

1 IN RE: NONBINDING ARBITRATION PURSUANT TO THE FINAL  
2 SETTLEMENT STIPULATION, KANSAS v. NEBRASKA and COLORADO,

3  
4 No. 126 Original, U.S. Supreme Court

5 Jeffrey C. Fereday, Arbitrator

6 NEBRASKA'S ALTERNATIVE WATER |  
7 SHORT YEAR PLAN

8 AND

9 NEBRASKA'S ROCK CREEK  
10 AUGMENTATION PLAN.

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11 REPORTER'S TRANSCRIPT  
12 August 27, 2013  
13 Volume II

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14  
15 The above-entitled arbitration was  
16 conducted at Ralph L. Carr Judicial Center, 1300  
17 Broadway, Second Floor, Denver, Colorado, on August  
18 26, 2013, at 9:01 a.m., before Arbitrator Jeffrey C.  
19 Fereday. These proceedings were reported by Jana  
20 Mackelprang, Certified Realtime Reporter, Registered  
21 Professional Reporter, and Notary Public.  
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1 APPEARANCES:

2 For the State of Nebraska:

TOM WILMOTH, ESQ.

3 DON BLANKENAU, ESQ.

Blankenau Wilmoth Jarecke, LLP

4 206 South 13th Street, Suite 1425

Lincoln, Nebraska 68508

5 (402) 475-7080

6 JUSTIN D. LAVENE

BLAKE E. JOHNSON

7 Assistant Attorneys General

2115 State Capitol

8 Lincoln, Nebraska 68509

justin.lavene@nebraska.gov

9

For the State of Colorado:

10 SCOTT STEINBRECHER

Assistant Attorney General

11 1300 Broadway, 7th Floor

Denver, Colorado 80203

12 (720) 508-6287

scott.steinbrecher@state.co.us

13

14 For the State of Kansas:

BURKE W. GRIGGS

15 CHRISTOPHER M. GRUNEWALD

Assistant Attorneys General

16 120 Southwest 10th Avenue, 3rd Floor

Topeka, Kansas 66612-1597

17 (785) 368-8424

burke.griggs@ksag.org

18 chris.grunewald@ksag.org

19

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P R O C E E D I N G S

WHEREUPON, the following proceedings were taken pursuant to the Federal Rules of Civil Procedure.

\* \* \* \* \*

ARBITRATOR FEREDAY: Good morning, counsel and witnesses and guests. This is day 2 of our arbitration in this matter.

Are there any preliminaries before Dr. Schneider should resume the stand?

MR. WILMOTH: No.

ARBITRATOR FEREDAY: Hearing none, Dr. Schneider, would you please resume the witness stand and you remain under oath.

And, gentlemen, if I might, I know that the intent today is to move to the Appendix M part of the presentation, and that's of course as it should be. But I do have a question or two about Rock Creek that I would appreciate your indulgence, if I could ask those questions. So I think I will start with those. And it has something to do with this issue of transit losses and how the model treats discharges from the pipeline. So if I might ask a couple of questions, I think I'll start off there.

And, naturally, if you have any follow-up

1 from that to tie up the Rock Creek testimony from this  
2 witness, that would be, of course, fine.

3 JAMES C. SCHNEIDER,  
4 having been previously duly sworn to state the whole  
5 truth, testified further as follows:

6 EXAMINATION (Continued)  
7 BY ARBITRATOR FEREDAY:

8 Q. Dr. Schneider, I note that in Colorado's  
9 joint expert report, which has not been discussed yet,  
10 but was submitted on May 23rd of this year -- I think  
11 it's Exhibit No. C001 -- Mr. Wilmoth and Dr. Schreuder  
12 note -- and I'm quoting from page 3 of that exhibit,  
13 although the pages in my copy are not numbered -- say  
14 that "The Rock Creek Plan uses the groundwater model to  
15 evaluate the impacts of well pumping to streamflow using  
16 the groundwater model" --

17 A. Right.

18 Q. -- "but does not add the outflow from the  
19 pipeline to the groundwater model."

20 So is it correct, then -- yes, if you  
21 could show him a copy of that, I'd appreciate it. Thank  
22 you, Mr. Wilmoth. So I'm looking there on the last  
23 paragraph on what I count as page 3 of C001.

24 A. Yes, I see that.

25 Q. Therefore, the model would deliver a

1 prediction based solely on the groundwater pumping  
2 portion of the Rock Creek plan and not on the discharge  
3 piece of the plan; is that a fair assessment?

4 A. Right. The model is necessary to do the  
5 pumping part of it. That's what the model was developed  
6 for, but, you know, the actual surface water flow  
7 portion of the project and the plan, it's not necessary  
8 to use the model to monitor that water in the stream.

9 Q. Well, I guess I just -- just to let  
10 counsel know, what I'm thinking here, obviously I'm  
11 wondering how this comports with the FSS's requirement  
12 that there be an analysis of the pumping's net effect.  
13 I suppose that's an issue here that will be briefed, and  
14 I am anxious to see how that will come out. But I just  
15 wanted to confirm that point through you.

16 A. Well, if I could, you know, that's tied up  
17 in that whole analysis of new net depletions to look at  
18 what new depletions there are, and then actually kind of  
19 netting out the benefit of the project by comparing the  
20 new depletions to the delivery and then getting the net  
21 benefit.

22 And you might have noticed one of the  
23 things that we conceded, or that I conceded in my  
24 response report, was that it may be reasonable not to  
25 count the delivery necessary to cover the new depletion

1 as a credit, and that we would concede that point. And  
2 so in that way, I think we're fairly directly utilizing  
3 the model to make sure that we're only counting the  
4 amount of water delivered in excess of any new depletion  
5 that may be caused by the project.

6 Q. The new depletion caused by the project is  
7 intended to be covered by the 300 cfs -- excuse me --  
8 300 acre-feet of pumping annually in those years where  
9 there is no pumping for larger deliveries; is that  
10 right?

11 A. That's right, but there could be a new  
12 depletion even in years when we're doing those larger  
13 deliveries for compact compliance. So in all of those  
14 years -- that's what I'm trying to say in that  
15 concession, that in any year there's a new depletion, we  
16 would see it as reasonable to limit the credit to just  
17 the portion of the water delivered over and above that  
18 new depletion.

19 Q. Would that concession include subtracting  
20 300 acre-feet annually from the credit?

21 A. I guess it would -- what it would do is,  
22 after we calculate any new depletion, it may be  
23 300 acre-feet in a given year, but it's kind of whatever  
24 that calculation determines that new depletion was, if  
25 it's a positive number, anyway. And then subtracting

1 that from the credit, right.

2 Q. That would be an actual number generated  
3 by the model?

4 A. Yes, it would.

5 ARBITRATOR FEREDAY: Thank you. Any  
6 further inquiry with this witness on this point?

7 MR. WILMOTH: No, none.

8 ARBITRATOR FEREDAY: Thank you for  
9 indulging me this morning, gentlemen. And so  
10 Mr. Wilmoth.

11 MR. WILMOTH: Thank you. May I approach?

12 ARBITRATOR FEREDAY: Certainly.

13 FURTHER REDIRECT EXAMINATION

14 BY MR. WILMOTH:

15 Q. Good morning, Dr. Schneider.

16 A. Good morning.

17 Q. I'd like to hand you what has been marked  
18 N25000, also N25001 and N25002. Starting with N25000,  
19 would you please identify that document for the record.

20 A. Yes. This is my prefiled direct testimony  
21 regarding Nebraska's alternative water-short year plan.

22 Q. Thank you, Doctor.

23 And does that represent your testimony  
24 which you affirm here today?

25 A. Yes, it does.

1 Q. Thank you.

2 Could you please proceed to N25001.

3 A. This is Nebraska's submittal of its  
4 alternative water-short year plan to the RRCA, dated  
5 July 30th, 2012.

6 Q. Thank you.

7 MR. WILMOTH: For the record, I would  
8 refer to that as the Appendix M plan.

9 ARBITRATOR FEREDAY: Thank you.

10 Q. (By Mr. Wilmoth) Would you please proceed  
11 to N25002.

12 A. This is the responsive report that I  
13 prepared in this matter under the alternative  
14 water-short year administration phases proceeding.

15 Q. Thank you.

16 Collectively, do those three documents  
17 represent your testimony here today?

18 A. They do.

19 MR. WILMOTH: Thank you. We'll tender the  
20 witness at this time.

21 ARBITRATOR FEREDAY: Thank you.

22 Mr. Griggs or Mr. Grunewald.

23 MR. GRIGGS: Thank you, Your Honor.

24

25

1 FURTHER RECROSS EXAMINATION

2 BY MR. GRIGGS:

3 Q. Good morning, Dr. Schneider.

4 A. Good morning.

5 Q. Isn't it true that Nebraska presented the  
6 Appendix M plan on July 30th, 2012?

7 A. Yes, it is.

8 Q. Isn't it also true that the States of  
9 Colorado, Nebraska, and Kansas, I think virtually  
10 everyone in this room, were within two weeks of going to  
11 trial before Special Master Kayatta at that time?

12 A. That was one thing that was going on at  
13 that time. We were also in the midst of a fairly severe  
14 drought, which brought on the necessity for us to devote  
15 some significant work to preparing this plan, in the  
16 midst of all of that.

17 Q. The drought that really extended across  
18 the basin and across the state line?

19 A. It was basin-wide, more or less.

20 Q. Isn't it also true that the trial work in  
21 the Supreme Court case, including posttrial briefs,  
22 occupied the three States through the middle of  
23 October 2012?

24 A. That could be when that wrapped up.

25 Q. Isn't it true that the annual meeting of

1 the RRCA was rescheduled the middle of October, largely  
2 in response to the burdens of the trial?

3 A. Yes.

4 Q. So given the circumstances of the States'  
5 trial preparation in July and August of 2012, isn't it  
6 fair to conclude that the States of Colorado and Kansas  
7 could not commit their full respective expertise to  
8 reviewing the plan until the phase of that trial was  
9 completed?

10 MR. WILMOTH: I object to the nature of  
11 that question, Your Honor. This witness can't testify  
12 to what Kansas was doing at the time or whether they had  
13 sufficient manpower or anything else.

14 ARBITRATOR FEREDAY: Yeah, I certainly  
15 agree with that. The form of the question does ask this  
16 witness, I believe, to speculate on those matters.

17 MR. GRIGGS: That's true. I'll accept  
18 that.

19 Q. (By Mr. Griggs) Isn't it also true that  
20 the trial in the Supreme Court case continued into a  
21 second phase devoted to Nebraska's counterclaim?

22 A. Yes. After the initial trial had wrapped  
23 up and the posttrial briefs, there was kind of a lull in  
24 the time period where the Special Master was considering  
25 all of the evidence and the presentation. And he had

1 notified the States at some point, I think in December,  
2 that he would be issuing a draft report in January. And  
3 once that draft report came out, there was kind of  
4 another hearing that was scheduled out in Portland with  
5 him. Following that hearing, there was an extension of  
6 the trial for one specific, fairly narrow issue related  
7 to the case.

8 Q. And this second phase has included the  
9 preparation of expert reports and responsive reports by  
10 experts from all three States, correct?

11 A. Yes, it has.

12 Q. And during the period between trial  
13 preparations for the first hearing in Portland in  
14 August 2012 and today, Nebraska has triggered nonbinding  
15 arbitration on no fewer than three issues: The  
16 augmentation plan, the alternative water-short year  
17 plan, and the NCORPE, N-C-O-R-P-E, plan?

18 A. Those are the arbitrations that we've  
19 initiated, yes.

20 Q. With that recent historical context in  
21 mind, let's turn to the slightly more distant historical  
22 context, because you've maintained throughout your  
23 depositions that this sort of context is important,  
24 correct?

25 A. Excuse me --

1 Q. In your depositions.

2 MR. WILMOTH: What is the context?

3 Q. (By Mr. Griggs) The context in which the  
4 FSS was drafted and the context in which the FSS  
5 operates.

6 A. I think I've been clear, and it seems  
7 apparent to me, that the FSS is an entire document. It  
8 has to be considered as a whole.

9 Q. Thank you.

10 Isn't it true that Nebraska requested that  
11 Appendix M be included in the FSS?

12 A. That could be.

13 Q. But you don't know?

14 A. I don't.

15 Q. Okay. And it's your opinion that the  
16 Appendix M is poorly written, correct?

17 A. I would agree with that. It certainly  
18 takes more than one time through to get a good grasp of  
19 what the meaning is.

20 Q. Isn't it also correct that you've had no  
21 discussions with Roger Patterson or Dr. Ann Bleed  
22 concerning their knowledge and understanding of  
23 Appendix M?

24 A. Well, it's true, again, as we discussed  
25 this yesterday, as I started with the Department in

1 2006, Roger Patterson had already left the Department.  
2 I worked under Ann Bleed as the director for about  
3 15 months, and I did work quite a bit on Republican  
4 River issues.

5 I do remember at least discussing with  
6 her, or having, you know, that -- the idea that that  
7 existed as part of various conversations. I don't think  
8 we had detailed discussions about it. At the time it  
9 wasn't particularly relevant in terms of the parameters  
10 of it and our ability to utilize it at that time. So we  
11 wouldn't have had a lot of in-depth discussions.

12 I did work under her. And that was  
13 something, as I started my job and spent time reviewing  
14 the final settlement stipulation and all the various  
15 contents, probably at some point said, what about this?  
16 Is this how this works generally? Just some very  
17 general discussions, maybe. I couldn't recall for  
18 certain, but . . .

19 Q. Thank you.

20 But you have testified at your depositions  
21 that you have no knowledge of the context in which  
22 Appendix M was produced, other than your review of  
23 Special Master McKusick's 2003 hearing regarding the  
24 FSS?

25 A. Yes, I believe that what I said there was

1 that there may have been some discussion, and I haven't  
2 gone back to look since we had that deposition. But  
3 there may have been some discussion in there that was  
4 pertinent.

5 Q. So the Appendix M plan is principally the  
6 result of your own approach to Appendix M and  
7 water-short year administration that Appendix M enables?

8 A. Well, what I've done is I've read  
9 Appendix M and studied it fairly carefully. And there's  
10 also, as I think I've pointed out in some of my  
11 testimony, other relevant portions of, obviously, the  
12 FSS that refers to it, as well as the accounting  
13 procedures that implement this potential alternative  
14 water-short year.

15 So there are elements kind of throughout  
16 that I've carefully considered in their entirety to come  
17 up with what I believe is a plan that's consistent with  
18 those elements of the FSS.

19 Q. Thank you.

20 Besides yourself, Dr. Schneider, who else  
21 assisted you in interpreting the meaning of Appendix M?

22 A. That would be, obviously, discussions with  
23 the director of the department, Brian Dunnigan, as well  
24 as staff that I have at the Department, and consultants  
25 that we have, attorneys that we have assisting us in

1 these matters.

2 Q. Was there anyone on the present Nebraska  
3 expert team who was also present at the negotiations  
4 where Appendix M was drafted and agreed upon by the  
5 States?

6 A. I don't know.

7 Q. It's your opinion that Nebraska is  
8 entitled to Appendix M as a matter of right, correct?

9 A. I think Appendix M sets up a set of  
10 conditions that we're required to satisfy. Then once  
11 those are put in place, it's something that is provided  
12 for under the FSS for Nebraska.

13 In other words, we don't get to define the  
14 parameters of alternative water-short year  
15 administration. The RRCA can discuss modifying  
16 Appendix M, and that would require agreement of all the  
17 States to come up with a different set of parameters for  
18 how Appendix M would work. But given the parameters  
19 that are laid out, that's the framework that we have to  
20 work within.

21 Q. Thank you.

22 Let's turn to your responsive report.  
23 That's Nebraska 25002, I believe. Can you go to  
24 Section 2.0 of that report.

25 Are you there, Doctor?

1           A.       Yes, I am.

2           Q.       Thank you.  You're way ahead of me in your  
3 document management.

4                    The first sentences in 2.0, you state that  
5 "While Mr. Barfield apparently reads Appendix M as an  
6 abstract, independent tool for reducing Computed  
7 Beneficial Consumptive Use (CBCU) for the mere fact of  
8 doing so, his reading is oversimplified and myopic."

9                    Can you please clarify what you mean by  
10 abstract means to reduce CBCU?

11           A.       I guess I'm just trying to say that he is  
12 apparently looking at it as just something that would be  
13 there to make some reduction in CBCU.

14           Q.       Do you know of anywhere in the reports by  
15 Mr. Barfield or his testimony where he states that  
16 Appendix M is an abstract means to reduce CBCU?

17           A.       I do not know where he's used those  
18 specific words.  I guess this is based on my reading of  
19 his reports and the discussions that we've had within  
20 the RRCA.

21           Q.       So it's your opinion of his approach to  
22 this, rather than anything Mr. Barfield has ever  
23 represented to the RRCA?

24           A.       When we had the discussion on this last  
25 October, that was my understanding of how he was

1 representing Appendix M.

2 Q. Isn't it true that reducing CBCU helps  
3 with compliance?

4 A. As a general matter, it would help with  
5 compact compliance, but Nebraska is not really  
6 interested in just getting closer to compact compliance  
7 because it's not really something that's a matter of  
8 degree. You're either in compliance or you're not.

9 So, in our view, the amount by how much  
10 you miss is -- while may be relevant sometime later down  
11 the road when we have to decide what happens because of  
12 that, is not really relevant in realtime because we have  
13 to be in compliance.

14 Q. So it's your opinion that the amount is  
15 only relevant somewhere down the road; is that what you  
16 just said?

17 A. The amount of noncompliance? I guess I  
18 was just trying to say that if we're out of compliance,  
19 we're out of compliance. And I don't know of anything  
20 in the FSS that defines that in terms of degrees, like a  
21 Phase I noncompliance, Phase 2 noncompliance, something  
22 like that. It's not treated that way.

23 Q. In the second paragraph of Section 2.0,  
24 you state, "Fundamentally, for Appendix M to achieve  
25 anything substantive, it must be viewed as a Compact

1 compliance tool, not an abstract means to reduce CBCU."

2                   And in support of that, you assert that  
3 Special Master McKusick's second report supports this  
4 view, and you cite three different sections of that  
5 second report, pages 28 -- page 28, pages 50 to 52, and  
6 pages 64 to 68; isn't that correct?

7           A.       Yes, it is.

8           Q.       Now, isn't it true that these sections are  
9 simply summaries of the relevant sections of the FSS?

10          A.       They are fairly general, yes.

11          Q.       Where does -- let's turn to J68. We don't  
12 have the projector up, but we'll hand-walk over a paper  
13 copy for you.

14                   Please take care of that. We guard these  
15 with our life.

16                   Do you have that second report in front of  
17 you, Doctor?

18          A.       Yes, I do.

19          Q.       And you've reviewed this because it's the  
20 basis for your understanding of the context of  
21 Appendix M, correct?

22          A.       It's not the basis. I think this is  
23 something that I've referenced here in my report. It's,  
24 I suppose, a partial basis in that it's his  
25 understanding of the FSS, as I've also tried to

1 understand the FSS as a whole.

2 Q. Okay. Isn't it true that nowhere in that  
3 report Special Master makes a statement, any statement,  
4 that supports or states that the entire purpose of  
5 Appendix M is to assist Nebraska's compact compliance?

6 A. I think the way I'd characterize what I  
7 understand this to be saying is that his understanding  
8 is that Appendix M changes the compliance rules for  
9 Nebraska, but still requires compliance. So it's an  
10 alternative way that Nebraska can achieve compliance, an  
11 alternate set of accounting, so to speak. That's the  
12 way I understand how he's describing it.

13 Q. If the States agree to that alternative  
14 water-short year administration, correct?

15 A. Well, it says right here: The final  
16 settlement stipulation also provides Nebraska the option  
17 of using the three-year running average as an  
18 alternative to the two-year running average, if Nebraska  
19 chooses to implement an alternative administration plan  
20 after its approval by the RRCA. So those are the steps.

21 Q. Thank you.

22 So the RRCA has to approve the Appendix M  
23 plan?

24 A. It does have to come in front of the RRCA,  
25 yes, and it does have to be approved.

1 Q. Thank you.

2 Turning back to your responsive report, in  
3 the next sentence there in Section 2.0, you state,  
4 "Nebraska agreed to the condition in the FSS that it  
5 would be held to a two-year average above Guide Rock.  
6 As a tradeoff, Nebraska was provided a mechanism to  
7 utilize a three-year average when that average would be  
8 more favorable (i.e., the third year improved the  
9 average)."

10 Do you see that, Doctor?

11 A. Yes.

12 Q. What is your basis for asserting that  
13 Nebraska agreed to a two-year water-short year average  
14 in exchange for a three-year average, if that three-year  
15 average was more favorable?

16 A. Well, that's exactly the way the document  
17 is drafted up. It provides all those elements. I think  
18 it's fairly clear that that was the overall discussion  
19 that was had, that they decided all of those elements  
20 were necessary to come to an agreement on how to do this  
21 water-short year administration.

22 Q. So you're confident in your ability to  
23 glean the intentions of those who drafted Appendix M,  
24 based upon your review of Appendix M?

25 A. I guess I wouldn't say I would be

1 confident in knowing all of the intentions of all the  
2 parties at the time they were thinking about it, but I  
3 think when you read the document, the intention of what  
4 they were adopting was that it would provide these  
5 various elements, that this is -- they agreed that,  
6 overall, this is the elements that should be included.

7 Q. Thank you.

8 I'm going to ask you a simple yes or no  
9 question. Isn't it a fundamental requirement of  
10 Appendix M that Nebraska has to commit to certain  
11 actions to reduce its CBCU to obtain a more flexible  
12 compliance standard?

13 A. Yes.

14 Q. Thank you.

15 On the top of page 2 of your report,  
16 you're discussing how the Appendix M plan's purpose is  
17 to achieve compact compliance, and you've underlined  
18 that phrase.

19 Do you see that, Doctor?

20 A. Yes, I do.

21 Q. Thank you.

22 Would you agree that the Kansas position  
23 on Appendix M is that the additional flexibility of a  
24 three-year compliance average should be tied to a  
25 definite plan of reductions in CBCU?

1 A. That sounds familiar.

2 Q. Isn't it true that the Kansas position  
3 would accomplish this purpose by granting to Nebraska  
4 that additional three-year flexibility?

5 A. Are you saying, would it accomplish the  
6 purpose of providing flexibility --

7 Q. Yes.

8 A. -- by providing flexibility?

9 MR. WILMOTH: Mr. Arbitrator, can I get a  
10 clarification on what the Kansas position is referred to  
11 here? I don't understand what the Kansas position is.  
12 I don't know if the witness does.

13 ARBITRATOR FEREDAY: Mr. Griggs, I think  
14 that's a good point. I, too, am wondering exactly which  
15 Kansas position you're referring to. That would be  
16 helpful.

17 MR. GRIGGS: Thank you.

18 Q. (By Mr. Griggs) In that same paragraph,  
19 you discuss the retroactive nature of the accounting.

20 Do you see that?

21 A. Yes, I do.

22 Q. And you state, "The problem with the  
23 implementation of this modified test is that Compact  
24 accounting is retroactive in nature. It is not  
25 finalized until August of the year following the

1 applicable compliance year. Thus, it is literally  
2 impossible to know exactly how much CBCU reduction is  
3 required in any given year to comply with the Compact  
4 that year until the following year. This is why  
5 Nebraska must retain flexibility under any Appendix M  
6 plan so that it can implement any number of alternatives  
7 that have the practical effect of reducing CBCU to the  
8 point that Compact compliance is ensured - but no  
9 further."

10                   Where do you find support for that  
11 position in Appendix M?

12           A.       You just read an awful lot. Could you  
13 help me zero in?

14           Q.       Yes, that's fine. I was trying to make it  
15 clear where this is in your report. It's page 2, the  
16 first full paragraph, starting on the fourth line, "The  
17 problem with the implementation," and it goes to the end  
18 of that paragraph.

19                   My question was: Where do you find that  
20 position in Appendix M?

21           A.       Well, I think it's broader than  
22 Appendix M. I think I'm elaborating on it in some of  
23 the examples below, but I certainly laid out an example  
24 where an Appendix M plan with a fixed reduction in CBCU  
25 may provide no benefit whatsoever to Nebraska in a

1 water-short year because the required reduction that is  
2 contained within that plan may be equal to or even more  
3 than what we would have to do to achieve a two-year  
4 average, which is kind of what we would have anyway.

5 Q. But isn't it your position that Appendix M  
6 was meant to relieve Nebraska of the after-the-fact  
7 accounting problem?

8 A. No, I don't think I'm trying to say that  
9 here.

10 Q. Okay. Are you saying that Appendix M is  
11 meant to provide a procedure that allows Nebraska to use  
12 100 percent of its allocation in water-short year  
13 periods?

14 A. I think the compact and the FSS, in  
15 general, allow Nebraska to use 100 percent of its  
16 allocation, given the applicable averaging, in any  
17 period.

18 Q. And where in Appendix M is there any  
19 discussion of the intent to ensure Nebraska's  
20 compliance?

21 A. Well, again, I think when you take  
22 Appendix M together with the FSS and the accounting  
23 procedures, which are Appendix C, and which talk about  
24 exactly how the information under Appendix M, like the  
25 expected reduction in CBCU, is utilized within the

1 accounting -- there's a special accounting table for  
2 alternative water-short year administration -- it's  
3 clear to me that compliance is intended to be the result  
4 of implementing the plan.

5 Q. Now, you follow the statement we just  
6 discussed with another statement, the second full  
7 paragraph of page 2, topic sentence of that paragraph,  
8 "Requiring an Alternative Water-Short Year Plan to  
9 contain a fixed reduction in CBCU results in a situation  
10 where the plan in no way ensures that Nebraska will be  
11 in compliance with the Compact and the FSS."

12 Do you see that sentence?

13 A. Yes, I do.

14 Q. Doesn't this statement of yours hold that  
15 an alternative water-short year plan must, in and of  
16 itself, ensure compliance rather than just being a  
17 component of Nebraska's compliance plan?

18 A. I guess what I'm trying to say is that  
19 when we take actions for water-short year compliance,  
20 and if we solidified those actions under an alternative  
21 water-short year plan, these actions happen in realtime  
22 while you're attempting to achieve compliance for  
23 something that we evaluate later on, under the way the  
24 FSS is set up. So those actions in whole, it only makes  
25 sense to say, should result in compliance. That's the

1 requirement. That's the goal. That's what we have to  
2 do.

3 In other words, it doesn't make a lot of  
4 sense to have a plan to do some stuff and implement that  
5 and then find out later that it didn't get you into  
6 compliance. That just -- that's not a result that we're  
7 willing to accept.

8 Q. All right. Let me hand you, if I can find  
9 my FSS -- it will probably be fastest just to look at  
10 it. Let's turn to Appendix M. If you could turn to it.  
11 Let me know when you're there.

12 A. Yeah, I found it.

13 Q. Thank you.

14 Where in Appendix M do you read that  
15 there's a right to retain flexibility on what is in the  
16 plan and its water savings?

17 A. Well, you might be thinking or reading a  
18 little too much into that in terms of -- I guess I'm not  
19 looking at it the way you are.

20 Q. The question is about whether you see in  
21 the language of Appendix M the ability by Nebraska to  
22 retain flexibility to modify its water management  
23 actions.

24 A. Do you want to know if Appendix M allows  
25 us to modify our actions?

1 Q. Yes.

2 A. Well, I don't think --

3 Q. Where in Appendix M does it allow --

4 A. It doesn't have that specific language.

5 But it certainly speaks to compliance and the way  
6 compliance would be measured.

7 Q. Yes, you discussed that.

8 If you could read the first sentence of  
9 the second paragraph of Appendix M. For the record,  
10 that's Exhibit J64.

11 And that reads: "Each Plan shall indicate  
12 the actions which Nebraska would undertake to reduce its  
13 Computed Beneficial Consumptive Uses from the base  
14 condition and the amount of reduction expected from  
15 those actions. A Plan's designed reductions in Computed  
16 Beneficial Consumptive Uses shall be evaluated by the  
17 RRCA using methods consistent with the RRCA Accounting  
18 Procedures and the RRCA Groundwater Model."

19 Do you see that language, Doctor?

20 A. Yes. You've just read paragraph 2.

21 Q. In your opinion, why do you think it's  
22 unreasonable for Kansas to believe that this language  
23 refers to a definite set of actions with a definite  
24 savings in CBCU?

25 A. I think I've laid that out in pretty

1 thorough detail in my report. It just doesn't -- as  
2 that discusses, it just doesn't seem to have that  
3 specificity to me.

4 In our Appendix M plan, we have indicated  
5 actions that we will utilize. There's a definite action  
6 that will be utilized in lieu of other actions that may  
7 be the hydrologic equivalent. So I think we -- we have  
8 that level of agreement. There needs to be something  
9 there.

10 We've prepared a fairly rigorous  
11 compliance approach with actions that we will take if  
12 other actions aren't available to us, and we've  
13 quantified the potential benefits of those actions. And  
14 those were incorporated into the plan, and we've simply  
15 retained the flexibility within the plan to make sure  
16 that the level of actions that we take actually reach  
17 compliance. In other words, they actually balance the  
18 books within the accounting table so that we're found to  
19 be in compliance.

20 Q. Thank you.

21 Turning back to your responsive report, in  
22 the final paragraph of Section 2, the middle of page 3,  
23 do you see that paragraph?

24 A. Yes, I do. The last paragraph of  
25 Section 2.0?

1 Q. Right. It begins with "What Mr. Barfield  
2 really desires . . ."

3 A. Yes.

4 Q. Isn't it true that you have no  
5 documentation for this statement as it regards an  
6 Appendix M plan?

7 A. I don't think that's true. We have pretty  
8 solid documentation for this statement --

9 Q. The question is whether you have any  
10 documentation as it regards an Appendix M plan.

11 A. Can I answer?

12 Q. You can answer the question.

13 A. I'd like to answer.

14 Q. You can answer the question.

15 A. We have pretty solid documentation that  
16 he's requesting this for compliance in general. And  
17 Appendix M is just one way to meet compliance. And he's  
18 submitted to the Supreme Court this request for  
19 injunctive relief, obviously, taking into account all  
20 the flexibility that we may have under the FSS -- at  
21 least I'm assuming that's the case -- and stated that  
22 this is what Nebraska should be required to do for  
23 future compliance.

24 Special Master Kayatta has not agreed with  
25 that request, at least in his preliminary report that's

1 been attached, but I haven't heard anything or seen  
2 anything that changes this request. In other words,  
3 they haven't retracted that or said we agree with his  
4 ruling or anything like that. So it's just kind of  
5 based on where I understand things to be at with that  
6 proceeding.

7 ARBITRATOR FEREDAY: Excuse me.

8 Dr. Schneider, just so I'm clear on what it is that you  
9 believe Dr. Barfield has requested, you're suggesting he  
10 has requested, and continues to request, the shutting  
11 down of 302,000 acres of groundwater pumping in  
12 Nebraska?

13 THE WITNESS: Yes, that's exactly what his  
14 report that was submitted in that case requested.

15 Q. (By Mr. Griggs) All right. Moving on to  
16 section 3.2 of your report, in the second full paragraph  
17 on page 4 -- do you see that paragraph?

18 A. Yes.

19 Q. You state that "Mr. Barfield then  
20 indicates, without any real explanation, that  
21 augmentation projects cannot qualify . . ."

22 Do you see that?

23 A. Yes, I do.

24 Q. Isn't a plain reading of the phrase  
25 "reducing CBCU" in Appendix M means actions that reduce

1 use?

2           A.       Well, I think I've laid that out in terms  
3 of my plain reading in this paragraph here, that there's  
4 clearly two ways to affect the CBCU. There's already an  
5 offsetting mechanism, as I've discussed in my testimony,  
6 which is the imported water supply credit. It's treated  
7 as an offset and defined as an offset. So it seems  
8 clear to me that offsetting mechanisms are equally valid  
9 as something that actually ceases an activity that  
10 causes CBCU.

11           Q.       If water is transferred or changed,  
12 depending upon the language under Nebraska law, changed  
13 from one use to another, I believe that's a transfer; is  
14 that right?

15           A.       Under our surface water statutes, we have  
16 provisions for transferring an appropriation from one  
17 use to another use.

18           Q.       If water -- if the use of water changes  
19 from irrigation to augmentation use, how is that  
20 reducing the CBCU of the retired irrigation?

21           A.       Well, I think it's fairly simple. We're  
22 addressing CBCU as a whole in a water-short year. It's  
23 for the basin above Guide Rock. So there's an element  
24 to an augmentation plan, at least the Rock Creek plan,  
25 that has a retirement of irrigated acres, but also the

1 direct transfer of the water that would have otherwise  
2 been consumed by the crops. In other words, it would be  
3 evapotranspired into the air and lost to the system, and  
4 that water is placed into the stream.

5           So, clearly, when you look at one activity  
6 versus the other and look at CBCU for the basin as a  
7 whole, the net effect of man's activities has been -- on  
8 streamflow in the basin -- has been reduced by that  
9 difference that we've caused.

10           Q.       Thank you.

11                    Turning to Section 3.3 of your responsive  
12 report, the title of the section is "The Plan Must  
13 Describe How It Will Reduce CBCU."

14                    Do you see that?

15           A.       Yes.

16           Q.       If you can now turn back to Appendix M in  
17 the FSS and review paragraph 4. Appendix M is J64. And  
18 you might want to review paragraph 2 as well.

19           A.       I'm familiar with that.

20           Q.       I'm sure you're very familiar with it.  
21 Paragraph 2 of Appendix M requires the plan to be  
22 submitted by July and evaluated and acted upon by the  
23 RRCA by November 1st, right?

24           A.       I'm sorry, I was just -- it's paragraph 3  
25 that requires a plan to be submitted by August 1st.

1 Q. Thank you for that correction. I'm not  
2 trying to throw you a curve ball.

3 A. No, I understand. I just wanted things to  
4 be clear.

5 Q. So paragraph 3 requires those deadlines to  
6 be met?

7 A. That's when a plan should be submitted to  
8 the RRCA, by August 1st, yeah.

9 Q. And if the RRCA approves that plan, the  
10 plan can be used for any of the following three years,  
11 correct?

12 A. Yes, it's only in place for three years.

13 Q. And the action required by paragraph 4 of  
14 Appendix M is to elect the plan to be used, correct?

15 A. Yes, that's where -- paragraph 4 is where  
16 it states that Nebraska would provide that notice by  
17 April 1st. It gives that deadline for us to invoke the  
18 plan for that given year.

19 Q. So it's your position that Nebraska does  
20 not have to specify the details of its plan until  
21 April 1st?

22 A. I wouldn't say that's entirely accurate.  
23 I think we need to provide a plan that has an indication  
24 or a suggestion of the types of things that we would  
25 implement were we to invoke the plan.

1                   We want to make sure that when we do  
2 invoke the plan, that it will get us to compact  
3 compliance. We want to make sure that the scope of what  
4 we initiate under the plan is sufficient to do so. So  
5 we've crafted it so that there's an indication by  
6 August 1st, when the plan was submitted, of the types of  
7 things that we would do, with a definite action, if we  
8 didn't choose one of the other things that were a  
9 potential in that plan. There's a definite fall-back.

10                   So the RRCA could say, "Well, they might  
11 do these other things, but we know if they invoke the  
12 plan and they don't do those, this is what they have to  
13 do." So it certainly isn't that we have to provide no  
14 details. We provide, I think, fairly substantial  
15 details about how our plan would operate and how we  
16 would determine exactly what those reductions would be.

17                   I think that's an important aspect to it,  
18 is that it's not just wait until April 1st. And not  
19 only do you have to wait until then to find out how much  
20 we're going to do, but there's no way to know how we're  
21 going to figure that out, until then. That's a very  
22 concrete part of this plan, are those integrated  
23 management plans, which have a very prescribed process  
24 for determining exactly what we would need to do if we  
25 get into a year where we're going to be in water-short

1 conditions and we have what we call a compact call.

2           And that process utilizes, you know,  
3 public information that anyone could obtain. That was  
4 the whole design behind these integrated management  
5 plans, is they wanted them to be very transparent in  
6 terms of how we did that, what we call a forecast, to  
7 determine what potential shortfalls we might have. So  
8 it's not as if we're saying, "Just wait and we'll pick a  
9 number when we get to April 1." It's very prescribed.  
10 And that was fully contained within the plan we  
11 submitted before August 1st.

12           MR. GRIGGS: Please.

13           ARBITRATOR FEREDAY: Mr. Griggs, I have a  
14 question here.

15           Dr. Schneider, are you saying -- maybe to  
16 use an inapt analogy, but I'll use it anyway -- are you  
17 saying that basically Nebraska, by August 1st, is  
18 required to submit a menu of possible choices that it  
19 might implement, each of which is vetted in some  
20 way to demonstrate its efficacy? And then by  
21 April 1st, you deliver your actual selections from that  
22 menu?

23           Is that a fair characterization of what  
24 you've described that paragraphs 3 and 4 of Appendix M  
25 do?

1                   THE WITNESS: Well, I guess we would take  
2 it a little bit farther than that, in particular, in the  
3 plan that we submitted. I think we feel that there  
4 needs to be a definite action, and that it makes sense  
5 to provide for alternatives to that action, but only if  
6 they're what we'd call a hydrologic equivalent. In  
7 other words, if we don't -- and then the definite action  
8 is the curtailment of groundwater wells in an area we  
9 call the rapid response region.

10                   We utilize those stream depletion factors  
11 that we talked about yesterday to determine the area  
12 where we can have a quick impact on CBCU from  
13 groundwater pumping. And that's hardwired into these  
14 IMPs, that if we have a potential shortfall for compact  
15 compliance that we forecast, that action is required.  
16 But it provides for the option to implement a hydrologic  
17 equivalent, which means one for one in terms of its  
18 benefit to the stream. So if that helps.

19                   And then, you know, beyond that, the  
20 process by which we figure out the number that needs to  
21 be achieved is -- it's wholly prescribed, I guess. So  
22 it's not -- if you know what I mean by "prescribed."  
23 There's formulas laid out that say: You take this piece  
24 of data and this piece of data and this piece of data,  
25 plug it in, and the result is what you use. And that's

1 why those IMPs were attached to our plan, so that we  
2 could help provide the RRCA some certainty as to how we  
3 would go about doing this.

4 ARBITRATOR FEREDAY: And those would be, I  
5 guess, in my terms, the menu items that could be  
6 implemented that have been vetted in some way, as you  
7 say?

8 THE WITNESS: Yeah.

9 ARBITRATOR FEREDAY: They've been  
10 evaluated and they're specific and so forth, correct?

11 THE WITNESS: Right. Right.

12 ARBITRATOR FEREDAY: In this case,  
13 something of hydrologic equivalency is the Rock Creek  
14 augmentation proposal, correct?

15 THE WITNESS: That's right, yes.

16 ARBITRATOR FEREDAY: And isn't it true  
17 that the Rock Creek plan really is going to completely  
18 take care of, at least in your view, the requirement  
19 under the Appendix M obligation?

20 THE WITNESS: That's the way we -- I think  
21 you probably read the letter where we invoked Appendix M  
22 this year. That's true. And I should explain part of  
23 the reason for that -- and there was some language in  
24 there about it more than covering it -- we're  
25 operating -- even though we have these ongoing disputes

1 about augmentation credits and Appendix M, we're  
2 operating under the current procedures. So we're doing  
3 far more than we'd have to do if that plan were in  
4 place. So that's why that letter read that way, if that  
5 helps.

6 We did other actions, but that was  
7 probably the largest one. And for convenience, we just  
8 put that one in the plan -- in the letter where we  
9 invoked the plan, because it was sufficient by itself to  
10 provide what the plan would have required.

11 ARBITRATOR FEREDAY: When you say you're  
12 operating under the current procedures, you mean you're  
13 operating the Rock Creek plan?

14 THE WITNESS: Right. And I mean we're not  
15 assuming that the accounting procedures were changed,  
16 because, for a full augmentation credit, we're assuming  
17 we need to comply with the two-year average. We dispute  
18 that we should, because we feel these plans should have  
19 been approved.

20 But, in the meantime, just like I  
21 mentioned yesterday, with other disputed issues that  
22 we've had pending, we've always -- we've been forced,  
23 while these things are being resolved, to stay within  
24 the current parameters.

25 ARBITRATOR FEREDAY: So your view is that

1 even under the two-year averaging, the current  
2 procedure, which is the Rock Creek delivery, satisfies  
3 that two-year obligation?

4 THE WITNESS: We've actually done a few  
5 more things than that for the two-year obligation, and  
6 they are discussed in some of the -- in the report and  
7 in some of the other exhibits in terms of -- I think the  
8 letter to the RRCA saying what we would do for a  
9 water-short year. There was a surface water purchase, a  
10 permanent retirement of a canal. There were groundwater  
11 leases. There were other things we had to do, even over  
12 and above that Rock Creek plan, to ensure that we would  
13 be in compliance with that two-year average.

14 ARBITRATOR FEREDAY: Thank you.

15 THE WITNESS: Sure.

16 Q. (By Mr. Griggs) The Arbitrator and you  
17 were recently discussing the process of vetting the  
18 Appendix M plan.

19 When is the plan vetted to establish its  
20 efficacy?

21 A. I'm sorry, could you elaborate a little  
22 bit?

23 Q. When is the Appendix M plan, as you've  
24 described it, vetted or reviewed to establish its  
25 ability to reduce CBCU?

1 MR. WILMOTH: Mr. Arbitrator, again, I  
2 think we have a mischaracterization of the testimony. I  
3 don't think you asked him whether the Appendix M plan  
4 was vetted. I think what I heard you ask was whether  
5 the individual components within the IMPs were vetted.

6 Was that your question?

7 ARBITRATOR FEREDAY: Mr. Griggs, I think  
8 my question was intended to express the view that these  
9 elements were evaluated in some way by the NRDs. That's  
10 all I meant by it, if I can testify here.

11 MR. WILMOTH: Let the record reflect that  
12 I would retract my question to the Arbitrator.

13 ARBITRATOR FEREDAY: So my question had to  
14 do with what -- what Nebraska sees as components of a  
15 plan, and those components presumably have been given  
16 some kind of internal review. That's what my question  
17 had to do with. You may ask any question you'd like  
18 having to do with that, or anything else that's  
19 relevant.

20 MR. GRIGGS: Well, thank you.

21 Q. (By Mr. Griggs) I'd just ask that you  
22 answer the question the Arbitrator, for me -- when do  
23 the NRDs vet the efficacy of these components of the  
24 plan?

25 A. The natural resources districts?

1 Q. Correct.

2 A. Well, within the IMPs, they're an integral  
3 component to the plans. They're involved at routine  
4 steps throughout this process of determining whether  
5 actions are going to be needed. So perhaps it would be  
6 best just to refer you to the timetable so you would  
7 have that in the record.

8 ARBITRATOR FEREDAY: Which exhibit are you  
9 referring?

10 THE WITNESS: Yes. I'm referring to  
11 N25001. And on page 20 of 88, there's a timetable that  
12 we follow, the Department, with the NRDs, to work  
13 through how -- it's Table 1. I'm sorry, do you --

14 ARBITRATOR FEREDAY: Did you say page 20?

15 THE WITNESS: Yes, 25001.

16 ARBITRATOR FEREDAY: Yes.

17 THE WITNESS: Page -- it's 20 of 88 on the  
18 top of the exhibit number.

19 ARBITRATOR FEREDAY: I'm sorry, I was  
20 looking at the other page number on the document. Yes,  
21 I see Table 1.

22 THE WITNESS: So this is an example. This  
23 exhibit contains all three IMPs. And they are all  
24 fairly similar, and this provides you an example of  
25 basically how we work through this process in -- more or

1 less in an ongoing manner, but there are some of the  
2 deadlines.

3 We're working -- for the upcoming year,  
4 we're gearing up right now for 2014 in terms of looking  
5 at 2013 and starting to try to figure out how the  
6 forecast for 2014 is going to look, getting a  
7 preliminary forecast done by October, at least an  
8 assessment. And then another preliminary forecast in  
9 November and a final forecast by December. So you can  
10 see all those steps in the process in this table.

11 Q. (By Mr. Griggs) Is the curtailment of  
12 groundwater pumping part of the April stage of the  
13 Appendix M plan?

14 A. If you're referring to the letter we sent  
15 this year, it was not, with the exception of the  
16 groundwater leases. But it would be as necessary under  
17 the plan.

18 Q. Turning to Section 3.4, page 5 of your  
19 report, "Nebraska May Submit Multiple Plans."

20 Are you there?

21 A. Yes, I see that.

22 Q. Now, the plain language of Appendix M  
23 states that Nebraska can have multiple plans, correct?

24 A. That's correct.

25 Q. In the last paragraph of Section 3.4, you

1 state, "Nor does Nebraska have to provide the exact  
2 amount of CBCU reduction that will in fact occur under  
3 any particular alternative. The language of Appendix M  
4 speaks only to the amount of reduction 'expected' to be  
5 achieved."

6 Do you see that?

7 A. Yes, I do.

8 Q. And isn't it your opinion that the term  
9 "expected value," in paragraph 2 of Appendix M, is the  
10 same as the amount the plan was, designed to reduce," as  
11 that language is used in paragraph 4 of Appendix M?

12 A. Yes. I think those two are tied together.

13 ARBITRATOR FEREDAY: Excuse me,  
14 Mr. Griggs. Did you refer to Appendix M?

15 MR. GRIGGS: Yes, I did.

16 ARBITRATOR FEREDAY: Paragraph 2?

17 MR. GRIGGS: Yes. I asked Dr. Schneider a  
18 fairly complicated question. It's whether he believes  
19 that the "expected value," as those words are in  
20 paragraph 2 of Appendix M, is the same as the amount the  
21 plan was designed to reduce," as those words are used in  
22 paragraph 4 of Appendix M.

23 ARBITRATOR FEREDAY: Mr. Griggs, I'm  
24 sorry, maybe I'm not seeing something here, but in  
25 paragraph 2 of Appendix M, I don't see the words

1 "expected value." I see "the amount of reduction  
2 expected."

3 MR. GRIGGS: Okay. Thank you for  
4 correcting me. I've given up my copy of Appendix M to  
5 the witness. Here we go.

6 ARBITRATOR FEREDAY: I'm not suggesting  
7 that they aren't equivalent. I just didn't see those  
8 exact words.

9 MR. GRIGGS: Okay.

10 Q. (By Mr. Griggs) So, Dr. Schneider, the  
11 phrase "the amount of reduction expected from those  
12 actions" in paragraph 2, it's your position that that  
13 phrase, "the amount of reduction expected from those  
14 actions," is the same as "the amount the plan was  
15 designed to reduce" in paragraph 4?

16 A. And I think I said there's clearly a link  
17 between the two, although they don't use the exact same  
18 terminology. And the approach we've taken, and also as  
19 kind of referenced here in the report, I think you have  
20 to understand there's an evolving nature to this because  
21 we're always trying to act proactively.

22 So, say, in July of a given year, we may  
23 not know exactly what we intend to do for an upcoming  
24 year because we don't have forecasting that can look  
25 that far ahead, at least at this time. We've developed

1 forecasting that we can complete by December to look  
2 into the next year.

3           So, then, the way our plan works is we  
4 firm up that amount that the plan is designed to reduce  
5 and that we provide to the States on April 1st. That's  
6 what we actually set out to do.

7           There's some additional complexities to  
8 that, depending on exactly what actions we would  
9 undertake, because some things are very certain, like an  
10 augmentation project where we would deliver a fixed  
11 amount of water and we know how much water we're going  
12 to put in the stream, and that's fairly straightforward.  
13 Things like the leasing of groundwater that we did for  
14 this year, we had to try to estimate the expected  
15 reduction from those in 2013 based on some evaluations  
16 we did of what those actions might have done in recent  
17 years.

18           The model is fairly complicated and in  
19 some ways nonlinear. It depends a lot on how much  
20 rainfall there is, for example, in terms of how much the  
21 depletions are, or how much an action would actually  
22 affect those depletions.

23           So without getting too far into the weeds,  
24 I'm just trying to make the point that the actual  
25 outcome, when we get into 2014 and actually compute what

1 happened, can be different still. So those are kind of  
2 all the complexities that are involved in dealing with  
3 this. And I think we've tried to set our plan up so  
4 that it's consistent within that.

5 Q. Let me try to pull you from the weeds a  
6 little bit on that. Just a simple question. Let me  
7 hand you a copy of the deposition of you from June --  
8 August --

9 ARBITRATOR FEREDAY: Mr. Griggs, are you  
10 offering this as an exhibit?

11 MR. GRIGGS: No, I will not be. I will  
12 just be offering it for him to review. It's a  
13 deposition from June 19th.

14 Q. (By Mr. Griggs) Turn to page 20 -- I'm  
15 sorry, page 19.

16 Are you there?

17 A. Yeah. You asked me the question: The  
18 expected amount of reduction is the same as the current  
19 design reductions in CBCU, right?

20 Q. And your answer?

21 A. And my answer was: I think that's right.

22 Q. Thank you.

23 MR. GRIGGS: Your Honor, if I may, if we  
24 could take a five-minute break to review where we've  
25 gone. And after that, I don't anticipate more than 20

1 minutes of questions after that.

2 ARBITRATOR FEREDAY: I think that's a good  
3 idea. It's almost 10:15. Let's reconvene at 10:20.

4 MR. GRIGGS: Thank you.

5 (A recess was taken.)

6 ARBITRATOR FEREDAY: Back on the record.

7 Gentlemen, during the break, Jana, the  
8 reporter, and I had a conversation about preparation of  
9 the record after this hearing. I pointed out to her  
10 that briefs are due 30 days after the end of this  
11 hearing, and that I was confident that the parties would  
12 want to see the record fairly soon after the end of this  
13 proceeding.

14 And in light of that, she is asking  
15 whether she should be taking the exhibits and having  
16 someone in her office simultaneously working on the  
17 exhibits, and I said I think so. And I assume that that  
18 would be your position. So I'd like to open a  
19 discussion about that.

20 And in light of that, I have been given  
21 these two CDs, which have all of the exhibits. One of  
22 them has the video as well. Maybe the other one has the  
23 video as well; I haven't looked at it.

24 So could you, Counsel, please help us out  
25 a little bit in terms of helping the court reporter to

1 expedite the production of the transcript and her access  
2 to the full exhibits.

3 Any comment on that, Mr. Wilmoth?

4 MR. WILMOTH: No. We can certainly help  
5 in any way.

6 ARBITRATOR FEREDAY: So should I just give  
7 her my copies of these two CDs, which I believe are  
8 duplicative of each other, except maybe for the video in  
9 the case of one?

10 MR. WILMOTH: I can provide her with a  
11 copy as well.

12 ARBITRATOR FEREDAY: Thank you very much.  
13 You'll be getting a copy. And we would appreciate you  
14 having someone work on that so as to expedite the  
15 production of the final transcript, as soon as possible  
16 after the end of the proceeding. Okay.

17 With that, let's proceed.

18 Q. (By Mr. Griggs) Dr. Schneider, isn't it  
19 true that the language of the FSS uses the term  
20 "reduction in CBCU" in certain places and the term  
21 "offsets" in other places?

22 A. That's probably true. I guess I'd have to  
23 look through it. I'm fairly certain that that would be  
24 true, though, based on my familiarity with it.

25 Q. Thank you.

1                   If we could turn to your submittal,  
2 Nebraska's submittal, N25001. You may recall you and  
3 the Arbitrator had a discussion about this table briefly  
4 before the break.

5           A.       Do you want me to turn to that table?

6           Q.       Yes, please.

7                   ARBITRATOR FEREDAY: Counsel, you're  
8 referring to Table 1 on page 20?

9                   MR. GRIGGS: Yes, Table 1, "Important  
10 Dates and Objectives."

11          Q.       (By Mr. Griggs) Do you see that?

12          A.       Yeah.

13          Q.       Thank you.

14                   Now, Nebraska could have, before  
15 August 1st, 2012, identified specific irrigated acreage  
16 that would be retired and quantified in an estimated  
17 reduction of the CBCU by retiring that acreage, right?

18          A.       Are you just asking in the abstract if we  
19 could have done that exercise? That's certainly true.  
20 We've done numerous hypothetical exercises in that  
21 manner for a variety of time frames. That's possible to  
22 do with the model and the accounting procedures.

23          Q.       So you could have done that by  
24 August 31st, 2012 -- I'm sorry, August 1st, 2012?

25          A.       Could have done -- just help me out again.

1 I'm sorry.

2 Q. Sure. That you could have identified  
3 specific irrigated acreage that would be retired and  
4 quantified an estimated reduction of the CBCU by  
5 retiring that acreage?

6 A. Yes.

7 Q. Isn't it also true that Nebraska could  
8 have done the same for surface water leasing, that it  
9 could have identified specific water rights to be leased  
10 and quantified an estimated reduction of CBCU by leasing  
11 that water?

12 A. That could have been a little more  
13 difficult in August, to know what kind of water supply  
14 would be available. A lot of those leases have been  
15 negotiated in the spring, I think, in part, because the  
16 water supplies were a little more known at that point.  
17 I suppose we could have just made a guess at what would  
18 have been there, and then, based on that guess, utilized  
19 some more assumptions to say what we could do from that.

20 Q. All right. Now, Nebraska could have done  
21 the same thing for groundwater wells. It could have  
22 identified specific wells subject to reduced allocations  
23 or curtailment and quantified an estimated reduction in  
24 CBCU, right?

25 A. I'm just struggling. Can you help me with

1 the difference between your first -- that question and  
2 two questions ago? I just want to be clear.

3 Q. Sure. Before August 1st, 2012, Nebraska  
4 could have identified specific groundwater wells subject  
5 to reduced allocations or curtailments and quantified an  
6 estimated reduction in CBCU that would attain from that  
7 curtailment, correct?

8 A. I think we could have taken just about any  
9 management action. Augmentation would have been the  
10 simplest to say, if we operated it at a certain level,  
11 we could reduce CBCU by a certain amount. Those  
12 exercises in the abstract are possible, certainly.

13 Q. So it would be possible to identify  
14 specific wells and quantify their CBCU reduction, if  
15 they were to be curtailed?

16 A. To estimate it.

17 Q. Right.

18 A. I just want to make sure we're clear. And  
19 that was what I was trying to help with my answer before  
20 the break. The quantification of the -- the exact  
21 result would be more problematic because the situation  
22 hasn't happened yet and we're so far from how that  
23 situation might unfold.

24 Q. You've discussed before the break, at some  
25 length, the way in which the Appendix M plan engages the

1 integrated management plans, or the IMPs, correct?

2 A. Yeah, I guess I -- yes, and I guess I  
3 would say that it builds off of them. It utilizes the  
4 forecasting and the required management actions and  
5 builds from that.

6 Q. Thank you.

7 Now, under the IMPs for the upcoming year,  
8 in this submittal 2013, there were an infinite number of  
9 possible management actions that an NRD could have  
10 proposed to Nebraska DNR by January 2013, right?

11 A. Well, I don't know about infinite. That's  
12 a big number. There certainly would be a potentially  
13 large number. That's the point I try to make in my  
14 report, that we considered that and what -- we would  
15 have had to generate many, many plans to cover even a  
16 subset of that potentially very large number of  
17 management actions. And we didn't see that as a  
18 reasonable approach, to dump a giant pile of plans on  
19 the RRCA and say, "Review every one of these."

20 The process that we had developed, which,  
21 believe me, has been many years in development and very  
22 thoroughly thought out, seemed to be a much more  
23 reasonable alternative.

24 Q. You are discussing the presentation of  
25 plans by Nebraska to the RRCA. My question had to do

1 with the NRDs specifying management actions to DNR.

2                   So is it the same answer, that Nebraska  
3 could -- I'm sorry -- that the NRDs could have proposed  
4 a very large number of management actions to DNR by  
5 January of 2013?

6           A.       Sure. And I wasn't trying to avoid the  
7 question.

8           Q.       I'm not saying that. I just want  
9 clarification.

10          A.       I was just trying to clarify that there's  
11 that link.

12          Q.       Thank you.

13                   And the IMPs don't specify what actions  
14 the NRDs should choose, right?

15          A.       They specify, by a prescriptive process,  
16 the outcome of whatever actions they choose -- must  
17 accomplish. In other words, there's a very prescriptive  
18 process for coming to exactly what they are required to  
19 accomplish. So that does -- that does provide quite a  
20 limitation on what they might potentially do because, of  
21 course, it has to accomplish that result, which is the  
22 reduction in CBCU that they're required to do, based on  
23 that prescribed process. And then there's a certain  
24 action that they would do if they can't come up with  
25 something that would produce that result, a hydrologic

1 equivalent, like I explained earlier.

2 Q. When do the NRDs get the number that DNR  
3 has calculated for the shortfall?

4 A. Well, as this table here lays out, that  
5 you've brought us back to, we commit within this plan to  
6 a preliminary discussion with them prior to October 1st.  
7 This is just for their planning purposes. It makes  
8 sense for them to get a general idea of what they might  
9 need to be working towards, with some lead time. Prior  
10 to November 1st, we do a preliminary forecast. So it's  
11 a little more concrete.

12 The way this has worked out is we've  
13 generally had that initial discussion in the early  
14 October time frame, where we get together with -- we can  
15 make some assumptions about some of the accounting  
16 numbers, usually on the conservative side, because we  
17 don't -- we want them to be planning for the worst and  
18 hoping for the best, so to speak. But planning for the  
19 worst as best we can estimate.

20 And then we have a meeting, a basin-wide  
21 meeting in early November, by November 15th, and we  
22 present to all the stakeholders the preliminary results.  
23 The NRDs will be there and the other water users, often  
24 people from the Bureau of Reclamation, for example. So  
25 that's a public document at that point, and we usually

1 post that information on our website.

2           Then, by statute, we're required to  
3 finalize that by December 31st. So we have to give them  
4 the final number by December 31st, but there's built in,  
5 for good, practical reasons, a good deal of lead time  
6 towards that -- building towards that final number and  
7 giving them a good sense of what they are working  
8 towards.

9           Q.       Thank you for answering my question about  
10 when.

11                    Finishing with this table, the deadline  
12 for an NRD submitting proposed actions for Nebraska DNR  
13 to evaluate was in January 2013, right?

14           A.       Right. With regard to this year -- it  
15 specifies prior to January 31st for any given year that  
16 we initiate a compact call year pursuant to the  
17 forecast.

18           Q.       Thank you.

19                    You mentioned earlier, just now, that it's  
20 difficult to quantify the reduction in CBCU that might  
21 attain as a result of surface water leasing.

22                    Do you recall that testimony?

23           A.       Well, it's fairly straightforward, given a  
24 known quantity. I was just trying to make it clear that  
25 sometimes those water supplies that they may have

1 available for an upcoming year, they're highly dependent  
2 on spring inflows, the major reservoirs. And that's --  
3 most of the surface water districts depend on the five  
4 major reservoirs, most of the surface water users.

5           So to the extent they get spring inflows  
6 from rains and the like, that has a pretty significant  
7 effect on their available supplies. If they have a lot  
8 of carryover water, then it would be a lot simpler.  
9 They'd know they'd have a certain supply, but that's not  
10 always the case.

11           Q.       So it's your position that there aren't  
12 specific savings from surface water administration?

13           A.       No, that's not my position.

14           Q.       What is your position as to how reduction  
15 in CBCU from surface water administration can be  
16 calculated?

17           A.       Well, now you're talking about surface  
18 water administration, which is much different from  
19 something we might be thinking about up to a year ahead  
20 of time. Surface water administration is in realtime.  
21 And, clearly, when you're curtailing users, there's a  
22 known benefit if they're diverting water and you require  
23 the cessation of that diversion. That's fairly  
24 straightforward. So there's kind of a range and  
25 understanding between -- depending on how far back you

1 want to go, between what might actually happen from a  
2 buyout or from water administration, for example, and  
3 what's actually happening once you get into the realtime  
4 situation.

5           And, obviously, this Appendix M requires  
6 some forward-looking, and we've tried to balance that  
7 with the uncertainty of looking forward too far and not  
8 really knowing some of the things that you might need to  
9 know.

10           Q.       Let me just come back to this and then  
11 I'll push off of it.

12                    It's your position today that there aren't  
13 any specific savings, per se, from surface water  
14 administration, or is it your position that there are  
15 specific savings from surface water administration?

16           A.       There generally would be savings. A major  
17 component of the surface water administration that we do  
18 in a compact call year is to protect the benefits of the  
19 management actions that are taken.

20           Q.       So there are savings. It's just  
21 difficult to be -- it's difficult to specify what those  
22 savings are?

23           A.       It's not difficult to specify anything  
24 like that after the fact. That's a fairly  
25 straightforward thing to figure out. I was simply

1 commenting on the fact that there may be some  
2 uncertainty with regard to that, depending on how far in  
3 advance you're trying to make an estimate of that  
4 savings.

5 ARBITRATOR FEREDAY: Mr. Griggs, if I may  
6 inquire here.

7 Dr. Schneider, when Nebraska is requiring  
8 administration of surface water diversions, and thereby  
9 curtailing those diversions, the amount of that  
10 curtailment, obviously, would not be going to some  
11 consumptive use. So it would be at least calculated  
12 in -- as an accretion to the streamflow in some manner,  
13 correct?

14 THE WITNESS: Sure. And if I could  
15 explain a little bit. I think it may help a bit to  
16 understand what I was trying to refer to before, because  
17 with the management actions that we're undertaking,  
18 we're trying to put the stream in a better situation  
19 than without those actions. So, to some extent, at  
20 least it's our hope that, to the greatest extent  
21 possible in these years, the water administration is  
22 just not -- is resulting in those management actions  
23 realizing their full benefit. If we put augmentation  
24 water in the stream, as a simple example, and it's  
25 diverted by a surface water, we've eroded the benefit of

1 that.

2 Am I going a different place than you  
3 want?

4 ARBITRATOR FEREDAY: No, that was going to  
5 be my next question. I was just asking about diversion  
6 curtailment on its face.

7 But I also understand that your management  
8 actions, from your testimony, your management actions,  
9 your curtailments, may be designed to protect water  
10 that's in the stream from your augmentation releases.  
11 Obviously, you don't want that diverted.

12 THE WITNESS: Right, right.

13 ARBITRATOR FEREDAY: Does the current plan  
14 involve additional curtailments of surface water  
15 diversions beyond those necessary to protect  
16 augmentation deliveries?

17 THE WITNESS: Yes, it could. And I could  
18 refer you to a place here in the integrated management  
19 plan just so you have a reference, if that would help.

20 ARBITRATOR FEREDAY: That would be  
21 helpful.

22 THE WITNESS: Staying in that same plan --

23 ARBITRATOR FEREDAY: You're in Exhibit --

24 THE WITNESS: I'm in 25001. I might just  
25 back up a little bit.

1 All of this is part of what we call our  
2 "Monitoring and Studies" section, which this piece  
3 starts on page 19 of 88. So it's fairly involved in  
4 terms of the tracking and reporting. The table that we  
5 were referring to, obviously, is part of that.

6 The forecast -- if you look on page 22 of  
7 88, it starts the "Determination of Available  
8 Streamflow." And this is where, I think, you may recall  
9 yesterday, we were talking about allowable groundwater  
10 depletions. And that's where we figure this out. It's  
11 in this section here where we look at the expected  
12 available supplies, our allocation, and we can count on  
13 some offset from our imported water supply credit. Then  
14 we take into account the applicable average period. And  
15 then we evaluate the need for additional management  
16 actions.

17 Basically, the question we're trying to  
18 answer is, based on all this evaluation, do we see a  
19 shortfall coming up, something that we have to address?  
20 So the intent, as you work through this and you get to  
21 that allowable groundwater depletion, is that we then  
22 have that number. It's broken up by the three NRDs  
23 based on some percentages that have been agreed to. And  
24 then they come up with a plan to address that, or they  
25 curtail groundwater use.

1           The final provision -- if I can find it  
2 here -- okay. I'm sorry, on page 29 of 88.

3           So at the end of the day, we need  
4 something to administer for. And that's the compact  
5 call streamflow volume. This is basically if we -- this  
6 is what we think Kansas is entitled to receive, their  
7 allocation. This is under the compact. So we've  
8 figured out what that volume is.

9           We've figured out -- you can see there in  
10 the equation there, towards the middle of the page,  
11 there's a forecasted streamflow volume that we expect in  
12 lieu of no management actions. There's the amount of  
13 streamflow that we expect from the NRD management  
14 actions.

15           And then there's the surface water  
16 curtailment benefit defined there as the "actions taken  
17 by DNR to ensure Compact compliance in the event that  
18 basin NRD Management Actions are not sufficient to  
19 overcome the projected negative balance." So it's  
20 contemplated at that point in the whole process.

21           I'm sorry, that was a long answer.

22           ARBITRATOR FEREDAY: My question was just  
23 getting to the two uses, if you will, of surface water  
24 curtailment; one, for its own sake, directly as a  
25 reduction.

1 THE WITNESS: Right.

2 ARBITRATOR FEREDAY: And, second, to  
3 protect an augmentation flow.

4 THE WITNESS: Right, right. And they're  
5 both contemplated, yes.

6 ARBITRATOR FEREDAY: Thank you.

7 Q. (By Mr. Griggs) Doctor, I'm going to bring  
8 you back to your June 19th deposition, if you can -- at  
9 the top of page 139. And the question starts on  
10 page 138.

11 Are you there at 138, 139?

12 A. I am there.

13 Q. Thank you.

14 And the question reads: My understanding  
15 is that there is -- the surface water administration is  
16 being conducted as part of overall operations in  
17 conjunction with the augmentations that's referred to in  
18 Rock Creek. And -- and the management actions that are  
19 proposed all are part of the sort of suite of actions  
20 that Nebraska is taking to aim for compact compliance.

21 Then the question is: And so as a part of  
22 all of that, how is the surface water administration  
23 savings -- how are those being calculated?

24 And what was your answer? Would you  
25 please read it.

1           A.       Certainly. My answer was: There isn't  
2 specific savings, per se, from the surface water  
3 administration that's -- that was included in the letter  
4 and it's included in the IMPs. It's part of the whole  
5 package.

6           Q.       Thank you.

7           A.       And I think it would help the Arbitrator  
8 to understand the context of this. When we talked about  
9 administration for protection of management actions  
10 versus administration for a specific curtailment benefit  
11 in 2013, which is what we were discussing in this  
12 particular dialogue, we didn't calculate that surface  
13 water curtailment benefit in this instance.

14                   So with the letter that we sent -- and  
15 this is what he was asking me about in that  
16 deposition -- and we mentioned that we were conducting  
17 surface water administration to protect the augmentation  
18 flows. We wanted to make it very clear that we were  
19 putting augmentation flows in the stream and we were  
20 going to protect those flows so that the amount of water  
21 that we're benefiting in terms of our balance, that's  
22 the water that Kansas was going to get through that  
23 surface water administration.

24                   ARBITRATOR FEREDAY: So, Dr. Schneider,  
25 are you saying today, though, that the plan intends

1 additional surface water curtailment benefits beyond the  
2 protective purpose?

3 THE WITNESS: That's right, as necessary,  
4 yes.

5 Q. (By Mr. Griggs) Thank you, Doctor. Isn't  
6 it a fair -- strike that.

7 Isn't it true that the Nebraska Appendix M  
8 proposal essentially relies on the IMP process to  
9 calculate a shortfall at the state line?

10 A. That is true, yes.

11 Q. Isn't it also true that Nebraska has not  
12 shared those calculations with either Colorado or  
13 Kansas?

14 A. Well, the calculations that we made for  
15 last year -- as I indicated before, we had a public  
16 meeting in November. And that material was posted on  
17 our website in terms of the forecasted amount of  
18 streamflow and, you know, the management actions that  
19 would be necessary. And then when we finalized our  
20 forecast, we had a press release that went out. I think  
21 some of that material is attached to my report. I can  
22 direct you to that. It may be the Rock Creek report,  
23 now that I think about it.

24 But, anyway, there was a press release and  
25 a forecast document that was posted on our website, so

1 it was publicly available. I thought I remembered  
2 including an appendix with the press release on the  
3 compact call year. Maybe that's an appendix to the  
4 Rock Creek plan. We could look at that, if you want.

5 Q. Thank you. I'm almost finished. I just  
6 have five or six more questions.

7 Isn't it true that an Appendix M plan must  
8 be in place all year?

9 A. Unless the water supply increases above  
10 130,000 acre-feet, I believe.

11 Q. With that caveat?

12 A. That's correct, yes.

13 Q. Thank you.

14 Now, if a plan is not in place all year,  
15 that makes it very difficult to quantify the savings in  
16 CBCU that would result from such a plan, correct?

17 A. I'm not sure why that would be true.

18 Q. If an Appendix M plan requires certain  
19 management actions to be conducted for the entire year  
20 to set a reduction in CBCU, if those actions are not in  
21 effect for the entire year, then calculating that  
22 reduction in CBCU becomes more difficult, correct?

23 A. Well, if there's an activity such as  
24 augmentation that had to occur all year to achieve the  
25 required benefit, then it would have to be there for the

1 entire year. I suppose if it wasn't, then the benefit  
2 would be something less. But, certainly, we could  
3 commit to something like stream augmentation. It may be  
4 that it only would take a few months to produce that  
5 amount of water and to shepherd it downstream for  
6 availability. And I would say that the plan is still in  
7 effect, but the actions have been completed.

8 Q. You refer to producing a certain amount of  
9 water that would be sent downstream. The questions had  
10 to do with calculating reductions in CBCU.

11 Isn't it true that Nebraska invoked  
12 Appendix M this year?

13 A. Yes.

14 Q. Isn't it also true that Nebraska issued  
15 closing notices on surface water users in Nebraska to  
16 effect that plan?

17 A. Well, Nebraska, the director of the  
18 Department, signed an order on January 1st that  
19 designated the entire year as a compact call year. So  
20 the call for the compact is in place for the entire  
21 year. And then the Department, the field offices  
22 working through me and with the director, we administer  
23 for that compact call throughout the year.

24 Q. So DNR did issue closing notices on the  
25 waters it has under its jurisdiction; namely, surface

1 water, to effect the plan?

2 A. Yes, closing notices were issued for all  
3 surface water appropriations on January 1st of this  
4 year.

5 Q. And that was several months before the  
6 Rock Creek augmentation plan came online, correct?

7 A. Yes, that's correct.

8 Q. Now, Nebraska DNR later lifted those  
9 closing notices in 2013, correct?

10 A. Yes. This involved a good deal of  
11 tracking. And we worked with the Bureau of Reclamation  
12 in terms of accounting for what we term the compact  
13 water. The way we did these closing notices is that we  
14 provided them some flexibility so that they would be  
15 closed from storing the water, but we would allow them  
16 to retain the water until we issued a release notice.  
17 This just provided for some flexibility so we wouldn't  
18 overregulate them, to some degree.

19 What happened next was that, on April 1st,  
20 release notices were issued for the upstream reservoirs.  
21 There's four large upstream reservoirs. They are  
22 fairly -- I think it was 13,000 acre-feet that was  
23 released at that point. Harlan County Lake was not  
24 issued a release notice at that point. And so that  
25 water, 13,000 acre-feet of water, was brought down to

1 Harlan County Lake.

2           Obviously, there would have been some of  
3 that water that was from the Rock Creek project because  
4 it had started by then, but the whole point is not to  
5 worry about drops of water, where they came from,  
6 per se, but just volumes of water.

7           Subsequent release notices were issued.  
8 And to kind of cut to the chase, we've had approximately  
9 25,000 acre-feet of compact water in Harlan County Lake  
10 throughout the summer available for Kansas to use. And  
11 through our monitoring, we've determined that we could  
12 open certain water rights in priority.

13           So beginning on January -- I'm sorry -- it  
14 was either late June or right about July 1st, the first  
15 senior water rights were opened. And there was a couple  
16 of stages that we took in opening senior water rights,  
17 until we did in fact have all water rights opened. And  
18 that's the case today, that compact water is sitting in  
19 Harlan County Lake and there's additional compact water  
20 in the upstream reservoirs available if we need more  
21 water for compact compliance.

22           What we're doing right now is we're trying  
23 to get a preliminary accounting done for the year. As  
24 we get towards the end of the irrigation season, we  
25 start to have more knowns than unknowns in terms of

1 things like rainfall and streamflow and things like  
2 that. So we can start to come up with what the  
3 accounting may look like at the end of the year and use  
4 conservative estimates for the end of the year. And  
5 we'll utilize that going into the fall to ensure that we  
6 balance the books in terms of providing Kansas their  
7 allocation in this year.

8 MR. WILMOTH: Mr. Arbitrator, just note  
9 for the record that the facts that Dr. Schneider just  
10 went through, the dates, the events, are all contained  
11 in the joint stipulation of uncontested facts, dated  
12 July 26th, 2013. It might benefit both you and the  
13 court reporter to note that.

14 ARBITRATOR FEREDAY: Thank you. And that  
15 also is an exhibit?

16 MR. WILMOTH: It's not an exhibit. It was  
17 a filing by the parties.

18 ARBITRATOR FEREDAY: Excuse me,  
19 Mr. Griggs.

20 Dr. Schneider, when you say, "we issue  
21 release notices to them," you mean "them" is the Bureau?

22 THE WITNESS: In this case. I mean,  
23 certainly all reservoirs were subject to these notices,  
24 and we had to expend considerable resources monitoring  
25 other smaller reservoirs. There wasn't a lot of

1 precipitation, particularly earlier in the year. A lot  
2 of those reservoirs were empty.

3           The Bureau has five large reservoirs in  
4 the state. All the rest of them probably wouldn't fill  
5 up the smallest one. I don't know the exact numbers,  
6 but there's quite a discrepancy between those five big  
7 ones and the rest of the smaller ones. We've been  
8 monitoring those as well, but those are the -- to my  
9 understanding, there hasn't been any other release  
10 notices because there hasn't been any other significant  
11 inflows that needed to be released.

12           ARBITRATOR FEREDAY: So DNR is in control  
13 of when releases will be made from both the private and  
14 the Bureau reservoirs; is that -- is that right? Am I  
15 right?

16           THE WITNESS: Well, in a sense. We're not  
17 requiring them to hold the water. We don't have that  
18 authority. They're not allowed to -- once they've  
19 impounded water under an appropriation, a storage  
20 appropriation that's open, then it's their water and we  
21 can't require them to release it. But if they're  
22 closed, we've been able to provide them flexibility to  
23 let them retain it.

24           The hope is that we can, you know -- at  
25 some point, as we go through this fall, while there's a

1 lot of this compact water sitting in those reservoirs,  
2 we don't want to make them release any more than we have  
3 to. So we've been monitoring that, and we have had to  
4 require the release of some of the water. They could  
5 always release it, if they wanted to. We can't force  
6 them to hold it.

7 Is that -- I hope that helps.

8 ARBITRATOR FEREDAY: Yes, that helps.

9 And when you say that the surface  
10 diverters are -- some of them -- are back in priority  
11 and diverting above Harlan County Lake, I take it that  
12 your point is that there is already water that has gone  
13 into Harlan County Lake that will be used for compact  
14 compliance that these diversions would not invade?

15 THE WITNESS: That's right.

16 ARBITRATOR FEREDAY: Thank you.

17 Q. (By Mr. Griggs) Coming back to the  
18 Nebraska administration of surface water rights, the  
19 part of the plan's aspects that concern the  
20 administration of surface water rights was not in place  
21 all year, correct?

22 A. The water rights were not closed all year.  
23 That is contemplated within the plan. Again, I could  
24 point the Arbitrator to the location within the plan  
25 that specifies the specific control, if that would be

1 useful.

2 ARBITRATOR FEREDAY: That would be useful.

3 THE WITNESS: It is under the "Surface  
4 Water Controls." So, again, I'm in N25001 and looking  
5 on page 18 of 88. It would be paragraph H.

6 So, in short, that commits the Department  
7 to an annual administrative process to ensure compact  
8 compliance.

9 Q. (By Mr. Griggs) Just to clarify -- I want  
10 to make sure I understand -- so the plan was in effect,  
11 but all of the specific actions envisioned in that plan  
12 were not in place for all of 2013?

13 A. No, I wouldn't agree with that.

14 Q. Because the administration of surface  
15 water rights is not a specific action?

16 A. Because administration is a day-to-day  
17 activity that is done for a certain goal. Sometimes  
18 it's for senior water users. In this case, it's for  
19 compact compliance. So that requirement to administer  
20 the surface water users by the Department for compact  
21 compliance is in place for the entire year.

22 Q. Thank you, Doctor.

23 MR. GRIGGS: No further questions at this  
24 time.

25 ARBITRATOR FEREDAY: Thank you. Any

1 redirect?

2 MR. WILMOTH: Thank you.

3 FURTHER REDIRECT EXAMINATION

4 BY MR. WILMOTH:

5 Q. Doctor, as we did yesterday, I'll try to  
6 rewind your brain to the early parts of the morning. I  
7 have just a few questions. It shouldn't take more than  
8 about five minutes.

9 A. Okay.

10 Q. During the very beginning of the  
11 discussion, Mr. Griggs asked you why it was that  
12 Nebraska decided to introduce Appendix M on July 30,  
13 with all the myriad pieces of litigation and all the  
14 other onerous things that were going on.

15 Do you recall that line of questioning?

16 A. Yes, I do.

17 Q. If you had waited to, say, this year to  
18 see how the litigation shook out and some of the other  
19 things, and the fires that were burning around the state  
20 got put out, could you have implemented or submitted an  
21 Appendix M plan at that time?

22 A. No, we couldn't have. The provisions in  
23 Appendix M don't allow a state to utilize it in a given  
24 year if, in the previous year, it was water short and  
25 you didn't implement an Appendix M plan. I'm

1 paraphrasing.

2                   So if we hadn't been able to use an  
3 Appendix M plan in 2013, by getting it in place in 2012,  
4 we wouldn't even have the option of coming to the RRCA  
5 this summer with a plan to get in place for 2014. We  
6 have to wait until some year in the future when the  
7 basin is no longer water short, and then work out a plan  
8 that we might be able to use when the next water-short  
9 year comes around.

10           Q.       And do you have any idea when that might  
11 be?

12           A.       I don't.

13           Q.       Mr. Griggs asked you whether anyone who  
14 might have assisted you in understanding Appendix M was  
15 involved in the so-called negotiation team for the State  
16 of Nebraska with regard to the FSS.

17                   Do you recall that question?

18           A.       Yes, I do.

19           Q.       And you're familiar with the work of my  
20 partner, Mr. Blankenau, are you not?

21           A.       Yes, I am.

22           Q.       Was Mr. Blankenau involved in assisting  
23 that team, to your understanding?

24           A.       I understand he was on the Nebraska team  
25 at that point.

1 Q. Do you know whether the gentleman to my  
2 right, Mr. Riley, was involved at that time in assisting  
3 the Nebraska team?

4 A. Yes, I do know that he was assisting the  
5 Nebraska team.

6 Q. Did you receive some counsel, at least,  
7 from Mr. Blankenau regarding Appendix M?

8 A. Yes.

9 Q. Thank you.

10 Now, Nebraska submitted Appendix M in July  
11 of 2012, correct?

12 A. Yes.

13 Q. And as submitted, Appendix M contains a  
14 range of possible reductions in computed beneficial  
15 consumptive use, or CBCU, correct?

16 A. Yes. Our plan is for a reduction of up to  
17 15,089 acre-feet.

18 Q. Tell me precisely what the number 15,089  
19 acre-feet comes from.

20 A. Sure. That is based on modeling work that  
21 we conducted by analyzing that rapid response shutdown  
22 that I referred to as the backstop. It's actually part  
23 of the work that was submitted to all the States in  
24 March of 2012, as part of my expert report for the  
25 litigation.

1           So we conducted model runs early in 2012,  
2 looking at the benefit of a curtailment of groundwater  
3 users. In that case, looking back at the previous  
4 drought, beginning in 2002, and what the benefit of  
5 curtailing those -- those groundwater wells in that area  
6 would have been -- anyway, the first year and then the  
7 second year. So that's where those two numbers, 15,089  
8 and 38,000 and change come from. We did a specific  
9 modeling analysis. And the States actually had access  
10 to that for several months before the plan was  
11 submitted.

12           ARBITRATOR FEREDAY: Excuse me. I would  
13 like a clarification as to which groundwater wells  
14 you're referring to, the rapid response area or the  
15 groundwater wells involved with the land that was being  
16 retired for the augmentation project.

17           THE WITNESS: In this case -- no, I'm  
18 sorry, it was the rapid response area. So for the  
19 backstop in the plan, we said, if that's where -- if we  
20 don't do something else and we fall back to the  
21 backstop, this is what our modeling analysis shows.

22           ARBITRATOR FEREDAY: Thank you.

23           Q.       (By Mr. Wilmoth) Doctor, my next question  
24 is a hypothetical based on your reference to the  
25 backstop.

1           A.       Okay.

2           Q.       If the Nebraska forecasting method that  
3 you spoke of earlier projected a shortfall of 15,000  
4 acre-feet, and the natural resource districts under the  
5 IMPs failed to present activities sufficient to reduce  
6 CBCU by that amount through some hydrologic equivalent  
7 of shutting down the rapid response region, what would  
8 happen?

9           A.       They would be required to shut down those  
10 wells in that area. And that's a specific control,  
11 again, in the plan that I could point you to, if you'd  
12 like.

13                       It's in N25001, on page 16 of 88. And  
14 it's under paragraph 1 under subsection B, "Other Ground  
15 Water Controls and Management Activities." And the real  
16 operative words are towards the end. It states, "If  
17 such management actions are insufficient to ensure  
18 compliance with this IMP" -- and by that it means meet  
19 the required allowable groundwater depletions that make  
20 up that shortfall -- "the LRNRD will, in the alternative  
21 to management actions, implement additional groundwater  
22 controls and regulations to make up for its  
23 proportionate share of any expected shortfall as  
24 identified in the annual forecast and described in  
25 Section IX of this IMP. Such additional control will

1 include, but not be limited to, restriction or  
2 curtailment of groundwater pumping within the Rapid  
3 Response Region of the LRNRD and restrictions on  
4 groundwater pumping in all other subareas of the  
5 district."

6           And the only reason that's broader than  
7 shutting down those specific wells is the NRD has wanted  
8 the authority under this plan to treat other users  
9 potentially in the same way as -- in other words, we  
10 might have a hard time shutting down just these guys, so  
11 we may want to shut everyone down, for example, or  
12 spread that pain out so that everyone is treated more  
13 fairly.

14           Q.       Thank you, Doctor.

15                   Does it matter, from an accounting  
16 standpoint, if the CBCU reduction contemplated in the  
17 Appendix M plan occurs through shutdown of the rapid  
18 response area or the hydrologic equivalent?

19           A.       As long as it's a hydrologic equivalent,  
20 it wouldn't really make any difference. It's the amount  
21 that matters.

22           Q.       In fact, isn't that the purpose of the  
23 hydrologic equivalent?

24           A.       That's exactly what that's meant to mean,  
25 yes.

1                   ARBITRATOR FEREDAY: Excuse me,  
2 Dr. Schneider. The hydrologic equivalent here is the  
3 augmentation?

4                   THE WITNESS: In this case, for 2013,  
5 that's what we designated, yes.

6           Q.       (By Mr. Wilmoth) That wasn't all you  
7 designated, though, in 2013, that actually happened, was  
8 it, Dr. Schneider?

9           A.       That's correct. That was the only part  
10 that was included in invoking the plan.

11          Q.       This is a point that I would like to  
12 clarify. You were asked a number of questions about  
13 reductions in CBCU attributable to other actions, like  
14 surface water curtailment. Do you recall that?

15          A.       Yes.

16          Q.       Could you please refer to page 21 of  
17 Exhibit 25002.

18                   Were there, in fact, this year additional  
19 actions that resulted in CBCU reduction?

20          A.       Yes. That's items 1 and 2 in the list  
21 there on page 21 of 150.

22          Q.       Could you just briefly elaborate on each  
23 of those.

24          A.       That's the temporary lease of water rights  
25 in the Lower Republican Natural Resources District and

1 the shutdown of the Riverside Canal by the Middle  
2 Republican Natural Resources District.

3 Q. So to be clear, for the Arbitrator's sake,  
4 although the letter you refer to invokes the Rock Creek  
5 plan, these actual actions also reduced CBCU, did they  
6 not?

7 A. That's correct.

8 Q. Thank you.

9 Mr. Griggs earlier asked you if you could  
10 have done a number of things by August 1st and  
11 quantified them with greater specificity. Do you recall  
12 that generally?

13 A. Yes, I do.

14 Q. And if you don't know at that time what  
15 the likely effect of those actions are relative to  
16 compact compliance, what is the benefit of those  
17 actions?

18 A. Purely hypothetical. Not much benefit to  
19 making those computations.

20 Q. Have you reviewed the expert reports and  
21 testimony of Mr. Barfield?

22 A. Yes.

23 Q. And doesn't he suggest that Appendix M  
24 needs to be a so-called win-win?

25 A. Yes, he does, to my recollection, yes.

1 Q. In your view, does Nebraska win if it  
2 simply reduces its CBCU under Appendix M, but still  
3 fails to comply with the compact?

4 A. No. Compliance is the objective. So that  
5 would not be a win in any way.

6 MR. WILMOTH: Nothing further.

7 ARBITRATOR FEREDAY: Mr. Griggs.

8 MR. GRIGGS: Yes, Your Honor, I have some  
9 limited questions.

10 FURTHER RECROSS EXAMINATION

11 BY MR. GRIGGS:

12 Q. Dr. Schneider, Mr. Wilmoth was asking you  
13 about my question regarding your consultation with  
14 various experts. Do you remember those questions?

15 A. Yes.

16 Q. And he singled out a man who served DNR  
17 for decades very well, Don Blankenau. Do you recall  
18 that?

19 A. Yes.

20 Q. I just want to be clear. My question  
21 referred to experts you have consulted. And by that,  
22 that was a conscious decision to separate lawyers from  
23 experts. Not that Mr. Blankenau is not a legal expert,  
24 but he's not a technical expert.

25 MR. WILMOTH: Let the record reflect

1 there's some debate about that.

2 MR. GRIGGS: All right. All right.  
3 Self-incriminating statements.

4 Q. (By Mr. Griggs) The point of that was, I'm  
5 not trying, as much as it may help, to wish away  
6 Mr. Blankenau. I wanted to stress that.

7 But, in your answer about experts, when  
8 did you begin to get counsel from Mr. Blankenau about  
9 Appendix M?

10 A. Well, we began formulating our plan at  
11 some point during 2012. I guess I couldn't tell you  
12 exactly, but it was a process through 2012, up to the  
13 point when we submitted it.

14 Q. And in my question about your consultation  
15 with experts, you did not provide the name of Mr. Riley,  
16 and you provided that under Mr. Wilmoth's redirect; is  
17 that correct?

18 A. That's correct. I really wasn't certain  
19 about your question and what you were getting at.

20 Q. That's fine. That's fine. This is all  
21 about clarification.

22 When did you begin to consult with  
23 Mr. Riley about an Appendix M plan?

24 A. It would be the same answer as previously  
25 with regard to Mr. Blankenau.

1 Q. Moving on to this interchange you had with  
2 Mr. Wilmoth about the 15,089 acre-foot projected  
3 benefit -- do you recall those questions?

4 A. Yes.

5 Q. Was that projected benefit based on model  
6 runs for 2013?

7 A. No, it couldn't have been, because we  
8 didn't have a model run for 2013 in 2012.

9 Q. Was it based on model runs for 2012?

10 A. No, it couldn't have been, because it was  
11 in the middle of 2012. So we wouldn't have had a model  
12 run for that year either.

13 Q. Was it based on model runs for 2011?

14 A. It wasn't. And that wouldn't have seemed  
15 appropriate to me, as 2011 was not a water-short year  
16 and it didn't really represent conditions that would be  
17 expected during a water-short year. It was a fairly wet  
18 year.

19 Q. What model runs were these benefits based  
20 on?

21 A. The model run -- we actually conducted it  
22 for 2002 through 2006 with that shutdown. So I was  
23 extracting the values for the first two years, which  
24 were 2002 and 2003, as I mentioned before.

25 Q. Thank you.

1 MR. GRIGGS: No further questions, Your  
2 Honor.

3 MR. WILMOTH: Nothing further for  
4 Nebraska.

5 ARBITRATOR FEREDAY: I do have a question,  
6 based on Mr. Griggs' most recent question.

7 FURTHER EXAMINATION

8 BY ARBITRATOR FEREDAY:

9 Q. The period 2002, 2003, you felt, was a  
10 roughly equivalent dry-year scenario that you were  
11 expecting for 2013? So that's the reason you ran the  
12 model based on those numbers?

13 A. In general, yes. I mean, we wanted to  
14 choose up a dry period. And utilizing the most recent  
15 dry period, that helped us to represent what was closest  
16 to current conditions. So that was the general thought  
17 process.

18 Q. Thank you.

19 ARBITRATOR FEREDAY: I have no further  
20 questions, gentlemen.

21 MR. WILMOTH: With that, Mr. Fereday, we  
22 would rest our direct case and, I believe, defer to  
23 Colorado for the next phase.

24 ARBITRATOR FEREDAY: Thank you. Yes, and  
25 Mr. Steinbrecher.

1 MR. STEINBRECHER: Colorado is prepared to  
2 call Dick Wolfe. If we could maybe discuss off the  
3 record for a moment. In terms of proceeding in the  
4 case, it makes sense to call him now. In terms of  
5 proceeding for the day, I guess I would ask for your  
6 input and Kansas's. If they anticipate more than an  
7 hour, hour and a quarter for cross, I might suggest we  
8 take an early lunch and start with Mr. Wolfe after  
9 lunch. The only thing I'm trying to avoid is getting  
10 halfway through his cross-examination and then sending  
11 him off to lunch on his own.

12 ARBITRATOR FEREDAY: Understood. Let's go  
13 off the record and talk about scheduling.

14 (Discussion off the record.)

15 (The luncheon recess was taken.)

16 ARBITRATOR FEREDAY: Let's go back on the  
17 record. We're back in session after lunch on the 27th.  
18 Before we get started, I'd like to make a few comments  
19 and inquire about exhibits.

20 We received at my office a large volume of  
21 documents that were the appendices to expert reports.  
22 And I duly brought those with me down here. A lot of  
23 those appendices are documents we've gone through as  
24 exhibits on their own. Some of them relate to separate  
25 litigation, such as the litigation concerning the Five

1 Run proposal versus Kansas's competing proposal, and so  
2 forth.

3 My question is: Are those appendices  
4 intended to be included in the record along with the  
5 expert reports to which they were appended? I think  
6 they're mostly Nebraska's.

7 MR. WILMOTH: Well, I guess I'll field  
8 that question first. Let me make sure I understand what  
9 you're asking about.

10 When you say, "appendices," are you  
11 referring to documents that are attached and fully  
12 contained within an exhibit, like Dr. Schneider's expert  
13 report?

14 ARBITRATOR FEREDAY: No.

15 MR. WILMOTH: You're talking about the  
16 exhibits that exist separately?

17 ARBITRATOR FEREDAY: Well, we received  
18 documents that were deemed to be -- or described as  
19 appendices to expert reports at our office, and I have  
20 literally 10 to 12 inches of those. Again, many of them  
21 are things like the final settlement stipulation and  
22 other documents that we have introduced into the record  
23 here. So these documents are produced many times over.  
24 But I'm just trying to get clarification on what I'm  
25 supposed to do with that bunch of documents.

1 MR. WILMOTH: From my standpoint,  
2 Mr. Arbitrator, it would probably be beneficial -- maybe  
3 we can take some time off the record at an appropriate  
4 break and work through this. I am just not really sure  
5 exactly what you're referring to. I want to make sure I  
6 understand before I give you a real answer.

7 Is that acceptable?

8 ARBITRATOR FEREDAY: That's completely  
9 acceptable. Actually, as this hearing is unfolding, my  
10 anticipation is that the exhibits that will be part of  
11 the record are those that are referred to here in this  
12 room during testimony and cross-examination, of course.  
13 So I would leave it at that; although, I suppose what we  
14 can do is go through that pile of documents and have  
15 you -- or I can show it to you on my computer and  
16 have you --

17 MR. WILMOTH: I think that would be  
18 beneficial. For instance, Dr. Schneider's report has a  
19 number of references in it. The references are -- many  
20 of them are joint exhibit numbers. They've been  
21 designated as joint exhibits. And earlier in the  
22 proceedings, I mentioned the notion that I might just  
23 offer those en masse at some point late in the day.  
24 Since they're all joint exhibits, I don't think there's  
25 any objection to those.

1                   If those are the things you're talking  
2 about, then that might be one answer. If it's another  
3 set of information, then it might be another.

4                   ARBITRATOR FEREDAY: Why don't we resolve  
5 them, perhaps, after the close of the proceedings today,  
6 just to sit down and take a look at those and try to get  
7 those straightened out.

8                   Okay, Mr. Steinbrecher.

9                   MR. STEINBRECHER: Colorado calls Dick  
10 Wolfe.

11                                   DICK WOLFE,  
12 having been first duly sworn to state the whole  
13 truth, testified as follows:

14                   ARBITRATOR FEREDAY: Thank you. Be  
15 seated.

16                                   DIRECT EXAMINATION

17 BY MR. STEINBRECHER:

18                   Q.        Good afternoon, Mr. Wolfe.

19                   A.        Good afternoon.

20                   Q.        Do you have before you Exhibit C3?

21                   A.        C003.

22                   Q.        Is that your written direct testimony in  
23 this case?

24                   A.        Yes.

25                   Q.        Is that a complete copy that you have

1 before you?

2 A. Yes, it is.

3 Q. And do you affirm that testimony today?

4 A. Yes.

5 MR. STEINBRECHER: Mr. Arbitrator, I yield  
6 the witness. I would just note that Exhibit C3 also  
7 refers to four other Colorado exhibits, 1, 2, 4, and 5.  
8 The testimony asks that those be admitted, just in the  
9 spirit of our conversation just now.

10 ARBITRATOR FEREDAY: Yes. And I will deem  
11 1, 2, 3, 4, and 5 admitted at this time. That's C1, 2,  
12 3, 4, and 5.

13 (Exhibits C001, C002, C003, C004 and C005  
14 were admitted into evidence.)

15 MR. STEINBRECHER: Thank you.

16 ARBITRATOR FEREDAY: Mr. Wattenau  
17 (phonetic).

18 MR. GRUNEWALD: Christopher Grunewald on  
19 behalf of --

20 ARBITRATOR FEREDAY: I'm sorry.  
21 Mr. Grunewald.

22 MR. GRUNEWALD: I'm sure that's a  
23 compliment, but just for clarity's sake. Thank you,  
24 Mr. Arbitrator.

25

1 CROSS-EXAMINATION

2 BY MR. GRUNEWALD:

3 Q. Good afternoon, Mr. Wolfe.

4 A. Good afternoon.

5 MR. GRUNEWALD: And I have one preliminary  
6 matter I wanted to address, which is with respect to the  
7 Colorado witnesses. And this may be something  
8 Mr. Steinbrecher wants to address.

9 We have direct testimony being offered by  
10 Mr. Wolfe, no direct testimony being offered by  
11 Dr. Schreuder. And as I read the testimony, it's only  
12 Dr. Wolfe that's been offered as an expert.

13 MR. STEINBRECHER: Mr. Wolfe is the only  
14 witness that Colorado intends to call.

15 MR. GRUNEWALD: Is Colorado intending to  
16 offer Dr. Schroeder as an expert?

17 MR. STEINBRECHER: Well, he and Mr. Wolfe  
18 have written their joint reports. I believe the  
19 testimony explains that those are joint reports. And to  
20 the extent Mr. Wolfe relied on any specific analysis  
21 that Dr. Schreuder performed in forming opinions, I  
22 think he can testify to that today. I think the  
23 testimony makes clear that those are joint reports and  
24 that he's prepared to testify as to what's in those  
25 reports.

1 MR. GRUNEWALD: For my purposes, that's  
2 fine.

3 ARBITRATOR FEREDAY: Proceed.

4 MR. GRUNEWALD: Thank you.

5 Q. (By Mr. Grunewald) Mr. Wolfe, as  
6 Colorado's head water official, you are able to address  
7 issues like transit loss and historic consumptive use;  
8 isn't that right?

9 A. Yes.

10 Q. Colorado has proposed its own augmentation  
11 plan for the Republican River Basin; is that right?

12 A. Yes.

13 Q. Were you in charge when Colorado prepared  
14 its first compact compliance pipeline proposal, in  
15 charge of Colorado Division of Water Resources?

16 A. Yes.

17 Q. And did you direct the work of the  
18 consultants that prepared the plans for the --

19 MR. STEINBRECHER: Your Honor, I have to  
20 object at this point. We made several objections  
21 yesterday as to the relevance of Colorado's plan in this  
22 proceeding. I noted for you that it's subject to  
23 another arbitration scheduled for hearing just three or  
24 four weeks from now. Kansas has deposed Mr. Wolfe  
25 specifically. I think they took all the time available

1 under that arbitration agreement to depose Mr. Wolfe,  
2 and we object to building a record here with testimony  
3 about Colorado's plan and that it's not relevant and  
4 it's subject to another arbitration.

5 ARBITRATOR FEREDAY: Mr. Grunewald, the  
6 Colorado compact compliance pipeline, the CCP, proposed  
7 by Colorado is not before me.

8 Is your inquiry intended to elicit  
9 testimony relevant to the Rock Creek pipeline or the  
10 Appendix M plan here?

11 MR. GRUNEWALD: It is. And if I might  
12 respond to the objection that's being raised here.

13 You know, Nebraska has filed expert  
14 reports and direct testimony that specifically called  
15 into questions -- or called into question Kansas's  
16 negotiations, Kansas's behavior at the RRCA. They  
17 specifically referred to Kansas's positions in response  
18 to the Colorado compact compliance pipeline at every  
19 stage.

20 We are being accused of bad faith. We're  
21 being accused of not performing our duties at the RRCA.  
22 All of our conduct in response to these proposals has  
23 been put into issue by Nebraska, not by Kansas. So  
24 we're simply trying to defend and build a record to  
25 establish what was put before Kansas, what positions

1 were taken by the States. There is overlap, to be sure.

2 I can assure the Arbitrator that my  
3 questions are not intended to -- I believe the phrase  
4 was -- "build a record" regarding the pipeline for the  
5 pipeline's purposes. But it is -- if we are unable to  
6 address the subjects that overlap between these plans,  
7 such as transit loss and historic consumptive use, then  
8 we're essentially being prejudiced in terms of defending  
9 the positions that we're taking in response to  
10 Nebraska's plan.

11 ARBITRATOR FEREDAY: I would take the  
12 position that inquiring into areas of overlap is  
13 certainly legitimate. So I would caution you in your  
14 questioning of this witness to keep it to those areas  
15 where an answer would be relevant to this proceeding.

16 MR. GRUNEWALD: Understood. Thank you.

17 MR. STEINBRECHER: And to be clear, we  
18 have no objection to inquiring into issues of transit  
19 loss or something else as they relate to the Nebraska  
20 plan, but don't think that a comparison of our specific  
21 description of how Colorado's plans address that is  
22 relevant to this proceeding.

23 And I would note that Colorado has not --  
24 Mr. Grunewald did not say that Colorado has alleged bad  
25 faith. So inquiring, you know, asking these questions

1 of Mr. Wolfe in order to refute the other proceeding's  
2 allegations is out of line.

3 ARBITRATOR FEREDAY: Mr. Steinbrecher,  
4 there are a couple of things. First of all, I agree  
5 that Colorado has not made those allegations, to the  
6 extent Mr. Grunewald's point is correct as to Nebraska's  
7 allegation. And I'm not, of course, making any judgment  
8 on that here today.

9 So I would expect that the inquiry of this  
10 witness would be aimed at matters having to do with the  
11 CCP that did not involve those kinds of allegations,  
12 that instead would involve the areas of overlap about  
13 which we've discussed.

14 As to the questions of overlap and the  
15 fact that Colorado's plan is not on trial here today, I  
16 would expect that you and other counsel would -- through  
17 redirect testimony or cross-examination, would draw  
18 distinctions, as appropriate, to any substantive point  
19 as to the differences between the CCP and the Rock Creek  
20 pipeline plan, for example.

21 And I, of course, will weigh that  
22 testimony pertaining, for instance, to an area of  
23 overlap or to the CCP accordingly. And it likely will  
24 be significantly less weight to the extent that it steps  
25 further and further from relevance to this proceeding.

1 MR. STEINBRECHER: Very well. As long as  
2 we're given equal latitude on redirect, that's fine.

3 ARBITRATOR FEREDAY: Certainly. Proceed.

4 MR. GRUNEWALD: Thank you.

5 Q. (By Mr. Grunewald) In general terms, the  
6 Colorado compact compliance pipeline, it includes the  
7 use of augmentation wells that would be pumped to  
8 provide augmentation water; is that right?

9 A. That's correct.

10 Q. And there are pumping limits established  
11 in the Colorado proposal that are based on historic  
12 consumptive use; is that right?

13 A. Our current proposal does reflect pumping  
14 limitations based on the historical consumptive use  
15 analysis that was done.

16 Q. And you mentioned the current proposal.  
17 Has that always been in the proposal, from the very  
18 first proposal?

19 A. Yes.

20 Q. And the Colorado pipeline was placed --  
21 sited very close to the Colorado-Kansas -- I'm sorry,  
22 the Nebraska-Colorado state line; is that right?

23 A. It physically is in close proximity of the  
24 state line, yes.

25 Q. The siting decision was done, in part, to

1 address potential transit losses from being placed in a  
2 location further away from the state line; is that  
3 right?

4 A. I think one of the primary reasons for the  
5 location was due to the expected longevity of the  
6 aquifer in that area compared to other places in the  
7 basin. It's expected to have the longest viable  
8 resource going into the future. And so it was an ideal  
9 location for siting of the augmentation wells.

10 MR. GRUNEWALD: Mr. Arbitrator, I have one  
11 other area, and I want to flag it here first because I  
12 didn't mention it in my previous subjects. The other  
13 would be the use of the model in terms of the  
14 augmentation outflows. I believe that was a question  
15 that Your Honor asked this morning. Specifically on the  
16 direct testimony of Mr. Wolfe, I would like to ask a  
17 couple of questions on that subject.

18 ARBITRATOR FEREDAY: Yes, you may proceed.

19 Q. (By Mr. Grunewald) I believe I may have  
20 earlier said that the wells were sited near the state  
21 line. If I said that, I meant to ask you, the pipeline  
22 outfall for the CCP is located close to the state line;  
23 is that the case?

24 A. The augmentation wells themselves are in  
25 close proximity to the state line, in terms of relative

1 locations in other parts of the basin. And the outfall  
2 for the augmentation pipeline is very close to the state  
3 line.

4 Q. Thank you.

5 In your direct testimony -- I believe it's  
6 on page -- I apologize -- it's in your joint report. So  
7 that would be Exhibit C001. If you can turn your  
8 attention to that, to what I believe is page 4 of the  
9 document. It doesn't have page numbers. You see the  
10 end of Section 1 there, that last paragraph? It begins  
11 "The Rock Creek Plan . . ."

12 A. I do not have a copy of that exhibit in  
13 front of me.

14 Q. I apologize. You can take a look and see.

15 A. Yes, this is the -- our report.

16 Q. And the paragraph that begins "The Rock  
17 Creek Plan," do you see that?

18 A. Could you site the location again? I'm  
19 sorry.

20 Q. It would be the last paragraph in  
21 Section 1, which I think is page 4 of the document.

22 A. Yes.

23 Q. And could you read that sentence that  
24 begins "The Rock Creek Plan."

25 A. "The Rock Creek Plan uses the groundwater

1 model to evaluate the impacts of well pumping to stream  
2 flow using the groundwater model, but does not add the  
3 outflow from the pipeline to the groundwater model."

4 Q. Thank you.

5 Now, the current Colorado proposal does  
6 inform the model of augmentation outflow from the  
7 Colorado pipeline; is that right?

8 A. That's correct.

9 Q. Thank you.

10 Regarding the position of the States about  
11 the Colorado compact compliance pipeline, Nebraska  
12 originally didn't support the pipeline; is that right?

13 A. That's my recollection, yes, in 2009.

14 Q. And then there was an arbitration that  
15 began in 2009, concluded in 2010, that included the  
16 Colorado pipeline and also the Nebraska issue; is that  
17 right?

18 A. Correct.

19 Q. During that arbitration, Colorado and  
20 Nebraska reached a deal where each would support each  
21 other's proposals; is that right?

22 A. There was an agreement reached between the  
23 States that detailed terms and conditions in which the  
24 respective States would support each other's projects.

25 Q. Now, regarding the Nebraska reports in

1 this proceeding, Colorado supports Nebraska's proposals  
2 here; is that right?

3 A. That's correct.

4 Q. And have you reviewed Dr. Schneider's  
5 reports and the Nebraska proposals in this proceeding?

6 A. Yes, I have.

7 Q. And do you agree with every part of  
8 Dr. Schneider's reports and testimony in this  
9 proceeding?

10 A. That's a broad question, if I agree with  
11 every part in there. I think as far as the information  
12 that's contained in there, for me to reach a conclusion  
13 to support the project, I do concur with the overall  
14 basis of the reports and their findings.

15 Q. Was there anything, in reviewing  
16 Nebraska's reports, that you specifically remember  
17 disagreeing with?

18 A. I don't remember the specifics right off.  
19 I know when they were originally submitted, we did have  
20 conversations and a workshop regarding these proposals.  
21 And we, at that time, had asked questions regarding the  
22 plans, both the Rock Creek plan and the water-short year  
23 plan. And so as a result of those discussions, Nebraska  
24 did address the questions and concerns we had regarding  
25 their proposals.

1 Q. Thank you.

2 If I can get you -- well, I have one other  
3 follow-up question limited to that.

4 Were you present for Dr. Schneider's  
5 testimony yesterday and today?

6 A. Yes, I was.

7 Q. And so you heard all of it?

8 A. Yes.

9 Q. And was there anything specifically he  
10 testified to that you disagree with?

11 A. Well, without going back through all of  
12 it, I -- that's a hard question to answer.

13 Q. So at this point, you don't remember  
14 anything you disagree with; you're just not sure?

15 A. Generally, I don't recall anything  
16 specific in regards to his testimony.

17 Q. Thank you.

18 If you could turn to your direct  
19 testimony. That's Exhibit C003, and go to page 7. You  
20 do have a copy of that, right?

21 A. I do.

22 Q. There's a question about a quarter of the  
23 way down the page that says, "Can you briefly explain  
24 why you voted in favor of the Plan?"

25 Do you see that?

1 A. Yes.

2 Q. In your answer, there is a -- the second  
3 sentence begins "Principally."

4 A. Yes.

5 Q. Could you read that sentence, please.

6 A. "Principally, the FSS does not prescribe a  
7 particular use of the RRCA Groundwater Model in  
8 evaluating and accounting for an augmentation plan."

9 Q. And could you read that next sentence,  
10 too, please.

11 A. "This means that there is no set way to  
12 approve augmentation plans under the FSS, and each  
13 proposal must be evaluated on its own merits."

14 Q. So the FSS does not require using  
15 Nebraska's proposed method for an augmentation plan; is  
16 that right?

17 A. That's correct.

18 Q. Thank you.

19 Regarding the potential impact of  
20 Nebraska's two proposals here on Colorado, I just have a  
21 couple questions about that.

22 Does Nebraska share any allocation of  
23 Rock Creek under the compact?

24 A. Ask that again.

25 Q. I'm sorry. Thank you.

1                   Does Colorado share any allocation on  
2 Rock Creek under the compact?

3           A.       I don't recall that we do.

4           Q.       Does Colorado have an allocation on the  
5 main stem of the Republican?

6           A.       No.

7           Q.       You never evaluated the impact to Colorado  
8 of implementing the alternative water-short year plan;  
9 is that right?

10          A.       I instructed other staff members that  
11 worked with me in the evaluation on this to evaluate the  
12 impact of both of the plans that were presented by  
13 Nebraska, and they then presented me with that  
14 information.

15          Q.       So you undertook no evaluation yourself on  
16 the impact on Colorado; is that right?

17          A.       Personally, I did not. I had other staff  
18 members who conducted that work, and consultants who  
19 conducted that work.

20          Q.       And just to tie that up, that would be for  
21 both -- you personally didn't do an evaluation for  
22 either of the two Nebraska proposals; is that right?

23          A.       In terms of the impact that you refer to  
24 on Colorado, I did not do that specific evaluation.

25          Q.       And did Dr. Schreuder personally do an

1 evaluation of the impact on Colorado of implementing  
2 these two proposals?

3 A. Yes.

4 MR. GRUNEWALD: I have no other questions.

5 MR. WILMOTH: I have no questions.

6 ARBITRATOR FEREDAY: Mr. Steinbrecher.

7 MR. STEINBRECHER: I will have a few, if I  
8 can be permitted to visit some issues from yesterday to  
9 address a few issues in rebuttal to other testimony that  
10 you heard today.

11 REDIRECT EXAMINATION

12 BY MR. STEINBRECHER:

13 Q. Mr. Wolfe, you and Mr. Grunewald just had  
14 a brief discussion on historic consumptive use in the  
15 context of Colorado's pipeline proposal.

16 Is historic consumptive use a limitation  
17 that you viewed as being imposed by the FSS?

18 A. No.

19 Q. And where does that limitation come from?

20 A. That comes from requirements on Colorado  
21 rules and law.

22 Q. And you and Mr. Grunewald also discussed  
23 use of the model in Nebraska's current proposal and that  
24 Nebraska uses the groundwater model to evaluate impacts  
25 from the wells. Do you remember that?

1 A. Yes.

2 Q. And in your opinion and in your testimony,  
3 in your view, does that comply with the FSS?

4 A. Could you restate your question and make  
5 sure I understand it correctly?

6 Q. Yes. In your testimony, you stated that  
7 Nebraska uses the groundwater model to evaluate impacts  
8 from these wells?

9 A. From the augmentation wells, that's  
10 correct.

11 Q. Is that consistent with the FSS?

12 A. Yes.

13 Q. And regarding the specific limitations of  
14 the FSS on augmentation plans, has Kansas articulated  
15 any specific counterproposal to Colorado's use of the  
16 model for its compact compliance pipeline?

17 A. Are you referring to the current proposal?

18 Q. Yes.

19 A. Yes, they have.

20 Q. They have stated a specific  
21 counterproposal for how the model should be used?

22 A. They have offered up a proposal that they  
23 deem to be appropriate.

24 Q. Do you know whether that is -- whether the  
25 proposal for Colorado's CCP -- Kansas's approach for

1 modeling augmentation flows under the CCP, is that  
2 consistent with the approach they've taken here with  
3 regard to Nebraska's plan?

4 A. I've been unable to determine if they are  
5 consistent or not. They -- just based on what we've  
6 been able to undertake in those discussions, they appear  
7 to be different, but it's very difficult to determine  
8 that just based on the information we've received.

9 Q. You seem to suggest that perhaps Kansas  
10 had taken a position in regard to Colorado's previous  
11 CCP proposal in terms of how the model should be used.

12 Do you know whether either the -- what  
13 they're proposing now for Nebraska or Colorado is  
14 consistent with what they proposed for the CCP back in  
15 2009?

16 A. They appear to be different.

17 Q. I'd like to ask you a few questions  
18 related to some of the testimony we heard this morning.  
19 Mr. Griggs asked Dr. Schneider about the timing of the  
20 Special Master's hearing and submittal of the  
21 alternative water-short year administration plan.

22 Do you remember that conversation?

23 A. Yes.

24 Q. Did you personally find it difficult to  
25 evaluate the water-short year plan and prepare for the

1 Special Master's hearing?

2 A. Sure.

3 Q. Did you find it impossible to do both?

4 A. No.

5 Q. And how did you do both?

6 A. I was able to utilize other staff members  
7 and consultants in the evaluation of those plans and  
8 delegated those specific assignments to them so that we  
9 could complete our evaluation within the time frame that  
10 was allowed under the FSS.

11 Q. And approximately how many staff members  
12 and consultants did you delegate those tasks to?

13 A. Well, if I could just step through maybe  
14 the specific individuals, it would help me determine a  
15 count.

16 My deputy, Mike Sullivan, was directly  
17 involved, as well as Ivan Franko on my staff. We  
18 utilized Dr. Schreuder as one of our consultants, who I  
19 know may have had some conversations with Jim Slattery,  
20 who's the Republican River Water Conservation District's  
21 engineer.

22 Also relied on Scott Steinbrecher, from  
23 the Attorney General's Office, and Pete Ampe as well,  
24 with the Republican River Water Conservation District.  
25 Dave Keeler, who is our water commissioner in the

1 Republican River Basin, he was also involved in that.  
2 And Meg Sullivan, who was a previous engineer adviser,  
3 may have also been tapped for some of those activities  
4 as well.

5 Q. So you delegated tasks to each of those  
6 individuals in order to evaluate this plan and to  
7 prepare for the Special Master hearing?

8 A. That's correct.

9 Q. Now, I recognize that Colorado doesn't  
10 benefit from Appendix M specifically. Appendix M  
11 doesn't allow Colorado to submit a plan like this, but  
12 as state engineer in charge of water administration and  
13 compact compliance, if Colorado did benefit from  
14 Appendix M, would you recommend a plan that allowed only  
15 one option for compliance or reduction of CBCU?

16 A. No.

17 Q. Why is that?

18 A. Well, I think we would want to identify  
19 all possible options that we have available to achieve  
20 compact compliance. And as we know, there are -- it's  
21 been discussed here -- we know there are many options  
22 available to get there. Not only actions that Colorado  
23 has taken, but as we've heard from Nebraska, actions  
24 they've taken. So we'd want to identify as many of  
25 those as possible to give us the greatest flexibility in

1 achieving compact compliance.

2 Q. Mr. Wolfe, are you familiar with the  
3 general terms of accounting under the FSS compact?

4 A. Are you referring to the accounting  
5 procedures?

6 Q. Yes.

7 A. Yes, I am.

8 Q. Do you know whether reductions and  
9 increases in CBCU affect the calculation of virgin water  
10 supply?

11 A. Yes, they do.

12 Q. Does a reduction in CBCU correspond to  
13 some reduction in virgin water supply?

14 A. Yes, there's a relationship there. If  
15 there's a reduction in CBCU, there's some corresponding  
16 reduction in the virgin water supply calculation.

17 Q. And if the virgin water supply is reduced,  
18 is there a corresponding reduction in the allocation  
19 that each State receives?

20 A. It does affect the allocations as well.

21 Q. So if a State were to reduce its  
22 consumption in order to comply with the compact, would  
23 that have an effect on another State of reducing their  
24 allocation?

25 A. Yes, it can.

1 Q. So, in other words, however a State comes  
2 into compliance, there is some effect on the other  
3 States?

4 A. That's correct.

5 MR. STEINBRECHER: I have no further  
6 questions.

7 ARBITRATOR FEREDAY: Thank you.  
8 Mr. Grunewald.

9 MR. GRUNEWALD: Thank you.

10 RE CROSS EXAMINATION

11 BY MR. GRUNEWALD:

12 Q. There were some questions just now about  
13 whether you recommend a plan that had only one  
14 compliance option.

15 If a plan had two compliance options,  
16 would that be something you'd recommend?

17 A. If those were our only two options, then  
18 conceivably that would be all the options that would be  
19 available.

20 Q. So do you think that an Appendix M plan  
21 has to be capable of including every single possible  
22 compliance option in order to be recommended?

23 A. No.

24 Q. So a subset of the compliance options, say  
25 four, might be acceptable to recommend as an Appendix M

1 plan?

2 A. Are you just referring to hypothetically,  
3 or specific to Nebraska's proposal?

4 Q. Well, hypothetically, it seems like  
5 Mr. Steinbrecher was asking you hypothetically if the  
6 compliance plan has only one option, you would never  
7 recommend it. Is that what you meant?

8 A. I think I was trying to respond that I  
9 would look for all possible options that would comply  
10 with Appendix M that would be made available for a  
11 State -- in this case, it only applies to Nebraska -- to  
12 utilize in their compact compliance efforts.

13 Q. Thank you.

14 Now, I want to follow up on the questions  
15 about the litigation, specifically the litigation  
16 pending in front of the Special Master. There were some  
17 questions about your delegation of work to accomplish  
18 various tasks. Do you remember those questions from  
19 Mr. Steinbrecher just now?

20 A. You said in reference to the Special  
21 Master. I want to make sure --

22 Q. There is -- you are aware that there's a  
23 pending lawsuit that's been assigned to a  
24 Special Master?

25 A. Yes.

1 Q. And Mr. Steinbrecher was talking about  
2 some litigation work. I believe he was referring to  
3 that work. Was that your understanding as well?

4 A. He was referring to the work associated  
5 with these two plans, as I recall his questioning.

6 MR. GRUNEWALD: Bear with me, if I can  
7 just check the record for a second.

8 ARBITRATOR FEREDAY: Certainly.

9 MR. STEINBRECHER: If I could help speed  
10 this up, I believe the discussion was about how he found  
11 it possible to do both, prepare for the arbitration --  
12 or for the Special Master's hearing and review the  
13 water-short year.

14 MR. GRUNEWALD: Thank you. I appreciate  
15 it. I do see a reference there to a Special Master  
16 hearing.

17 Q. (By Mr. Grunewald) Did you want to clarify  
18 your answer? It appears that Mr. Steinbrecher was  
19 talking about the Special Master hearing.

20 A. I think he was referencing the context  
21 that when this was filed, that case was ongoing, and how  
22 did I -- how was I able to achieve the review of these  
23 two plans in light of all the other efforts that were  
24 underway in regards to that case that you were referring  
25 to.

1 Q. Now, in that case, Kansas brought a claim  
2 against Nebraska for its passed-over use, and Nebraska  
3 brought a counterclaim regarding changing the accounting  
4 procedures. Is that a fair characterization of the  
5 claims?

6 A. Sure, I would agree with that.

7 Q. So Kansas's claims for overuse were not  
8 against Colorado; is that right?

9 A. That's correct.

10 Q. And there were some questions about your  
11 evaluation of the plans that Nebraska submitted in this  
12 proceeding.

13 Now, Colorado is upstream of both Nebraska  
14 and Colorado; is that right?

15 A. Yes.

16 Q. Do you have a concern? You had to think  
17 about that.

18 A. Well, I just wanted to make sure.

19 Q. Fair enough. It's the right thing to do.

20 So there's no -- Colorado is not a  
21 downstream state for purposes of the Republican River  
22 compact; is that right?

23 A. I think that's true, yes.

24 Q. Now, can you point to where in your joint  
25 reports you discuss the impact of implementing the

1 Nebraska proposals has on Colorado?

2           A.       I don't believe there was a specific  
3 reference in the joint report on what the impact was to  
4 Colorado.

5           Q.       Thank you.

6           MR. GRUNEWALD: I have no further  
7 questions.

8           ARBITRATOR FEREDAY: Mr. Steinbrecher, no  
9 more questions. Mr. Wilmoth.

10          MR. WILMOTH: No questions. Thank you.

11          ARBITRATOR FEREDAY: Thank you very much,  
12 Mr. Wolfe.

13          Mr. Steinbrecher, do you have more  
14 witnesses?

15          MR. STEINBRECHER: No.

16          ARBITRATOR FEREDAY: It sounds like it's  
17 Kansas's turn.

18          MR. GRIGGS: Yes, Your Honor. Kansas  
19 would like to make an opening statement before  
20 presenting its witnesses.

21          ARBITRATOR FEREDAY: Certainly.

22                    KANSAS'S OPENING STATEMENT

23          MR. GRIGGS: Your Honor, this arbitration  
24 concerns two matters: Whether the Rock Creek  
25 augmentation plan comports with the FSS and whether the

1 alternative water-short year proposal does the same. In  
2 so doing, the arbitration has brought the efforts and  
3 the expertise of the States to bear upon the document  
4 that brought them together in 2002 and 2003, and binds  
5 them still, the final settlement stipulation.

6           The States, Special Master McKusick, and  
7 the Supreme Court collectively recognized the FSS as a  
8 fully satisfactory, complete, and nonseverable agreement  
9 that resolved the 1998 to 2003 litigation over  
10 Nebraska's noncompliance.

11           The FSS effectuates and honors the  
12 compact, Your Honor, which, by its retroactive  
13 quantification of the water supply of the basin,  
14 established a precautionary principle; namely, that the  
15 States would act in advance to limit their water use to  
16 their respective allocations and to prevent the growth  
17 of the groundwater depletions that threaten the  
18 sustainability of the basin's water supply.

19           The three-part structure of the FSS  
20 clearly reveals this conservative approach. Section III  
21 of the FSS established a moratorium on all new  
22 groundwater wells in the basin above Guide Rock and  
23 limited existing development.

24           Section IV of the FSS contains the means  
25 by which to quantify and to allocate the waters of the

1 basin in this age of groundwater. It did so by means of  
2 the RRCA groundwater model, whose essential purpose is  
3 to quantify the effects of streamflow by the activities  
4 of man, and by means of the accounting procedures, which  
5 deploy the model to produce the allocations of the  
6 subbasins in the main stem.

7           And, finally, Section V enables the States  
8 to meet their respective water management needs in dry  
9 years, when the compact's protections are most needed  
10 through a basic exchange; namely, that a State in this  
11 arbitration, Nebraska, may attain the benefit of  
12 three-year accounting in exchange for a commitment to  
13 effect reductions in CBCU.

14           But in less than a decade since the  
15 achievement of the FSS, the efforts and the combined  
16 expertise that produced it have fundamentally diverged,  
17 as shown by this divided courtroom. Nebraska has  
18 developed a novel approach to the three-part structure  
19 of the FSS.

20           Regarding Section III, it has proposed an  
21 augmentation plan which is a limited exception to the  
22 rule of the moratorium. But regarding Section IV,  
23 Nebraska holds that the credits it deserves for this  
24 plan need not be calculated fully according to the  
25 model, even though augmentation pumping produces effects

1 upon streamflow.

2                   Regarding Section V, it proposes a  
3 water-short plan that does not require a clear  
4 commitment to reduce CBCU.

5                   In response, Kansas has labored to  
6 evaluate Nebraska's two proposals according to the  
7 purpose of this three-part structure. And to that end,  
8 Kansas will show the following in this arbitration:  
9 First, regarding Section III, Kansas will show that the  
10 Rock Creek augmentation project cannot produce new  
11 depletions.

12                   Second, regarding Section IV, Kansas will  
13 show that the model must be used to calculate the credit  
14 that Nebraska deserves for its augmentation, because the  
15 expressed purpose of the model is to evaluate depletions  
16 to streamflow, because the model performs that  
17 evaluation well and because it does so in a manner that  
18 is superior to Nebraska's proposal.

19                   Third, regarding Section V, Kansas will  
20 show that Nebraska's water-short year plan does not obey  
21 the strictures of Appendix M because Nebraska seeks to  
22 obtain the benefits of three-year accounting without  
23 committing to reductions in CBCU.

24                   In showing these things, Kansas will  
25 stress that the FSS cannot be divorced from the

1 historical context in which it was accomplished, the  
2 textual context in which its individual provisions form  
3 a coherent whole and the technical contexts in which it  
4 successfully operates.

5           Nebraska has clearly abandoned this  
6 conservative approach to the FSS. It has produced  
7 expert reports and testimony that dismissed these  
8 contexts and attacked the professional and personal  
9 reputations of those who seek to uphold this approach,  
10 accusing them of negligence, bad faith, and dishonesty.

11           That recklessness is unfortunate. But it  
12 reveals something more important. It reveals a  
13 calculated approach to compliance that has little  
14 patience with the plain rules and means by which  
15 Nebraska may properly obtain its ends. Kansas enjoys no  
16 such luxury. It is downstream and must protect its  
17 interests by the only means it has, the compact, the  
18 FSS, and the precautionary principle these agreements  
19 serve.

20           And with that, Your Honor, Mr. Grunewald  
21 will call our first witness.

22           ARBITRATOR FEREDAY: Thank you,  
23 Mr. Griggs. Mr. Grunewald.

24           MR. GRUNEWALD: Thank you, Mr. Arbitrator.  
25 Our first witness will be Mr. Scott Ross.

1                                   SCOTT ROSS,  
2           having been first duly sworn to state the whole  
3           truth, testified as follows:

4                                   ARBITRATOR FEREDAY:   Thank you.   Be  
5           seated.

6                                   DIRECT EXAMINATION

7           BY MR. GRUNEWALD:

8                           Q.       Mr. Ross, I'm going to provide you a copy  
9           of your prefiled direct testimony.   Just to confirm, you  
10          prepared prefiled direct testimony in this proceeding.  
11          And is that a copy of that testimony?

12                           A.       It is.

13                           Q.       I believe that is -- sorry, I've got to  
14          refer to the exhibit list to be sure to get it right --  
15          Kansas Exhibit K11, for the record.

16                                   Do you affirm that all of the testimony in  
17          there is true and correct and you still stand by it?

18                           A.       I do.

19                           Q.       Thank you.

20                                   MR. GRUNEWALD:   Mr. Arbitrator, we would  
21          have some, what might be termed, rebuttal matters, as we  
22          have been referring to the term here, as to what  
23          Mr. Ross will testify to.   We have prepared one  
24          additional exhibit, and this is in reference to the  
25          material or testimony that was presented by Mr. Riley

1 and the video and the narrative and the references.  
2 I'll call your attention specifically to the references  
3 to the South Fork of the Republican River.

4 We'd offer it to you as to your  
5 preference, whether you would like those matters  
6 addressed right now, before cross-examination, or at a  
7 later time.

8 ARBITRATOR FEREDAY: I think it would be  
9 most useful to have it now. And that way  
10 cross-examination could cover that as well, unless  
11 there's an objection to that.

12 MR. WILMOTH: Your Honor, I don't object  
13 to the plan. I do want to be sure that we're on the  
14 same page, that the description which you just heard  
15 from Mr. Grunewald is within the four corners of the  
16 motion that they filed; in other words, we're not going  
17 to get a wholly set of subject matter that's under the  
18 guise of rebuttal testimony, are we?

19 ARBITRATOR FEREDAY: I don't know.  
20 Rebuttal testimony is in bounds in this proceeding,  
21 including rebuttal exhibits, again, so long as they're  
22 relevant and address matters that have been raised by  
23 other witnesses.

24 MR. WILMOTH: That's my point exactly.  
25 We're going to hear things that have already been

1 raised. That's my understanding. Is that the plan?

2 ARBITRATOR FEREDAY: That is my  
3 understanding as to what rebuttal is. And I trust that  
4 that's what this testimony will be.

5 MR. GRUNEWALD: So there's no mystery, I'm  
6 happy to proffer what it is that we're going to be  
7 presenting here.

8 In response to Mr. Riley's description of  
9 the unfortunate dry nature of the South Fork of the  
10 Republican River, especially at the state line as it  
11 enters Nebraska, we've prepared some information  
12 regarding Kansas's use of the South Fork tributary. And  
13 we'd be offering one exhibit, a chart, regarding that  
14 use and allocation. And we'd be offering some testimony  
15 from Mr. Ross's personal observations of that area, of  
16 which he is very familiar.

17 ARBITRATOR FEREDAY: I do remember that  
18 reference, and I think rebuttal is appropriate. So why  
19 don't you offer the exhibits that you have that address  
20 that point.

21 MR. GRUNEWALD: Thank you, Mr. Arbitrator.  
22 If I can approach.

23 ARBITRATOR FEREDAY: Absolutely.

24 MR. GRUNEWALD: The previous -- this is a  
25 paper copy of our exhibit. We're offering it as Kansas

1 Exhibit K36. Now, we haven't provided an electronic  
2 copy of this exhibit yet, and we're happy to do that in  
3 whatever manner makes the most sense. I guess, to pick  
4 up on earlier, we had Kansas group Exhibit KG35. Again,  
5 an electronic copy can be made available to the  
6 arbitrator and for the record. That one is  
7 electronically available to the States. But we would be  
8 happy to follow whatever procedure you prefer for making  
9 sure that both the record and all the parties and the  
10 Arbitrator has that.

11 ARBITRATOR FEREDAY: Mr. Grunewald, I  
12 would appreciate it if you could first give me a  
13 description of the exhibit and then make copies  
14 available to the other parties and to me. I hope you  
15 have enough copies.

16 MR. GRUNEWALD: I believe I do. We'll  
17 find out. I have six.

18 ARBITRATOR FEREDAY: What is the  
19 description?

20 MR. GRUNEWALD: The description of this is  
21 a graph that is based on the RRCA compact accounting  
22 results from 1995 through 2011. The exhibit itself  
23 notes the source of those figures.

24 ARBITRATOR FEREDAY: Okay. That will be  
25 included in the record. Thank you.

1 MR. GRUNEWALD: If I may continue.

2 ARBITRATOR FEREDAY: Yes.

3 MR. GRUNEWALD: Thank you.

4 Q. (By Mr. Grunewald) Mr. Ross, did you  
5 review Dr. Riley's prefiled direct testimony?

6 A. I did.

7 Q. And did you review the narrative and the  
8 video that were incorporated into that testimony?

9 A. Yes.

10 Q. And did you hear the description of the  
11 South Fork tributary into the Republican River that was  
12 contained in that video and that narrative?

13 A. I read the narrative, yes.

14 Q. And now you have in front of you what has  
15 been marked as Exhibit K36, which I've already described  
16 for the record.

17 Now, are you familiar with Kansas's  
18 compact accounting results?

19 A. Yes.

20 Q. And does this graph show those results  
21 from 1995 to 2011 regarding Kansas's allocation and  
22 consumptive use on the South Fork?

23 A. They appear to.

24 Q. And could you describe what it is that the  
25 blue line is showing on that graph?

1           A.       The blue line is the upper line that shows  
2 Kansas's allocation from 1995 to 2011.

3           Q.       Just in rough general terms, it ranges  
4 from what amount to what amount?

5           A.       18,000 to a bit over 8,000.

6           Q.       Thank you.

7                    And what does the red line on that graph  
8 show?

9           A.       It shows a range from approximately 10,000  
10 to 3,000.

11          Q.       Thank you.

12                    And it represents -- that red line  
13 represents what?

14          A.       That's Kansas's CBCU.

15          Q.       And CBCU, computed beneficial consumptive  
16 use, what's contained inside that?

17          A.       Well, that's Kansas's usage of water  
18 supply for the South Fork.

19          Q.       Does it include surface and groundwater?

20          A.       Yes.

21          Q.       So this is all Kansas's use?

22          A.       All Kansas's.

23          Q.       And has Kansas's use always been below  
24 Kansas's allocation on the South Fork?

25          A.       Yes.

1 Q. Thank you.

2 Now, are you familiar with the conditions  
3 of the South Fork tributary at the Colorado-Kansas state  
4 line?

5 A. Yes.

6 Q. And also at the Nebraska-Kansas state  
7 line?

8 A. Yes.

9 Q. How many years have you been visiting the  
10 area of the South Fork of the Republican?

11 A. I've spent my whole life in the Republican  
12 Basin. I was actually born in St. Francis, very near  
13 the -- halfway between the two. So I've spent most of  
14 my life observing those two. But as my work experience  
15 in the last 30 years, several times a year.

16 Q. For those of us maybe not familiar with  
17 northwest Kansas, St. Francis is about where in relation  
18 to the state line?

19 A. It's right along the South Fork of the  
20 Republican River, about halfway between the Colorado and  
21 Nebraska state line.

22 Q. Thank you.

23 Now, based on your personal experience  
24 historically, what have the flows of the South Fork of  
25 the Republican River been at the Colorado-Kansas state

1 line, say, 20 years ago?

2 A. We began -- when I started in 1981, we had  
3 a project to measure monthly the flows at the  
4 Colorado-Kansas state line. There was not a gauge there  
5 at that point. And those flows were routinely -- the  
6 baseflow component was typically about 20 cfs.

7 Q. In recent years, what's the flow been at  
8 the Colorado-Kansas state line?

9 A. It has been zero on several occasions.

10 Q. Thank you.

11 MR. GRUNEWALD: I have no further  
12 questions and tender the witness for cross-examination.

13 ARBITRATOR FEREDAY: Thank you,  
14 Mr. Grunewald. Mr. Wilmoth.

15 MR. WILMOTH: Thank you.

16 CROSS-EXAMINATION

17 BY MR. WILMOTH:

18 Q. Good afternoon, Mr. Ross.

19 A. Good afternoon.

20 Q. Mr. Ross, do you know what the flow at the  
21 Colorado-Kansas state line was on May 31st of this year?

22 A. Not specifically.

23 Q. Do you recall a deposition that I  
24 conducted with you earlier this summer?

25 A. Yes.

1 Q. Do you recall our discussion of transit  
2 losses in the Smoky Hill River?

3 A. Yes.

4 Q. I asked you during that deposition how you  
5 measure transit losses. Do you recall that question?

6 A. Not specifically.

7 Q. How do you measure transit losses in the  
8 Smoky Hill River?

9 A. Typically, we're going to look at various  
10 measurement points and subtract the gains or losses  
11 between those two points.

12 Q. You're referring to gains and losses  
13 reflected in the gauges?

14 A. Gauges or individual measurements, yes.

15 Q. On the surface?

16 A. Yes.

17 MR. GRUNEWALD: Mr. Arbitrator, if I  
18 could.

19 ARBITRATOR FEREDAY: Yes, Mr. Grunewald.

20 MR. GRUNEWALD: I know that the scope of  
21 the testimony in this proceeding is pretty wide-ranging.  
22 I don't believe that there was testimony in his direct  
23 testimony covering this subject, so we're just hoping  
24 that we remain at least somewhat tethered to that scope  
25 when we're covering cross.

1                   ARBITRATOR FEREDAY: Mr. Wilmoth, I don't  
2 recall in Mr. Ross's direct a discussion of the Smoky  
3 Hill River, but I believe there was discussion of  
4 transit loss. Maybe I'm not remembering that correctly,  
5 but I will allow this line of questioning. I understand  
6 that it has to do with transit loss and how Kansas  
7 measures it. I think that's within bounds.

8                   MR. WILMOTH: I'm not interested in  
9 pursuing questions about the Smoky Hill River.

10            Q.       (By Mr. Wilmoth) Mr. Ross, the South Fork  
11 has commonly been dry, hasn't it?

12            A.       Reaches of it have been for a number of  
13 years.

14            Q.       How about where it enters Nebraska at the  
15 state line?

16            A.       That has been dry for probably the last  
17 five or six years, primarily.

18            Q.       And if water were flowing in the  
19 South Fork, into the state of Nebraska at that point,  
20 could it diminish transit losses in the Republican River  
21 main stem between Parks and Swanson?

22            A.       Yes, I think so.

23            MR. WILMOTH: Nothing further, Your Honor.

24            ARBITRATOR FEREDAY: Redirect?

25            MR. GRUNEWALD: I think just one question,

1 although lawyers tend to get that wrong.

2 REDIRECT EXAMINATION

3 BY MR. GRUNEWALD:

4 Q. With respect to Kansas's compliance on all  
5 of the tributaries with respect to the Republican River  
6 compact, has Kansas always been in compliance in terms  
7 of its use and allocation?

8 A. Yes.

9 MR. GRUNEWALD: Thank you.

10 ARBITRATOR FEREDAY: It appears there are  
11 no more questions for this witness. Thank you very  
12 much, Mr. Ross.

13 Let's see. Why don't we take a break  
14 until 1:50. I need to get my computer going again, by  
15 the way. So we'll be in recess until 1:50.

16 (A recess was taken.)

17 ARBITRATOR FEREDAY: I think everybody is  
18 here. And I'm live on the screen again, finally. So  
19 let's go back on the record.

20 Mr. Grunewald.

21 MR. GRUNEWALD: Thank you. Kansas would  
22 call its next witness, David Pope, to the stand.

23 ARBITRATOR FEREDAY: Good afternoon,  
24 Mr. Pope. Please raise your right hand.

25

1                                   DAVID POPE,  
2   having been first duly sworn to state the whole  
3   truth, testified as follows:

4                                   MR. GRUNEWALD:   May I approach?

5                                   ARBITRATOR FEREDAY:   Yes.

6                                   DIRECT EXAMINATION

7   BY MR. GRUNEWALD:

8                   Q.       Mr. Pope, I've just handed you a copy of  
9   Kansas Exhibit K12.  And that is your prefiled direct  
10   testimony that you prepared in this proceeding.

11                                   Does that look correct to you?

12                   A.       Yes, it does.

13                   Q.       And do you affirm that the testimony there  
14   is true and correct, and that you still stand by it  
15   today?

16                   A.       I do.

17                                   MR. GRUNEWALD:   With that, we would tender  
18   the witness for cross-examination.

19                                   ARBITRATOR FEREDAY:   Thank you.

20   Mr. Wilmoth.

21                                   MR. WILMOTH:   No questions.

22                                   MR. GRUNEWALD:   No questions.

23                                   ARBITRATOR FEREDAY:   I assume there's no  
24   redirect.  Thank you, Mr. Pope.  You were completely  
25   honest in your testimony here today.

1 THE WITNESS: I think that's the easiest  
2 one I've ever had.

3 ARBITRATOR FEREDAY: Okay. Thank you very  
4 much.

5 Mr. Grunewald, let's see if you can do  
6 that again.

7 MR. GRUNEWALD: It looks like I'm getting  
8 credit for what Mr. Wilmoth did.

9 We would present our next witness,  
10 Steven P. Larson.

11 ARBITRATOR FEREDAY: Mr. Larson.

12 STEVEN P. LARSON,  
13 having been first duly sworn to state the whole  
14 truth, testified as follows:

15 ARBITRATOR FEREDAY: Thank you. Please be  
16 seated.

17 DIRECT EXAMINATION

18 BY MR. GRUNEWALD:

19 Q. Mr. Larson, I'm going to approach and give  
20 you a copy of your prefiled direct testimony.

21 ARBITRATOR FEREDAY: Is that Exhibit K2?

22 MR. GRUNEWALD: I believe it's Exhibit K3.

23 I have a similar preliminary matter with  
24 respect to Mr. Larson as I did with Mr. Ross. And this  
25 time it's in regards to questions that you asked,

1 Mr. Arbitrator, at the end of the day of Mr. Schneider  
2 about the use of the model. It may directly lead into  
3 your questioning at the very beginning of the day in  
4 regard to the use of the model.

5           What we would offer is Mr. Larson to cover  
6 that same subject matter, which we believe would be  
7 helpful for the Arbitrator. So we would again ask  
8 whether or not you would prefer that we cover it at the  
9 beginning of the testimony here or after  
10 cross-examination.

11           ARBITRATOR FEREDAY: Well, Mr. Grunewald,  
12 I would prefer that you cover it at the beginning rather  
13 than later, just as we did before, if that's acceptable.  
14 So you can proceed.

15           MR. GRUNEWALD: If Your Honor will permit  
16 me just a minute to pull up the specific questions you  
17 covered, we thought it would be appropriate to stick to  
18 those questions specifically and just take --

19           ARBITRATOR FEREDAY: Yes. Mr. Grunewald,  
20 while you're doing that, do you intend to offer or refer  
21 to the CV of Mr. Larson and Mr. Larson's report that he  
22 co-authored, that is, K1 and 2?

23           MR. GRUNEWALD: Yes, Your Honor. I guess,  
24 as a preliminary matter, we will be asking for all of  
25 those to be entered as exhibits, as we've been doing

1 with all the witnesses. And we would be -- if you would  
2 like, I can have Mr. Larson affirm his direct testimony  
3 first.

4 ARBITRATOR FEREDAY: As you wish. It's up  
5 to you.

6 Q. (By Mr. Grunewald) Mr. Larson, you  
7 prepared direct testimony that's in front of you as  
8 Exhibit K3; is that right?

9 A. Yes, I did.

10 Q. And you -- you affirm that that testimony  
11 is true and correct, and you still stand by it today; is  
12 that right?

13 A. Yes, I do.

14 MR. WILMOTH: Mr. Arbitrator, may I just  
15 request, to the extent counsel is going to refer to a  
16 question that you asked yesterday, that we get a  
17 citation to that so I can follow the question.

18 MR. GRUNEWALD: I'd be happy to do that.

19 ARBITRATOR FEREDAY: Thank you.

20 MR. WILMOTH: Thank you.

21 MR. GRUNEWALD: Looking at the transcript  
22 that we received from Ms. Mackelprang -- it was very  
23 helpful to get a copy of that transcript of yesterday's  
24 proceedings -- it looks like the Arbitrator's questions  
25 begin at the bottom of page 189. And so beginning on

1 the next page, 190, line 5.

2 I'll pause to make sure that counsel --

3 MR. WILMOTH: I'm just trying to open that  
4 file. Perhaps it would be more efficient if counsel  
5 simply read the question.

6 MR. GRUNEWALD: I was going to do that. I  
7 wanted to make sure you could see it on your screen  
8 first. I am happy to wait or read.

9 MR. WILMOTH: That's fine. I'll trust  
10 your reading, Mr. Grunewald. Not of the FSS, but of the  
11 transcript.

12 MR. GRUNEWALD: So that's on account of my  
13 vision or -- never mind.

14 Q. (By Mr. Grunewald) Okay. The Arbitrator  
15 had asked -- well, let me also start by asking you if  
16 you were present for all the testimony in this  
17 proceeding so far.

18 A. Yes, I've been here.

19 Q. So you've heard the questions and the  
20 answers specifically that Dr. Schneider was providing  
21 about use of the model; is that right?

22 A. Yes.

23 Q. There was a question about how the model  
24 can be used, or perhaps is used, to calculate transit  
25 losses. And the question was whether it was correct

1 that the model accounts for depletions to reach gains  
2 from groundwater pumping.

3 Is that an accurate assumption?

4 A. The model does account for depletions. It  
5 also tracks the baseflows through the stream network,  
6 and there will be portions where streams gain and  
7 portions where streams lose. And all those calculations  
8 are embodied in the model. It has a stream routing  
9 package, as Dr. Schneider talked about. But it also  
10 calculates the interchange between the groundwater and  
11 the stream, both in terms of water coming from the  
12 stream to the groundwater and groundwater coming -- or  
13 water coming from the groundwater to the stream.

14 So as water is tracked through the  
15 stream -- as baseflows are tracked through the stream  
16 network, those kinds of calculations are made. So that  
17 in portions of the stream network, there may be gains  
18 and flows; in portions of the stream network, there may  
19 be losses and flows, depending on the interaction  
20 between the stream and the underlying groundwater.

21 Q. The next question was: Is the model  
22 intended to give its users a picture of changes in  
23 baseflow?

24 Do you have anything to add to your  
25 previous description?

1           A.       No. The model is used to make  
2 calculations of changes in baseflows, both in response  
3 to different changes in pumping -- in other words, if  
4 the pumping from an individual State is turned off, the  
5 impact on the baseflows is calculated in terms of  
6 baseflow increases; and those increased baseflows are  
7 then routed through the system. And in some instances,  
8 some of those baseflows may be lost before they reach a  
9 particular location; and those kinds of losses are  
10 accounted for and tracked with the groundwater model.

11           Q.       Now, does -- is the model used to evaluate  
12 losses from streams to the aquifer separate from  
13 pumping?

14           A.       The model tracks baseflows, as I said. In  
15 some portions of the stream network, as the baseflows  
16 are routed down the stream network -- if the stream is  
17 losing water, it may eventually run out of water, that  
18 is, the stream itself, due to losses to the groundwater.  
19 At that point, the stream becomes dry.

20                    Also, when the model is used to evaluate,  
21 say, the effects of pumping, pumping is turned off, as I  
22 said, baseflows will be higher under those  
23 circumstances. Those same routings would then occur.  
24 And if the baseflow was routed to areas where the stream  
25 was dry, there could be additional losses that occur in

1 those stream segments that are calculated by the model.

2           Similarly, when you look at the imported  
3 water supply credit calculation, the imported water  
4 supply seepage is actually in the mound area, and it  
5 produces changes in baseflows within the stream network  
6 of the Republican Basin. Typically, those are in the  
7 form of accretions.

8           Those accretions are then routed through  
9 the system, and some of those accretions can actually be  
10 lost, depending on the nature of the stream condition in  
11 any particular area, as the model moves those accretions  
12 through the stream network.

13           So those kinds of losses are things that  
14 the model typically evaluate and calculate, and the  
15 results are typically aggregated at certain points  
16 throughout the stream network, typically in gauges or  
17 other accounting points.

18           Q.       Now, there was a discussion in relation to  
19 a question from the Arbitrator about stream loss and  
20 transit loss package.

21                    Did you agree with the characterization  
22 that you heard from Dr. Schneider yesterday?

23           A.       Well, not totally. I think that the --  
24 the discussion, I think, related to the stream package  
25 that's being used. And what the stream package that's

1 being used does is that it calculates actually based on  
2 the amount of flow or baseflow in the stream system at  
3 any one point. It would then calculate the depth of  
4 that flow based on certain equations.

5           It would then determine whether the water  
6 level elevation of the stream was above or below  
7 groundwater level in that area. If it was above that  
8 level, seepage from the stream to the aquifer would  
9 occur and there would be a calculation associated with  
10 that. If it was in an area where the groundwater level  
11 was higher than the stream elevation, the amount of flow  
12 from the groundwater to the stream would be calculated,  
13 and then that would be added to the flow that's in the  
14 stream. And that additional flow would then -- or that  
15 total flow would then be routed downstream to the next  
16 location, and the same calculations would take place.

17           Q.       And there was a discussion of both  
18 MODFLOW, which is the basis for the groundwater model,  
19 and other types of models. Do you remember that  
20 discussion?

21           A.       Generally, yes.

22           Q.       And you're very familiar with the MODFLOW  
23 type of model; is that right?

24           A.       Yes. In fact, when that program was  
25 developed, I was at the U.S. Geological Survey at the

1 time. In fact, the original project was my project to  
2 begin the development of MODFLOW.

3 Q. So it eventually turned into what we now  
4 term "MODFLOW"; is that right?

5 A. Yes. I had worked on some of the  
6 predecessor programs to MODFLOW that were used within  
7 the U.S. Geological Survey at that time. Then a project  
8 to develop a modular program began, which I originated.  
9 And then it was taken over by others after I left the  
10 USGS in 1980.

11 Q. Do you believe there are any problems with  
12 using the RRCA groundwater model in the manner Kansas is  
13 proposing?

14 A. No, I do not.

15 Q. Do you think there are problems in terms  
16 of tracking stream losses -- using the groundwater model  
17 to track stream losses, once you put the augmentation  
18 outflow water into the model?

19 A. No, I do not. The model is fully capable  
20 of doing that. In fact, that's what the model does when  
21 it's dealing with baseflows and changes in baseflows, in  
22 terms of looking at the impacts associated with pumping  
23 and the impacts associated with imported water supply.

24 Q. So you're saying it's similar to other  
25 things that the model currently is used for?

1           A.       Yes.

2           Q.       Could you describe in a general fashion  
3 how it is similar?

4           A.       Well, as I described earlier, I think one  
5 good example is, for example, if we look at the  
6 calculations that occur, say, without one of the States  
7 pumping, let's say without Colorado's pumping. There  
8 will be increases in the baseflows. And if we look at,  
9 say, for example, on the North Fork, there will be an  
10 increase in the baseflow under the no-pumping scenario.  
11 That increased baseflow is then routed, say, through the  
12 segment of the state line at Swanson, and calculations  
13 are made to determine whether any of that flow is lost  
14 or whether there are gains. And the net effect of that  
15 is then compared to the gains and losses that occur  
16 under the condition where the wells are included. And  
17 that difference represents the differences in the gains  
18 and losses between those two runs. So that's basically  
19 calculating the same kinds of impacts to streamflows as  
20 it goes through the network, stream network, as we have  
21 the augmentation water.

22          Q.       And I think that explanation centered on  
23 assessment of pumping impacts from each State; is that a  
24 fair characterization?

25          A.       Yes, but the same thing would apply to,

1 say, for example, the effects of the imported water  
2 supply in terms of its creation of accretions to flows,  
3 to baseflows, and how those accretions might be  
4 transmitted through the system and whether they would  
5 also experience any losses.

6 MR. GRUNEWALD: Thank you. We have no  
7 further questions at this time.

8 ARBITRATOR FEREDAY: Mr. Wilmoth.

9 CROSS-EXAMINATION

10 BY MR. WILMOTH:

11 Q. Good afternoon, Mr. Larson.

12 A. Good afternoon.

13 Q. You mentioned that the groundwater model  
14 calculates flows at stream gauges?

15 A. At certain points within the network, we  
16 actually -- it calculates flows throughout the stream  
17 network at stream gauge locations and at other  
18 accounting points. Typically, the way the model is  
19 applied, those particular values are extracted for  
20 purposes of feeding into the accounting process.

21 Q. Are those the actual measured streamflows?

22 A. No, those are the estimates that would --  
23 those are the estimated changes in the baseflows that  
24 would come out of the groundwater model.

25 MR. WILMOTH: No further questions.

1 ARBITRATOR FEREDAY: Any redirect?

2 MR. GRUNEWALD: No.

3 ARBITRATOR FEREDAY: Mr. Larson, you're  
4 excused. Thank you.

5 Your next witness, Mr. Grunewald.

6 MR. GRUNEWALD: Yes, we would call  
7 Mr. Dale Book.

8 ARBITRATOR FEREDAY: Good afternoon.

9 DALE BOOK,  
10 having been first duly sworn to state the whole  
11 truth, testified as follows:

12 ARBITRATOR FEREDAY: Thank you. Be  
13 seated.

14 DIRECT EXAMINATION

15 BY MR. GRUNEWALD:

16 Q. Mr. Book, you prepared prefiled direct  
17 testimony in this case; is that right?

18 A. Yes, I did.

19 Q. I'm going to be handing you a copy of  
20 what's been marked as Kansas Exhibit 6. And that is the  
21 prefiled direct testimony for you.

22 Now, you also prepared an expert report in  
23 this proceeding; is that right?

24 A. Yes, I did.

25 Q. And you provided a CV also in this case;

1 is that right?

2 A. Yes.

3 Q. I'm going to hand you copies of your CV,  
4 which is Exhibit K4, and your report, which is  
5 Exhibit K5.

6 ARBITRATOR FEREDAY: Exhibits K4, 5, and 6  
7 will be included in the record.

8 (Exhibits K4, K5, and K6 were admitted  
9 into evidence.)

10 MR. GRUNEWALD: Thank you, Your Honor.

11 And to the extent that it matters, we'd be  
12 asking that everyone's prefiled direct testimony also be  
13 included as the marked exhibits.

14 ARBITRATOR FEREDAY: Understood, and it  
15 will be.

16 MR. GRUNEWALD: Thank you.

17 Q. (By Mr. Grunewald) Mr. Book, do you affirm  
18 that the testimony you provided is true and correct, and  
19 do you stand by that testimony today?

20 A. Yes, I do.

21 MR. GRUNEWALD: Thank you. And we would  
22 tender the witness for cross-examination.

23 ARBITRATOR FEREDAY: Thank you,  
24 Mr. Grunewald. Mr. Wilmoth.

25

1 CROSS-EXAMINATION

2 BY MR. WILMOTH:

3 Q. Good afternoon, Mr. Book.

4 A. Good afternoon.

5 Q. Mr. Book, when were you first asked to  
6 review the Rock Creek plan?

7 A. I believe it was sometime in the spring of  
8 this year, around April.

9 Q. April of 2013?

10 A. Yes.

11 Q. Thank you.

12 MR. WILMOTH: No further questions.

13 ARBITRATOR FEREDAY: Mr. Grunewald,  
14 anything further of this witness?

15 MR. GRUNEWALD: No, except, I guess, to  
16 confirm that all of the exhibits that are referred to in  
17 everyone's prefiled direct testimony are all being  
18 included in the record. Is that a correct  
19 understanding?

20 ARBITRATOR FEREDAY: I think it is. And  
21 that raises the same issue that I raised earlier as to  
22 the attachments to the expert reports. I think they  
23 were termed "appendices."

24 MR. GRUNEWALD: Would it be appropriate to  
25 take a break maybe at this point to address that

1 situation?

2 MR. WILMOTH: I was going to suggest the  
3 same, Mr. Arbitrator. We've just gone through five  
4 witnesses in about an hour and a half. So I think we  
5 are well ahead of schedule. And I think by my count, we  
6 only have basically one more. It will take a little  
7 while with that individual, but I think we've got plenty  
8 of time to work on it.

9 ARBITRATOR FEREDAY: Okay. Let's do that.  
10 Let's go off the record now, and we'll talk about the  
11 appendices, and we can also refer to the joint exhibit  
12 list in aid of that. Off the record.

13 (Discussion off the record.)

14 ARBITRATOR FEREDAY: I think we're ready  
15 to go back on the record.

16 During the break, counsel from the three  
17 States and I discussed the question of exhibits,  
18 admission of exhibits, and numbering of exhibits. And  
19 there will be more forthcoming on that, but at this  
20 point, I would entertain a motion from one of the  
21 counsel with respect to the States' joint exhibit list,  
22 at least get that part of it done. So, Mr. Lavene.

23 MR. LAVENE: Yes, Mr. Arbitrator. Based  
24 on the discussions between the States and yourself  
25 during the break, the State of Nebraska would offer all

1 J numbered exhibits en masse right now into evidence. I  
2 believe that that was the understanding of the three  
3 States, that everything listed as a joint exhibit or a  
4 J exhibit would be offered and received into evidence at  
5 this time.

6 ARBITRATOR FEREDAY: Any comment or  
7 objection to that?

8 MR. GRIGGS: No objections from Kansas,  
9 Your Honor.

10 MR. STEINBRECHER: None from Colorado.

11 ARBITRATOR FEREDAY: Thank you. All of  
12 the J exhibits, that is, J1 through 70, will be  
13 admitted.

14 (Joint Exhibits 1 through 70 were admitted  
15 in evidence.)

16 ARBITRATOR FEREDAY: And that still leaves  
17 about as many additional exhibits on the joint list, not  
18 all of which have yet been admitted. So I'll leave that  
19 to counsel as we proceed.

20 Okay. Kansas, your next witness.

21 MR. GRIGGS: Yes, Your Honor. Kansas  
22 would call David Barfield to the stand.

23 DAVID BARFIELD,  
24 having been first duly sworn to state the whole  
25 truth, testified as follows:

1 ARBITRATOR FEREDAY: Please be seated.

2 DIRECT EXAMINATION

3 BY MR. GRIGGS:

4 Q. Good afternoon, Mr. Barfield.

5 A. Good afternoon, Mr. Griggs.

6 Q. Could you please identify for the record  
7 the four Kansas exhibits I've placed before you.

8 A. Certainly. K7 is my CV. K8 is my report  
9 on the Nebraska Rock Creek augmentation plan. K9 is my  
10 report on Nebraska's plan for alternative water-short  
11 year administration, and K10 is my prefiled testimony  
12 related to the two issues.

13 Q. Thank you.

14 Do you fully affirm the contents in all  
15 four of those exhibits?

16 A. I do.

17 MR. GRIGGS: With that, Your Honor, I  
18 would tender the witness and offer Exhibits K7 through  
19 K10 into the record.

20 ARBITRATOR FEREDAY: K7 through K10 are  
21 admitted.

22 (Exhibits K7 through K10 were admitted  
23 into evidence.)

24 MR. GRIGGS: Thank you. Mr. Wilmoth.

25 MR. WILMOTH: Thank you.

1 CROSS-EXAMINATION

2 BY MR. WILMOTH:

3 Q. Good afternoon, Mr. Barfield.

4 A. Good afternoon.

5 Q. Mr. Barfield, I don't think we'll take too  
6 much time. I have a series of questions, all of which  
7 will be very familiar to you. We went through all of  
8 these in your deposition. I think we know the answers  
9 to most of these questions, so we'll just get them on  
10 the record.

11 Working through it generally in the order  
12 that we worked through during the deposition, do you  
13 agree, Mr. Barfield, that this Republican River compact  
14 is not a delivery compact in the traditional sense?

15 A. Yes, it is --

16 MR. GRIGGS: Your Honor, I'd like to make  
17 a brief objection. It seems like the way the question  
18 is posed, "not a delivery compact in the traditional  
19 sense," may require some unfolding. It seems to presume  
20 what people know a traditional delivery compact is.

21 ARBITRATOR FEREDAY: Mr. Griggs, I agree  
22 with you. I am a little bit in the dark as to what was  
23 meant by that reference. I don't think that that term  
24 has come up yet in this hearing, so it would be helpful  
25 if perhaps you could elicit from the witness some

1 discussion of that.

2 Q. (By Mr. Wilmoth) Mr. Barfield, do you know  
3 what I mean by a traditional delivery compact, or did  
4 you know at the time I asked you this question during  
5 your deposition?

6 A. Well, I don't know that I fully know  
7 what's in your mind when you ask it. I guess, I could,  
8 in my answer, briefly articulate what I think you mean  
9 and the sense in which I answered the question --

10 Q. Thank you.

11 A. -- if that would make sense.

12 A delivery compact is one that prescribes  
13 specific amounts of water that are to be delivered on  
14 some sort of schedule at some location. And so my  
15 answer was that it is not, strictly speaking, that type  
16 of compact.

17 Kansas obtains its share of allocation  
18 through the upper basin States' use being constrained to  
19 their share as we regulate it through the basin's  
20 storage.

21 Q. There's no requirement that Nebraska  
22 deliver any particular amount of water at any particular  
23 place or time, is there?

24 A. Well, I think I said that. Kansas, there  
25 is a provisional compact that says we can take our

1 138,000 Guide Rock. That was sort of the intended place  
2 for us to be able to use that water. But there isn't a  
3 schedule. Again, Kansas gets its share through the  
4 upper basin States' restricted use.

5 Q. And the RRCA accounting procedures don't  
6 track individual molecules of water, do they?

7 A. No, they do not.

8 Q. Mr. Barfield, given the existence of the  
9 five arbitrations and the litigation and the other  
10 things that your counsel illuminated this morning, have  
11 you been able to conduct the work you believe is  
12 necessary to analyze the Rock Creek project?

13 A. Well, I believe I answered that it's been  
14 a challenge, but I believe that we were able to respond  
15 as needed to each of those events.

16 Q. If you had, say, another 90 days or three  
17 months to evaluate the plan, would you have come to a  
18 different conclusion?

19 A. I don't -- which plan? Was there a  
20 specific plan you're talking about?

21 Q. The Rock Creek augmentation.

22 A. I believe I answered that I didn't think  
23 we would come to a different conclusion with more time.

24 Q. Thank you.

25 And let me be clear, when I ask these

1 questions today, I'm asking you to affirm those  
2 statements. So rather than just, "This is what I  
3 answered before," please take my question in the nature  
4 of the question presented today.

5 A. I will do that.

6 Q. Thank you.

7 On balance, would you agree that Rock  
8 Creek is a gaining stream?

9 A. Rock Creek is generally a gaining stream.  
10 There may be reaches that lose and reaches that gain  
11 that may vary from season to season, but Rock Creek has  
12 more flow at the outflow than at the beginning, at this  
13 juncture. So it is a generally gaining stream, yes.

14 Q. Thank you.

15 Do you know whether, in fact, there are  
16 any reaches of Rock Creek that are losing reaches?

17 A. I don't know.

18 Q. I'd like you to turn to page 2 of Kansas  
19 Exhibit 8, your expert report.

20 A. Okay.

21 Q. Are you there, Mr. Barfield?

22 A. Yes.

23 Q. I'm going to hand you a copy of the final  
24 settlement stipulation.

25 With respect to each of the points that

1 you've listed there on page 2, I'd like you to direct  
2 the Arbitrator to the provision of the FSS on which you  
3 relied to draw your conclusions.

4 A. In my conclusion 3, right?

5 Q. There are three conclusions. So two and  
6 then a third --

7 A. I'm sorry. I understand what you're  
8 asking.

9 Q. With regard to each one, I'd like you to  
10 identify for the Arbitrator the provision of the FSS on  
11 which you relied to draw the conclusion.

12 A. Okay. So the first conclusion is the FSS  
13 requires RRCA approval of augmentation plans. Again, on  
14 page 7 of my report, I list the provisions of the FSS  
15 that are specific to the augmentation. So that  
16 conclusion comes from Section III.B.1.k that requires  
17 augmentation plans to be approved prior to  
18 implementation.

19 Just a second, let me read the full -- and  
20 then again it also speaks to the integration into the  
21 accounting procedure model. And so the provisions that  
22 require -- that allow and require the RRCA to approve  
23 changes to the model and the accounting procedures would  
24 also underlie that.

25 Q. Which provision is that?

1           A.       Well, again, "Compact Accounting,"  
2 Article IV. Article IV relates to the accounting  
3 procedures. So it says that the accounting will be done  
4 pursuant to the model and the accounting procedures.  
5 There is a provision of the FSS that allows the RRCA to  
6 modify the model and accounting procedures.

7           Q.       Why don't you take your time and locate  
8 that for me.

9           A.       I'll try to find that.

10                    In Section I, the "General" section,  
11 paragraph F, it says, "The RRCA may modify the RRCA  
12 Accounting Procedures, or any portion thereof, in any  
13 manner consistent with the Compact and this  
14 Stipulation." And then Section I.I speaks to the  
15 development of the model.

16                    Section IV relates to the "Compact  
17 Accounting." Subsection C of Section IV relates to the  
18 determination of streamflows and the imported water  
19 supply will be done related to the model and provides  
20 for the process by which it would be developed. At the  
21 time of the FSS, the final model had not been developed.  
22 So it provides the provisions by which it would be  
23 finalized and, if the States couldn't agree, by which  
24 binding arbitration would be used.

25                    I guess I'm not finding at the moment

1 where we're allowed to modify the model, but it's in  
2 here somewhere. Do you want me to continue to look?

3 Q. Yes, please.

4 ARBITRATOR FEREDAY: Excuse me,  
5 Dr. Barfield. You just said "modify the model." Did  
6 you mean modify the accounting procedures?

7 THE WITNESS: Well, both are allowed  
8 pursuant to the FSS. So we found the one that relates  
9 to the ability to modify the accounting procedures.  
10 There's a separate provision that allows the States to  
11 modify the groundwater model that Mr. Wilmoth is asking  
12 me to find.

13 So it is in -- under "Compact Accounting,"  
14 Section IV, Subsection C. And then provision --  
15 subparagraph 7, it says, "The Modeling Committee shall  
16 submit the RRCA Groundwater Model to the States in final  
17 form with sufficient time" -- I'm sorry.

18 It's in the next subsection 8: "Upon  
19 agreement by the States to the RRCA Groundwater Model,  
20 the States, through the RRCA, shall adopt the RRCA  
21 Groundwater Model for purposes of Compact accounting.  
22 Following final dismissal of this case, the RRCA may  
23 modify the RRCA Groundwater Model or the associated  
24 methodologies after discussion with the U.S. Geological  
25 Survey."

1 Q. (By Mr. Wilmoth) Is that it?

2 A. I believe that's it.

3 Q. So I've tried to keep track here. As I  
4 understand it, for each -- well, strike that.

5 As a whole, conclusions 1, 2, and 3,  
6 A through D --

7 A. I'm just talking about No. 1 so far.

8 Q. Just No. 1. Thank you. So let me make  
9 sure I've got them all.

10 For conclusion No. 1, you are relying on  
11 Section I.F, III.B.1.k, and IV.C.8.

12 Did I miss any?

13 A. And I would say IV.A as well.

14 Q. Thank you.

15 Now, before we proceed to the second  
16 conclusion, I'd like to ask you whether the terms and  
17 conditions you referred to in conclusion No. 1 are  
18 actually set forth somewhere in any of those provisions?

19 A. You're asking me if they prescribe it in  
20 that way?

21 Q. Correct.

22 A. No. I take that implicit in the  
23 requirement the RRCA must approve.

24 Q. These terms and conditions that you're  
25 referring to are strictly up to Kansas, aren't they?

1           A.       Well, they would be negotiated by the  
2 States and agreed upon by the States.

3           Q.       Let me take you back to our discussion of  
4 this point during the deposition. I'd like to start  
5 your review at line 2.

6                     You see my question in bold?

7           A.       Yes, I do.

8           Q.       I'm trying to determine how I can validate  
9 that your concerns are embodied in the FSS or the  
10 compact or the accounting procedures, if you can't cite  
11 to me where any of those conditions are located. Are  
12 they strictly up to Kansas?

13                    Please read your answer.

14           A.       I said: Well, Kansas must approve the  
15 plan. So, yes, Kansas determines what concerns it has  
16 and what terms and conditions it believes is necessary  
17 for approval.

18           Q.       Do you affirm that today?

19           A.       Yes. I mean, again, I think both aspects  
20 are part of it in the end. I believe terms and  
21 conditions will be negotiated, but Kansas must  
22 ultimately agree as one of the parties.

23           Q.       Okay. And with respect to the terms of  
24 concern to Kansas, Kansas explicitly defines those  
25 terms; is that correct?

1           A.       Yes.

2           Q.       Now, if through the course of dealing  
3 before the RRCA and through any subsequent meetings, the  
4 States are unable to agree on whether the terms and  
5 conditions of concern to Kansas are reasonable, is it  
6 within Nebraska's right to proceed to dispute resolution  
7 as it has done?

8           A.       Yes, it is.

9           Q.       And for the record, Kansas does not assert  
10 that Nebraska failed to meet the procedural requirements  
11 of the FSS prior to invoking dispute resolution,  
12 correct?

13          A.       That is correct.

14          Q.       With respect to point 2 in your report,  
15 also on page 2 of K8, could you engage in the same  
16 exercise for me and locate each and every provision of  
17 the FSS on which you relied to formulate that opinion.

18          A.       Well, again, principally -- although the  
19 detail, I believe, is implicit in the requirement that  
20 the States all approve the plan -- so, again, III.B.1.k  
21 would be the principal thing I would stand upon with  
22 respect to that requirement.

23          Q.       Thank you.

24                   Was that complete?

25          A.       I guess with respect to the second part,

1 you know, I have stated that procedural requirements, or  
2 however you articulated it in your question, were met.  
3 So here I'm just saying that the process didn't allow us  
4 to discuss Kansas's concerns in a way that allowed us to  
5 get to agreement.

6 Q. I'd like to discuss point No. 3.a. Does  
7 this part refer to the no new net depletion standard?

8 A. The second sentence does. The first  
9 sentence just reflects the fact that it wasn't clear to  
10 me in the plan how much water the State of Nebraska was  
11 asking us to approve in terms of an annual quantity.

12 Q. We agree, though, that the only express  
13 limit in this regard is the no new net depletions  
14 standard?

15 A. As far as I know.

16 Q. And there's no reference in III.B.1.k to  
17 the concept of historic consumptive use, is there?

18 A. Let me review that.

19 Now, can you repeat your question?

20 Q. There is no reference in III.B.1.k to  
21 historic consumptive use, is there?

22 A. To the defined term "historic consumptive  
23 use," is that your question?

24 Q. Correct.

25 A. No, there's not.

1 Q. Now, you were partially responsible, were  
2 you not, for drafting the FSS, or at least the documents  
3 that led to the FSS?

4 A. I participated in the negotiation process  
5 that led to the FSS, yes.

6 Q. And, in fact, if you look at the  
7 definition section of the FSS, there does appear a  
8 defined term, "historic consumptive use;" is that right?

9 A. I can say today, yes.

10 Q. You didn't remember that during our  
11 deposition?

12 A. That is correct.

13 Q. And we agreed, during the course of our  
14 discussion, it was very possible that the drafters  
15 intentionally elected not to use this term in the  
16 context of augmentation, right?

17 A. I don't remember if I said that.

18 Q. Let me see if I can refresh your  
19 recollection.

20 Lines 3 through 7, the question was: Is  
21 it equally possible that there is an intended  
22 distinction between new net depletions and historic  
23 consumptive use?

24 Please read your answer.

25 A. It's possible. Again, we've given our

1 interpretation of what we think those words mean, and  
2 that meant no new net depletion.

3 Q. Thank you.

4 I'd like to move on to point 3.b. Excuse  
5 me, before we proceed to point 3.b, please identify each  
6 and every provision of the FSS on which you relied for  
7 the conclusion in 3.a.

8 A. Well, 3.a, the clear limits, again, I  
9 think this related to -- I think is rooted in III.B.1.k  
10 that says that an augmentation plan would be presented  
11 and considered by the RRCA. And I take implicit in that  
12 that it should specify what we are seeking to approve in  
13 that plan. The expansion-of-use provision is again in  
14 III.B.1.k that provides for the no new net depletion  
15 standard.

16 Q. Would you please engage -- if you're  
17 done -- in the same exercise with regard to conclusion  
18 3.b., identify each and every provision of the FSS on  
19 which you rely for that conclusion.

20 A. Again, that conclusion is that it  
21 "requires a full consideration of losses below its  
22 outflow, through the use the Model. The Model must be  
23 used to determine the augmentation credit. . ."  
24 Sections IV.A, and IV.H, and possibly III.B.1.k.

25 Q. Thank you.

1                   With respect to point 3.c., could you  
2 please do the same for me.

3           A.       This states that it "requires a clear  
4 mechanism to demonstrate that augmentation deliveries  
5 are required for Compact compliance, with data exchange  
6 requirements that are sufficiently specific and complete  
7 to allow the States to verify operations."

8                   So III.B.1.k says that the purpose of  
9 augmentation planning and accounting and so forth is  
10 related -- is "for the sole purpose of offsetting stream  
11 depletions in order to comply." So I take that  
12 requirement from there.

13                   ". . . data exchange requirements that are  
14 sufficiently specific and complete" to verify  
15 operations -- again, I take that from III.B.1.k. That's  
16 part of a complete plan. And from Section IV of the  
17 compact that relates to the accounting procedures.

18                   IV.A states that accounting will be done  
19 pursuant to the accounting procedures, and they include  
20 data exchange requirements and the like. So  
21 Section IV.A, and then the accounting procedures  
22 themselves.

23           Q.       Were you here for the testimony of  
24 Dr. Fanning and Dr. Schneider yesterday?

25           A.       I was.

1           Q.       If the well pumping data and the  
2 augmentation discharge data are provided as part of the  
3 RRCA annual reporting requirements, does that satisfy  
4 your concern as expressed there?

5           A.       Augmentation credits are pretty important.  
6 And I think Kansas would seek maybe a more frequent data  
7 exchange related to augmentation deliveries,  
8 particularly in sort of the initial phases.

9           Q.       So this would be something over and above  
10 what is referred to in the references to the FSS you  
11 just gave me?

12          A.       Well, this would need to be included  
13 within the plan and the changes to the accounting  
14 procedures that would be adopted pursuant to it.

15          Q.       But those things aren't defined anywhere,  
16 are they?

17          A.       Well, that, I think, is part of the plan  
18 that needs to be considered and developed pursuant to  
19 the FSS and the amendment to the accounting procedures  
20 that would be a part of that.

21          Q.       But it's above and beyond the reporting  
22 requirements that are set forth in the references you  
23 just gave me, correct?

24          A.       They would be in the provisions, yes.

25          Q.       Thank you.

1                   Mr. Barfield, is it your position that  
2 Nebraska can never obtain an augmentation water supply  
3 credit in a year in which Nebraska would otherwise be in  
4 compact compliance without the credit?

5                   A.       I believe that augmentation deliveries are  
6 to be associated with compact compliance. Compact  
7 compliance is determined after the fact, as we've talked  
8 about here. So I do believe there needs to be some  
9 reasonable accommodation to -- I think I called it a  
10 cushion in our deposition. Because of the multiyear  
11 aspect of the accounting, there needs to be some  
12 provision that allows Nebraska to ensure it's in  
13 compliance. So there may, in fact, be augmentation  
14 deliveries that are made in the year where ultimately  
15 they weren't required for compliance.

16                  Q.       And should Nebraska get credit for that or  
17 not?

18                  A.       They would get credit for that. But I  
19 think what we envision is a procedure like the IMP  
20 process, that Nebraska, based on sort of a dry-year  
21 forecast projection, what it needs to do -- and an  
22 augmentation delivery credit would be a part of that.  
23 And we would have some process by which that is provided  
24 to Kansas and Kansas reviews that.

25                         Then again, if augmentation deliveries are

1 made pursuant to that, they would get credit for it,  
2 even if, at the end of the year, we got a big rain event  
3 and it wasn't necessary.

4 Q. And these terms that you've just explained  
5 are purely conceptual right now, aren't they? They're  
6 not written anywhere, are they?

7 A. They are -- some of these terms are  
8 embodied in my -- I think in my expert report and  
9 testimony.

10 Q. You recall our discussion during the  
11 deposition? We were discussing this concept of  
12 overdeliveries of augmentation, and I asked you whether  
13 this was really just conceptual.

14 Could you read your answer at lines 16  
15 through 18.

16 A. Can I just read the question and make sure  
17 it's part of the same question?

18 Q. Absolutely.

19 A. So there's no difference really anywhere  
20 as to what the nature of the mechanism is, is there?

21 Can I look and see what mechanism we're  
22 talking about?

23 ARBITRATOR FEREDAY: Certainly. Excuse  
24 me, Mr. Barfield -- Dr. Barfield. I think the word was  
25 there's no "definition." I think you used the word

1 "difference."

2 THE WITNESS: Okay.

3 Q. (By Mr. Wilmoth) We can go as far up this  
4 chain as you'd like, Mr. Barfield. Just tell us where  
5 you'd like us to end.

6 A. Just one --

7 Q. This was a rather lengthy discussion, so I  
8 was trying to short-circuit it, but we can certainly  
9 walk through each of the pages.

10 A. Just one more question up. All right.  
11 It's not helping me to go back, so go forward.

12 Q. Perhaps I can ask it this way: What  
13 you've just described is not set forth in any known  
14 document, is it, this concept of having an overage and  
15 getting some credit for it, but not too much credit for  
16 it, et cetera?

17 A. Certainly not in any clear way. Again,  
18 these are concepts that I think I've articulated, at  
19 least in part, in reports and depositions.

20 Q. Now, you mentioned earlier that it would  
21 be impossible for Nebraska to know exactly how much  
22 augmentation water it would have to deliver in any given  
23 year in order to perfectly avoid a violation; in other  
24 words, zero out its CBCU of its allocation?

25 A. I don't know of any mechanism to do that.

1           Q.       If that's true, then under your theory,  
2 doesn't Nebraska necessarily have to deliver more  
3 augmentation water than would be required just to zero  
4 out that equation?

5           A.       Yes.

6           Q.       And I think we just discussed that, under  
7 your vision of this, there's no real answer to what  
8 happens to the overdelivery, other than it gets wrapped  
9 into the longer-term compact compliance equation; is  
10 that correct?

11          A.       Yeah, it would be on the books for  
12 subsequent years.

13          Q.       So can you explain to me, if that water is  
14 applicable for compact compliance purposes, why isn't  
15 all the augmentation water applicable for compact  
16 compliance purposes in any year where averaging is used  
17 under the FSS?

18          A.       Well, again, the provision says that  
19 augmentation is related to compact compliance. I think,  
20 just as a practical matter, we think and view the  
21 multiyear aspect of that accounting, that there should  
22 be some reasonable cushion. But, again, we don't want  
23 Nebraska overdelivering in some wet years and then not  
24 delivering the appropriate amount in dry years when we  
25 might really need it, would be the concern that could

1 come up.

2 Q. So just to be clear, this is a good  
3 example of one of these concerns that Kansas harbors,  
4 Kansas defines, and Nebraska cannot go to the FSS to  
5 locate; is that a fair assessment?

6 A. Well, again, I think it's rooted in sort  
7 of the nature of the FSS and then, again, its  
8 requirements that these things be approved by other  
9 states.

10 Q. I'd like you to look at conclusion 3.d.  
11 and ask you again to point to each provision in the FSS  
12 upon which you rely for that conclusion.

13 A. III.B.1.k.

14 Q. Is that it?

15 A. Yes.

16 Q. Thank you.

17 Now, that temporal limitation,  
18 particularly the 20-year limit, is not set forth in  
19 III.B.1.k, is it?

20 A. It is not.

21 Q. I'd like to talk to you a little bit about  
22 the modeling work that supported the Rock Creek  
23 augmentation plan.

24 I think that you agree with me, Nebraska  
25 used the model to determine the depleted effect of the

1 augmentation wells; is that correct? Do we agree on  
2 that?

3 A. It used the model to determine the effect  
4 of the augmentation pumping on the basin streamflow.

5 Q. Thank you.

6 A. But not the augmentation deliveries  
7 themselves.

8 Q. Correct. And Kansas does not dispute the  
9 actual modeling results that Nebraska obtained, does it?

10 A. Well, with respect to the determination of  
11 the effect of augmentation pumping on streamflows, I  
12 don't know of any concern that we have identified there.  
13 Again, it's rooted in the effects on the augmentation  
14 water itself.

15 Q. Thank you.

16 I'd like you to turn, please, to page 10  
17 of your report, K8. And on this page, you indicate that  
18 the Rock Creek project will exacerbate declines in  
19 groundwater levels and reduce baseflow.

20 Do you see that?

21 A. Where is it?

22 Q. Somewhere in the midsection there. Take  
23 your time.

24 A. Okay. I'm sorry, the question is?

25 Q. That's fine. Do you see that?

1 A. I do see that.

2 Q. Have you quantified the amount by which  
3 groundwater levels will decline?

4 A. Not to my knowledge.

5 Q. Have you quantified the amount by which  
6 baseflows will be reduced?

7 A. Not to my knowledge.

8 Q. You say not to your knowledge. During our  
9 deposition, I asked you those questions, lines 14  
10 through 19. I want to be clear. Is there some reason  
11 for your equivocation about your knowledge base? In  
12 both cases you responded no, period.

13 A. So you're asking why I'm adding "not to my  
14 knowledge" to my answer?

15 Q. Yes.

16 A. I'm just being cautious.

17 Q. Fair enough.

18 A. I mean, we may have done some additional  
19 work between now and then that I'm not aware of.

20 Q. But you didn't rely on any of that work to  
21 draw those two conclusions, correct?

22 A. I did not rely on any specific work to  
23 draw those conclusions, just my general understanding --

24 Q. Thank you.

25 A. -- of the effects of pumping in the basin.

1 Q. I'd like you to go to page 11 now, the  
2 next page. You refer to the "finite and exhaustible"  
3 nature of the Ogallala aquifer.

4 Do you see that?

5 A. I do see it.

6 Q. Have you evaluated the life of the aquifer  
7 in and around Rock Creek?

8 A. No.

9 Q. Have you evaluated the safe yield of the  
10 aquifer in and around Rock Creek?

11 A. No.

12 Q. Now, your testimony -- your direct  
13 testimony indicates that you've spent quite a lot of  
14 your career trying to conserve and extend groundwater  
15 supplies in Kansas, correct?

16 A. It speaks, I think, particularly, as I  
17 recall, to those efforts in recent years as chief  
18 engineer.

19 Q. Why don't we look at page 10 of your  
20 direct testimony. Do you have a copy?

21 A. I do have a copy.

22 Q. Thank you.

23 A. Are we done with the Rock Creek report?

24 Q. For now.

25 ARBITRATOR FEREDAY: Is that Exhibit K10?

1 MR. WILMOTH: Yes.

2 Q. (By Mr. Wilmoth) Do you see that  
3 statement?

4 A. Yes, I do.

5 Q. Could you read it aloud.

6 A. "Since becoming Chief Engineer, I have  
7 devoted considerable effort to extending and conserving  
8 Kansas' non-renewable groundwater supplies in the  
9 High Plains-Ogallala Aquifer. I have been active with  
10 state's GMDs" -- that's groundwater management  
11 districts -- "to encourage and support groundwater  
12 modeling, requiring metering, closing additional areas  
13 to new appropriations, and encouraging other  
14 conservation efforts."

15 Q. Thank you.

16 Mr. Barfield, I'll show you what's marked  
17 Exhibit N20029. This is a report of the U.S. Geological  
18 Survey indicating groundwater level declines.

19 How do the declines in Kansas compare to  
20 those in Nebraska?

21 MR. GRIGGS: Your Honor, I'm going to have  
22 to make an objection of caution here that is consonant  
23 with our concerns about Mr. Steinbrecher's questions  
24 about the Smoky Hill River. The groundwater supplies  
25 and formations of the High Plains-Ogallala are highly

1 variable. Some of them are connected to the Republican  
2 River Basin. Many of them are not.

3           So to the extent that this line of  
4 questioning is going to groundwater supplies in the  
5 Republican River Basin, I think it's within the scope of  
6 this matter. But to the extent we're talking about the  
7 groundwater decline in southwestern Kansas -- it's not  
8 even within 100 miles of the basin -- I think that needs  
9 to be treated with the relevance it deserves.

10           ARBITRATOR FEREDAY: Mr. Griggs, I believe  
11 that Mr. Barfield's testimony is fairly broad on that  
12 subject of the Ogallala. The Ogallala itself -- the  
13 High Plains-Ogallala aquifer itself is very broad  
14 geographically. And I understand that it does include  
15 areas of Kansas relevant to Rock Creek.

16           Therefore, I think this is appropriate  
17 inquiry, but your objection is duly noted and the  
18 Arbitrator is always entitled to ascribe weight to  
19 testimony based, at least in part, on the validity of an  
20 objection.

21           I don't think that the testimony is  
22 objectionable as to the point that it could be stricken  
23 in the normal case, but I do appreciate your comment.  
24 And I think the witness can proceed.

25           Mr. Wilmoth.

1 MR. WILMOTH: Thank you.

2 THE WITNESS: I'm going to need the  
3 question asked again.

4 Q. (By Mr. Wilmoth) In your experience, how  
5 do groundwater level declines in Kansas compare to those  
6 in Nebraska?

7 A. Statewide, you're asking?

8 Q. That's fine. We'll start there.

9 A. That's what this is depicting. It's  
10 showing, at least as I understand it, from my readings  
11 of the table name -- and I saw a map sort of fly by --

12 Q. I have a complete copy. Let me avoid any  
13 confusion.

14 A. Well, again, it shows that statewide  
15 within the broad Ogallala aquifer in Kansas, there have  
16 been, predevelopment to 2011, for example, an average of  
17 24 feet of decline. And over the statewide extent of  
18 Nebraska, which is well beyond the Republican Basin,  
19 where we saw some pretty significant declines -- it  
20 includes a big part of the state, that much has  
21 developed -- there's actually been a small rise over  
22 that period.

23 Q. Does the Ogallala aquifer extend  
24 throughout the entirety of the state of Kansas?

25 A. It does not.

1 Q. I'm going to show you the map depicting  
2 the information that was just tabulated.

3 ARBITRATOR FEREDAY: And, again,  
4 Mr. Wilmoth, you're referring to Exhibit N29?

5 MR. WILMOTH: Yes. It's actually N20029.

6 ARBITRATOR FEREDAY: Sorry.

7 Q. (By Mr. Wilmoth) Mr. Barfield, does this  
8 map generally depict the Ogallala aquifer, including the  
9 area covered by the Republican River Basin?

10 A. Yeah, the Ogallala-High Plains aquifer.  
11 There's a bit of distinction between the two, but yes.

12 Q. Wouldn't you say that within the  
13 Republican River Basin, certainly in the western  
14 portion, those declines in Kansas and Nebraska are  
15 pretty comparable, at least according to the U.S.  
16 Geological Survey?

17 A. I don't know that I would agree with that.  
18 You see the more significant -- all the declines you're  
19 seeing, if you're looking at the tan area, not all of  
20 that is within the Republican Basin. The two big tan  
21 blobs are, for the most part, south of the Republican  
22 Basin. So I wouldn't agree with your conclusion.

23 Q. Thank you.

24 You've expressed some concern about  
25 potential harm from the Rock Creek project to Kansas

1 water users.

2 A. Yes.

3 Q. Is the real concern that you harbor that  
4 Nebraska will receive too much credit for the  
5 augmentation supply and thereby be allowed to inflate  
6 its CBCU to the detriment of those users?

7 A. Yeah, the principal concern is that the  
8 credit would be too great because a substantial amount  
9 could be lost. And if that is the case, it would  
10 essentially allow Nebraska to expand its use to our  
11 potential detriment.

12 Q. Thank you.

13 Are you aware of any specific Kansas water  
14 users that object to the Rock Creek plan?

15 A. Well, I would guess Kansas Bostwick.  
16 Kansas Bostwick Irrigation District, in particular, is  
17 an entity that's concerned about its supply. So  
18 Mr. Nelson, I think -- I can't recall that I've  
19 specifically discussed the matter with him, but I think  
20 he is concerned with these types of activities.

21 Q. I asked you the same question during the  
22 deposition, line 16. The question was: Are you aware  
23 of any water users within the state of Kansas that have  
24 an objection to the operation of the plan, setting aside  
25 the credit?

1                   How did you answer?

2           A.       I answered no.

3           Q.       So, again, I ask, are you presently aware  
4 of any?

5           A.       Well, again, I stated that I haven't  
6 talked to anybody specifically, but I believe there is  
7 concern out there.

8           Q.       I want to talk to you about this concept  
9 that augmentation plans are a last resort. You've said  
10 that, haven't you?

11          A.       Well, I've quoted Mr. Simpson's language  
12 in his testimony before the Special Master to that  
13 effect.

14          Q.       You don't literally mean that, though, do  
15 you?

16          A.       Well, I literally mean he said that.

17          Q.       But you don't literally maintain that  
18 Nebraska has to do every other possible thing to reduce  
19 CBCU before implementing an augmentation plan, do you?

20          A.       I agree with you.

21          Q.       Thank you.

22                   Have you personally visited Rock Creek in  
23 the last 10 years or examined the Rock Creek project  
24 we're discussing today?

25          A.       I have not personally examined the Rock

1 Creek project. I've been through the basin numerous  
2 times. I am not certain when the last time I went to  
3 the Rock Creek Basin was.

4 Q. After receiving the Rock Creek  
5 augmentation plan in February of 2013, did you instruct  
6 Mr. Book to go visit Rock Creek or the project?

7 A. No.

8 Q. Did you instruct Mr. Larson to do so?

9 A. No. Mr. Ross has done that for us.

10 Q. When did Mr. Ross do that?

11 A. Recently.

12 Q. Why did he wait so long?

13 A. There was a lot of coordination that took  
14 place prior to his visit, and I don't know all the  
15 details of that.

16 MR. WILMOTH: I'd like to transition now,  
17 with your permission, Mr. Arbitrator, into the  
18 alternative water-short year plan.

19 ARBITRATOR FEREDAY: Certainly.

20 Q. (By Mr. Wilmoth) Mr. Barfield, you have  
21 prepared a -- actually, why don't you keep that -- you  
22 prepared a report concerning the alternative water-short  
23 year plan submission by Nebraska, correct?

24 A. Yes, I have.

25 Q. I'm sorry, could you tell me what the

1 exhibit number is in the top right corner?

2 A. K9.

3 Q. Now, you draw four conclusions early on in  
4 that report, correct? I believe it's called "Specific  
5 Appendix M requirements," the section.

6 A. Yes, on page 3.

7 Q. Now, I'd like to do the same exercise we  
8 went through on the Rock Creek augmentation plan. We  
9 can just go through these in order, 1 through 4. I'd  
10 like you to identify, with respect to the first  
11 conclusion, each and every provision in the FSS on which  
12 you relied to draw that conclusion.

13 A. No. 1 says, "CBCU reduction plan must"  
14 identify "a specific set of actions." This is from  
15 Appendix M itself, in paragraph 2.

16 Q. Okay. How about conclusion No. 2?

17 A. Just give me one minute to finish reading  
18 that.

19 Q. Certainly.

20 A. Okay. Paragraph 2, No. 1. So now I'm  
21 going to No. 2, "CBCU reduction plans must have a  
22 defined water savings result." So, again, this is in  
23 paragraph 2. That specifies that there be design  
24 reductions and that those design reductions be evaluated  
25 by the RRCA.

1                   And then paragraph 4, that specifies at  
2 the very end that the compliance test for Nebraska then  
3 is modified to have a three-year test, and then a  
4 modified two-year test consistent with the design  
5 reductions.

6                   Q.       Thank you.

7                   How about conclusion 3?

8                   A.       "Water savings in the Plans must be  
9 demonstrated by agreed upon methods." So, again, that's  
10 in paragraph 2. That says those design reductions will  
11 be evaluated by the RRCA using methods consistent with  
12 the RRCA accounting procedures in the model.

13 Paragraph 3 has sort of a process and time frames by  
14 which -- that the plan and the demonstration of the  
15 reductions is evaluated by the RRCA.

16                   So those provisions and then, I guess by  
17 inference, the accounting procedures themselves and the  
18 model, which are essentially rooted in the FSS, they  
19 were adopted as part of the FSS. They've been modified  
20 subsequently.

21                   Q.       And conclusion 4, please.

22                   A.       Conclusion 4 is the proposed plan must  
23 reduce CBCU. That is in paragraph 1 that says that the  
24 plan is for the reduction of computed beneficial use.  
25 And paragraph 2 that says the plan should prescribe the

1 actions that Nebraska will take to reduce its CBCU; that  
2 reductions in CBCU will be evaluated by the RRCA. The  
3 remaining provisions that also sort of speak to the  
4 plan, which is again about reduction, that they'll  
5 implement the plan.

6 Q. Thank you.

7 I'd like to ask you about a couple very  
8 specific requirements in the FSS and make sure we don't  
9 have any disagreement -- excuse me, in Appendix M of the  
10 FSS.

11 Was there less than 130,000 acre-feet in  
12 Harlan County Lake as contemplated in Appendix M when  
13 the Appendix M plan was submitted? In other words, has  
14 that requirement been met, in your view?

15 A. Well, that is a requirement for when  
16 Nebraska may implement a plan. It's not a requirement  
17 for when it presents the plan to the RRCA for its  
18 consideration.

19 Q. So there's no dispute there?

20 A. Correct.

21 Q. Thank you.

22 Does Kansas also concede that Nebraska  
23 complied with all the expressed procedural requirements  
24 applicable to Appendix M before invoking dispute  
25 resolution?

1           A.        I'm sorry, you'll have to break that down.

2           Q.        Does Kansas concede that Nebraska complied  
3 with all expressed procedural requirements prior to  
4 invoking dispute resolution regarding Appendix M?

5           A.        So you're saying did you follow the  
6 dispute resolution provisions of the FSS related to this  
7 plan consideration?

8           Q.        Let's see how we addressed it before, so  
9 there's no confusion.

10                   Starting at line 10, I asked you: In your  
11 view, has Nebraska violated any procedural requirement  
12 with respect to that plan of Phase I, I guess, as you  
13 were kind of describing it, getting the plan up on the  
14 shelf?

15                   Do you recall this discussion?

16           A.        Right. Okay. It did submit the plan  
17 before August 1. So it did -- okay, that's what I said.

18           Q.        And then in line 18, I began to ask you if  
19 there were any procedural violations. And I think your  
20 answer was on 22.

21           A.        Okay. Yes, I affirm my answer there.

22           Q.        So we are in agreement, are we not, sir,  
23 that there are no procedural violations regarding  
24 Appendix M, as far as its submission to the RRCA, and to  
25 this arbitrator under the dispute resolution provision?

1           A.       That's correct.

2           Q.       Thank you.

3                    There aren't any specific minimum  
4 requirements for the size of the CBCU reduction that  
5 must accompany an Appendix M plan, are there?

6           A.       There's nothing stated in Appendix M.

7           Q.       And do you recall discussing with me how  
8 you would actually measure the CBCU reduction, and this  
9 involved the concept of a base condition?

10          A.       Yes, generally.

11          Q.       And it's feasible for the expected CBCU  
12 reduction to be measured against a base condition that  
13 is essentially today's condition less a management  
14 action, correct?

15          A.       If I understand you, I think that's  
16 correct.

17          Q.       Do you have any problem understanding my  
18 question? I want to be clear about this.

19          A.       I don't think so.

20          Q.       Thank you.

21                    There isn't any distinction in the RRCA  
22 accounting, at least as it relates to Nebraska's compact  
23 compliance, between reducing CBCU and offsetting CBCU,  
24 is there?

25          A.       Again, I'd appreciate the question being

1 repeated.

2 Q. I'd like to ask it the same way.

3 Is there any practical effect from an  
4 accounting standpoint -- a practical difference --  
5 excuse me -- between reducing CBCU and offsetting it?

6 And I think your answer was beginning at  
7 line 16 and running all the way through line 23.

8 A. Correct. And it was basically in Table 3,  
9 Table 4, and Table 5 of the accounting procedures that I  
10 would envision the augmentation credit being applied in  
11 a way that would offset the CBCU. So with respect to  
12 those tables and strictly the accounting, not how you  
13 sort of get the credit and all those sorts of things, it  
14 would have the same effect.

15 Q. Do you agree with me that there are some  
16 provisions of Nebraska's Appendix M plan that are, in  
17 fact, reducing CBCU?

18 A. That could, if implemented, reduce CBCU;  
19 is that your question?

20 Q. Let's take that one first.

21 A. Yes.

22 Q. Which ones are those?

23 A. I sort of need a list of what the menu is.

24 Q. What do you understand the menu to be?

25 A. Let me go to my letter that's attached to

1 my report. Well, I'm looking here at page 23 and 24 of  
2 that report, that it's my letter of October 4th that was  
3 responding to the plan and our perceived deficiencies.  
4 It provides a list of potential actions that are  
5 included within the plan that might be part of the plan.  
6 So it would -- you want me to go through and say which  
7 of these --

8 Q. That's fine. Let me ask you this specific  
9 question: You understand Nebraska is presently  
10 implementing its IMPs this year?

11 A. Yes.

12 Q. Are the activities being conducted  
13 pursuant to those IMPs leading to a reduction in CBCU  
14 this year?

15 A. Some of them are.

16 Q. Which ones?

17 A. Well, some of the closing notices, I  
18 think, would be the main one that I'm aware of that are  
19 reducing CBCU and preventing it from being used.

20 Q. Is that all?

21 A. That's all that I'm aware of sitting here  
22 right now.

23 Q. Fundamentally, at the end of the day,  
24 Mr. Barfield, is it your position that Nebraska must  
25 negotiate with the other States to determine the

1 appropriate parameters of an Appendix M plan?

2 A. I don't see how that would not be a part  
3 of approving an Appendix M plan, although we've never  
4 done one before.

5 Q. Just one last question, Mr. Barfield.  
6 Just to be clear for the record, the Arbitrator referred  
7 to you as Dr. Barfield a couple times. You don't  
8 possess a Ph.D., do you?

9 A. I do not, no.

10 MR. WILMOTH: Thank you. No further  
11 questions.

12 MR. GRIGGS: Your Honor, we'd like to take  
13 a ten-minute break to collect what we've heard now for  
14 both issues. And if we could have your indulgence,  
15 10 after 4:00 or five after 4:00, we could commit to  
16 being finished by 5 o'clock.

17 ARBITRATOR FEREDAY: Ten after 4:00,  
18 finished by 5 o'clock --

19 MR. STEINBRECHER: Mr. Arbitrator, I also  
20 have a few questions of Mr. Barfield. Maybe it would be  
21 more appropriate for us to ask those and then take a  
22 break.

23 MR. WILMOTH: Mr. Arbitrator, I would also  
24 like to make clear that the witness, while he is still  
25 sworn in, is to be sequestered from counsel.

1                   ARBITRATOR FEREDAY: That's a good point.  
2 I understand that. That's been the practice previously.

3                   MR. WILMOTH: Thank you.

4                   ARBITRATOR FEREDAY: So during the break,  
5 Dr. Barfield, you would remain apart from counsel.

6                   We will take a break after  
7 Mr. Steinbrecher completes his questioning.

8                   MR. GRIGGS: One last thing: I just want  
9 to make sure -- with this concept of sequestering the  
10 witness, we want to make sure that we don't hold  
11 Mr. Barfield hostage overnight if we don't make it to  
12 the 5 o'clock deadline. So if you can provide some  
13 rules for how you would deal with this sequestration in  
14 the context of the end of the day, I would appreciate  
15 it.

16                   ARBITRATOR FEREDAY: I will. Thank you.  
17 Mr. Steinbrecher.

18                   CROSS-EXAMINATION

19 BY MR. STEINBRECHER:

20                   Q. Good afternoon, Mr. Barfield.

21                   A. Good afternoon.

22                   Q. Do you have with you a copy of your  
23 written direct testimony? I believe it's Exhibit K10.

24                   A. I do.

25                   Q. Please turn to pages 54 and 55 for me,

1 please.

2 A. Yes.

3 Q. Are you there?

4 A. Yes, I am.

5 Q. And on those pages, 54 and 55, you list  
6 the reasons why Kansas was unable to approve the Rock  
7 Creek augmentation project?

8 A. Correct.

9 Q. And you list four elements there on 54 and  
10 55?

11 A. Yes.

12 Q. Are those, in your view, the minimum  
13 requirements for an augmentation plan?

14 A. Are those -- I'm sorry, one more time.  
15 Repeat the question.

16 Q. Are those, in your view, the minimum  
17 requirements for an augmentation plan?

18 A. Well, that's not a complete listing.  
19 Obviously, there are many things that were included in  
20 the augmentation plan that was submitted. So these were  
21 the things that I believe were not in the Rock Creek  
22 plan that should be.

23 Q. And, in your view, where would I find the  
24 list of minimum requirements for an augmentation plan?

25 A. Well, I think we've had a significant

1 discussion with Nebraska on that point. We have sought  
2 to articulate what we believe should be in an  
3 augmentation plan through the various back and forth  
4 with the States with respect to their plans, and  
5 responded to Nebraska in an exchange in December and  
6 January with respect to -- they provided an outline, and  
7 we provided a response to additional things that we  
8 thought needed to be included.

9 Q. And those would apply to all augmentation  
10 plans?

11 A. Well, it was our attempt, as I recall it,  
12 anyway, to provide guidance as to what Kansas thought  
13 should be in augmentation plans generally.

14 Q. So they would apply to all augmentation  
15 plans?

16 A. Well, not every element would necessarily  
17 apply to every augmentation plan. We were trying to  
18 come up with some general guidance, as I recall, at the  
19 time to what needs to be addressed.

20 Q. So there may be different requirements for  
21 different augmentation plans?

22 A. It's possible. Again, we were trying to  
23 make -- it was our attempt to come up with some  
24 guidance.

25 MR. STEINBRECHER: Thank you. No further

1 questions.

2 ARBITRATOR FEREDAY: Okay. Any further  
3 questions? At this point, I understand you have some  
4 redirect.

5 MR. GRIGGS: Yes, Your Honor. We'd like  
6 to take a ten-minute break so that we could organize  
7 that as efficiently as possible.

8 ARBITRATOR FEREDAY: We'll be back at 4:10  
9 sharp. We're in recess.

10 (A recess was taken.)

11 ARBITRATOR FEREDAY: Mr. Griggs.

12 MR. GRIGGS: Thank you, Your Honor.

13 REDIRECT EXAMINATION

14 BY MR. GRIGGS:

15 Q. Mr. Barfield, you were involved in the  
16 negotiations of the FSS regarding augmentation?

17 A. I was involved in all aspects of the  
18 negotiation, yes.

19 Q. Mr. Wilmoth was asking you about the  
20 specific requirements of augmentation plans. He went  
21 through those pretty deliberately in his  
22 cross-examination.

23 Do you remember that?

24 A. Yes.

25 Q. Was there any attempt during those

1 negotiations to develop a comprehensive list of specific  
2 requirements for augmentation plans?

3 A. No.

4 Q. Why wasn't there such an attempt?

5 A. I'm actually a little cautious about the  
6 confidentiality agreement. I guess I would just say  
7 this was a late addition to the FSS, and leave it at  
8 that.

9 Q. Is it fair to say that the representatives  
10 from the States regarding this augmentation provision  
11 placed a lot of reliance on the approval process at the  
12 RRCA to go through these plans?

13 MR. WILMOTH: I'm going to object, Your  
14 Honor. With respect to the representatives from the  
15 States, I object to the nature of that question. To the  
16 extent he wants to ask Mr. Barfield, that's fine, but I  
17 don't think Mr. Barfield can characterize what any of  
18 the other State representatives did or relied on.

19 ARBITRATOR FEREDAY: I agree, Mr. Wilmoth,  
20 that Mr. Barfield cannot testify to what the other  
21 States had in their representatives' minds. But if he  
22 has information about what other States said or did, he  
23 certainly can testify to that.

24 Q. (By Mr. Griggs) With that --

25 A. Well, I was going to answer with respect

1 to Kansas, in any case, because I feel like the  
2 confidentiality agreement sort of maybe restricts me  
3 from speaking about other States.

4           Yeah, this was -- the augmentation was not  
5 something that -- it was something that was prospective.  
6 It was something that hadn't happened. It was something  
7 that was going to happen in the future. So it was  
8 written generally. And, again, certainly we relied on  
9 the provision that said it required RRCA approval as a  
10 very important provision to let us work those out.  
11 Again, we certainly got it in the record how Simpson's  
12 statement to that effect, which the States, again,  
13 worked out ahead of time -- and he spoke on behalf of  
14 the States.

15           Q.       As did Mr. Patterson from Nebraska, at  
16 that 2003 hearing in front of Special Master McKusick,  
17 correct?

18           A.       He made a statement to that effect as  
19 well.

20           Q.       Thank you.

21                    Mr. Wilmoth also asked you questions about  
22 Nebraska always having to overdeliver augmentation to  
23 get compliance, or it was about the problem with  
24 overdeliveries.

25                    Do you recall that line of questioning?

1           A.       Generally.

2           Q.       Would Nebraska always have to overdeliver  
3 augmentation to get to compliance?

4           A.       Well, I think, as I recall the question,  
5 it was more: Nebraska has to comply. And if it's using  
6 augmentation, it would have to at least overdeliver a  
7 small amount to ensure compliance. So that was -- how I  
8 understood the question and my answer.

9           Q.       But in terms of getting to compliance,  
10 would Nebraska have to rely upon overdeliveries from the  
11 augmentation project?

12          A.       Well, it has a wide variety of means to  
13 compliance. It doesn't have to use augmentation. It  
14 just has to figure out how to get into compliance.  
15 That's just one tool.

16          Q.       Would reducing its consumption be one of  
17 those tools?

18          A.       Well, certainly. I certainly think that  
19 was the main one that was in view when we negotiated the  
20 FSS.

21                   MR. GRIGGS: Your Honor, I'd like to make  
22 one -- with Mr. Barfield's help, I believe there may be  
23 an error of a date in Exhibit K9.

24          Q.       (By Mr. Griggs) If you could turn to  
25 Exhibit K9, Mr. Barfield, on page 3, the last line. You

1 see where it reads "Appendix M requires submission of a  
2 plan containing actions to be provided to the RRCA by  
3 July 1 of the year preceding its first potential use"?

4 A. Yes. I think we corrected this in my  
5 deposition, but we would like to correct it here. Yes,  
6 that should be August 1st.

7 Q. Thank you.

8 Mr. Wilmoth also asked you about  
9 distinctions between reductions and offsets in the  
10 accounting. Do you remember that line of questioning?

11 A. I do.

12 Q. Can there be differences, in terms of  
13 their effects, in the hydrology of the basin between  
14 reductions and offsets?

15 A. Yeah. My comment and my response was  
16 specific to the effect within the Tables 3, 4, 5, the  
17 compliance tables. And I think I said the physical  
18 effects and the ways to quantify them would be  
19 different.

20 Q. Would you need to quantify those  
21 differences to stand by your position?

22 A. Yes.

23 Q. One last question: Is groundwater  
24 mentioned in the Republican River compact?

25 A. In the compact document itself?

1 Q. Yes.

2 A. I'd have to read it, but the principal  
3 phraseology is speaking about the virgin water supply  
4 and the water supply of the basin. I'd have to read it  
5 to go back and see. Certainly the Supreme Court has  
6 held that groundwater's effect -- that groundwater is a  
7 part of the water supply of the basin, and its impacts  
8 to the surface flow was considered.

9 Q. Thank you. I lied, I do not have one last  
10 question.

11 Regarding your Rock Creek report, do you  
12 need to quantify the baseflow effects going forward to  
13 stand by that report?

14 A. I'm going to need a little more help on  
15 your question.

16 Q. Do you need to quantify -- let me just  
17 take a brief break and go back to Mr. Wilmoth's  
18 question.

19 To rehabilitate my honesty, that was my  
20 last question.

21 ARBITRATOR FEREDAY: Thank you,  
22 Mr. Griggs. I'm very relieved.

23 Counsel, any further questions of this  
24 witness?

25 MR. WILMOTH: I have just a couple.



1 Q. If you use that table and it shows  
2 Nebraska is in compliance, why do you care which one is  
3 done?

4 A. Well, again, within the table, it's the  
5 same, but sort of getting to the table and the physical  
6 effects of augmentation and ensuring that it's accounted  
7 for properly is the issue.

8 Q. But if Nebraska is in compliance using  
9 those tables, why do you care how they get there? Are  
10 you asserting you're entitled to something more than  
11 that?

12 A. No.

13 Q. So you don't care?

14 A. Well, I'm saying, for purposes of  
15 Table 3C, that all credit, I assume, would be a credit.  
16 Like an augmentation credit would be the same with  
17 respect to Table 3C, that an imported water supply would  
18 have the same effect.

19 Q. So do you care whether Nebraska reduces  
20 CBCU or offsets it, as long as that table balances?

21 A. Well, if the table balances, then -- if  
22 the augmentation plan is approved by the RRCA and the  
23 accounting is done pursuant to that, we would not have a  
24 say in terms of which way Nebraska gets to compliance.

25 MR. WILMOTH: Thank you. Nothing further.

1 ARBITRATOR FEREDAY: Anything further?

2 MR. GRIGGS: No, Your Honor.

3 ARBITRATOR FEREDAY: Are there any more  
4 witnesses?

5 MR. GRIGGS: No, Your Honor.

6 MR. WILMOTH: No, Your Honor.

7 ARBITRATOR FEREDAY: This hearing has been  
8 completed in slightly less than two days, it looks like.

9 Okay. We have some evidentiary  
10 organizational issues to go over. And I think,  
11 Mr. Lavene, you may have a presentation on that for us.

12 MR. LAVENE: Yes. Mr. Arbitrator, again,  
13 we had the discussions that were off the record a while  
14 back regarding references and citations in the expert  
15 reports of James Schneider, Dr. James Schneider, at  
16 N20020 and N25000. These were documents that were  
17 referenced in those reports. The information was  
18 provided to the Arbitrator, and I was able to confirm  
19 that these documents that were listed in the  
20 bibliography and the appendix were also provided to the  
21 other States via an FTP on July 26th, the date of filing  
22 of the expert reports.

23 Nebraska did intend to include those  
24 documents as exhibits in this arbitration. As I stated  
25 previously to you off the record, that was something

1 that we did not accomplish for the proceeding today.

2           When counsel and the Arbitrator were  
3 talking off the record, I believe -- and correct me if  
4 I'm wrong -- that since Nebraska would like to have the  
5 opportunity to have these documents entered as evidence  
6 in the record, that Nebraska will take the information  
7 that was referenced in the reports and put an exhibit  
8 stamp on them, provide that information to the other  
9 States, update the exhibit lists with the corresponding  
10 numbers of these documents, allow the other States to  
11 review that. And then upon that review, if they're okay  
12 with it, we'll then submit that information to you.

13           As I stated before, we would offer these  
14 documents as evidence into the record. I believe that  
15 that's something that we could accomplish probably by  
16 the end of next week, by next Friday, to be able to get  
17 those full documents exhibit-stamped and get the exhibit  
18 list and everything updated. And that would be by the  
19 end of the day on September -- probably September 6th.

20           I believe we also had a conversation that  
21 since Nebraska is being allowed to do that, that if the  
22 other States would like to include their references  
23 and -- from their expert reports, that they would also  
24 have that opportunity to do that.

25           We had fairly good coordination last time,

1 I believe, that if Kansas and Colorado wished to do  
2 that, they would also be exhibit-stamping those  
3 documents, references in those reports, and providing  
4 the updated numbers into the exhibit list. Once we get  
5 that complete, we'll then provide that to you as being  
6 evidence and exhibits for this arbitration.

7 ARBITRATOR FEREDAY: So, Mr. Lavene, that  
8 would be provided to me, a States' amended joint exhibit  
9 list, if you will. That would include not only the  
10 exhibits that we've been through in this hearing, but  
11 also those which you term a bibliography or appendices  
12 that were produced before that were referenced in  
13 testimony or in expert reports in this matter?

14 MR. LAVENE: Yes, sir.

15 ARBITRATOR FEREDAY: That makes sense to  
16 me, and that's in line with the conversation we had off  
17 the record. And I'd like for Kansas and Colorado both  
18 to respond to this idea.

19 MR. GRIGGS: Yes, Your Honor. Kansas is  
20 supportive of that, and the description by Mr. Lavene  
21 and yourself is fully acceptable.

22 MR. STEINBRECHER: It's also acceptable to  
23 Colorado.

24 ARBITRATOR FEREDAY: Thank you,  
25 Mr. Steinbrecher.

1 MR. LAVENE: I did have one additional  
2 issue. It appears that when we were gathering up the  
3 exhibits for -- when the State of Nebraska was gathering  
4 the exhibits for the joint, Nebraska's and Colorado's,  
5 for some reason, one of the exhibits that was referenced  
6 in Dr. Schneider's report and that we actually utilized  
7 here, discussed just a moment ago, did not get on the CD  
8 of information that was provided to you.

9 I don't believe it was with the other  
10 States either, for some reason. That was  
11 Exhibit N20029. That was the USGS report. I would also  
12 offer that, when we get these amendments and these new  
13 exhibits done, we will include that in the information  
14 that's provided to you so that you have a complete set  
15 of that.

16 ARBITRATOR FEREDAY: Thank you,  
17 Mr. Lavene. I assume that's acceptable to the parties.

18 MR. GRIGGS: Yes.

19 MR. STEINBRECHER: Yes.

20 ARBITRATOR FEREDAY: Just to summarize, as  
21 I understand it, by the end of next week, the parties  
22 and I will be receiving electronically, either through  
23 an FTP site or on a disk, maybe both, a new complete  
24 exhibit list, which will name -- which will name all of  
25 documents that were referred to in this hearing and

1 all -- including references in expert reports. So we  
2 may not have actually talked about the document here in  
3 this hearing, but it will be part of this record. That  
4 is understood.

5           And, by the way, this, I believe, arose  
6 because of my concern having received from Nebraska a  
7 long list of documents which were, I understand, deemed  
8 appendices to the expert reports that Nebraska had. And  
9 they were quite voluminous. Some of them were documents  
10 that we've seen here; some were not. And I take it that  
11 there will be an effort made to cull from that list any  
12 documents that were neither referenced in testimony here  
13 or referenced in an expert report. So I will be getting  
14 a new list there as well.

15           I also just will observe that the parties,  
16 I believe, have had no real objection to the  
17 authenticity or relevance, at least in the most general  
18 sense of the term, of any of these documents. Some of  
19 them are purely background documents for what has been  
20 going on between these parties, perhaps in other  
21 matters, but were referenced here. So I understand that  
22 the parties have no disputes about these documents.

23           Okay. That's good with respect to what  
24 I'll call the appendices documents.

25           Now, that leaves still a number of

1 documents on the parties' joint exhibit list that was  
2 submitted to me that have not been specifically  
3 referenced or provided -- well, they've been provided.  
4 They're in these binders. But they haven't been  
5 specifically referenced in the testimony or, to my  
6 knowledge, in the expert reports. And I'd like to know  
7 how you want to handle those.

8 I also note that Kansas has lodged  
9 objections primarily based on hearsay as to a number of  
10 these. I'm looking, for example, at N26004, which is a  
11 letter from Kansas Bostwick Irrigation District to  
12 Nebraska regarding new releases from Hardy.

13 What do the parties wish to do about these  
14 documents, which are in these binders, which are  
15 numbered, were provided to me, but which just haven't  
16 been referenced in this hearing?

17 MR. GRUNEWALD: If I might, since it was  
18 Kansas's objection, I'll start, and Nebraska and  
19 Colorado can respond.

20 My review of the record so far is that all  
21 of these exhibits that are listed as an N26 series, if  
22 you will, which are the ones that we had lodged a  
23 hearsay objection to, I can't find a reference to those  
24 in the direct testimony or the expert reports. I don't  
25 believe any of these documents have been talked about in

1 the two days of testimony here. So my expectation would  
2 be that it would fall into the category that the  
3 Arbitrator had mentioned, that it falls off the list.  
4 That's my understanding. Obviously, if Nebraska has a  
5 different understanding, then we can clarify.

6 We would stand by our objection to the  
7 extent that these are correspondence that involved  
8 personnel from the Kansas Bostwick Irrigation District  
9 or the United States Bureau of Reclamation. Those  
10 people didn't testify here. To the extent that that  
11 information is being offered for the truth of what they  
12 said or believed, we think it would be inappropriate. I  
13 guess I'd look to the other States at how they want to  
14 handle it from here.

15 ARBITRATOR FEREDAY: Thank you. Any  
16 further comment on these? Mr. Lavene.

17 MR. LAVENE: I guess I would just say some  
18 of these documents, with regard to the K bib, were  
19 included. At one point in time during this arbitration,  
20 Mr. Kenny Nelson, who is the manager of Kansas Bostwick  
21 Irrigation District, was actually listed as a fact  
22 witness in this arbitration. He was actually pulled  
23 from this case the night before our deposition of him.

24 A lot of these documents, I think, were  
25 somewhat for rebuttal purposes. I know that from N2600,

1 basically, through N26012 --

2 ARBITRATOR FEREDAY: Excuse me, that would  
3 be N26000?

4 MR. LAVENE: Yes, N26000 through N260012,  
5 to my recollection, were not stated or cited on  
6 anybody's direct testimony, expert reports, or  
7 otherwise.

8 I guess maybe Nebraska would like an  
9 opportunity just to confirm that it was not referenced  
10 or cited in one of the reports. But, otherwise, since  
11 it was not utilized during this proceeding, then I don't  
12 think we'd have any objection to simply not having that  
13 in the record.

14 ARBITRATOR FEREDAY: Thank you. What  
15 about N25004 and 005? Those, I think, maybe -- I think  
16 those are clearly within the scope of the appendices  
17 that would be included, but I don't have them marked on  
18 my sheet.

19 MR. LAVENE: Mr. Fereday, I believe they  
20 were, at least according to our records, those two  
21 documents, N25004 and N25005, were cited in  
22 Dr. Schneider's expert report on alternative water-short  
23 year. So as we said before, I would think that would  
24 be --

25 ARBITRATOR FEREDAY: Okay.

1 MR. LAVENE: -- exhibits. And since they  
2 were referenced in an expert report, that those would be  
3 allowed in as evidence.

4 ARBITRATOR FEREDAY: And I assume that  
5 others that I don't have marked would fall into the same  
6 category. I'm just picking one here, 20027, letter from  
7 Kansas regarding the draft agenda for RRCA work.

8 MR. LAVENE: That would have been in  
9 Dr. Schneider's expert response in the Rock Creek  
10 augmentation at N200020.

11 ARBITRATOR FEREDAY: Then what it sounds  
12 like is that these two lists have now kind of merged;  
13 that is, the joint list here and what I call the  
14 appendices list. They are going to be evaluated by the  
15 parties, and those items which were referenced in  
16 testimony or in a report will be on that list of  
17 exhibits that you will provide on the FTP site or by  
18 disk.

19 Mr. Steinbrecher.

20 MR. STEINBRECHER: Before we get too far  
21 into that, I just wanted to note that both Colorado and  
22 Kansas have reserved the right to object to -- or,  
23 excuse me, Colorado and Nebraska have reserved the right  
24 to object to some of Kansas's exhibits. Colorado still  
25 maintains objections to at least four of the Kansas

1 exhibits. I want to make sure that Kansas is aware, as  
2 we are compiling these, that that is stated on the  
3 record.

4 In particular, we have hearsay objections  
5 to K17, which is an application for the change of water  
6 rights filed in Colorado. K18, which is an application  
7 for an augmentation plan from March 2008, filed with the  
8 Republican River Water Conservation District. K19  
9 appears to be a letter from James Slattery to Randy  
10 Hendrix. And last is K24, an expert report of James  
11 Slattery. It appears to be in relation to Colorado's  
12 previous CCP proposal.

13 Like I say, the nature of our objection is  
14 the same as Kansas's to some of Nebraska's exhibits. To  
15 the extent those haven't been referred to in a report or  
16 testimony, we ask that they not be included here. To  
17 the extent that they have been referred to, we would ask  
18 that the Arbitrator look to them for what they are and  
19 understand that they are hearsay. None of those people  
20 who authored those reports, those applications, or that  
21 correspondence was here to testify, and it should all be  
22 taken as hearsay.

23 ARBITRATOR FEREDAY: Thank you,  
24 Mr. Steinbrecher.

25 MR. GRUNEWALD: Mr. Arbitrator.

1 ARBITRATOR FEREDAY: Yes. Just a minute.  
2 Those exhibits, this is the first I've heard that there  
3 would be objections to them.

4 But go ahead, Mr. Grunewald.

5 MR. GRUNEWALD: I'm happy to wait. I just  
6 wanted to make sure -- I can trim that list in part, if  
7 that would be helpful.

8 ARBITRATOR FEREDAY: That would be  
9 helpful.

10 MR. GRUNEWALD: In reference to the four  
11 exhibits -- and I want to make sure I've got the right  
12 ones -- that's K17, K18, K19, and K24?

13 MR. STEINBRECHER: Correct.

14 MR. GRUNEWALD: Of those exhibits, K18 and  
15 K19 were referred to in the direct testimony of  
16 Dale Book. My notes show that K17 and K24 haven't been  
17 referred to. And so we'll be withdrawing those exhibits  
18 and they can fall off the list. So the only exhibits  
19 we're really dealing with here would be K18 and K19.

20 I guess I'd offer, in response to  
21 Mr. Steinbrecher's comments and his objection, that with  
22 respect to K18, it is in fact the State of Colorado's  
23 augmentation proposal. And Mr. Wolfe is the head of the  
24 State of Colorado's water agency; he was a part of that  
25 proposal. He affirmed that on the stand. And I don't

1 believe a hearsay objection would be properly founded  
2 for that particular exhibit.

3                   We understand that the Arbitrator has  
4 concerns about ascribing particular weight to things  
5 that are outside this proceeding. So we understand the  
6 Arbitrator will ascribe it the weight he feels it  
7 deserves.

8                   And with respect to item K19, again, we  
9 heard from Mr. Wolfe that he was in charge of the  
10 consultants and everyone that prepared the work related  
11 to these plans; and that memo does relate to it. Again,  
12 we're only offering it for the weight that it deserves.  
13 Our understanding, from the way the proceedings were  
14 being conducted, is that the exhibits are going in and  
15 you're going to do the weight.

16                   ARBITRATOR FEREDAY: Thank you,  
17 Mr. Grunewald. Mr. Steinbrecher.

18                   MR. STEINBRECHER: I don't know that it's  
19 that important, but I disagree with Mr. Grunewald's  
20 characterization of whether or not K18 is hearsay or  
21 not. It's certainly a statement that was not made on  
22 the stand by a witness. And I think that's all we need  
23 to know.

24                   ARBITRATOR FEREDAY: Okay. As to 17 and  
25 24, K17, K24, those will not be included in the master

1 list, the jointly -- the amended joint exhibit list. As  
2 to 18 and 19, those will be. And as to hearsay, I think  
3 at least K18 would survive a hearsay objection,  
4 Mr. Steinbrecher, and probably No. 19 as well, depending  
5 on how it was used and kept. It might be a business  
6 record.

7 In any event, I understand that those  
8 documents go to the question of how Colorado treats  
9 augmentation plans and what restrictions are placed on  
10 them. And I'm somewhat familiar with that. So, indeed,  
11 it will go to -- they'll come in, but it will go to the  
12 weight.

13 MR. GRUNEWALD: Mr. Arbitrator, if I might  
14 add one.

15 ARBITRATOR FEREDAY: Yes.

16 MR. GRUNEWALD: Again, with respect to  
17 hearsay, I won't pretend to be an expert on it, but  
18 Colorado is a party. And I believe an admission of a  
19 party is not hearsay. We would offer that additional  
20 support.

21 ARBITRATOR FEREDAY: Right. That's why I  
22 said that I think it would survive a hearsay objection.

23 Okay. There are a number of similar  
24 documents here in which Kansas has raised objections, as  
25 I've said before. I guess I'm inclined at this point to

1 deny all of those objections, in large part, for the  
2 reasons that are set out in your arbitration agreement.  
3 I don't see me excluding these. And I will have to look  
4 at them and determine what I think of their -- well,  
5 their relevance or their weight. And certainly seeing  
6 the objection will flag that for me.

7 MR. GRUNEWALD: And I apologize, I just  
8 was hoping for some clarity. All I'm aware of in terms  
9 of objections are the ones -- the whole category that we  
10 discussed here with Mr. Lavene. I'm not aware of any  
11 other ones that we've lodged objections to. We reserve  
12 the right to object to the video narrative. We have no  
13 objection to those two exhibits. So I just wanted to  
14 make sure -- or any others that you thought we were  
15 objecting to. It's simply that series that we  
16 discussed.

17 ARBITRATOR FEREDAY: Okay. Thank you. So  
18 am I correct in assuming that when I receive the amended  
19 joint list, that that's it? Those are the exhibits?  
20 They will be the ones that are, for the most part, with  
21 the exceptions that have been noted, on the current  
22 joint list. They will also be the ones, for the most  
23 part, that were on the bibliography or appendix list  
24 that was sent out earlier to the States and to me. But  
25 the parties will endeavor to consolidate and cull these

1 two lists to provide only those documents that were  
2 referred to in testimony or in expert reports.

3                   Everybody agree that's --

4                   MR. LAVENE: That's the best  
5 understanding.

6                   ARBITRATOR FEREDAY: Thank you very much.  
7 Is there anything else to go over?

8                   MR. WILMOTH: I just want to say, for the  
9 record, Nebraska, and I'm sure Kansas, appreciates the  
10 hospitality we've received from the Colorado Attorney  
11 General's Office and all the staff involved in helping  
12 us move this along.

13                   ARBITRATOR FEREDAY: I would like to say  
14 the same on the record. Thank you very much,  
15 Mr. Steinbrecher, and to all of your colleagues and  
16 staff here. It's been a very smooth operation. I very  
17 much appreciate it. Thank you to all of you. This  
18 hearing is now closed.

19                   (WHEREUPON, the proceedings were  
20 concluded at 4:49 p.m.)

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CERTIFICATE

STATE OF COLORADO )  
 )ss.  
CITY AND COUNTY OF DENVER )

I, Jana Mackelprang, Certified Realtime Reporter, Registered Professional Reporter, and Notary Public for the State of Colorado, do hereby certify that this trial was taken in shorthand by me and was reduced to typewritten form by computer-aided transcription, that the foregoing is a true transcript of the questions asked, testimony given, and proceedings had.

I further certify that I am not an attorney nor counsel nor in any way connected with any attorney or counsel for any of the parties to said action or otherwise interested in its event.

IN WITNESS WHEREOF, I hereunto affix my hand and notarial seal this 31st day of August, 2013. My commission expires January 24, 2016.

\_\_\_\_\_  
Jana Mackelprang  
CRR, RPR, Notary Public  
Calderwood-Mackelprang, Inc.