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2 Non-Binding Arbitrations before  
3 Jeffrey C. Fereday, Arbitrator  
4

5  
6 Initiated Pursuant to Final Settlement  
7 Stipulation

8 KANSAS v. NEBRASKA & COLORADO  
9 No. 126, Orig, U.S. Supreme Court  
10 Decree of May 29, 2003, 538 U.S. 720  
11

12  
13 N-CORPE Augmentation Plan  
14 (Arbitration Initiated July 10, 2013)  
15

16  
17  
18  
19 DEPOSITION OF: DR. JAMES SCHNEIDER

20 DATE: January 14, 2014

21 TIME: 11:06 a.m.

22 PLACE: 1221 N Street, Suite 600, Lincoln,

23 Nebraska  
24  
25

2

1 APPEARANCES:  
 2 APPEARING FOR KANSAS:  
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ALSO PRESENT:  
 Jasper Fanning, Thomas Riley, Marc  
 Groff, Blake Johnson, Brian Dunnigan

ALSO PRESENT TELEPHONICALLY:  
 Willem Schreuder

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1 P-R-O-C-E-E-D-I-N-G-S  
 2 DR. JAMES SCHNEIDER,  
 3 Of lawful age, being first duly cautioned and  
 4 solemnly sworn as hereinafter certified, was  
 5 examined and testified as follows:  
 6 DIRECT EXAMINATION  
 7 BY MR. GRUNEWALD:  
 8 Q. Good morning, Dr. Schneider.  
 9 A. Good morning.  
 10 MR. GRUNEWALD: I have a few  
 11 documents premarked ahead of time. So I  
 12 thought I would hand a few of those around.  
 13 We can use -- the one for the deponent  
 14 can be the one that goes in the record, if  
 15 that's okay with the reporter. I'm getting  
 16 yes.  
 17 So Exhibit No. 1 here is -- I have an  
 18 extra copy if you want to hand that down -- is  
 19 the deposition notice.  
 20 You know, I'm just now realizing for our  
 21 folks on the phone, Colorado, you know, I  
 22 apologize, I could have had these forwarded  
 23 electronically. And that escaped me. I'll be  
 24 sure and get them to you.  
 25 If while we're doing this you have a

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1 I-N-D-E-X  
 2 WITNESS Direct Cross Redirect Recross  
 3 DR. SCHNEIDER 4 -- -- --  
 4  
 5 EXHIBITS Marked Offered  
 6 1. Deposition Notice 63 --  
 7 2. N-CORPE Proposal 63 --  
 8 3. N-CORPE Information Sheets 63 --  
 9 5. Arbitrator's Order 11-25-13 89 --  
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1 question about what document we're dealing  
 2 with, we can go off the record and talk about  
 3 how to deal with that.  
 4 MR. WILMOTH: Did you catch  
 5 that? No. 1 is the depo notice.  
 6 MR. STEUER: Yes.  
 7 Q. (BY MR. GRUNEWALD) And as Deposition  
 8 Exhibit No. 2, we have a copy of the State of  
 9 Nebraska's cover letter and attachments for the  
 10 proposal we're dealing with here. I'm going to  
 11 read it out.  
 12 We'll refer to it as an acronym. It's  
 13 Nebraska Cooperative Republican Platte  
 14 Enhancement Augmentation Plan. And so we'll  
 15 refer to that as -- in short as N-CORPE.  
 16 And Exhibit No. 3 -- and we'll go back  
 17 over each of these specifically. And you'll --  
 18 Dr. Schneider, you'll have a chance to take a  
 19 look at them and verify them as needed.  
 20 No. 3 is a -- what we found to be a fax  
 21 sheet regarding the N-CORPE project. It has a  
 22 date of January 2013.  
 23 MR. WILMOTH: Could you tell us  
 24 where you got this, Chris, or --  
 25 MR. GRUNEWALD: You know, I --

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1 I'm afraid I don't have on the -- it embedded  
2 on the printout. It was -- I believe it was  
3 pulled off of a website dedicated to N-CORPE.  
4 I believe it will be familiar. But we can go  
5 over that more specifically in a moment.  
6 Q. (BY MR. GRUNEWALD) All right. So have  
7 you seen your deposition notice before,  
8 Dr. Schneider?  
9 A. Yes.  
10 Q. And in that notice -- we're taking this  
11 deposition to ask questions and find out  
12 information regarding the State of Nebraska's  
13 N-CORPE proposal which is embodied in Exhibit  
14 2. For the purposes of our arbitration  
15 agreement, we're treating that as an initial  
16 expert report or disclosure. And you've been  
17 designated as the author of that.  
18 In our deposition notice, it refers to  
19 any backup materials, electronic or hard  
20 copies, that haven't been previously turned  
21 over. So I understand some have been placed on  
22 the website. And I wanted to follow up this  
23 morning and verify if there are any other  
24 materials to supplement those that have not yet  
25 been provided to the states?

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1 A. There's nothing that I'm aware of that  
2 hasn't been provided.  
3 Q. Okay. I should probably do a couple of  
4 the introductory items. You've been deposed  
5 before, right?  
6 A. Yes.  
7 Q. Okay. So you're pretty familiar with  
8 it. If you want to take a break, just let us  
9 know.  
10 A. Okay.  
11 Q. We want your answers to be as complete  
12 as possible. So I will try not to interrupt  
13 you.  
14 And if you think of something later to  
15 fill in an answer, let's be sure to go back and  
16 please let me know. And we can make sure you  
17 fill in your answer. Does that sound okay?  
18 A. Yes.  
19 Q. Is there any reason this morning, such  
20 as medication or any other reason, why you  
21 think your answers won't be complete and  
22 truthful this morning?  
23 A. No.  
24 Q. Thank you. Okay.  
25 So moving to Exhibit No. 2, and that's

8

1 the -- Nebraska's N-CORPE Augmentation Plan.  
2 Could you please take a look at the copy we  
3 provided to you and see if it looks like a copy  
4 of that proposal?  
5 A. Without going through it page by page,  
6 it does appear to be the complete proposal.  
7 Q. And what are the major components of the  
8 proposal? Because it seems like it has a  
9 narrative text and a couple of pieces appended  
10 to the back of it. How would you break down  
11 what the proposal includes?  
12 A. Well, there is the narrative text that  
13 describes the project and the proposal.  
14 I guess there's -- there's kind of two  
15 layers within this whole document because this  
16 is a transmittal letter that has several  
17 exhibits. So that's kind of outlined on the  
18 front page in that letter.  
19 So the Exhibit A is the proposal and the  
20 appendices to the proposal.  
21 And Exhibit B is the timeframe  
22 designation that we had set out for potential  
23 fast track arbitration.  
24 So within that Exhibit A, there's the  
25 proposal itself, which then has -- as a -- as

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1 Appendix A, the proposed red line to the RRCA  
2 accounting procedures and reporting  
3 requirements that would implement any changes  
4 to the -- to those accounting procedures that  
5 would be necessary as part of the proposal.  
6 And then Appendix B to -- to the plan is  
7 the backup information, which is essentially  
8 a -- location of an FTP site with log-in and  
9 password to obtain the model runs that are --  
10 and other information. And that's where we  
11 augmented earlier this week or last week with  
12 some of the other backup materials, such as the  
13 spreadsheets that contain the data that are in  
14 the tables and the GIS files for the maps.  
15 Q. Great. Thank you. Are you the sole  
16 author of this proposal?  
17 A. Well, I think similar to the Rock Creek  
18 proposal, you know, I had quite a bit of  
19 assistance from others at DNR with consultants  
20 and other -- others that reviewed it. So, you  
21 know, I'm the primary author. But there was  
22 a -- quite a bit of collaboration in developing  
23 it.  
24 Q. Did anyone else draft the text that's in  
25 the narrative portion of the proposal?

10

1 A. Certainly Jesse Bradley from the  
2 department would have drafted some of it in  
3 working together with me to put this together.  
4 And that was similar to the Rock Creek  
5 proposal. You know, we had consultants doing  
6 model runs, helping to pull the data together  
7 and creating the tables. So there may have  
8 been some texts associated with those as well.  
9 Q. Was Mr. Bradley responsible for any  
10 particular section in this narrative portion of  
11 the proposal?  
12 A. No. I wouldn't say that he would be the  
13 sole author of any specific section.  
14 Q. You reviewed -- so you reviewed and took  
15 primary control for all of the texts? The  
16 opinions, the facts and calculations,  
17 everything in the narrative text would go  
18 directly to you as the primary author?  
19 A. I'd be responsible for all of that, yes.  
20 Q. Thank you. Now, you said a number of  
21 other people had assisted you. Can you tell me  
22 who it is you're referring to? Sounded like  
23 there were both people in the Nebraska  
24 Department of Natural Resources as well as  
25 consultants.

11

1 A. Yeah, I mean, I know Brian Dunnigan  
2 would have reviewed it. And we've had  
3 discussions there. And I can't recall if we  
4 had other help within the department.  
5 The consultants with the Flatwater  
6 Group, Tom Riley, Marc Groff, possibly others  
7 would have been involved in reviewing various  
8 elements of it, as well as legal counsel.  
9 Q. Okay. And the -- there -- in the  
10 report, you refer to some tables. There are  
11 some spreadsheets. There are some calculations  
12 that were performed, as well as I believe you  
13 referred to model runs. And who is it that  
14 performed those calculations and model runs?  
15 A. The model runs were completed by Chuck  
16 Spalding with McDonald Morrissey.  
17 There was some assistance from  
18 consultants at the Flatwater Group in helping  
19 to, for lack of a better word, direct those  
20 model runs, you know, communicate exactly what  
21 we wanted done and putting the final results  
22 together in some of the tables that are in  
23 there.  
24 Q. Okay. And this proposal contains your  
25 opinions about the N-CORPE proposal as it

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1 relates to getting approval from the Republican  
2 River Compact Administration; is that a fair  
3 characterization?  
4 A. Well, I guess I think I would say that  
5 it outlines our understanding of the  
6 requirements for an augmentation plan under the  
7 final settlement stipulation and shows how this  
8 project operating under the accounting that  
9 we've laid out would meet those requirements.  
10 Q. We'll be using probably a lot of  
11 acronyms, but Republican River Compact  
12 Administration is also going to be the RRCA.  
13 The FSS is the Final Settlement Stipulation.  
14 So based on your last answer in terms of  
15 what the proposal is directed at doing, do you  
16 have any other opinions about how it satisfies  
17 the FSS, if I can paraphrase, that are not  
18 expressed in this proposal?  
19 A. Well, the only reason I'm pausing, I'm  
20 thinking through the Rock Creek arbitration  
21 that we did and the decisions that we received.  
22 So, you know, there was some development, I  
23 suppose, of kind of the -- with the concessions  
24 that we made for the Rock Creek plan and the  
25 way that that developed through that

13

1 arbitration and with the arbitrator's order  
2 approving that plan given some of those  
3 concessions.  
4 So I think those things, you know, have  
5 developed since this was submitted and would  
6 probably also fall into the area that you were  
7 asking about.  
8 Q. Okay. The -- let's talk about the  
9 timeframe for this proposal. So this proposal  
10 was complete as of the date on the cover  
11 letter; is that right?  
12 A. Yes.  
13 Q. So June 2013?  
14 A. Yes.  
15 Q. The Rock Creek you're referring to, we  
16 recently had an arbitration regarding  
17 Nebraska's Rock Creek Augmentation Proposal; is  
18 that right?  
19 A. Yes.  
20 Q. Okay. And that completed with an  
21 arbitrator's order coming down in late  
22 December; right?  
23 A. Yes.  
24 Q. Okay. And that's the order you're  
25 referring to?

14

1 A. Yes.  
2 Q. So if we can go back to what you  
3 referred to there, you mentioned some  
4 concessions. Could you list for me what you  
5 consider to be Nebraska's concessions in that  
6 Rock Creek arbitration that would relate to  
7 this N-CORPE proposal?  
8 A. Well, the concessions were essentially  
9 that we would agree to have a review of the  
10 plan, to look at the plan and make sure -- and  
11 talk about whether or not changing conditions  
12 might warrant some changes to the plan after 20  
13 years of project operation.  
14 And the other was related to the new net  
15 depletions and not counting the augmentation  
16 water that was -- that's being pumped to cover  
17 those new net depletions as an augmentation  
18 credit.  
19 Q. I'd like to take each one of those just  
20 for some follow-up.  
21 So on -- you mentioned a review of the  
22 plan, and I believe you said talking about  
23 changing condition or talking about review.  
24 Who would be doing the review, talking with  
25 whom about the review? Could you explain what

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1 you meant by that?  
2 A. Oh, that would be in the RRCA.  
3 Q. So is it that an augmentation plan like  
4 Rock Creek and like the N-CORPE plan would have  
5 review by the RRCA for -- if there were changed  
6 conditions and, also, at the end of 20 years;  
7 is that about right?  
8 A. Well, the augmentation plan, it  
9 basically incorporates the operations and the  
10 results of it, you know, in terms of to  
11 increase stream flow into the accounting  
12 procedures.  
13 So, you know, the accounting is  
14 something that the RRCA does every year. So,  
15 you know, from my perspective, anything related  
16 to the accounting that we're doing on an  
17 annual, ongoing basis could always be discussed  
18 in the RRCA in terms of whether or not the  
19 assumptions underlying the accounting need to  
20 be reviewed or other formulas or things like  
21 that.  
22 So that's -- that's something that,  
23 yeah, would be -- would be there on an ongoing  
24 basis.  
25 And then we also just said, you know,

16

1 well, let's just -- if those discussions never  
2 do happen, let's make sure we have some  
3 discussion in that 20-year timeframe. So I  
4 think that was -- that was the intent.  
5 Q. Is the process you're describing in the  
6 current N-CORPE proposal from Nebraska?  
7 A. To commit to a discussion 20 years down  
8 the road?  
9 Q. Yes.  
10 A. I don't believe so, no.  
11 Q. Is it Nebraska's intention to include  
12 that in the N-CORPE proposal?  
13 A. I believe that we would be intending to  
14 make similar concessions as -- you know, in the  
15 same manner that we did through the last  
16 arbitration. Those were included in my  
17 responsive expert report.  
18 Q. Do you know when a decision's going to  
19 be made on that?  
20 A. No.  
21 Q. Do you know if a decision has been made  
22 already on that?  
23 A. It will be made when we're writing that  
24 report, I guess.  
25 So -- I mean, I -- if I were -- if I

17

1 were to tell you what I think we're going to do  
2 right now, I think that that's what we're going  
3 to do.  
4 Q. The other concession you mentioned was  
5 related to a concept termed new net depletions.  
6 Could you explain what that means that's  
7 somehow different from what's currently in the  
8 N-CORPE proposal?  
9 A. Sure. It would probably help to look at  
10 one of the tables. I would point to Table 3 on  
11 page 12 of 104 of the plan.  
12 So the way -- the way this is laid out  
13 is the augmentation water supply credit is the  
14 amount of water that was pumped into the  
15 stream, the 60,000 acre-feet that's shown there  
16 in the years that it was operated.  
17 And then when you look at the new  
18 depletion, you know, the way this was presented  
19 is it compared the new depletion to the  
20 augmentation water supply credit and made sure  
21 there was no new net depletion or, in other  
22 words, an accretion benefit.  
23 This plan is a little different in that  
24 there are other exceptions to the moratorium  
25 that apply. But I -- we can get into that if

18

1 you want to.  
2 But setting that aside, essentially it  
3 would look at the new depletion. And when you  
4 look at this table, the new depletions are, in  
5 fact, accretions for the early years. But when  
6 they do become positive depletions, a certain  
7 amount of the pumping is going to cover that  
8 new depletion.  
9 So while -- if we look at 2002, for  
10 example, in this table, there was 356 acre-feet  
11 of new depletion and 60,000 acre-feet of  
12 pumping. And we designate that as the credit  
13 in this table. And then it shows the net of  
14 that as an accretion benefit of 59,644.  
15 As we discussed in the arbitration and  
16 as the arbitrator ruled, this would probably be  
17 more proper to make that accretion benefit be  
18 the credit, just kind of the netting out of  
19 what was actually a benefit to the stream.  
20 I think the way he laid it out is that  
21 second column should be called the augmentation  
22 water supply and the third column should be  
23 called the augmentation water supply credit.  
24 Q. Thank you. And just if we could stick  
25 with that table --

19

1 A. Uh-huh.  
2 Q. So if the year before that has -- the  
3 year 2001 is a year of no pumping; is that  
4 right, in this projection, which is a  
5 hypothetical; right?  
6 A. That's right.  
7 Q. And so in that year, there is a  
8 depletion associated with the augmentation  
9 wells that have been running previously, and  
10 that depletion is 401; is that right?  
11 A. Well, that is the new depletion from the  
12 project operations. It's not the total  
13 depletion from those wells operating.  
14 It's comparing the condition with  
15 irrigation operations to the condition with  
16 augmentation operations. And so, you know,  
17 there would have been some depletion caused by  
18 those wells anyway. And that's not included in  
19 that column. It's just the -- the additional  
20 depletion due to the change in operations and  
21 the -- and any potential increase, you know, in  
22 long-term pumping volumes.  
23 Q. And so under your explanation, the  
24 accretion benefit column might be more properly  
25 termed the augmentation water supply credit.

20

1 Does that mean there would be a negative credit  
2 entered for the year 2001?  
3 A. Well, I think that's something that we  
4 didn't -- I didn't fully think through in  
5 presenting those concessions and in discussing  
6 and presenting that with the arbitrator. So  
7 there probably needs to be some additional  
8 minor conditions that -- you know, because when  
9 you implement the way he ruled on the way this  
10 should look, I think there's a -- a couple of  
11 additional minor clarifications need to be made  
12 so you don't end up with some of those effects.  
13 I'm kind of working through that right  
14 now. And I don't -- so that specific  
15 situation, I'm still thinking through that.  
16 But they're fairly minor just additional  
17 details. So I don't -- I guess what I'm saying  
18 is I don't think it should result in a negative  
19 credit. It probably shouldn't result in a  
20 credit that's more than the pumping either,  
21 like you see in the years 1988 through 1991  
22 further up on that table, because it just would  
23 inadvertently result in double counting, not  
24 counting for water.  
25 That negative 401 is represented just

21

1 fine in the new depletion part of it. It's  
2 accounted for there, I guess.  
3 Q. Could you explain what you meant by  
4 double counting? And I apologize for having  
5 you walk me through the accounting. But I want  
6 to make sure I understood that.  
7 A. Well, I guess I've thought about it more  
8 in the example I went to up in, say, 1991 where  
9 the augmentation water supply is 60,000  
10 acre-feet. And so that should be the credit.  
11 If we -- if we add the accretion due to -- the  
12 negative new depletion on top of that, I think  
13 we would be putting it in two places because  
14 the -- the accretion due to the change in  
15 project operations, that negative 151 means  
16 there's less depletions from the new operation.  
17 And that would be reflected in the accounting  
18 anyway. So we wouldn't want to reflect it  
19 again. That's what I was referring to.  
20 Q. The 151 in this case accretion in 1991  
21 is -- at least in that year's accounting, could  
22 be included by using the accretion benefit  
23 column here as the augmentation water supply  
24 credit; is that right?  
25 A. Well, I -- what I was trying to say is I

22

1 think it would be more proper to make the  
2 augmentation water supply credit be -- maybe an  
3 easier way of saying it is it's either the  
4 augmentation water supply or the augmentation  
5 water supply minus any new depletion, whichever  
6 is less.  
7 I think I said that right.  
8 Q. Would be you be willing to say it one  
9 more time?  
10 A. For example, the augmentation water  
11 supply would be 60,000. And if you -- if you  
12 assume that you're going to net out the new  
13 depletion and the augmentation water supply to  
14 get the augmentation water supply credit, in  
15 that case you would get -- you'd get these two  
16 numbers, 60,000 or 60,151.  
17 Q. Uh-huh.  
18 A. For the augmentation water supply  
19 credit, we should choose the number that's  
20 less -- the lesser number.  
21 Q. I see.  
22 A. So when you look down further in the  
23 table, you'll see that you apply the same test.  
24 And you would not choose 60,000. You would  
25 choose the 59,644.

23

1 Q. Kind of a one-way ratchet? It will --  
2 it will go down; it's not going to go over the  
3 60,000?  
4 A. Right.  
5 Q. And was the arbitrator talking about  
6 using the new depletion that you've got  
7 conceptually in this column here in your Table  
8 3? Or was he talking about the actual -- was  
9 he talking about a different depletion number  
10 in the Rock Creek decision?  
11 A. Well, I won't try to speak for him. But  
12 my -- I understood what he was saying to be the  
13 new -- that it was the new depletion.  
14 Q. Okay.  
15 A. And, you know, it -- I think we were  
16 just discussing it in terms of that new  
17 depletion being positive. So you don't run  
18 into that issue if -- as long as that's  
19 positive.  
20 But you can run into that issue in this  
21 case, as an example, because we switched to  
22 project operations but then didn't operate the  
23 project for three years. So you have --  
24 instead of those first three years of  
25 irrigation pumping, you have those first three

24

1 years of no pumping.  
2 So, you know, this is a hypothetical.  
3 That -- that particular occurrence may never  
4 actually happen. But in this case, it did  
5 because of the way we set that up. And we  
6 started with a time period where the first few  
7 years were years where we wouldn't have pumped  
8 it.  
9 Q. Is -- are the negative numbers in the  
10 new depletion column here an artifact of it not  
11 having been done for project operations at  
12 all -- it's a start-up problem, it's just going  
13 to happen at the very beginning of the first  
14 time you run this project but if there are  
15 cycles of running it, as you're predicting,  
16 then you're not going to have that issue?  
17 A. Well, that's -- I wouldn't say that's  
18 absolutely true. But that's the most likely  
19 time that that would happen.  
20 It could also happen if you had a long  
21 period of little to no operation.  
22 Q. Now, similar to what we were discussing  
23 about what you called the first concession in  
24 terms of review, have -- is it Nebraska's  
25 intention to modify the calculation of the

25

1 credit along the lines of what the arbitrator  
2 suggested or put in his arbitrator's decision  
3 for Rock Creek?  
4 A. Well, it hasn't all been worked out at  
5 this point. But I would anticipate, at least  
6 my understanding is we're going to do something  
7 similar to what we did before, and that would  
8 incorporate his ruling.  
9 Q. Do you know if a decision has been made  
10 yet on whether to try and incorporate changes  
11 based on the Rock Creek ruling?  
12 A. You mean changes to this plan itself?  
13 Q. Yes.  
14 A. That's -- that's something that I  
15 believe we're going to work on. But I haven't  
16 gotten to it yet. So --  
17 Q. Been busy?  
18 A. Very busy.  
19 Q. Do you know when a decision's going to  
20 be made on that?  
21 A. Sometime before February 7th, I would  
22 believe.  
23 Q. Which is --  
24 A. I think that's the day my responsive  
25 expert report is due. But if I'm wrong on

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1 that, it would be that day.  
2 Q. So if a decision's going to be made on  
3 any changes to the accounting procedures markup  
4 or the N-CORPE proposal, it's your intention  
5 those changes would be fleshed out by February  
6 7th; is that what you're saying?  
7 A. That's what I'm saying.  
8 Q. Okay. Are there any other items or  
9 issues that you consider a concession? You  
10 mentioned concessions, plural. So are there  
11 any other concessions that came up as you  
12 understand the term in the Rock Creek decision  
13 that would affect Nebraska's N-CORPE proposal?  
14 A. I don't believe so.  
15 Q. I want to talk about the N-CORPE project  
16 objectives generally. How would you describe  
17 the N-CORPE project, what its major concepts  
18 are and its major aims are?  
19 A. Well, I guess real generally, it would  
20 be to meet the requirements of the Integrated  
21 Management Plans. By that I mean the natural  
22 resource districts implementing -- building and  
23 operating this project to meet any projected  
24 deficits that might come out of the forecast as  
25 it's outlined in the Integrated Management

27

1 Plans.  
2 Q. Is that just the Republican River side  
3 of the N-CORPE project? Is there another  
4 aspect to it?  
5 A. There is. And the answer would be very  
6 similar, except that on the Platte side of the  
7 project, you know, the specific requirements,  
8 you know, aren't obviously tied to the  
9 Republican River Compact but to the -- to the  
10 Groundwater Management Protection Act as well  
11 as Platte River Recovery and Limitation Program  
12 and Nebraska's new depletions plan under that.  
13 Q. What was the last item? Nebraska's --  
14 A. New depletions plan.  
15 Q. And that's part of the Platte River  
16 Recovery and Implementation Project?  
17 A. It's part of the program documents.  
18 They're -- each state in the federal government  
19 has a depletions plan. Those are contained in  
20 the Water Plan, which is a very lengthy  
21 document that has other elements as well.  
22 Q. What entities -- entity or entities are  
23 responsible for the N-CORPE project?  
24 A. Well, if you're talking about ownership  
25 and operation, there -- as I understand it,

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1 there's a -- how would you describe it?  
2 There's an interlocal cooperative agreement.  
3 So there's a joint board, per se, that oversees  
4 the -- right now would be the construction and  
5 other aspects of the project.  
6 My understanding that that agreement is  
7 between four NRDs, the three Republican NRDs  
8 and the Twin Platte NRD and they each have a  
9 member on the joint board.  
10 Q. Is the -- is the same -- that same  
11 agreement controls all aspects of the project  
12 or only certain aspects?  
13 A. I guess I don't know of anything that  
14 would fall outside of that other than maybe  
15 what we're dealing with here today in terms of  
16 the interaction between the states on the RRCA.  
17 But I don't think you're asking about that side  
18 of the project.  
19 Q. So -- well, I'll give you -- for  
20 example, the project entailed some land  
21 acquisition and then there may have been some  
22 construction associated with wells,  
23 construction associated with pipelines, and  
24 then there's going to be long-term operations  
25 of the project and management I think was the

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1 term you used.  
2 Of those things that I've listed, is the  
3 agreement the source for all the control for  
4 those items and the basic operations?  
5 A. That's my understanding, that that --  
6 that agreement creates that joint board and  
7 that board makes all those decisions. That  
8 probably was a very poor legal description of  
9 how that functions. But --  
10 Q. Legal descriptions are often not very  
11 helpful.  
12 So the -- have you ever seen that  
13 agreement?  
14 A. I have not.  
15 Q. Is there a board of directors that makes  
16 the decisions, do you know?  
17 A. That's my understanding, yeah.  
18 Q. Have you ever met with the board of  
19 directors?  
20 A. Well, I -- I don't know specifically who  
21 each one is. But I'm sure I know all of them.  
22 They're associated with each NRD. I haven't  
23 gone to a meeting, if that's what you mean.  
24 Q. So you may have met the members of the  
25 board independent of their, say, meetings as

30

1 the N-CORPE board; is that what you're saying?  
2 A. Right, right. Just through our  
3 interactions between the department and the  
4 natural resource districts.  
5 Q. Okay. So do you know whether or not  
6 there's an equal representation for each of  
7 those NRDs on the board?  
8 A. That's my understanding, that it's one  
9 representative from each NRD.  
10 Q. And do you know whether or not they all  
11 have an equal amount of control or a vote, if  
12 you will?  
13 A. That would be my understanding, that  
14 they do.  
15 Q. Do -- besides the board, is there --  
16 have -- has the board put some -- somebody or  
17 an entity in more day-to-day control of the  
18 project?  
19 A. I wouldn't -- I wouldn't know, you know,  
20 how they've designated responsibilities.  
21 Q. So you don't know whether there's  
22 someone like a general manager or an executive  
23 director or anything like that?  
24 A. I don't.  
25 Q. Okay. When was this project -- the

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1 N-CORPE project first discussed with you?  
2 A. That's a good question. Probably  
3 sometime in late 2011 or 2012.  
4 Q. And was -- was the project something you  
5 heard about, or was the project your idea?  
6 A. It was something I heard about.  
7 Q. Okay. How would you describe your role  
8 related to the development of the project?  
9 A. It was very similar to my role in the  
10 development of the Rock Creek project,  
11 generally helping -- you know, whether it was  
12 myself or my staff, working with the NRDs in  
13 terms of what potential benefits might be  
14 anticipated and then, more specifically, in  
15 this -- developing this augmentation plan.  
16 And the role also -- once this is  
17 implemented on the Platte side, our role would  
18 also be in providing data and information which  
19 would be incorporated into our annual reporting  
20 honoring the depletions plan to the Platte  
21 River program.  
22 Q. Would you consider the -- I'm going to  
23 have some questions about the Platte side of  
24 it, which we may come back to. And I was  
25 aiming for a question focused on your role in

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1 the development of the project.  
2 There are these two sides of it, the  
3 Republican River side and the Platte side. And  
4 so is the Republican River side fully developed  
5 but the Platte side of it still under  
6 development in terms of concept or other  
7 things? I want to see if I understand. Is the  
8 project still being developed on the Platte  
9 side, or would you consider it done?  
10 A. I don't believe it's fully developed in  
11 terms of the construction plans and that type  
12 of thing.  
13 There's a -- there's not the same  
14 timetable that they're dealing with on the  
15 Platte side. So they, at least the last I  
16 heard, had been working out various routes and  
17 that kind of thing. But I haven't heard any  
18 decisions have been made on that.  
19 Q. When you say not the same timetable,  
20 what is the timetable on the Platte side?  
21 A. The Twin Platte NRD has kind of taken  
22 care of their water offsets through 2019 by  
23 participating in a -- in another project that  
24 we're currently just getting started on  
25 building in the Platte Basin. So they've

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1 leased some benefits from that. So they don't  
2 strictly need this project operation on the  
3 Platte side until 2019.  
4 Q. Okay. Now, I had asked you what your  
5 role was in the development side of -- or the  
6 development phase of the project.  
7 Were there any others -- other people at  
8 Nebraska Department of Natural Resources that  
9 had a role in the development of the project?  
10 A. Well, Jesse Bradley is the head of our  
11 Integrated Water Management Division. He has  
12 probably been in on other conversations that I  
13 haven't been in on.  
14 But I don't -- you know, I guess I'm a  
15 little confused by your term development.  
16 Certainly wouldn't be in terms of recommending,  
17 you know, how it should be developed in terms  
18 of routes or number of wells or anything like  
19 that that I would be aware of.  
20 Q. It might be easier to not try and split  
21 up the different phases or the evolution of the  
22 project. Is -- and so let me retry my  
23 question, just focused on who else at Nebraska  
24 Department of Natural Resources has been  
25 involved with work on the project.

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1 And so far I know you and Mr. Bradley.  
2 And you've described what it is you were doing.  
3 So is there anybody else? And, if so, what is  
4 it that they were doing for the project?  
5 A. I don't think there's anyone else. The  
6 one thing that comes to mind now -- well, I  
7 guess I should say I don't know if it there was  
8 anyone else. Jesse probably had staff helping  
9 with -- with some of this.  
10 But what I'm referring to is some of the  
11 funding that was provided. The department  
12 provided funding last year the Republican River  
13 NRDs but -- and I don't remember if any of it  
14 went to this project or if that went to other  
15 projects.  
16 But we do have a -- we have a number of  
17 groups in the Platte River Basin, are generally  
18 the same people, but we have what's called a  
19 Platte -- the Platte Basin Coalition, the  
20 Platte Overappropriated Committee, the Platte  
21 Basin Habitat Enhancement Program. And through  
22 those, there's a -- the state's committed a  
23 certain amount of funding.  
24 And I know that the Twin Platte NRD  
25 brought at least their portion of the cost of

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1 the N-CORPE project to that group to a --  
2 receive an allocation of the -- of what we  
3 would refer to as the budget that that group  
4 has, which consists of state monies and local  
5 monies.  
6 Q. When you were talking about  
7 Mr. Bradley's involvement and you mentioned not  
8 talking about routes or number of wells, I was  
9 going to ask questions about the siting  
10 decisions that were made for the pipeline or  
11 for wells.  
12 Was Nebraska DNR involved at all in any  
13 of those decisions?  
14 A. I don't think so.  
15 Q. You say you don't think so. Is it  
16 possible there's anybody that you wouldn't know  
17 about that would be involved in that sort of  
18 stuff in Nebraska DNR?  
19 A. I only, I guess, hedge a little bit  
20 because some of it -- some of the decisions  
21 made have been based on information that we  
22 provided. You know, as an example, stream  
23 depletion factors that we may have developed  
24 that would potentially factor into well  
25 locations, as an example. And there may have

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1 been some discussions over that.  
2 But, really, you know, we don't make any  
3 of those decisions.  
4 Q. Do you remember being asked to provide  
5 specifics for stream depletion information  
6 about these -- the wells associated with the  
7 N-CORPE project?  
8 A. No. I was -- I was just talking about  
9 as a general matter. That's something we've  
10 developed in the past. And that has been  
11 provided and discussed in a number of different  
12 contexts so --  
13 Q. And you don't remember anything specific  
14 for -- for the N-CORPE project?  
15 A. I don't.  
16 Q. Did Nebraska Department of Natural  
17 Resources identify any specific benefits to the  
18 State of Nebraska of the project going forward?  
19 A. Well, I guess we -- I don't know that we  
20 identified them. We had discussions about what  
21 those would be and more -- probably more so  
22 confirmed that that's how those benefits --  
23 what those benefits would be.  
24 Q. How would you describe those benefits  
25 that were discussed?

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1 A. The benefits for compact compliance  
2 related to the Republican River Compact and the  
3 benefits with regard to meeting the terms of  
4 our new depletions plan, as well as some of the  
5 requirements under statute for the  
6 overappropriated portion of the Platte River  
7 Basin.  
8 But those are -- those are -- I mean,  
9 we've had general discussions on those types of  
10 things for quite some time, not that that --  
11 and augmentation is one way that those benefits  
12 can be realized. And there's other ways. But  
13 it -- certainly we've had discussions in the  
14 context of augmentation on that.  
15 Q. Do you know of any documents that were  
16 created by Nebraska DNR focused on N-CORPE  
17 project benefits that you're referring to  
18 there?  
19 A. I believe that we sent them a letter  
20 similar to the one that we sent for the Rock  
21 Creek project that -- and it would have been  
22 very similar and with the same intent that we  
23 discussed regarding that letter that we had  
24 discussed during the arbitration on that.  
25 Q. If I remember in that letter -- and you

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1 might remember it better than me -- it was  
2 focused on the consequences in the Republican  
3 River Compact accounting of discharge of a  
4 certain amount of augmentation water and how  
5 those consequences would play out in the  
6 accounting results. Is that the type of letter  
7 you're referring to?  
8 A. Yes.  
9 Q. I want to ask if you know who owns the  
10 land. But I suspect from our earlier  
11 discussion, you don't know a whole lot of  
12 specifics about the N-CORPE entity and the  
13 agreement and that sort of thing. So bear with  
14 me.  
15 Do you know who owns the land currently?  
16 A. I don't.  
17 Q. And do you know who owns the facilities  
18 related to the N-CORPE project?  
19 A. No. I could guess. But --  
20 Q. No need. Your attorney might not like  
21 that.  
22 There's a certain amount of acreage that  
23 was associated with the land with this project  
24 that used to be irrigated; is that right?  
25 A. That's right.

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1 Q. Okay. And is all of that acreage that  
2 was irrigated going to be retired?  
3 A. I'll go ahead and turn to the map, which  
4 is on -- it's figure 2. My understanding is  
5 all or almost all of the land will be retired  
6 with the caveat that there may be -- some of  
7 these parcels that are kind of sitting at some  
8 distance from the -- kind of the bulk of the  
9 lands. I think in particular the one up to the  
10 northeast.  
11 Q. Just for the record, you're pointing to  
12 what -- I think is -- it's a collection of --  
13 is it eight wells --  
14 A. Yes.  
15 Q. -- up there? Okay.  
16 A. And I'm aware that there's been some  
17 discussions about, you know, trying to swap  
18 that land so that there's more contiguous land,  
19 in other words, that the land associated with  
20 the projects are more contiguous.  
21 MR. WILMOTH: Just for the  
22 record, Chris, Dr. Schneider's referring to  
23 page 26 of 104 of the augmentation plan, which  
24 is part of Exhibit 2 to the deposition.  
25 MR. GRUNEWALD: Thank you.

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1 Q. (BY MR. GRUNEWALD) Table 1 in your  
2 report -- and it starts on page 9, I believe.  
3 Table 1 is listed as historical certified  
4 acres. Do you see that?  
5 A. I do.  
6 Q. Is -- are those the lands that we're  
7 talking about when we're talking about the  
8 acreage that would be retired?  
9 A. Yes.  
10 Q. Okay. Bear with me, some more questions  
11 about the project, to the extent you know.  
12 Do you know who's responsible for  
13 operating the project, when it's going to be  
14 operated for augmentation purposes?  
15 A. I mean, aside from the joint board that  
16 oversees the whole project, I don't.  
17 Q. And so as far as you know, that entity  
18 would be responsible for operating, for  
19 repairing facilities related to the project,  
20 that sort of thing?  
21 A. Yes.  
22 Q. Now, I want to ask some more questions  
23 about operation. If -- if it helps or makes  
24 sense to separate operations for Republican  
25 River purposes or for Platte purposes, if you

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1 could just please flag that. I'm just going to  
2 ask generally about operating the project. But  
3 if it makes more sense to split it and go down  
4 two tracks, certainly we can do that.  
5 So do you know how the decisions will be  
6 made as to whether or not to operate the  
7 project in a given year?  
8 A. Well, I think -- I know, generally  
9 speaking, that the decisions will be based on  
10 the forecast in terms of whether or not there's  
11 any forecasted deficits that need to be made  
12 up. But they'll also be based on what other  
13 options there are. So I think those -- those  
14 things will go into consideration of whether or  
15 not and the extent to which the project's  
16 operated.  
17 Q. When you say forecast, you're referring  
18 to the forecast in the Integrated Management  
19 Plans?  
20 A. Yes.  
21 MR. GRUNEWALD: That's another  
22 acronym, IMPs, that you'll hear.  
23 Q. (BY MR. GRUNEWALD) And it may make more  
24 sense for us to focus on the Republican River.  
25 Let me see if you think that's a good approach.

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1 You had mentioned that the Twin Platte  
2 NRD was focused on a need in 2019. Did I have  
3 that right?  
4 A. Yes.  
5 Q. Okay. A need related to the Platte  
6 River requirements?  
7 A. Yes.  
8 Q. And so decisions that will be made with  
9 respect to the Platte, at the moment, are you  
10 aware of anything in place to make any  
11 decisions about using the project for Platte  
12 purposes at this point?  
13 A. No specifics that I'm aware of.  
14 Q. So more focused on whether the project  
15 will be used for our purposes today, should we  
16 just confine it to the use of it for the  
17 Republican River?  
18 A. That would make sense to me.  
19 Q. All right. You mentioned that the  
20 forecast for Republican River purposes would be  
21 used. How would you describe Nebraska DNR's  
22 role in terms of these decisions to operate the  
23 augmentation or the plan?  
24 A. Our role would be in producing the  
25 forecast and, you know, it's a statewide

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1 forecast in terms of whether or not we have to  
2 have a compact call year.  
3 But then in those situations where it is  
4 a compact call year, to provide specific values  
5 on an NRD basis for their projected deficits.  
6 And then our role would be to work together  
7 with the NRDs on their planning, to the extent  
8 they have questions or want discussions.  
9 And then that our role would be in  
10 reviewing their proposed plan, which is in the  
11 compact call years due on January 31st and  
12 verifying that it will, in fact, meet the  
13 requirements.  
14 Q. That's a January 31st deadline for an  
15 NRD proposal to meet any projected deficit?  
16 A. That's right.  
17 Q. Can Nebraska DNR order this N-CORPE  
18 project to go into operation?  
19 A. I don't know from a legal standpoint,  
20 you know, how that would work.  
21 Q. So you're not sure?  
22 A. Yeah, I guess that's a fair assessment.  
23 I doubt it.  
24 Q. Are you -- are you aware of -- are you  
25 aware of any documents that explain how the

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1 process to turn this thing on will go forward?  
2 A. Just the IMPs and the forecasts that --  
3 you know, for example, this year, I mean, we've  
4 produced a forecast, and so that will weigh  
5 heavily into the decision-making.  
6 Q. Who would you say is the person with  
7 most information about the day-to-day  
8 operations that the N-CORPE project is going to  
9 entail?  
10 A. Well, I -- it would be somebody that's  
11 involved with that joint board or the whole  
12 board.  
13 Q. Can you think of anybody?  
14 A. Jasper Fanning comes to mind.  
15 Q. And why does he come to mind?  
16 A. Because I just -- my impression he's  
17 been pretty involved in the day-to-day aspects.  
18 But that's just -- that's just an impression.  
19 So I think that would be the case. But --  
20 Q. I just want to be sure. Your impression  
21 is that specific to the N-CORPE project, that  
22 he's involved with day-to-day operations?  
23 A. Yes.  
24 Q. Okay. Who do you think would know the  
25 most about the Platte side of the project?

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1 A. Probably Kent Miller, the manager of the  
2 Twin Platte NRD.  
3 Q. I wanted to ask some questions about the  
4 Platte. Given some of what we've talked about  
5 before, this may go pretty quickly.  
6 And you -- I think you've described it  
7 as the Platte side of the project would be  
8 focused on helping with Nebraska's depletion  
9 plan; is that right?  
10 A. It's the new depletions plan under the  
11 program, as well as generally the IMPs, which  
12 kind of focus on that but, also, on statutory  
13 requirements.  
14 So the new depletions plan focuses on  
15 depletions due to new development that has  
16 occurred after July of 1997. That's also hard  
17 wired into the statutes, the Groundwater  
18 Management Protection Act, in terms of first  
19 increment of the Integrated Management Plans  
20 for the overappropriated area, which is the  
21 Platte Basin above Elm Creek, Nebraska.  
22 Q. How -- on the Republican River side  
23 where we have a proposal, Nebraska's called an  
24 augmentation plan, is there something  
25 particular that it would be called to satisfy

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1 these Platte requirements, either an  
2 augmentation plan or something else?  
3 A. No. The way that -- kind of the way  
4 that we do business in the Platte, so to speak,  
5 is for the IMPs, we have an annual meeting  
6 which involves an annual report from the  
7 department and from each of the five NRDs in  
8 the overappropriated area.  
9 In that area, we have IMPs, but we also  
10 have kind of a -- an umbrella document called a  
11 Basinwide Plan that was also required by  
12 statute. So that Basinwide Plan calls for that  
13 annual report and that annual meeting.  
14 That allows us to get the information  
15 from the NRDs and for everyone, you know, all  
16 the interested stakeholders to have that  
17 interaction on an annual basis.  
18 And then we take that information and  
19 package it up into a annual report to the  
20 Platte River Recovery Program that documents  
21 our progress on meeting our new depletions plan  
22 requirements.  
23 Q. Okay. So do you know whether the --  
24 whether the Platte side of this project is  
25 going to require retirement of additional acres

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1 from what's being retired right now?  
2 A. It will not.  
3 Q. It's the same universe of retired acres  
4 for both purposes?  
5 A. Yes.  
6 Q. You mentioned the 2019 target date for  
7 the Twin Platte NRD. And do you have any other  
8 information about when the Platte side portion  
9 of this project might be completed?  
10 A. No.  
11 Q. And so do you have any idea what they're  
12 going to do in terms of a pipeline or any other  
13 facilities associated with the Platte side?  
14 A. No specifics. Just that they're  
15 planning on building a pipeline to discharge  
16 water into the Platte or potentially one of the  
17 canals that runs along the south side of the  
18 Platte. I know that's been discussed too. I  
19 don't know any of the specifics.  
20 Q. The intention is for a similar surface  
21 water discharge through a pipeline as is being  
22 done in the Republican River side?  
23 A. That's my understanding.  
24 Q. And do you know whether any delivery  
25 point besides those that you've just referred

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1 to are being considered?  
2 A. I don't.  
3 Q. Do you know whether the wells that are  
4 going to be used to supply the Republican River  
5 pipeline are going to be the same wells  
6 providing supply to the Platte side?  
7 A. I don't know for certain. I think so.  
8 Q. Do you know whether it's intended for  
9 both the Republican River and Platte parts of  
10 the project to be operating at the same time?  
11 A. I think that was -- would certainly be a  
12 possibility.  
13 Q. Do you know how decisions will be made  
14 to allocate water to which side of the project?  
15 A. No. Except that I assume that will be  
16 done in that joint board that I was referring  
17 to.  
18 Q. Cooperatively?  
19 A. Right. I think that's the C.  
20 Q. Does the -- you've mentioned on the  
21 Platte side a reference to depletions. Are  
22 depletions tracked the same way that they're  
23 tracked in the Republican River Compact  
24 accounting for the Platte River side?  
25 A. Well, yes and no. And what I mean by

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1 that is, you know, in terms of the science, you  
2 know, the approaches from groundwater modeling  
3 and that type of thing would be similar;  
4 though, obviously with a different model.  
5 The other -- the other big distinction  
6 is that at least at this point in the Platte,  
7 we're just looking at post-'97 new development.  
8 So it's kind of a '97 baseline level of  
9 development. And we're tracking new depletions  
10 relative to that baseline level.  
11 It's not -- it's not the -- how much the  
12 total depletions increase, but it's the -- it's  
13 the effect of new irrigation and, also, the  
14 effect of retired irrigation kind of in  
15 combination on the overall depletions and  
16 whether or not those new depletions have  
17 occurred, and then to the extent they have, we  
18 mitigate that through projects like this or  
19 other activities.  
20 Q. Okay. Do you know what the lifespan of  
21 the project is?  
22 A. No.  
23 Q. Do you know whether or not it's intended  
24 to have the same lifespan for the Republican  
25 side as for the Platte side?

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1 A. I don't know specifically. I guess I  
2 would assume it does, you know, that that is  
3 how they're constructing it. But I don't know.  
4 Q. For the Republican -- well, actually, I  
5 guess for the whole project, the -- there  
6 are -- augmentation wells are being used; is  
7 that right?  
8 A. Yes.  
9 Q. Are they all new wells, or are they  
10 repurposed wells?  
11 A. I'm not certain about that. I think  
12 some of them are repurposed.  
13 Q. And do you know how many wells we're  
14 talking about for this project?  
15 A. No, not specifically. I think if you  
16 look at figure 3 on Exhibit 2 on page 27, it  
17 gives you a general potential configuration of  
18 the pipe, labeled proposed pipe. It doesn't  
19 show the wells. So I'm sure those details have  
20 been worked out or been largely worked out.  
21 But, you know, given that configuration, it's  
22 certainly not all of the existing wells that  
23 will provide water.  
24 Q. Right. Because on figure 3, each of the  
25 yellow circles are the wells that were

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1 associated with acreage; is that right?  
2 A. Right. On Figure 2, it shows the actual  
3 well locations. So they're spread out quite a  
4 bit more than that pipeline configuration.  
5 Q. Do you know how many of these -- the  
6 augmentation wells are operational at this  
7 point?  
8 A. I don't.  
9 Q. Do you know whether or not the wells are  
10 going to be metered?  
11 A. They are.  
12 Q. What will be the limit -- the pumping  
13 limit in any one year for these wells?  
14 A. Well, the plan covers a potential  
15 maximum pumping amount of 60,000 acre-feet.  
16 Whether or not they can physically pump more  
17 than that, I don't know. But I believe the  
18 design was intended to achieve that amount.  
19 And that's -- that's certainly what this plan  
20 is intended to cover is a maximum of 60,000  
21 acre-feet.  
22 Q. If the wells are physically capable of  
23 pumping more in a year and they do pump more  
24 than that, would Nebraska be seeking more than  
25 60,000 acre-feet of credit under the N-CORPE

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1 proposal?  
2 A. No. Not as submitted. We may -- we may  
3 bring a modified proposal forward to -- or we  
4 may propose, you know, to expand that and have  
5 that discussion and hopefully eventual  
6 resolution in RRCA.  
7 But if that were to happen, that any --  
8 any amount of water over 60,000 acre-feet would  
9 just look like any other stream flow in the  
10 accounting, until we got another change.  
11 Q. So if I understand right, a -- the  
12 maximum amount of credit that's possible under  
13 the N-CORPE plan is the 60,000 that's in the  
14 plan; is that right?  
15 A. Right. It's just like the Rock Creek  
16 proposal. It had a clear maximum 20,000.  
17 Q. And Nebraska's request for credit beyond  
18 the 60,000 would require a modified proposal;  
19 is that right?  
20 A. Yes.  
21 Q. And would require RRCA approval?  
22 A. Yes.  
23 Q. For the pipeline, I wanted to ask some  
24 questions about that. Do you know how the  
25 discharge location was chosen?

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1 A. I don't.  
2 Q. Do you know if any approvals from local  
3 governments or other state agencies were  
4 required for the pipeline and its discharge  
5 location?  
6 A. I know there was some -- I'm familiar  
7 that there was some discussion related to that.  
8 I don't know if there was approval that was  
9 needed. I think they looked into that. And I  
10 don't know how that was resolved.  
11 Q. What does the FSS require with respect  
12 to an augmentation pipeline's discharge  
13 location?  
14 A. I don't think the FSS has any  
15 requirement about discharge location.  
16 Q. The 60,000 acre-foot annual amount of  
17 water we're discussing, is that the intended  
18 pipeline capacity, if you will, at least that  
19 amount is possible to come out of the pipeline?  
20 A. That's my understanding.  
21 Q. And at this point, you don't know what  
22 the capacity would be for the Platte side?  
23 A. No.  
24 Q. If it has a --  
25 A. I don't know.

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1 Q. Is the pipeline discharge measured?  
2 A. Yes. That's my -- my understanding is  
3 that will be measured as well.  
4 Q. How is it measured?  
5 A. I'm not familiar with the detailed  
6 specifications. Yeah.  
7 I think it's with a meter. That's --  
8 yeah.  
9 Q. Has any pumping taken place yet for the  
10 N-CORPE project?  
11 A. I don't believe so.  
12 Q. When pumping does happen and pipeline  
13 discharge happens, what sort of records are  
14 going to be kept for the project?  
15 A. Well, I think we outlined those -- a lot  
16 of this stuff we've been talking about here in  
17 the plan, certainly the pumping volumes and the  
18 delivering volumes.  
19 Yeah, I was thinking about some of the  
20 language here in Section III entitled  
21 operational aspects of the project.  
22 Q. That's on page 3 of the proposal?  
23 A. Yes.  
24 Q. Are those records going to be provided  
25 to the -- to Nebraska DNR?

55

1 A. Yes.  
2 Q. On an annual basis or more frequently  
3 than that?  
4 A. Probably -- well, at a minimum, on an  
5 annual basis because we have to have those  
6 records to complete our annual data exchange  
7 with the other two states.  
8 Q. So there are augmentation wells  
9 associated with the project. Does Nebraska DNR  
10 do the same review for those sorts of well  
11 records as it does for other well records that  
12 you receive?  
13 A. I can't think of any reason why we would  
14 review them differently.  
15 Q. Here on page 3, you brought us to  
16 Section III, the operational aspects. In the  
17 middle of the first paragraph, there's a  
18 sentence that says, "During years in which the  
19 State of Nebraska is operating." Do you see  
20 that?  
21 A. Yes.  
22 Q. And it refers to those years as compact  
23 operation years. Do you see that?  
24 A. I do.  
25 Q. And so is -- if the project is being --

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1 is decided to be, by the board or whoever is  
2 making the decisions, turned on, is that what  
3 makes it a compact operation year? Or is there  
4 some other way that it's decided that it's a  
5 compact operation year?  
6 A. It's -- I think like the sentence says,  
7 it's -- that would be decided based on the fact  
8 that it's being operated to ensure compact  
9 compliance. In other words, there's a  
10 forecasted shortfall that triggers operations.  
11 Q. So you have a forecast with projected  
12 shortfall January 31 of a particular year, and  
13 NRD or several propose using the N-CORPE  
14 project, and in turn, that's approved by  
15 Nebraska DNR, if that's the right term. And  
16 would it be at that point that the N-CORPE  
17 project operation would be termed a compact  
18 operation year?  
19 A. I suppose so.  
20 Q. How is the connection made between its  
21 operation and the -- and the ensuring compact  
22 compliance? Who makes that connection?  
23 A. Well, I guess it's done jointly when  
24 we -- as the NRDs -- well, back up.  
25 We give them the forecast and say you

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1 need to do something to make up this amount of  
2 water in order to ensure compact compliance.  
3 And then they give us their proposal  
4 that says this is what we'll do to ensure  
5 compact compliance.  
6 And then we respond we agree that will  
7 ensure compact compliance.  
8 Q. Okay. The Rock Creek augmentation  
9 project, if I remember correctly, had some  
10 timing elements. If I'm remembering  
11 correctly -- correct me, please, if I don't get  
12 this correct -- that the Rock Creek  
13 augmentation project was intended to be run  
14 during certain times of the year and not during  
15 others or there was an attempt to, say, run it  
16 in the spring and fall but not during the  
17 irrigation season in the summer. Is that -- is  
18 that right? Did Rock Creek have some sort of  
19 timing or delivery guidelines or restrictions?  
20 A. The plan itself did not. I think we  
21 discussed that through the various depositions  
22 and trial, that -- as to whether or not there  
23 would be. And as I recall, there were some  
24 reasons why it -- it would be potentially  
25 operated during certain times of the year and

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1 not year-round, so to speak, if that's what you  
2 mean. Certain things, like, power costs could  
3 drive those decisions.  
4 Q. Is there anything similar with respect  
5 to the N-CORPE project in terms of whether or  
6 not to run it year-round?  
7 A. Well, I mean, obviously the other  
8 element is if -- if you need the whole project  
9 capacity. So, you know, if we needed 60,000  
10 acre-feet, then it obviously would have to run  
11 year-round or nearly so, my understanding of  
12 the capacity of the project.  
13 So if the need were significantly less,  
14 then I suspect that it wouldn't be operated at  
15 just a lower rate for the entire year but,  
16 instead, for a -- just a shorter time period.  
17 Maybe also at a lower rate, too.  
18 Q. Okay. When we talk about the 60,000  
19 acre-feet per year, it would be -- what are the  
20 reasons why the deliveries would be less than  
21 60,000 acre-feet per year?  
22 A. The reason why it would be less is if we  
23 didn't have to do that much to ensure compact  
24 compliance.  
25 Q. Is it -- I believe your report referred

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1 to it being used potentially in years other  
2 than those for compact compliance. But I don't  
3 want to misstate things.  
4 So if the State of Nebraska didn't  
5 project a shortfall, how would the decision be  
6 made to run the project? Or would the project  
7 not be run at all?  
8 A. Well, that's laid out in Section VI on  
9 page 7 entitled alternative state-based  
10 operation. That's the major difference between  
11 this plan and the Rock Creek plan.  
12 And it arises because the geographic  
13 location of this project places it outside of  
14 the moratorium area. Therefore, not imposing  
15 the requirement of avoiding new net depletions  
16 annually or long term. But we also have, you  
17 know, internal reasons that we would want to  
18 run the project to take care of any new  
19 depletions, basically relating to trying to  
20 eliminate the harm to the surface water users  
21 from the impacts of the project in those years  
22 when it wasn't being operated for compact  
23 compliance.  
24 Q. Could -- I'd like to stop you there.  
25 If you could explain -- I'm not sure I

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1 followed what you meant by harm the surface  
2 water users. How is it able to do that?  
3 A. If there was a new depletion in those  
4 years.  
5 We could look at Table 5, I guess, on  
6 page -- starts on page 15. So this is -- this  
7 doesn't show any deliveries in those  
8 intervening years, but there are -- there are  
9 new depletions, at least once you get out to  
10 2024, from the operation of the project.  
11 They're fairly minor. And they're projected to  
12 be fairly minor.  
13 But, you know, as I think we  
14 described -- it's basically what we're calling  
15 our state-based objectives.  
16 Q. And is it intended that -- do you expect  
17 that you'll have to run it in years you don't  
18 need it for compact compliance, in every year  
19 that you don't need it for compact compliance?  
20 A. Well, that's hard to say. If the  
21 project needs to be utilized either frequently  
22 and/or in large volumes, then that's more  
23 likely to be the case.  
24 Q. And that's because in the years that  
25 it's not being operated because it had been run

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1 for a number of years at maximum capacity, the  
2 depletions are higher? Is that why it would  
3 need to be run in those off years?  
4 A. We would be trying to address any new  
5 depletion, right, that was occurring due to the  
6 different operation of the project relative to  
7 the historic operation of the irrigation on  
8 those lands.  
9 You can see hypothetical comparison if  
10 you look at, for example, Table 9 on page 20.  
11 Q. And what's it showing us?  
12 A. Well, it shows the project operations  
13 with no pumping in years that -- in which  
14 pumping was needed to ensure compact  
15 compliance, that's the project operations  
16 columns.  
17 And then the state-based operations  
18 column incorporates some pumping in intervening  
19 years.  
20 You can see that -- that value is 1,800  
21 acre-feet per year. It's more than enough to  
22 cover any new depletion.  
23 Part of the intent of this is to  
24 demonstrate that that additional state-based  
25 pumping would have minimal effect on those new

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1 depletions. That's the last column.  
2 Q. The additional depletions column in that  
3 last column, those depletions are going up;  
4 right?  
5 A. Right. And that column represents the  
6 difference between the two new depletion  
7 columns, column 2 and column 5.  
8 Q. And the new depletion columns in both of  
9 those sets of operations are going up; is that  
10 right?  
11 A. Yes.  
12 Q. Why is that?  
13 A. Well, they go down and then up. And  
14 over the long term, they go up because the  
15 volume of pumping is greater than -- in the  
16 project operations is greater than the volume  
17 of pumping that would have occurred for  
18 irrigation.  
19 But initially they go down because the  
20 volume is less, you know, those first three  
21 years again where there's no pumping when -- if  
22 the lands had been left in irrigation, then  
23 there would have been pumping.  
24 Q. When you say the volume was greater than  
25 was under irrigation, did you mean in any one

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1 year, or did you mean over the long term, it's  
2 going to be more pumping than was historically  
3 done?  
4 A. I meant over the long term, the average  
5 annual, you know, if you averaged it over all  
6 of these years or if you summed it up.  
7 Q. Okay. Thank you.  
8 MR. GRUNEWALD: I'd say let's  
9 take a break for five minutes.  
10 THE WITNESS: Five minutes.  
11 MR. GRUNEWALD: Five, ten  
12 minutes.  
13 (A noon recess was taken.)  
14 (Exhibit Nos. 1 through 3 marked  
15 for identification.)  
16 Q. (BY MR. GRUNEWALD) Good afternoon,  
17 Dr. Schneider.  
18 MR. STEINBRECHER: In case you  
19 didn't hear me, I'm here.  
20 MR. GRUNEWALD: Oh, great.  
21 Welcome.  
22 MR. WILMOTH: Scott  
23 Steinbrecher, for the record,  
24 S-T-E-I-N-B-R-E-C-H-E-R. No umlaut.  
25 MR. GRUNEWALD: Yet.

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1 Dr. Schreuder, are you there?  
2 MR. WILMOTH: Scott, is Willem  
3 with you?  
4 MR. SCHREUDER: Sorry. Yes, I'm  
5 here.  
6 MR. GRUNEWALD: And is Dan  
7 there, too?  
8 MR. STEUER: Yeah, I'm still  
9 here, too.  
10 Q. (BY MR. GRUNEWALD) Okay. The discharge  
11 point for the pipeline for N-CORPE is on  
12 Medicine Creek in Nebraska; is that right?  
13 A. Yes.  
14 Q. What -- where does the water flow  
15 downstream from that point? Walk me through  
16 the next reaches, I think we called them. What  
17 happens next as the water exits the pipe.  
18 A. It would flow downstream to Harry Strunk  
19 Reservoir.  
20 Q. That's on -- sorry. That's on  
21 Medicine Creek?  
22 A. That's on Medicine Creek. Then it would  
23 be discharged through that reservoir, flow down  
24 the rest of Medicine Creek into the mainstem of  
25 the Republican River, where it would flow

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1 downstream into Harlan County Lake for  
2 potential retiming and delivery to Kansas water  
3 users or passing through Harlan County Lake to  
4 flow into Kansas.  
5 Q. And where -- where are the gauges on  
6 Medicine Creek, surface water gauges?  
7 A. The compact gauge is near the mouth of  
8 Medicine Creek.  
9 Q. Mouth of Medicine Creek is where it  
10 joins up with the mainstem?  
11 A. Right.  
12 Q. So on the downstream side of Harry  
13 Strunk Reservoir?  
14 A. Yes.  
15 Q. Are there any other gauges on  
16 Medicine Creek?  
17 A. There's a gauge above the reservoir.  
18 There's also a gauge on Fox Creek, which  
19 is a tributary to Medicine Creek. But this  
20 water would not interact with that gauge  
21 directly.  
22 Q. Is that because that -- Fox Creek joins  
23 upstream of where the discharge of the N-CORPE  
24 project is?  
25 A. No. I believe it's -- it comes in

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1 downstream of the discharge. But it's just --  
2 that gauge would just be gauging what's coming  
3 out of Fox Creek.  
4 Q. The gauge is on Fox Creek, not on  
5 Medicine Creek?  
6 A. Yeah, right.  
7 Q. And do you know whether -- let me  
8 rephrase that. Is Nebraska DNR going to add  
9 any stream gauges on Medicine Creek between the  
10 discharge point of the pipeline and the  
11 mainstem of the Republican?  
12 A. We don't have any plans at this point to  
13 add any stream gauges.  
14 Q. Are the NRDs planning on adding any  
15 gauges?  
16 A. Not that I'm aware of.  
17 Q. What's the distance in stream miles from  
18 the discharge point of the N-CORPE project and  
19 the compact gauge you referred to on  
20 Medicine Creek?  
21 A. Well, I don't know specifically. But  
22 I'm going to guess that it's -- well, it's 10s  
23 of miles. How many 10s of miles, I'm not  
24 exactly certain.  
25 Q. More than 10?

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1 A. It's definitely --  
2 Q. Less than 100?  
3 A. Yes.  
4 Q. 50?  
5 A. It's -- it could be as much as 50. I  
6 don't think it would be quite that much but --  
7 if I were to guess.  
8 Q. And so the compact gauge is on the  
9 downstream of Harry Strunk Reservoir; right?  
10 A. Yes.  
11 Q. So how many stream miles then to Harry  
12 Strunk Reservoir?  
13 A. Again, I'm not -- I'm not certain on  
14 that. It's -- again, that would be 10s of  
15 miles as well.  
16 Q. Okay. How large is Harry Strunk  
17 Reservoir? How long a stream is it?  
18 A. How long?  
19 Q. On the stream.  
20 A. On the stream? It's miles. I mean,  
21 it's a 40,000-acre-foot reservoir, roughly,  
22 when it's full. Surface area would be  
23 thousands of acres.  
24 Q. Okay. And have you or anyone from  
25 Nebraska evaluated the potential for transit

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1 loss between the discharge point of the N-CORPE  
2 project and Harry Strunk Reservoir?  
3 A. We've done -- at this point we've done  
4 no specific studies of that. Though, it is  
5 a -- clearly a -- appears to be a gaining  
6 stream throughout.  
7 Q. And by gaining stream throughout, could  
8 you unpack that? What do you mean by that?  
9 A. Stream flow increases as you -- as you  
10 go downstream.  
11 Q. From where to where on Medicine Creek?  
12 A. Well, the -- from the headwaters to the  
13 mouth. Of course, the reservoir will disrupt  
14 that to some extent when it's retiming those  
15 flows. But --  
16 Q. And how is it you know or how is it that  
17 you think that it's a gain stream during  
18 that -- in that -- or how is it that you think  
19 that it's a gaining stream from the headwaters  
20 to the mouth?  
21 A. Well, it's base flow dominated. It's  
22 significantly affected by the groundwater mound  
23 from the Platte River -- the mound area south  
24 of the Platte River.  
25 Q. And when you say mound, under the

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1 compact accounting, we also refer to that as  
2 the imported water supply; is that right?  
3 A. That -- yes, that would be --  
4 Q. Colloquially the --  
5 A. Yes, same thing.  
6 Q. -- terms are almost interchangeable?  
7 A. Right, right. The import water supply  
8 forms the mound.  
9 Q. Are you aware of any studies of the  
10 stream conditions between the discharge point  
11 of the N-CORPE project and Harry Strunk  
12 Reservoir?  
13 A. I don't believe so.  
14 Q. How would -- how would water that's  
15 discharged out of the N-CORPE project be  
16 accounted for as it gets to Harry Strunk  
17 Reservoir, in the compact accounting?  
18 A. Well, excuse me, again, we're getting  
19 into this distinction between the drops of  
20 water versus the volumes of water.  
21 The compact accounting doesn't account  
22 for drops of water. And neither would this  
23 augmentation plan. It does account for volumes  
24 of water. And that's how we would account for  
25 the augmentation water, as a volume.

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1 Q. And how would it be accounted for as a  
2 volume?  
3 A. It would be measured.  
4 Q. Measured where?  
5 A. At the outfall.  
6 Q. Will the water that's discharged out of  
7 the pipe be storable at Harry Strunk Reservoir?  
8 A. It certainly could be.  
9 Q. Is it Nebraska's intention that the  
10 water will be stored at Harry Strunk Reservoir?  
11 A. Not necessarily.  
12 Q. Does Nebraska have preferred outcome as  
13 to whether the water should be stored or not  
14 stored?  
15 A. Well, the only preferred outcome we  
16 would have is that if we're providing  
17 augmentation water for compact compliance, that  
18 that same volume of water would be made  
19 available for Kansas.  
20 Q. Made available for Kansas where?  
21 A. Well, it could be temporarily retimed at  
22 Harlan County Lake. In the simplest sense, it  
23 would be made available by -- for Kansas by  
24 having that water flow into Kansas.  
25 Q. So it could be made available by storing

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1 that same volume of water at Harlan County  
2 Lake?  
3 A. It could be. I believe they're working  
4 on arrangements for that for this year. By  
5 that I mean the Bureau of Reclamation, Kansas  
6 Bostwick Irrigation District.  
7 Q. When you say made available, sounded  
8 like there was another alternative there; is  
9 that right? Besides storing at Harlan County  
10 Lake?  
11 A. Yeah. Could just flow through it.  
12 Q. Flow through Harlan County Lake to get  
13 down to the state line at Hardy?  
14 A. Potentially. Could flow to Hardy or  
15 could be diverted at Guide Rock into Kansas.  
16 Q. And when would the water be made  
17 available for Kansas?  
18 A. It would depend on whether or not it was  
19 retimed. It could just be a steady flow  
20 throughout the year.  
21 It could be that water is temporarily  
22 held in Harlan County Lake and then it's  
23 available when they need it in the Kansas  
24 Bostwick Irrigation District.  
25 Q. And when you say depends on retiming, do

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1 you mean retiming only at Harlan County Lake or  
2 something else?  
3 A. Well, there's certainly other  
4 reservoirs -- we talked about Harry Strunk  
5 Lake. So some of it could be retimed through  
6 there as well. But that would probably only be  
7 for internal considerations.  
8 For example, one thing we've made clear  
9 to the Bureau is that if they have preferences  
10 on where water's released in terms of different  
11 reservoirs, that, you know, we're not -- we  
12 don't really care where it comes from. We're  
13 just interested in the right volumes of water.  
14 So -- you know, so, for example, some of  
15 it could be kept in Harry Strunk but tons more  
16 was released out of Hugh Butler to make up for  
17 it, then we would know we had the same volume  
18 that came down the stream.  
19 The other part of that is that similar  
20 to the way we did the administration last year.  
21 At a certain point, we allowed the Bureau to  
22 temporarily impound water in those upstream  
23 reservoirs until we could make a better  
24 assessment of the situation in terms of compact  
25 compliance towards the end of the year and with

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1 the hope that we could turn out -- turn a  
2 portion of the water that was -- that did flow  
3 into their reservoirs back to the -- to the  
4 Bureau as legally stored water at the end of  
5 the year. And that's exactly what happened in  
6 2013.  
7 Q. Is that something that could happen to  
8 the volume of water that's associated with the  
9 N-CORPE project, where it gets impounded and  
10 then turned into -- I think you called it  
11 project water?  
12 A. It's something that could happen to the  
13 drops of water.  
14 Q. But not the volume of water?  
15 A. Right.  
16 Q. And so does that mean no amount of the  
17 volume of water associated with the N-CORPE  
18 project is intended to be turned into project  
19 water?  
20 A. It's not intended to. The only scenario  
21 that I can think of that would result in that  
22 is a sudden and very extreme change towards  
23 March weather conditions that -- you know, that  
24 basically filled everything up for us and  
25 brought us out of a water-short year or

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1 something like that. So that -- which is  
2 something that happens from time to time. But  
3 I think '93 is a good example, 1993.  
4 But for the most part, as long as things  
5 remain dry or, you know, at least not  
6 significantly above average, then I wouldn't --  
7 I wouldn't foresee that happening.  
8 Q. This -- if I'm following, the  
9 distinction between the two situations is that  
10 if Nebraska was interested in the volume of  
11 water associated with the N-CORPE project,  
12 helping with compact compliance, then the  
13 intention would be not to turn it into project  
14 water versus the situation where it gets wet in  
15 the middle of the year and Nebraska's no longer  
16 looking to associate the N-CORPE water --  
17 project water with compact compliance?  
18 A. Right. As long as it's provided for  
19 compact compliance, then that volume of water  
20 will be delivered to Kansas that year.  
21 Q. With respect to the water that comes out  
22 of the N-CORPE project pipeline, will there be  
23 any transit losses for that water, which I  
24 believe we're calling the drops of water, as it  
25 goes downstream to Harry Strunk Reservoir?

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1 A. I don't expect significant transit  
2 losses. My -- my guess is that those would be  
3 minimum to de minimis. We haven't operated it  
4 yet but --  
5 Q. And what about from Harry Strunk  
6 Reservoir down to Harlan County Reservoir?  
7 A. I think there could -- there probably  
8 could be some temporary bank storage that may  
9 occur, which would then kind of even -- net  
10 itself out over time.  
11 Q. Could you explain what you mean by  
12 temporary bank storage?  
13 A. Sure. You know, if there -- for  
14 example, if they're releasing 100 cfs out of  
15 the reservoir and 90 cfs is getting to the  
16 gauge, as an example, then that 10 cfs is water  
17 going into bank storage, being stored  
18 temporarily in the -- in the alluvial aquifer,  
19 and then after the release is stopped, that  
20 water flows back out into the stream and  
21 becomes stream flow later.  
22 So that if you look at it on a daily --  
23 you know, at a single day, you might say  
24 there's some transit loss. But when you  
25 properly consider it over the right amount of

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1 time, that you would see that there really  
2 wasn't any.  
3 Q. I -- what do you mean by -- give me an  
4 example of what the right amount of time would  
5 be.  
6 A. Well, it would be case specific. But I  
7 guess if you looked at the downstream gauge  
8 before water was released and it had a certain  
9 flow, just that the natural base flow, it would  
10 be the time after the release stopped until the  
11 flow dropped back down to that -- that flow  
12 that you had before the release was started.  
13 Q. Is it something that would happen over  
14 days, weeks, months, years?  
15 A. I would say typically that would happen  
16 in multiple days to weeks. But, again, would  
17 be -- would depend on the specific geologic  
18 conditions and other factors potentially.  
19 Q. What about the situation in  
20 Medicine Creek?  
21 A. How long is that -- are you asking how  
22 long that time period is there or --  
23 Q. Yes. Would you expect -- what would you  
24 expect it to be, given what you know about the  
25 hydrology and geology for Medicine Creek?

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1 A. Haven't looked into that in great  
2 detail. But I would expect it to be fairly  
3 short term. Days to a week or two maybe.  
4 Q. We talked a bit about water potentially  
5 be stored in Harlan County Lake. And water  
6 stored in Harlan County Lake is related to  
7 something known as the Consensus Plan which is  
8 attached to the FSS; is that right?  
9 A. Generally speaking, yes.  
10 Q. Okay. If water -- a volume of water  
11 associated with the N-CORPE project were stored  
12 or temporarily retained, whatever the right  
13 legal term is, at Harlan County, how would it  
14 affect the operations or calculations done  
15 under the Consensus Plan?  
16 A. Well, the Consensus Plan has a -- an  
17 inflow term that's used for the January through  
18 May time period. And I'm really not -- I'm  
19 really not certain how the Bureau would look at  
20 that in terms of whether or not they included  
21 those inflows that came into the reservoir  
22 while their storage permit was closed into  
23 that -- I don't think that they would. I think  
24 that that's the way they did it last year, that  
25 those -- those inflows weren't counted in terms

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1 of determining the project water supply.  
2 I'd have to go back and look through  
3 that and talk to the Bureau.  
4 Q. Do you think any adjustment is needed to  
5 the Consensus Plan?  
6 A. No.  
7 Q. You talked about a volume of water that  
8 Nebraska would like to ensure be delivered to  
9 Kansas. Do you remember that part of our  
10 discussion?  
11 A. Yes.  
12 Q. Is that volume of water under the  
13 control of Nebraska DNR so that it gets to  
14 where you want it to go?  
15 A. Yes.  
16 Q. How is it under Nebraska DNR's control?  
17 A. Through our regulatory -- regulatory  
18 authority over surface water that --  
19 Q. What specific aspects of that authority  
20 relate to the control over the water?  
21 A. The director is -- the director of the  
22 department is tasked with administering all  
23 surface water appropriations so that when  
24 necessary, those appropriations are closed and  
25 there's -- removes the ability of those as far

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1 as water users to take water out of the stream  
2 or to store water in a in-stream reservoir.  
3 Q. Is that control exercised as part of the  
4 compact call year operations referred to in the  
5 Integrated Management Plans?  
6 A. Yes.  
7 Q. Is it only during years where there's a  
8 compact call year designation?  
9 A. We administer for under prior  
10 appropriations pretty much every year around  
11 the state.  
12 There is some administration on the  
13 Republican almost every year but not for  
14 compact compliance. Administration for compact  
15 compliance would be limited to a compact call  
16 year.  
17 Q. And is that when this water from the  
18 N-CORPE project is being controlled by Nebraska  
19 DNR?  
20 A. If we're talking about the volume, then,  
21 yes. This year we issued an order on January  
22 1st. And we closed all the reservoirs.  
23 They're currently bypassing their inflows so  
24 that we can start to bring water downstream and  
25 accumulate the volumes of water that we're

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1 going to need, as an example.  
2 Q. Last year I think there was some ability  
3 of some of the reservoirs to temporarily retain  
4 water, water you mentioned in a previous  
5 answer, about it being converted at the end of  
6 the year because it wasn't needed to move  
7 downstream.  
8 Is anything like that being done right  
9 now with respect to the reservoirs in the  
10 Republican --  
11 A. Not at this time.  
12 Q. So the gates are open on everything?  
13 A. Yes. Well, that's not technically true.  
14 On some of them, they have to get on a schedule  
15 because their minimum gate opening is too much  
16 for the inflow.  
17 So -- Hugh Butler, you know, they  
18 released 20 cfs for a while, and it drew it  
19 down. And now it's coming back up. I don't  
20 know if they'll -- they'll be, you know, open  
21 one week, closed the next, something like that  
22 but --  
23 Q. Okay. The -- there's a provision in the  
24 FSS for designated -- designating certain years  
25 water-short administration years. Are you

81

1 familiar with that?  
2 A. Yes.  
3 Q. I think there's a trigger volume  
4 associated with that. Do you remember how that  
5 provision works?  
6 A. If the water supply in Harlan County  
7 Lake is less than 119,000 acre-feet, then it's  
8 a water-short year. And that's something that  
9 is looked at in terms of the water supply on  
10 July 1st.  
11 Q. Is -- does Nebraska intend to use any of  
12 the N-CORPE project water to assist in avoiding  
13 that water-short year administration trigger?  
14 A. I suppose it's possible. But it's  
15 probably not practical in almost every  
16 situation because, you know, the water --  
17 water-short years, while it's defined based on  
18 a water supply, it's really -- it -- it's  
19 really determined by Mother Nature. And when  
20 it doesn't rain, it doesn't -- you know,  
21 there's -- it doesn't rain. And that's where  
22 you're at. So --  
23 Q. Could any of the volume of water from  
24 the N-CORPE project be used to fill that water  
25 supply that's in Harlan County Reservoir?

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1 A. It would be pretty difficult because --  
2 because of the way those computations work. It  
3 takes quite a bit of water to catch up. So  
4 it's not -- it's -- you know, it's not simply a  
5 matter of being -- being under by a little bit  
6 and pumping it in because what happens is  
7 there's these shared shortage adjustments that  
8 occur, so some of the inflows don't count for  
9 that year. And there's this ability to drop  
10 down into the sediment pool. So, you know,  
11 they're going to -- they're going to go down  
12 into the sediment pool on -- when there isn't  
13 enough water in the irrigation pool. And if  
14 you start pumping water in, it just -- it  
15 doesn't really get you that much farther ahead  
16 because you're just putting water in the  
17 irrigation pool. So instead of taking it out  
18 of the sediment pool, they'll take it out of  
19 the irrigation pool.  
20 So it's not a simple matter of saying  
21 we're at 115, let's pump 40 -- 4,100 acre-feet  
22 and it will all be over.  
23 Q. Okay. If we could turn in your report  
24 to page 3, there's a reference in Section 4 in  
25 that first paragraph, which I'm looking for and

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1 not finding -- oh, in the end of the paragraph,  
2 it refers to questions or concerns raised by  
3 other states. Has Colorado raised any concerns  
4 specific to this N-CORPE proposal?  
5 A. Well, they've probably -- I can't  
6 recall. We've gone through a couple of these.  
7 And we've had various workshops where there's  
8 been questions from all sides. So I don't  
9 remember specifically related to this one. At  
10 times they've had questions.  
11 Q. Do you remember whether any questions  
12 from Colorado or concerns from Colorado came up  
13 related to the Platte side of this project as  
14 opposed to the Republican side?  
15 A. I don't believe so.  
16 MR. WILMOTH: I'm sorry, Chris,  
17 could we take a quick break?  
18 MR. GRUNEWALD: Yeah.  
19 (A short recess was taken.)  
20 Q. (BY MR. GRUNEWALD) The N-CORPE project  
21 water, could any other water users acquire the  
22 right to that project water, the ability to get  
23 water from the project?  
24 A. I'm not sure. I guess I'm -- I'm trying  
25 to think through scenarios. I don't think so.

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1 I'm not sure what you're getting at exactly,  
2 though.  
3 Q. Is there a situation where some other  
4 water -- surface water user could contract and  
5 say I want water from that project as opposed  
6 to it being turned on at the request of the NRD  
7 for the purpose of compact compliance?  
8 A. Well, I mean, I guess theoretically if  
9 they made the right arrangements with the  
10 N-CORPE board and they had that worked out, I  
11 suppose it's theoretically something that might  
12 happen.  
13 Q. You're not aware of any prohibitions  
14 against that water being used in that way?  
15 A. No.  
16 Q. Okay. If we could turn to page 6 in  
17 your report. I'd like to take a look at the  
18 formulas that you've laid out there in the  
19 middle of the page. Do you see those?  
20 A. I do.  
21 Q. Now, the first set of formulas is  
22 labeled current RRCA accounting procedures for  
23 Medicine Creek Sub-basin; is that right?  
24 A. Yes.  
25 Q. Are those formulas you have listed there

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1 the actual formulas out of the accounting?  
2 A. I think it's the generalized formula  
3 that's given. Here, let me look for you.  
4 If you look at page 40 of 104, Section  
5 III of the accounting procedures, the second  
6 line of that table is the sub-basin virgin  
7 water supply. They have a generalized formula  
8 for all the sub-basins.  
9 Q. Okay. And there are specific --  
10 A. I'm sorry. We've neglected the change  
11 in storage term.  
12 Q. The change in storage term, is that  
13 related to any of the federal reservoirs that  
14 are on the -- in the particular sub-basin?  
15 A. Well, there would be one for  
16 Medicine Creek because of that reservoir. But  
17 it's not important for purposes of this  
18 calculation. So we just simplified it and left  
19 it out.  
20 Q. Okay. Now, the -- so the reference to  
21 gauge, which is the first term listed in that  
22 first equation after the equals sign, is the --  
23 is that the compact gauge for Medicine Creek,  
24 or is that intended to be that?  
25 A. Yes, that's intended to be that.

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1 Q. Okay. And so in the first example,  
2 going to that second equation where you filled  
3 in numbers -- sorry, it's on page -- oh.  
4 A. Yeah, go ahead.  
5 Q. Okay. That gauge -- hypothetical gauge  
6 reading, is it a thousand acre-feet past the  
7 gauge that year? Is that what that's supposed  
8 to mean?  
9 A. Yes.  
10 Q. And if you go to the second set of  
11 equations, now, this is the -- as a  
12 hypothetical if you -- if -- if the N-CORPE  
13 project were putting out 60,000 acre-feet; is  
14 that right?  
15 A. Yes.  
16 Q. That's 60,000 acre-feet for the year; is  
17 that right?  
18 A. That's right.  
19 Q. And so in the -- where it had said gauge  
20 in the equation, as you filled in the numbers  
21 there, there's a set of brackets. Do you see  
22 that?  
23 A. Yes.  
24 Q. Okay. Can you tell me what the numbers  
25 are that you put in there?

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1 A. The 1,000 is the stream flow that would  
2 have occurred without operating the project.  
3 The 100 is the new depletion caused by  
4 operating the project.  
5 And the 60,000 is the delivery of water  
6 from the project.  
7 Q. Now, if we add those up, we get -- what  
8 do we get?  
9 A. 60,900.  
10 Q. Now, is that supposed to represent the  
11 amount of water passing that gauge?  
12 A. Yes.  
13 Q. Okay. So in this hypothetical, 60,000  
14 acre-feet left the discharge pipe, and the  
15 amount that showed up at the gauge was 60,900;  
16 is that right?  
17 A. Well, the increase in flow would be  
18 59,900. And the total gauge flow was 60,900.  
19 Q. Thank you for that correction. And I --  
20 what I meant to say is that the total flow at  
21 the gauge is 60,900; is that right?  
22 A. Yes.  
23 Q. If the total flow at the gauge ended up  
24 being 58,900 acre-feet, so 2,000 acre-feet less  
25 there, then the end result for the equation

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1 would be negative 400; is that right?  
2 I'm going to simplify with lawyer's  
3 math. If the end result in your hypothetical  
4 as you have it there is a positive 1,600 from  
5 that equation but 2,000 less acre-feet, fewer  
6 acre-feet were present, then it would be 2,000  
7 acre-feet less than the 1,600 acre-feet?  
8 A. Right. That's how the math would work  
9 out. I was just thinking through it.  
10 Q. Fair enough. How would a -- if that  
11 value were negative there for the virgin water  
12 supply, how would that be allocated?  
13 A. 53.55 percent to Nebraska and 46.45  
14 percent to Kansas.  
15 Q. So there would be a negative virgin  
16 water supply allocated between the states?  
17 A. Yes.  
18 Q. I want to switch to the arbitrator's  
19 decision in Rock Creek. And I have a copy.  
20 But I don't know that we'll necessarily need to  
21 go to it. We discussed it earlier today. Do  
22 you remember that?  
23 A. Yeah, generally, yeah.  
24 Q. And are you aware that Nebraska issued a  
25 notice accepting the decision?

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1 A. Yes.  
2 Q. Okay.  
3 MR. WILMOTH: Mr. Grunewald,  
4 would it be all right if I provided a copy of  
5 the report?  
6 MR. GRUNEWALD: Absolutely. You  
7 know, I've got a copy marked. So why don't we  
8 go ahead and mark that.  
9 (Exhibit No. 5 marked for  
10 identification.)  
11 Q. (BY MR. GRUNEWALD) Okay. So in front of  
12 you, you have what's been marked Exhibit 5.  
13 There is no Exhibit 4 for the deposition. And  
14 this is the arbitrator's order we were  
15 discussing for two disputes, one of which is  
16 Rock Creek. Do you see it?  
17 A. Yes.  
18 Q. Does that look like the decision?  
19 A. Yes, it does.  
20 Q. Did you read the decision when it came  
21 out?  
22 A. Yes, I did. I enjoyed it thoroughly.  
23 Q. I thought you might.  
24 A. Uh-huh.  
25 Q. Was there -- were there any conclusions

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1 reached by the arbitrator that you disagreed  
2 with?  
3 A. I don't believe so.  
4 Q. Okay. Earlier we did talk about working  
5 through the accounting terms in terms of the  
6 augmentation water supply credit. And I  
7 believe you said you're still working through  
8 some of that; is that right?  
9 A. Well, I think what I was -- what I was  
10 trying to say is that, you know, when we put  
11 that concession forward and what he obviously  
12 recognized was -- was appropriate, I hadn't  
13 thought through some of the consequences of  
14 doing that.  
15 And, really, all I mean is that I  
16 over -- I think it was just presented in an  
17 oversimplified way that would always work if  
18 there's a positive new depletion but it just  
19 didn't consider some of the potential outcomes  
20 that we'd want to, you know, make sure we  
21 avoided.  
22 And I think -- I think, as I read his  
23 opinion, it was clearly geared towards -- and  
24 at least my interpretation is that's what he  
25 was thinking about was situations where there

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1 was some positive new depletion, there was some  
2 delivery and then there was some netting out of  
3 that for the augmentation water supply credit.  
4 Q. One of the other subjects covered in the  
5 decision was the -- was a limit on the maximum  
6 amount out of the Rock Creek Augmentation Plan.  
7 Do you remember that issue?  
8 A. Yes.  
9 Q. For what it's worth here on intro pages,  
10 ii, I believe subject heading there on the page  
11 is F, do you see heading F there?  
12 A. Yes.  
13 Q. The phrase -- there's a phrase there.  
14 It says, "Meaningful RRCA review requires each  
15 such plan to include a maximum amount." Do you  
16 see that?  
17 A. Yes.  
18 Q. Do you agree with that?  
19 A. Sure. That's why we provided one.  
20 Q. And for Rock Creek, the maximum amount  
21 was -- do you remember what the maximum amount  
22 was for Rock Creek?  
23 A. 20,000.  
24 Q. And for N-CORPE here, it's 60,000  
25 acre-feet because the plan states that's the

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1 maximum credit that would be sought; is that  
2 it?  
3 A. That's what the plan is for is for the  
4 60,000, right.  
5 Q. Is it because the credit is 60,000 or  
6 the maximum amount of delivery would be 60,000?  
7 A. Well, the delivery would be 60,000. And  
8 the credit could be 60,000. But it wouldn't be  
9 more than that.  
10 Q. Okay. We've talked about things you're  
11 working through up to your deadline of your  
12 other report that might affect the N-CORPE  
13 proposal. Don't want to rehash those. Is  
14 there anything else that this decision that you  
15 know of would lead to changes in the N-CORPE  
16 proposal besides what we've already talked  
17 about?  
18 A. I don't believe so.  
19 Q. And Rock Creek augmentation -- the Rock  
20 Creek augmentation project is operating now  
21 or -- I should say operated in 2013; is that  
22 right?  
23 A. They're both right, yeah. It operated  
24 then. And it's operating now.  
25 Q. Lucky me. How much water was delivered

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1 out of Rock Creek in 2013?  
2 A. I don't have the exact number at this  
3 point. I -- I understand the -- they were  
4 planning to deliver 16,000 acre-feet,  
5 approximately.  
6 Q. Were records provided to Nebraska DNR  
7 about the Rock Creek project operations,  
8 reflecting how much was pumped?  
9 A. They will be. That will be part of our  
10 annual reporting for this year.  
11 Q. You don't know if they were provided  
12 before then?  
13 A. I don't think we've received them yet.  
14 Q. Okay. And will you be getting records  
15 of both the pipeline discharge and the well  
16 pumping?  
17 A. That's what I would anticipate.  
18 MR. GRUNEWALD: I think I'm  
19 nearly done, if I could just take a minute to  
20 circle back through. I think we're just about  
21 done.  
22 (A short recess was taken.)  
23 MR. GRUNEWALD: I'm all done.  
24 MR. WILMOTH: All right. Scott,  
25 did you have any questions?

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1 MR. STEINBRECHER: No, no  
2 questions from Colorado. Thank you, Tom and  
3 Chris.  
4 MR. WILMOTH: All right. We  
5 have no follow-up.  
6 THE REPORTER: And you're  
7 reading and signing?  
8 MR. WILMOTH: Yes.  
9 (Deposition concluded at 2:21 p.m.)  
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1 C-E-R-T-I-F-I-C-A-T-E  
2 STATE OF NEBRASKA )  
 : ss.  
3 COUNTY OF LANCASTER )  
4 I, Lori J. McGowan, General Notary Public  
5 in and for the State of Nebraska and Registered  
6 Professional Reporter, hereby certify that DR.  
7 JAMES SCHNEIDER was by me duly sworn to testify  
8 the truth, the whole truth and nothing but the  
9 truth, that the deposition by him as above set  
10 forth was reduced to writing by me.  
11 That the within and foregoing deposition  
12 was taken by me at the time and place herein  
13 specified and in accordance with the within  
14 stipulations; the reading and signing of the  
15 deposition having not been waived.  
16 That the foregoing deposition is a true  
17 and accurate reflection of the proceedings  
18 taken in the above case.  
19 That I am not counsel, attorney, or  
20 relative of either party or otherwise  
21 interested in the event of this suit.  
22 IN TESTIMONY WHEREOF, I place my hand and  
23 notarial seal this day of January, 2014.  
24  
25

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1 Deposition of DR. JAMES SCHNEIDER  
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3 \_\_\_\_\_  
4 Signature of witness  
5  
6 STATE OF \_\_\_\_\_ )  
7 : ss.  
8 COUNTY OF \_\_\_\_\_ )  
9  
10 Subscribed and sworn to before me this  
11 day of , .  
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15 GENERAL NOTARY PUBLIC  
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1 DEPOSITION OF: DR. JAMES SCHNEIDER  
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