout the study, the transfer traffic  
8 is -- is included.

9 Q So your assumption is that -- looking at this  
10 table on Page 195, your assumption is the route trucks  
11 are trucks associated with the landfill while transfer  
12 trucks are trucks associated with the transfer station?

13 A Yes.

14 Q Have you discussed the accuracy of that  
15 assumption with anyone --

16 A No, sir.

17 Q -- with the Applicant? So you don't have  
18 confirmation of that from the Applicant?

19 A I believe if I went back through all my project  
20 notes and everything, the transfer trucks are included  
21 in -- in our traffic estimate.

22 Q What waste acceptance rate is permitted at  
23 the -- would be permitted at the transfer station?

24 A I do not know.

25 Q So you didn't even look at that?

1 A No, sir.

2 Q Okay. Now, if you could, look with me to  
3 Page 186 of 130EP-1.

4 A 186, you said?

5 Q Yes, Page 186.

6 A (Witness complies).

7 Q Is this the intersection analysis you  
8 performed?

9 A Yes, sir.

10 Q And I guess perhaps looking at the top of the  
11 next page, which intersections did you review?

12 A We -- I analyzed the intersections of FM 1185  
13 at US 183, Schuelke Road at US 183, and then the site  
14 entrance roadway at US 183.

15 Q Could you look with me, please, at Page 167?

16 A I'm sorry?

17 Q Page 167, 130EP-1, Page 167.

18 A Okay.

19 Q So we can see that intersection of 183 at 1185  
20 is just to the southwest of the facility?

21 A Yes, sir.

22 Q Now, is there an SH 130 entrance ramp near the  
23 facility as well?

24 A Yes, sir. It's just north of the facility.

25 Q Did you do any study of the intersection of

1 that access road with that entrance ramp?

2 A No, sir.

3 Q Will vehicles be using that on ramp?

4 A I would assume so, yes. And we did assume so.

5 Q But you did no specific evaluation of that  
6 intersection?

7 A No, sir. That's technically -- in traffic  
8 analysis, that's not an intersection.

9 Q Now, will some of the heavy vehicles be turning  
10 right from that facility entrance road, attempting to  
11 get onto that SH 130 entrance ramp?

12 A Some may, yes.

13 Q How many lanes of traffic would they need to  
14 cross in order to do that?

15 A I believe there's two lanes of traffic.

16 Q What is the distance that they would have in  
17 which to make the change to two lanes of traffic?

18 A I believe it's approximately 700 feet.

19 Q Did you do any review to determine the ability  
20 of a route truck or a transfer truck to accelerate from  
21 a dead stop to a speed in order to enter onto that  
22 entrance ramp?

23 A No, sir.

24 Q Would those heavy vehicles have any influence  
25 on the traffic otherwise traveling on the 183 northbound

1 entrance road -- northbound frontage road there?

2 A If a route truck or somebody pulled out in  
3 front of somebody, yes. They would make them slow down.  
4 But hopefully as professional drivers, they're going to  
5 accept adequate gaps and pull out when it's safe to do  
6 so.

7 Q Hopefully?

8 A Yes, sir, just like you and I. When we pull  
9 out of a driveway, we select a gap that's suitable for  
10 us to pull out into.

11 Q As those vehicles are transferring or moving  
12 from the entrance road over onto the entrance ramp, are  
13 they moving to the left?

14 A Yes, sir.

15 Q Is there a -- generally for a large vehicle  
16 such as a route truck or a transfer truck, a blind spot  
17 on the left side of the vehicle?

18 A Yes, sir, somewhere back behind them.

19 Q So they would be attempting to make a traffic  
20 maneuver where the passenger vehicles in the area may be  
21 in your blind spot?

22 A It's possible. Again, we rely on drivers to  
23 make good decisions when they're driving.

24 Q Would this impact the potential for an accident  
25 in that area in any way?

1 A It could.

2 Q And how could it?

3 A I mean, any -- any time you introduce  
4 conflicting traffic, there -- there's the potential for  
5 an accident.

6 Q And is this the introduction of conflicting  
7 traffic?

8 A Absolutely.

9 Q And in what way is this the introduction of  
10 conflicting traffic?

11 A We have a right-in, right-out maneuver along  
12 the frontage road which typically is the most desirable  
13 form of high-grade access like this. And so we've  
14 introduced right turns off of US 183 and right turns  
15 onto US 183.

16 Q And as we look here, we do have this  
17 intersection of 1185 and 183 that's visible on this  
18 figure. Is that correct?

19 A Yes, sir.

20 Q Is there any aspect of this intersection that  
21 would make it more likely that a crash here would be  
22 severe?

23 A The -- the high-speed nature of US 183.

24 Q So I think in deposition you said if we're  
25 going to have an accident, it's probably going to be

1 severe?

2 A That -- I think that's pretty safe to assume,  
3 given the speed limit on US 183.

4 Q Now, would you look with me a few pages up, to  
5 Page 164?

6 A (Witness complies).

7 Q Did you assume any particular operating hours  
8 for the facility?

9 A As it states on Page 164, "The 130  
10 Environmental Park has proposed to operate with hours  
11 for incoming waste-hauling vehicles from 3:00 a.m. to  
12 5:00 p.m., Monday through Friday during a typical week.  
13 No waste will be accepted at the facility after 5:00  
14 p.m. Limited operation of approximately seven hours is  
15 anticipated on Saturdays."

16 Q Did you review the authorization for the Type V  
17 transfer station in order to determine if this was  
18 consistent with the operating hours at that facility?

19 A No, sir.

20 Q If the operating -- operating hours for that  
21 facility were different from these hours, would that --  
22 would your analysis necessarily still stand?

23 A The numbers in the analysis would change  
24 somewhat. The conclusions are unlikely to change.

25 Q But you didn't do any specific analysis for

1 operating hours different than those set forth here?

2 A No, sir.

3 Q So your analysis would not apply if the  
4 operating hours were different than those set forth  
5 here?

6 A No, sir. The -- the volumes would be a little  
7 bit different depending on how they spread out  
8 throughout the day, so it's -- again, it's not a whole  
9 lot of traffic.

10 Q But you didn't look at different operating  
11 hours?

12 A No, sir.

13 Q Look with me at Page 2C-14, which is Page 170  
14 of 130EP-1.

15 A Okay.

16 Q Looking at Table 2, did you determine the peak  
17 hour of traffic on 183 of the existing background  
18 traffic?

19 A Yes, sir.

20 Q And how is that determined?

21 A Based on the traffic counts we collected.

22 Q And was that -- how many days did you conduct  
23 traffic counts?

24 A I believe a single day.

25 Q What was that date?

1 A You would have to give me a minute.

2 Q Well, look at Note 1 under Table 2.

3 A There we go. May 15, 2013.

4 Q Did you do any other work to determine the  
5 background traffic on 183?

6 A No, sir.

7 Q So is that single day of counts your basis for  
8 the 50-year projections that you've given?

9 A That's the basis for the starting point, yes.

10 Q And is it also the basis for the background  
11 traffic you've assumed for the next 50 years?

12 A That we grew for 50 years, yes.

13 Q That single day in May of 2013?

14 A Yes. That single day, though, it also -- we  
15 were able to compare it with historical volumes in the  
16 area. So we know that the volumes are reasonable.

17 Q And what start volumes were those?

18 A We pulled volumes from TxDOT traffic count  
19 maps. If you give me a minute, I can find the figure  
20 for you. If you'll refer defer to Page 179 of EP-1.

21 Q And how do these volumes relate to the traffic  
22 counts that you used as your basis?

23 A These are TxDOT annual volumes that -- average  
24 annual daily traffic volumes. So we're able to compare  
25 our traffic to those volumes.



1 Q Now, did those volumes in 2013 -- have there --  
2 have you gone back to review whether there have been any  
3 changes in land use since that time?

4 A I have not.

5 Q Have you -- are you aware that there's been a  
6 school constructed in the area?

7 A Yes, sir.

8 Q Did you make any determination as to whether  
9 that has impacted the traffic volumes?

10 A I have not made any formal determinations.  
11 The -- to my understanding, the school has an attendance  
12 zone far to the northeast of the site, and so the  
13 traffic from the school is unlikely to go down through  
14 our intersection.

15 Additionally there was a TIA from the  
16 school somewhere in the prefiled exhibits. It had  
17 volumes projected coming back down FM 1185 that were  
18 only in the 20 to 30 vehicle range. So those are not  
19 volumes that would be significant enough to make an  
20 impact down at 1185 and 130.

21 Q Would some of the traffic associated with the  
22 school be from school buses?

23 A Yes, sir, I believe the TIA for the school  
24 stated that 70 percent of the students would ride buses.

25 Q Would some of those buses go through this

1 intersection of 1185 and 183?

2 A Given that the attendance zone does not go down  
3 past this intersection, I do not believe so.

4 MR. ALLMON: Your Honor, if I could have  
5 just a minute.

6 JUDGE BELL: Sure. Go off this record.

7 (Off the record)

8 JUDGE BELL: Back on the record.

9 Q (BY MR. ALLMON) You just mentioned a traffic  
10 impact analysis for the nearby school. Did you review  
11 that TIA?

12 A I skimmed through it.

13 Q When did you perform that review?

14 A Once I saw it in the prefiled exhibits.

15 MR. ALLMON: Your Honor, I pass the  
16 witness. That's all of my questions.

17 JUDGE BELL: All right. Very good.

18 JUDGE QUALTROUGH: You need to offer.

19 JUDGE BELL: Oh, yeah. We talked about  
20 Protestants' Exhibits 29 and 30 with Mr. Denholm, but  
21 they weren't formally offered. Would you like to offer  
22 those exhibits now?

23 MR. ALLMON: Yes. I will formally offer  
24 Protestants' Exhibit 29 and Exhibit 30.

25 JUDGE BELL: All right. Any objections to

1 Protestants' Exhibits 29 and 30?

2 MR. RYAN: No objection.

3 JUDGE BELL: All right. Hearing none, 29  
4 and 30 Protestants' Exhibits are admitted.

5 (Exhibit Protestants Nos. 29 and 30  
6 admitted)

7 JUDGE BELL: And we will pick up with  
8 cross-examination by Caldwell County of Mr. Denholm  
9 first thing in the morning at 9 o'clock.

10 We are adjourned.

11 (Proceedings recessed at 5:32 p.m.)

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## C E R T I F I C A T E

STATE OF TEXAS )

COUNTY OF TRAVIS )

We, Lorrie A. Schnoor and Jodi Cardenas,  
Certified Shorthand Reporters in and for the State of  
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occurred as hereinbefore set out.

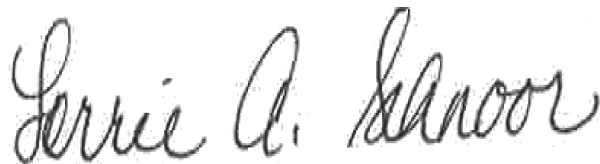
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IN WITNESS WHEREOF, we have hereunto set our  
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