
IN RE: NON-BINDING ARBITRATION PURSUANT TO THE FINAL
SETTLEMENT STIPULATION, KANSAS v. NEBRASKA and COLORADO
No. 126 Original, U.S. Supreme Court

TRANSCRIPT OF ARBITRATION PROCEEDINGS

before

KARL J. DREHER, ARBITRATOR

Thursday, March 12, 2009

VOLUME IV

BE IT REMEMBERED that the above-entitled matter came on
for Arbitration before KARL DREHER, Arbitrator, held at
Byron Rogers Building, 1929 South Street, Room C-205,
Denver, Colorado on the 12th day of March, 2009.

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1 March 12, 2009 - THURSDAY Pages 612-808 VOLUME 4

2 WITNESSES: PAGE

3 Called by Kansas:

4 DAVID L. POPE:

5 Direct by Mr. Draper..... 619
6 Cross by Mr. Ampe..... 682
7 Cross by Mr. Wilmoth..... 684
8 Redirect by Mr. Draper..... 710

9 DAVID W. BARFIELD::

10 Direct by Mr. Draper..... 717
11 Cross by Mr. Wilmoth..... 743

12

13 Called by Nebraska

14

15 JAMES WILLIAMS:

16 Direct by Mr. Wilmoth..... 761

17

18

19

20

21

22

23

24

25

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

EXHIBIT INDEX

KANSAS EXHIBITS: Admitted

6	Barfield Expert Report:	760
16	CV: David W. Barfield, P.E.	760
31	Transcript, Hearing before Special Master McKusick, Jan. 6, 2003	716
40	CV: David L. Pope	716
56	Letters dated Nov. 3, 2007 from Robert K. Patterson to each of the four Republican NRDs	716

NEBRASKA EXHIBITS:

22	44th Annual Report of RRCA	716
23	Drawing: Application of Crediting	760
24	Excerpt of Deposition - Barfield	760

1 PROCEEDINGS

2 ARBITRATOR DREHER: Good morning. This is
3 the fourth day of the hearing in the Nonbinding
4 Arbitration involving the Final Settlement Stipulation
5 and Consent Decree in Kansas vs. Colorado and Kansas vs.
6 Nebraska and Colorado.

7 And we're ready to proceed with your next
8 witness, Mr. Draper, but before you do, I do want to
9 express my interest in events post-December 15, 2002.

10 You know, I have obviously read at length
11 the Special Master Reports and other background
12 information, and I think for what we're trying to get at
13 in this part of the hearing -- in other words, future
14 compliance -- I'm really not interested in a litany of
15 the history prior to December 15, 2002.

16 So with that, you may call your next
17 witness.

18 MR. DRAPER: Thank you, Your Honor.

19 I would like to begin by reporting on a
20 communication I got back from the Bureau of Reclamation
21 with regard to the testimony of their witnesses.

22 Our proposal was accepted; in other words,
23 they have agreed to our proposal that we take the
24 depositions of Mr. Swanda and Mr. Thompson on the 7th of
25 April. They would like to do that in Grand Island,

1 Nebraska. They are also agreeable to our proposal that
2 a week later, on the 14th of April, that they will
3 provide those witnesses here in Denver for a
4 supplemental day of hearing in this arbitration.

5 And we're checking with the court -- I
6 think Sam is -- to hopefully confirm that this room --
7 this courtroom again is available for that day.

8 They have indicated that having the
9 deposition at the Bureau offices in Grand Island would
10 be acceptable to them. And I told them we probably
11 needed a conference room that would accommodate at least
12 ten people. I'm sure not all of us will make it up
13 there, but some of us will.

14 And so it looks like that is going to come
15 together along the lines that we proposed to the Bureau
16 on behalf of the States. And we also mentioned your
17 willingness to come up and, so they're happy to come
18 down here for the day of the hearing and accommodate us
19 in Grand Island on the 7th for deposition.

20 ARBITRATOR DREHER: Okay. On that April 14
21 day, then, that's also when you would make your closing
22 statements then at that point?

23 MR. DRAPER: Yes, yes, I think that's a
24 good -- will be a good part of that.

25 And I think I will also state for the

1 record, if we haven't already, counsel have agreed, and
2 I think with your concurrence, that we will move the
3 deadline for us to submit posttrial briefs back one
4 week. It had been -- those briefs were due at the end
5 of the week of what is now going to contain the
6 supplemental hearing day, and we're going to move that
7 back one week, with your permission.

8 ARBITRATOR DREHER: Sure, that's fine with
9 me. I would like to get, though, the supporting records
10 for the accounting that was done by Mr. Book and -- is
11 it Mr. Groff --

12 MR. BLANKENAU: Correct.

13 ARBITRATOR DREHER: -- for Nebraska,
14 because I would like to start in to my analysis of that
15 as soon as possible. And, hopefully, if this all works,
16 I don't intend to move my deadline a week.

17 MR. DRAPER: That's what we were sincerely
18 hoping for, yes. Very good.

19 MR. WILMOTH: On the hearing, I assume
20 that -- is that just going to be a half-day hearing?
21 This is still coming out of Kansas' direct case on the
22 compliance, I assume. This isn't a full-day hearing.

23 ARBITRATOR DREHER: Well, it could be a
24 full-day, depending upon how long you take for your
25 closing statements, but it would not be a full day of

1 testimony and cross and redirect of the Bureau
2 witnesses.

3 MR. WILMOTH: Very good.

4 ARBITRATOR DREHER: I wouldn't think it
5 would be a full-day testimony and cross. You look a
6 little perplexed.

7 MR. DRAPER: Well, we hadn't talked about
8 putting some time limit on it, but we would certainly
9 take a look at that and see what might be appropriate.

10 I would think between this testimony and
11 whatever cross the parties want to make and the closing
12 statements, it could take a whole day. I think we
13 should reserve that.

14 MR. WILMOTH: I don't think we need to put
15 a time limit on it. I just want to make clear, for the
16 record, that this comes out of Kansas' direct case time.
17 It's not on top of that, in other words, that we spend
18 today?

19 MR. DRAPER: Right. We are the ones who
20 are calling these witnesses, so there is something to
21 what Mr. Wilmoth says. This may allow us to finish a
22 little earlier during this two-week trial segment that
23 we had planned. We are currently ahead of schedule and
24 we may finish a little early. So our whole trial time
25 may not exceed the two weeks in the end.

1 ARBITRATOR DREHER: Please proceed.

2 MR. DRAPER: All right. Thank you, Your
3 Honor.

4 I would now like to call our next witness
5 in this segment and in accordance with the hearing
6 outline. He is Mr. David Pope. Please ask Mr. Pope to
7 come to the stand.

8 ARBITRATOR DREHER: Good morning, Mr. Pope.
9 It has been a while since we have seen each
10 other.

11 THE WITNESS: That's right.

12 Good to see you again.

13 DAVID L. POPE,

14 having been first duly sworn, was examined and testified
15 as follows:

16 DIRECT EXAMINATION

17 BY MR. DRAPER:

18 Q. Good morning, Mr. Pope.

19 A. Good morning.

20 Q. Please state your full name and your
21 current professional position and address for the
22 record.

23 A. My name is David L. Pope, 825 South Kansas
24 Avenue, Suite 500 in Topeka, Kansas. I'm currently a
25 water and natural resources consultant and for Pope

1 Consulting, LLC.

2 Q. Thank you.

3 Do you have with you a copy of Kansas
4 Exhibit 40?

5 A. Is that my CV?

6 Q. That's your CV.

7 A. Yes, I do.

8 Q. Referring to your CV, would you briefly
9 describe your background, particularly as it relates to
10 this present proceeding.

11 A. Yes. Well, I have a total of 37 or 38
12 years of experience working in water management, water
13 administration and various aspects throughout the course
14 of my career. I spent 24 years as Kansas chief engineer
15 where I had responsibility for the administration of a
16 series of laws related to the conservation management,
17 use and control of water and water courses in Kansas.
18 Those were statutorily assigned duties to the position
19 of chief engineer.

20 I also, in that capacity, represented the
21 State on each of its Interstate River Compact
22 Administrations and, of course, the Republican River
23 Compact Administration was one of those.

24 Q. And briefly what was your particular
25 involvement with the Republican Basin?

1 A. Well, I -- for many years -- and I won't
2 dwell on the past, given Mr. Dreher's comments -- but,
3 of course, I was involved in the various activities
4 related to the administration of the Republican River
5 Compact for -- throughout the course of my career in
6 various issues and disputes that have been dealt with.

7 More particularly, one of the
8 responsibilities I had was during the course of the
9 litigation that was filed, I think, in 1998 in the case
10 of Kansas vs. Nebraska and Colorado. I was involved, of
11 course, significantly in helping our effort there to
12 pursue that litigation.

13 When the settlement discussions were
14 initiated, then I was deeply involved in that process
15 and led the Kansas settlement team as a part of that
16 effort that culminated in the approval of the Final
17 Settlement Stipulation and the subsequent actions that
18 led to the court decree.

19 In the course of my involvement with the
20 settlement discussions, of course, I worked with other
21 people in the team that Kansas had assembled, many of
22 which are here today, but certainly including
23 Mr. Barfield, Mr. Book, Mr. Draper. The guy named
24 Leland Rolfs, who is not with us today, was my chief
25 legal counsel. There were also others that were

1 involved in that issue. Mr. Larson was involved in much
2 of the modeling work, as was Mr. Book. And so the --
3 that team of people were, of course, then involved in
4 that endeavor.

5 I guess I would -- I would also say a part
6 of my responsibility during that time period was, in
7 essence, the liaison back home. I briefed and kept
8 informed the Governor and the Attorney General, and to
9 the extent allowed under the confidential provisions,
10 other public officials that have an interest in this
11 matter and certainly briefed them and made
12 recommendations to them in regard to the approval of the
13 FSS.

14 Q. Did the final hearing in that process take
15 place in the building next to this one?

16 A. Yes, it did, as a matter of fact. We met
17 with the Special Master, Mr. -- Judge McKusick, and
18 briefed him during, I believe it was early January,
19 maybe the 6th or so of January of 2003 and at that time
20 presented, in essence, the work product from the
21 settlement process, which, of course, was the FSS and
22 all of its associated appendices and documents that made
23 the total package.

24 That was a formal hearing in the sense that
25 it was recorded, but it was not a traditional

1 question-and-answer-witness-type activity. But each of
2 the three state engineers that had been essentially the
3 leads for their teams, myself for Kansas, Hal Simpson
4 for Colorado, and Roger Patterson, at that time, for
5 Nebraska provided much of the briefing to the Special
6 Master and, of course, counsel for the States and for
7 the United States also were there and provided comments
8 and views in regard to the settlement in support for its
9 approval and each of us responded to questions, both
10 counsel and the engineers and others that were called
11 upon.

12 Q. I would like to direct your attention to
13 what has been marked as Kansas Exhibit 32. Do you have
14 a copy of that exhibit?

15 A. I do. Would you provide the name to make
16 sure I have the right one. My aren't numbered. Is that
17 the transcript?

18 Q. This is the transcript of the hearing
19 before Special Master McKusick.

20 A. Yes, I have that. Thank you.

21 Q. And what is the date shown on the front of
22 that exhibit?

23 A. It makes reference to the hearing being
24 held January 6, 2003 hearing in Denver.

25 ARBITRATOR DREHER: Which exhibit number,

1 Mr. Draper?

2 MR. DRAPER: I'm sorry. It's --

3 MR. WILMOTH: I think it's 31.

4 MR. DRAPER: -- Exhibit 31.

5 Q. (BY MR. DRAPER) Does this contain the
6 testimony that you were just referring to?

7 A. Yes, it is. Or, yes, it does.

8 Q. What were your responsibilities after the
9 entry of the Decree which took place based on this, if I
10 recall correctly?

11 MR. WILMOTH: Excuse me, John. We can't
12 seem to locate a copy of that. Do you have an extra
13 copy?

14 Thank you. Are you looking at a particular
15 page?

16 MR. DRAPER: Not unless Mr. Pope has any
17 particular passage that he would like to call our
18 attention to.

19 A. I would -- I would probably not necessarily
20 take the time to go through a number of individual
21 passages, but I would suggest to Your Honor that this is
22 a document that I found quite helpful to provide an
23 explanation of the parties in terms of what they believe
24 was contained within the Settlement, the FSS, and
25 provided a direct presentation in that regard.

1 So this is, actually, in the words of the
2 three state engineers and the counsel for the parties at
3 that time on a contemporaneous basis. I think you would
4 find it as useful reading and helpful in regard to some
5 background that led to the reports of the Special Master
6 that you have read and that you made reference to this
7 morning.

8 There are passages in the report that talk
9 about the accounting that talk about the multiyear
10 averages, periods for compliance that are referred to in
11 the -- in the document. There essentially is a
12 description of each of the provisions of the FSS that
13 were described and the responsibility to describe those
14 provisions were essentially shared by the three state
15 engineers.

16 So it would include the reasons for the
17 multiyear periods, the tradeoffs that occurred between
18 the states in regard to what was agreed to and why for
19 certain periods, including the five-year periods for
20 normal compliance and the two-year or three-year, if
21 invoked; but the two-year, let's describe as the
22 water-short year compliance periods that then involved a
23 two-year period to determine whether or not compliance
24 has occurred.

25 Of course, there is reference to the

1 implementation schedule so that the -- it's very clear
2 in this transcript, as well as, I believe, in the FSS,
3 that the parties had agreed to do annual accounting
4 beginning in 2003 after the effective date that became
5 effective for the year 2003. And that annual accounting
6 would be done for each of the successive years. So your
7 first compliance period, of course, for the normal
8 compliance, 2003 through 2007 and then, of course, each
9 successive five-year running period, 2004 through 2008,
10 et cetera, et cetera.

11 In addition, there were descriptions of the
12 implementation schedule that meant that the first
13 water-short year compliance was known as Water
14 Short-Year Compliance 2006, which, of course, as
15 determined in the FSS is really a two-year period of
16 2005-2006.

17 So with the annual accounting that is done,
18 that is required to be done -- notwithstanding the fact
19 that there are some disputed issues, of course, here --
20 that provides any value for each of those two years in
21 terms of how much water was consumed compared to the
22 adjusted allocations.

23 And one can then determine whether the
24 average for that two-year period or the five-year period
25 in question is a positive number or is a zero.

1 If it's a negative number, then, of course,
2 you would have the values in terms of how much overage
3 there really was for each of the years in that sequence.

4 So I believe the clarity is between the FSS
5 and the accounting procedures themselves and the various
6 other documents and the explanations here, I think, is
7 there.

8 The transcript also gives some description
9 of the determinations that were made by the parties in
10 regard to the -- some of the disputed issues that had
11 been -- had been in question in the litigation and
12 matters that had been defined and set for determination
13 by the Special Master, but that had not yet been
14 determined during the pendency of the stay associated
15 with the settlement.

16 And some of those items related to how
17 water could be used between subbasins within the Compact
18 area and the tradeoffs that were made between the
19 parties.

20 It's very clear, in my reading of the
21 transcript, that the parties found the package that had
22 been negotiated by the parties to have recognized all of
23 the different tradeoffs that took place between the
24 parties; that one party would have agreed to a certain
25 item that maybe wouldn't have been the position that

1 they had taken or had taken in the litigation, but yet
2 they were willing to have some give and take. Other
3 parties, in turn, provided agreement on certain other
4 aspects, but it was a package. It was a total package.

5 And, in fact, the attorney for the U.S.,
6 Sarah Himmelhoch, described, of course, the importance
7 of the severability clause in the FSS because of the
8 fact that this was such a package of provisions that
9 related to the requirements for accounting, the
10 requirements for compliance, the RRCA Groundwater Model,
11 the RRCA accounting procedures and those things that had
12 been, then, ultimately approved by the RRCA itself as
13 rules and regulations of the body on a unanimous basis.

14 And so my comment simply, without going in
15 further detail on this, unless there are questions, is
16 to suggest that this might be helpful to look at.

17 ARBITRATOR DREHER: Mr. Draper, could I ask
18 a few questions?

19 MR. DRAPER: Certainly.

20 ARBITRATOR DREHER: Mr. Pope, I have not
21 seen this previously and I presume I can ignore the
22 caption at the top that says "Confidential Excerpt
23 Attorneys Eyes Only." I'm not an attorney.

24 MR. DRAPER: Well, that was a temporary
25 confidentiality situation which was later removed in the

1 litigation.

2 ARBITRATOR DREHER: Okay, all right.

3 Since I haven't read this, let me just ask
4 a few questions.

5 In your recollection of this -- and I'm
6 sure it's quite good because of the hours that you must
7 have spent immersed in this -- was there any discussion
8 as to the significance of what I will call legacy
9 effects of prior groundwater withdrawals?

10 THE WITNESS: I think the answer is yes.

11 Now, I will attempt to distinguish between
12 I think what is explicitly in the transcript here and
13 perhaps the broader questions that took place by the
14 parties.

15 But there is recognition -- I can probably
16 find the provision if I need to here -- of the fact that
17 the groundwater depletions extend beyond a single year.
18 I don't know that I recall seeing in the transcript, you
19 know, the technical details of that in terms of how
20 long; but it is very clear, I believe, that the parties
21 knew and recognized that there were live effect of
22 groundwater depletions and they were fully accounted
23 for.

24 When the RRCA Groundwater Model was
25 constructed and developed, it calculates those for all

1 of the areas in the basin and by subbasin and each area
2 that is accounted for by subbasin. And those depletions
3 are included in that particular year. Whenever they hit
4 the stream, they're accounted. And that, of course,
5 continues in the future.

6 The references here are largely in the
7 context of that being one of the reasons that the
8 parties agreed to the multiyear averages, recognizing
9 that groundwater depletions do not fall within a single
10 year.

11 Now, it was not stated here -- and I'm not
12 inferring in any way -- that those groundwater
13 depletions are limited to a two-year period or a
14 five-year period. There is nothing in my recollection
15 that infers that. They go on for however long they go
16 on. And there is evidence in the case about how long
17 that is and things of this nature.

18 So I hope that answers your question. I
19 don't think you will find detailed technical analysis of
20 that in this.

21 ARBITRATOR DREHER: I wasn't thinking of
22 detailed technical analysis, but I was wondering if
23 there was a recognition that these legacy effects could
24 persist for even decades and that, to the extent
25 Nebraska may find itself out of compliance, its dealing

1 with the legacy effects may prove to be challenging in
2 the context of this annual accounting that's going on.

3 THE WITNESS: Yes, that's correct, in my
4 view. And I don't believe there is any surprise --
5 there should be no surprise by anyone in regard to the
6 nature of that, given the knowledge that we had on
7 January 6 of 2003 about how the system operated and the
8 effort that had been put into the development of the
9 RRCA Groundwater Model by the parties on a joint basis.

10 ARBITRATOR DREHER: Now, you mentioned the
11 annual accounting and the time schedule that is set
12 forth. And I have looked at that and that actually
13 played a part in an earlier decision that I made on
14 legal issues.

15 But it's -- at least it seems clear to me
16 that the first year of water-short year administration
17 compliance was 2006. And if one of the issues that has
18 been addressed in a prior segment of this hearing before
19 you were here is the actual amount of overuse in
20 2005-2006, and it probably doesn't surprise you that
21 there is not agreement on that.

22 But, you know, one of the requirements of
23 Nebraska during water-short year administration is that
24 they limit their computed consumptive beneficial use
25 above Guide Rock to sources above Guide Rock.

1 THE WITNESS: Yes.

2 ARBITRATOR DREHER: And I think that
3 that's -- I mean, that is certainly what the agreement
4 says, and that's the way you would do the calculation
5 for 2005, it's the way you would do the calculation for
6 2006, and then you would add the two together and divide
7 by two and you would have your two-year average.

8 But the question, I think, is: Whether or
9 not the calculating the overuse -- alleged overuse above
10 Guide Rock for 2005 is the right number for the
11 shortage, because that requirement was not set forth in
12 the Compact.

13 And I guess the position that I am
14 contemplating taking is that the actual shortages in
15 2006 that occurred are appropriate to look at; but for
16 2005, it seems to me that the shortage that should be
17 considered is not the shortage or the overuse that
18 occurred above Guide Rock, but it should be viewed in
19 the context of the Compact because this Guide Rock
20 limitation was not part of the Compact and it wasn't --
21 you know, it wasn't part of the implementation until the
22 two-year average calculated for 2005-2006.

23 It's not a big deal. It does make a
24 difference of, it appears at this point -- I haven't
25 done -- completed the analysis -- but it appears that it

1 makes a difference of potentially several hundred
2 acre-feet one way or the other, but I was interested in
3 your view of that.

4 THE WITNESS: I appreciate the question and
5 I know these matters are complex.

6 As I understand what you have just said in
7 regard to what you're considering, I would respectfully
8 disagree in regard to the way I understand it's framed
9 in the FSS and defined.

10 The key reason, I believe, that -- I've
11 been trying to react, to understand what you have
12 described here and my understanding of what we agreed
13 to -- the implementation schedule does provide that the
14 first water-short year compliance period is 2006. But
15 you have to keep in mind, in my view, that, by
16 definition, that is 2005-2006.

17 You can't calculate a water-short year
18 period without considering the year before in every
19 case, because it's a two-year period. And so, by
20 definition, you have to have a two-year period.

21 It was, I believe -- I don't have the FSS
22 in front of me and the implementation schedule, but I
23 believe it was fully understood that that period of
24 2005-2006 was the one that would be used for that first
25 application of a water-short year period.

1 So I don't think you want to put so much
2 weight on the fact that it's named "2006" as much as you
3 do in terms of what that means in terms of the period.

4 And remember again, if I can, that we were
5 required to and began the annual computations, starting
6 in 2003. So the requirements and the data for each
7 individual year are in there.

8 Now, each individual year, by itself, is
9 not in or out in terms of compliance; but it provides
10 the critical information in regard to what the adjusted
11 allocation turns out to be and what the beneficial
12 consumptive use is by each of the States for their
13 respective areas and subbasins and the like. So that
14 it's really -- the data is there, the information is
15 there.

16 Then it's a question of determining
17 compliance and to the extent that there is overuse, when
18 you have those -- you know, you have that kind of
19 two-year period and you can get the same answer one of
20 two ways. You can say you have got Item X and you have
21 got Item Y for those two successive years, and you could
22 take the two-year average. Well, the average is, of
23 course, an average per year.

24 The other way you can get the same exact
25 result is summing up the results, positive or negative,

1 from the two years.

2 Now, damage -- using those values for
3 damages is a different question in regard to what was
4 the overuse in what period, which year; but I don't
5 think that was your question at this point.

6 ARBITRATOR DREHER: Well, but that is the
7 purpose for doing these computations for 2005, is to
8 look at the damages. And maybe to better --

9 THE WITNESS: I'm sorry.

10 ARBITRATOR DREHER: That's okay.

11 -- maybe to better describe the way I'm
12 viewing this, let's construct a hypothetical for the
13 moment that will make the issue, I think, a little
14 clearer.

15 THE WITNESS: Okay.

16 ARBITRATOR DREHER: Let's assume that in
17 2005, which was a water-short year pursuant to the FSS,
18 that there was an overuse by Nebraska of 30,000
19 acre-feet.

20 THE WITNESS: Okay. For 2005?

21 ARBITRATOR DREHER: For 2005.

22 THE WITNESS: Okay.

23 ARBITRATOR DREHER: 2006, which was also a
24 water-short year, let's say that there was an underuse
25 of their allocation by 60,000 acre-feet. So you average

1 the two together, minus 30,000, plus a positive 60,000,
2 and the two-year average would have been a positive
3 15,000 acre-feet. And pursuant to the FSS, Nebraska
4 would have been in compliance.

5 THE WITNESS: For the two-year period
6 ending in 2006, yes.

7 ARBITRATOR DREHER: Which was the -- and I
8 can -- you know, it is the first year that is specified
9 in Appendix B to the FSS, was 2006 for the first
10 water-short year accounting. So they met that test.

11 THE WITNESS: In your example.

12 ARBITRATOR DREHER: In this example, in
13 this hypothetical, they met the test. And yet, they may
14 have exceeded the Compact allocation in 2005.

15 And so what I am suggesting is that if
16 that's the case, the appropriate comparison is to the
17 Compact allocation, not the water-short year provisions
18 that limit their use -- that measure their overuse from
19 sources above Guide Rock.

20 THE WITNESS: I think I'm beginning to
21 understand your thought process here is. I hadn't -- I
22 don't know what else to add to my answer.

23 I'm certainly not here currently in the
24 position as -- speaking for legal and policy positions
25 of the State of Kansas.

1 ARBITRATOR DREHER: Right. And I
2 understand that, and I don't mean to put you on the
3 spot. But I was looking for -- tying it back into the
4 questions Mr. Draper has been asking you, I was looking
5 for whether there is guidance on that in this
6 transcript, because it seems to me that this
7 implementation schedule was set forth as part of the
8 FSS, and I'm not -- I have not seen explicit description
9 of a transition period, what happens if this
10 hypothetical I just constructed occurs.

11 And I will tell you that it has led to some
12 confusion, I'll say, in part, because, at least in their
13 briefs that they submitted on this point, Nebraska at
14 least asserted that there was a grace period for
15 compliance.

16 And I don't know if you've read my decision
17 on legal issues, but I didn't agree with that. And the
18 reason I didn't agree with it, and it ties into the next
19 question that I was going to ask, but I guess I'll make
20 it more as just a statement.

21 You indicated that the FSS was a package of
22 give-and-take agreements that had to be considered as a
23 whole. And I understand that and certainly agree that
24 that's the nature of settlements in complex issues; but
25 the States could not have agreed to something that would

1 be at odds with the Compact, couldn't have done it.

2 And, in fact, that's why I don't think
3 there was a grace period because the Compact didn't
4 provide for a grace period, and there was no provision
5 and nothing in the Consent Decree from the Supreme Court
6 approving this that indicated that there was a timeout
7 in terms of compliance with the Compact.

8 THE WITNESS: There wasn't, no. I agree
9 with the fact that the effective date of when the clock
10 started running, given the fact that we -- you know,
11 Kansas agreed to waive damages for the period up to
12 December 15, 2003, is a very difficult part of this
13 whole thing for Kansas.

14 ARBITRATOR DREHER: 2002, wasn't it?

15 THE WITNESS: 2002. What did I say? Yeah.
16 December 15, 2002 and the clock started in regard to
17 compliance with the provisions of the FSS January 1,
18 2003. So 2003 was the first year of the series moving
19 forward.

20 So I don't understand the grace period
21 myself, personally. I don't recall exactly the context
22 that was put in, but the -- but there are the five-year
23 and the two-year compliance periods that are provided
24 for.

25 ARBITRATOR DREHER: But to put it now back

1 in the context of the question that Mr. Draper was
2 asking, is there discussion of this transition period,
3 what Nebraska might characterize it as a grace period,
4 what I characterize as a transition period, is there a
5 discussion of that in here?

6 THE WITNESS: I don't recall that, no. I
7 don't recall that.

8 You have asked a question here that I
9 didn't look for when I reread the transcript before this
10 hearing, but I -- and I do recall that pretty well and I
11 did reread the transcript.

12 I don't recall -- there are some -- there
13 are some discussions of, of course, the -- each of the
14 provisions of the agreement; there are discussions of
15 the tradeoffs in coming up with, you know, five-year,
16 two-year periods and why that is important to help with
17 compliance in the upstream areas but protect the
18 interest of the downstream state, in this case Kansas,
19 so that it would get the water when it really needs it
20 during those two-year critical dry periods, for example.

21 And I can't -- but I can't explicitly
22 recall any references to a transition period or a
23 description that would get to the depth that you're
24 asking about.

25 ARBITRATOR DREHER: Okay. But you do agree

1 or not, I guess -- do you agree that no aspect of the
2 FSS, whether it's definitions or accounting procedures
3 or anything, could alter the Compact?

4 THE WITNESS: It was fully intended, in my
5 view, to be consistent with the Compact. I think the
6 term was used in that transcript as certainly provisions
7 were left to interpretation, and this was attempted
8 certainly not to be inconsistent with anything in the
9 Compact.

10 ARBITRATOR DREHER: But it is the Compact
11 that is the governing document?

12 THE WITNESS: Compact is ultimately the
13 governing document. And there was -- as I said there
14 was -- I'm not aware of any -- any provision that was
15 felt to be in conflict with the Compact.

16 Let me give you an example that I recall
17 being asked by the Special Master explicitly about
18 accounting procedures and he was aware of the fact that
19 the accounting procedures were set up as an Appendix
20 where they could be changed by the RRCA. And
21 recognizing that things can change over time or there
22 might be issues that the body would decide that needed
23 to be changed, updated, but it was -- he was very clear
24 that that was something the RRCA could do, and has done,
25 in fact, as we know since then.

1 Those are formal rules and regulations of
2 the RRCA. Compact says that they can be -- they shall
3 and can adopt rules and regulations by unanimous action.

4 So there is an example where that's -- the
5 Compact explicitly says that.

6 ARBITRATOR DREHER: Correct.

7 THE WITNESS: And there are lots of other
8 provisions. I don't exactly know what you were thinking
9 about in terms of your question.

10 I think I agree with your premise, the
11 Compact is ultimately the governing body here. But I do
12 think the -- I want to sort of hasten to add that the
13 interpretations of the Compact and the agreement of the
14 parties, as set forth in the -- in the settlement
15 documents, the FSS, as approved by the U.S. Supreme
16 Court and the Decree, then provides -- provides the
17 flesh; it provides the interpretation and the agreement
18 that this is what it means.

19 ARBITRATOR DREHER: With Mr. Draper's
20 indulgence, I would like to ask one more question --

21 MR. DRAPER: Please.

22 ARBITRATOR DREHER: -- because it doesn't
23 come out of your time, it comes out of my time if I
24 recall the way we're doing this.

25 In your response, you raised the issue of

1 two aspects: Rules and regulations of the RRCA, which
2 certainly the Compact clearly provides for the RRCA to
3 adopt rules and regulations and accounting procedures.
4 So let's construct another hypothetical.

5 THE WITNESS: Okay.

6 ARBITRATOR DREHER: What if the accounting
7 procedures adopted by the RRCA are sufficiently flawed
8 that the resulting allocation of water to the States
9 differs from what is set forth in the Compact or the
10 FSS, for that matter?

11 THE WITNESS: Well, Your Honor, I -- you
12 know, I've read your decision and I respect your role in
13 this process; but, you know, you've asked me a question
14 and I guess I'll try to respond to it as best I can.

15 I'm not sure, from my perspective, there is
16 any way to independently determine that in the sense
17 that the FSS sets forth those interpretations and all
18 the details of how things are supposed to be done. The
19 Supreme Court has accepted that in its Decree.

20 I believe the proper way for a flaw, if
21 there is one -- I think that's hypothetical in my
22 context here -- is to take it back to the RRCA. And the
23 RRCA has a history -- I was involved in some of those
24 things subsequent to 2002, whenever the settlement was
25 approved -- and can look at any alleged error and in its

1 judgment decide whether or not it's really an error and
2 whether or not it's consistent with what was intended by
3 the parties and was necessary to carry out the duties
4 and responsibilities of the body to implement the
5 Compact.

6 That's within the authority of what is
7 provided for in the FSS; it's explicitly consistent with
8 the Compact in regard to the authority to adopt or
9 modify, by unanimous action, rules and regulations,
10 which are, in fact, now the accounting procedures in the
11 RRCA Groundwater Model, among other things.

12 With all due respect, some attempt to try
13 to determine independently of that what Compact
14 entitlements would be without regard to that standard
15 that has been established by the parties and by the
16 court, I'm having a hard time trying to figure out how
17 you would come up with is there a better way to do it.

18 I think I would caution about trying to
19 figure out if there is a better way or a closer way to
20 what the Compact surely must have meant. I just don't
21 understand that.

22 If there is an out-and-out error that needs
23 to be fixed, there is a process to do that.

24 ARBITRATOR DREHER: There is a process to
25 do it, which requires unanimous consent among all three

1 States?

2 THE WITNESS: That's correct.

3 ARBITRATOR DREHER: And if fixing the error
4 would result in a particular State -- assuming there is
5 an error -- this is a hypothetical.

6 THE WITNESS: Right.

7 ARBITRATOR DREHER: If fixing an obvious
8 error would result in a particular State getting less
9 water physically, that particular State, it doesn't
10 matter which one, is likely going to vote no. As a
11 result, the error won't get fixed.

12 THE WITNESS: Well, with all due respect, I
13 believe the updates, I guess I would call them, to the
14 accounting procedures that were done in 2004-2005 -- I
15 forget the exact dates on that, but they were amended --
16 there was some -- there were some formulas in the
17 accounting procedures, there was a couple places where
18 there was literally a bust, you know, and we fixed those
19 things. We fixed those by agreement.

20 Nobody took the position, Boy, I like the
21 fact that that was a negative sign, instead of a
22 positive sign, because that means more water for our
23 state. That's not what we did.

24 I believe that the body was very judicious
25 in regard to considering those, what you call obvious

1 mistakes, in terms of something was added up wrong
2 between, you know, you've got two figures here and they
3 simply are added up wrong.

4 To me, that's a very different matter than
5 simply changing the methodology in regard to how one
6 would compute something. Because again, the way in
7 which things are computed, the methodology in terms of
8 the various runs of the model or whatever it may be,
9 those are embedded and that was a part of the process
10 that was agreed to, this is the proper way to do it in
11 the context of the people that entered the settlement.
12 So I think there are two very different things.

13 You know, I can't answer the question, and
14 I certainly can't speak for Kansas in regard to whether
15 some obvious error, some bust in the numbers, which is a
16 very different thing to me, it's just a different way of
17 doing it; but, you know, whether there is a -- whether
18 there is a -- you know, a process to literally do those.

19 And as I said, I have great respect for you
20 personally and, of course, your decisions. My response
21 is really distinguished between sort of a change in the
22 methodology, a change in the accounting procedures as
23 they read literally in regard to we can do, we can do
24 that, we can do that.

25 Well, somebody can come up later, forever,

1 in terms of endless numbers of things and say, I would
2 like to do it a little different way, because I think
3 that's better.

4 I would just caution against that kind of
5 process. I think that's a slippery slope.

6 ARBITRATOR DREHER: And I appreciate that
7 viewpoint, but I'm thinking of things that are obviously
8 in error.

9 I mean, there is always going to be
10 different ways of doing things; but if it's not obvious,
11 if it's not clear cut that one way is obviously
12 superior, then you don't disturb it. But there -- you
13 know, as you've indicated, there already were some busts
14 found that were corrected, and I note that that was
15 postapproval of the Supreme Court.

16 THE WITNESS: Yes.

17 ARBITRATOR DREHER: The Supreme Court
18 certainly didn't intend to have errors decreed from now
19 and forever.

20 And I would also submit that there is
21 another category -- and I'm not going to belabor this,
22 Mr. Draper -- but where the application of the
23 agreed-upon procedures is clearly inconsistent with the
24 Compact.

25 That can't stand, can it?

1 THE WITNESS: I'm not sure I can answer
2 that in the abstract. I'm having difficulty in terms of
3 knowing what you would compare that to.

4 In other words, if you -- if this
5 particular Compact itself does not give the kind of
6 specificity in regard to exactly how virgin water
7 supplies are computed and how all of the -- all of the
8 different things that would need to be done to make
9 those determinations, the RRCA historically has come up
10 with a methodology. It used a methodology, it crunched
11 numbers for years. And, you know, back in those days,
12 it determined it was going to include alluvial
13 groundwater pumping only, for example.

14 We now have a different method, based on
15 determinations that were made by the courts and by the
16 parties in regard to the FSS.

17 And so what do you compare it to if you
18 don't use the established standards that have been
19 developed and agreed to? And again, I'll -- I think
20 there is, perhaps, a different situation with regard to
21 an obvious error. We'll have to determine what that is,
22 I guess. You know, that will be part of what you have
23 to do; but, you know, where to go with that. But I'm
24 not sure what you compare to otherwise, if you get
25 beyond an obvious error in terms of just what

1 constitutes what is required by the Compact.

2 ARBITRATOR DREHER: Well, let me give you
3 an example.

4 THE WITNESS: Okay.

5 ARBITRATOR DREHER: And this one isn't a
6 hypothetical, and I recognize that this is going to be
7 an issue that is going to be considered later in this
8 hearing, but again, I'm interested in -- I'm trying to
9 gain knowledge and understanding from your participation
10 in these negotiations. So let me give you a concrete
11 example.

12 In Article II of the Compact, there is a
13 number of definitions that are set forth. And one of
14 the definitions is for what is termed "beneficial
15 consumptive use." And the Compact says: The term;
16 "beneficial consumptive use" is herein defined to be
17 that use by which the water supply of the basin is
18 consumed to the activities of man and shall include
19 water consumed by evaporation from any reservoir, canal,
20 ditch or irrigated area -- any. Pretty specific word.

21 And yet, you know, without going into much
22 deeper discussion, you know, there are participants in
23 this proceeding that would suggest that "any" doesn't
24 mean "any," and specifically "any" doesn't mean
25 non-Federal reservoirs below Harlan County Lake.

1 So there is an example of where the
2 procedures that maybe were agreed to or the way that
3 they're being applied, how can they be applied
4 inconsistent with the Compact?

5 THE WITNESS: There are two issues in your
6 example and these things were considered very carefully
7 by people at various different levels. I'm struggling
8 in terms of what I can talk about and what I can't in
9 regard to the negotiations themselves.

10 But I believe you find in this transcript,
11 if I recall on the evaporation from non-Federal
12 reservoirs, that the use of the 15 acre-foot cut-off
13 example, the Final Settlement Stipulation basically
14 indicated that the parties had agreed to calculate
15 evaporation from non-Federal reservoirs in excess of 15
16 acre-foot in capacity.

17 Your point is, a literal reading, perhaps,
18 would be 15 acre-foot is not "any" and -- but again, if
19 you put this in the context of what many of us have
20 dealt with in regard to administering water law for
21 years, we made a determination that that was a
22 de minimus use. The parties did not have, really, the
23 records and the capability to determine evaporation off
24 of every farm pond that was a fourth of an acre in size.

25 ARBITRATOR DREHER: Certainly. And I

1 recognize that in the decision that I made and, you
2 know, if it's de minimus, it has no effect. If it has
3 no effect, then it --

4 THE WITNESS: We've considered it.

5 ARBITRATOR DREHER: Right, exactly.

6 THE WITNESS: So I use that as an example
7 because I think we have to be -- put this in the context
8 of all of the things that had to be considered in the
9 development of this settlement.

10 And you've already ruled on the Below
11 Harlan County issue, if I recall. The parties made
12 determinations in regard to what really mattered in
13 regard to this -- these issues and the example where the
14 accounting procedures explicitly include non-Federal
15 evaporation basinwide. That was a determination that
16 was made consciously by the parties, from my
17 perspective. You know, there is a provision where we
18 would have had to have done that.

19 I think these are just things that lots of
20 determinations were made, careful consideration was
21 given and we ended up with a settlement that I
22 personally thought at the time was a very good -- very
23 good settlement. It was described publicly after it was
24 entered as a win/win/win by all three States and also
25 addressed the issues of the United States. That was

1 stated explicitly in this transcript we've been talking
2 about.

3 That's where we were in December of 2002.
4 It's not where we are today, but that's where we were
5 then.

6 ARBITRATOR DREHER: The win/win/win didn't
7 endure very long, did it?

8 THE WITNESS: Unfortunately, not. It was
9 predicated on the fact that there would be compliance.

10 ARBITRATOR DREHER: All right. Well, I've
11 belabored that enough.

12 Mr. Draper, please continue.

13 MR. DRAPER: Thank you, Your Honor.

14 Q. (BY MR. DRAPER) Mr. Pope, after entry of
15 the settlement, what was your role in carrying out the
16 expectations that ensued after the entry of the Decree?

17 A. Well, as a member of the RRCA, I worked
18 with the other States to help administer the Compact and
19 the FSS that had been entered into. I've spoken a few
20 minutes ago about some of the activities that were
21 involved there. I also, in my capacity as chief
22 engineer, monitored the activities of each of the three
23 States, including Kansas, in regard to steps that were
24 being taken to comply with the terms of the FSS and --
25 so that, hopefully, this would work.

1 I was taking actions in Kansas that I
2 thought were necessary to ensure compliance and, in
3 fact, Kansas is in compliance, I believe, in anybody's
4 figures that I have seen. And I monitored, interacted
5 with the director of DNR from Nebraska, which is -- at
6 the time, Roger Patterson, and later Ann Bleed, now
7 Brian Dunnigan. That has happened after I left my role,
8 but have certainly still been involved in this capacity.
9 So it was various different actions to evaluate what was
10 going on.

11 Q. And what were your observations as to the
12 efforts by Nebraska to comply?

13 A. Well, candidly, you know, compared to what
14 I expected from a very -- I had great expectations in
15 regard to the commitment and the willingness to take the
16 steps that were necessary to comply with the
17 settlements.

18 After it was entered, it wasn't long that
19 some disturbing things started to be appearing, and I
20 found that I did not believe Nebraska was taking the
21 timely actions, especially in the early process, that
22 would be needed to comply with the FSS. The numbers
23 started coming in year by year that were big negatives
24 in 2003, 2004 and 2005 and on.

25 For example, the moratorium that is called

1 for in the FSS was adopted. Those were put into place
2 in regard to the actual moratoriums on drilling new
3 wells, but what did not take place for some period of
4 time was stopping of or adding additional new irrigated
5 land.

6 The restrictions on adding new irrigated
7 land continued through the end of 2003 in the Middle
8 Republican NRD, Natural Resources District, and clear to
9 the end of 2004 in the Lower Republican Natural
10 Resources District; there was a large amount of land. I
11 think there are figures in the record about some hundred
12 thousand acres of additional irrigated land put into
13 place in those two districts that was adding to the
14 beneficial consumptive use in Nebraska at the same time
15 when they needed to be going the other way.

16 I was not observing, as the years went by,
17 meaningful actions to reduce the beneficial consumptive
18 use and to take steps that would be necessary to comply
19 with the Compact in the FSS, both then and into the
20 future. Today we're talking about future compliance.

21 There were efforts made -- I'm not saying
22 there weren't efforts made -- to impose some voluntary
23 incentive-based programs and things of that nature, but
24 not the kinds of things that would be necessary, from my
25 perspective, particularly during the dry periods.

1 Q. And does the expressed reliance by Nebraska
2 on the ability to substitute certain water supplies in
3 the future give you comfort in looking towards future
4 compliance?

5 A. No. I have some reservations about how
6 effective that will be in the future and how effective
7 it actually has been when used the last year or two.

8 Conceptually, it makes sense to consider
9 that as an option; but, in my view, to be able to rely
10 on the fact that that is something that will work in
11 regard to future compliance, I believe one has to
12 evaluate all aspects of the matter.

13 And let me indicate first, generally, that
14 I think one has to assess what the availability of
15 surface water will really be during droughts and dry
16 periods. I have not seen so far, personally at least,
17 an analysis or assessment that convinces me, at least,
18 that there will be sufficient water -- surface water
19 available to offset the growing groundwater depletions
20 sufficient to make it through those future dry periods
21 that we undoubtedly will have. We have multiple ones in
22 the past, and I know they're going to happen again.

23 More explicitly, I would say that I've
24 observed during the course of my career -- and a lot of
25 it has been involved with the Republican River Basin and

1 other areas involving reclamation projects.

2 There are several reclamation projects in
3 the basin, both in Kansas and Nebraska; and what we
4 observed and, I believe, there are exhibits in this case
5 that will show a very disturbing trend that is down,
6 down, down, except for a few wet periods, in regard to
7 the availability of surface water for delivery through
8 those reclamation projects in the irrigation districts
9 that have contracted with reclamation for these storage
10 facilities. In a number of cases, there has been no
11 water delivered or just a matter of few inches of water
12 to the lands in those projects.

13 So I think there is a significant question
14 in terms of the viability, not only of the future of
15 those projects, but certainly to provide extra water to
16 be made available for offsetting groundwater depletions.

17 Now, there certainly can be choices made
18 and those are decisions that would have to be made by
19 the parties in question in regard to the irrigation
20 districts and whether they're willing to lease or sell
21 water, however you want to term it.

22 The Bureau of Reclamation, which I
23 understand you'll be hearing from later, the parties
24 that want to make the transactions and certainly the
25 impacts that would be felt to Kansas and to particularly

1 the Kansas Bostwick Irrigation District, these are all
2 players, and I haven't seen anything that puts that
3 package together.

4 There have been some short-term individual
5 leases of water. And I'll talk in a minute, I guess if
6 asked, about the -- about my personal experience in
7 regard to some of those.

8 But I think one would need a package that's
9 not just well, We might go do something. We need
10 something we can really rely upon, in my view.

11 There are limitations in regard to what
12 surface water can really be made available under current
13 contracts that exist between the irrigation districts
14 and the Bureau of Reclamation and the various agreements
15 for how they operate. This is particularly the case at
16 Harlan County Reservoir, which is a storage facility
17 that is providing water for both the Nebraska Bostwick
18 Irrigation District and the Kansas Bostwick Irrigation
19 District. They share storage in the reservoir, as you
20 know.

21 It's essentially an undivided pool, except
22 for some operational constraints that exist during the
23 course of a given year, and water can be delivered to
24 the project lands.

25 The complication comes into play in that

1 water certainly can be made available, under certain
2 circumstances, but whether that water will really be
3 additional and can satisfy the beneficial consumptive
4 needs of Kansas is really a different question.

5 The Compact accounting, again -- excuse me,
6 I'm developing a bit of a sore throat here -- of course,
7 you run all the numbers through and you will get an
8 answer in regard to what happens; but within that in
9 terms of really making a surface water operation
10 available effectively depends upon a variety of these
11 other factors.

12 The example that I personally was involved
13 in and experienced in 2007 was that, like 2006, the
14 decision was made rather late to provide additional
15 surface water as an offset. And the irrigators in
16 Kansas, for example, had to make their decisions as to
17 what crops to plant and try to anticipate how much water
18 they're going to have on a reasonable basis to make
19 their decisions early in the year, January, February,
20 because corn is a major crop, it's planted in late March
21 in Kansas. So there is tillings to occur, there is
22 chemicals to apply, there is fertilizer to apply, and
23 those are things that people have to be able to plan
24 for.

25 In, I think, in 2006 the decision was

1 announced that water had been leased in May 10, or
2 something like that, in regard to the agreements that
3 had been reached.

4 So, yes, some water could be used and was
5 used that particular year because it was a very
6 dry-year, but it was difficult to fully achieve what I
7 think would be a good future compliance plan.

8 In 2007, the circumstances even got a
9 little more difficult. It started off as a very
10 dry-year; it was listed as going to be another
11 water-short year. It started raining, so you're getting
12 more runoff and some precipitation.

13 And then in early June, I think it was, we
14 received word that there was going to be some additional
15 water -- I think there had been some discussion that it
16 might happen, that some additional water was going to be
17 made available to Kansas Bostwick.

18 The District, of course, then was put in
19 the position of trying to react to that, and there were
20 no procedures in place that had been agreed to by the
21 parties that would be directly affected in terms of how
22 this water was going to be accounted for. The -- and
23 again, this was the second year.

24 And the position that Kansas Bostwick was
25 put into -- and I was on the phone with them, they

1 called me, and we were talking is, How is this going to
2 work, what does it mean?

3 Well, essentially what they were told, as
4 sort of a take it or leave it, is you have to take the
5 water that Nebraska is going to provide first and the
6 water that is allocated to you, that has already been
7 determined; you get a certain number of inches of water
8 now for this year, set that aside.

9 You take this compliance water and then if
10 you need more water, well, you can take the water that
11 you otherwise would have used that year.

12 Well, guess what? Of course, in the
13 system -- what is known as the Consensus Plan reached
14 between the Bureau of Reclamation and the Corps of
15 Engineers years ago, because it's a Corps project with a
16 reclamation irrigation function, has these
17 determinations about how much supply is available and
18 can be taken in a given year.

19 After the irrigation season is over, the
20 water that is unused goes back to the common pool and is
21 redivided again between the two districts for the coming
22 year.

23 So here, you have a situation where Kansas
24 Bostwick was asked to take this so-called extra water.
25 There is references in the documents to 50,000 acre-feet

1 of water that was made available in 2007.

2 Well, what happened was then Kansas
3 Bostwick ended up having to redivide their water that
4 they otherwise would have taken and supply got a little
5 better as the year went by.

6 So this is just an example of things that
7 have not been really successfully defined and worked
8 out. And it takes -- it takes that, I think, to make
9 this an effective program. It's an ad hoc -- it's
10 starting off as an ad hoc program that is likely not
11 going to be very effective in terms of future
12 compliance.

13 ARBITRATOR DREHER: Mr. Draper, if I might.
14 When was the water -- when was it announced
15 in 2006 that there would be water available?

16 THE WITNESS: I understand the contracts
17 that were developed between the Nebraska entities were
18 May 10. Don't hold me exactly to that date, but I
19 believe that is correct. I think that would be,
20 hopefully, in the record. And in 2007, I believe it was
21 an early June, like June 5th or 6th or something like
22 that.

23 ARBITRATOR DREHER: But it wasn't March 10?
24 It was May 10, or something in that area?

25 THE WITNESS: That's correct. That's

1 correct.

2 So again, as we have said, it's very late
3 in the process and hard to deal with; and particularly,
4 given the fact that really none of the procedures were
5 worked out between the Bureau of Reclamation and the
6 parties that are involved, including Kansas.

7 And I haven't seen anything submitted that
8 suggests that there is anything different in the
9 offering. I don't see any long-term plans, I don't see
10 any commitments made by the District that they will,
11 indeed, sell water, if it's even physically available.
12 I don't see agreements with the Bureau of Reclamation
13 that has to be involved in these things and the Kansas
14 parties.

15 ARBITRATOR DREHER: Do you recall in 2007
16 how much water was left that then was redivided?

17 THE WITNESS: I did not go back and recheck
18 those figures. I believe, because it started raining in
19 the summer of 2007 and there was additional inflow to
20 the reservoir, there was a pretty substantial amount of
21 water carried over. I hate -- I hate to guess. I would
22 hope maybe that that's a figure that could be
23 determined; but I suspect, you know, 30-, 40,000
24 acre-feet of water or something, you know. Harlan
25 started filling, it had been so low and it did get some

1 good inflow in 2007 and 2008, if I recall.

2 ARBITRATOR DREHER: Please.

3 Q. (BY MR. DRAPER) During the latter period
4 when you were serving as chief engineer of Kansas and
5 the commissioner on the RRCA, was there administration
6 that you were involved in with respect to shortages of
7 supplies and what we have heard about earlier as MDS or
8 minimum desirable streamflows?

9 A. Yes, there was.

10 Frankly, during the period -- well, going
11 back further than 2002, but certainly during this 2003
12 up through the time of my departure as chief engineer,
13 which was June of 2007, we had actively administered
14 water rights, both surface water and groundwater, in
15 the -- what we refer to as the Lower Republican River
16 system from the Kansas/Nebraska stateline down to
17 Milford Reservoir. And that was a very dry period of
18 time and so streamflow was very, very low.

19 There were literally instances where you
20 could step across the Republican River for extended
21 periods of time in that period.

22 The regional call was the minimum desirable
23 streamflow call, and so there were some 150 or 200
24 individual water rights in Kansas that were curtailed,
25 largely for this roughly five-year period or so. And

1 because of the close hydraulic connection to the river
2 in Kansas, we actually, essentially, conjunctively
3 administer the groundwater and surface water system, so
4 that the alluvial wells were curtailed in large -- many
5 of those water rights were the alluvial wells.

6 Now, we did work through some rules and
7 regulations that provided a little water within the
8 framework of the flows that were available from time to
9 time, but the point is that there was a lot of shortage
10 of water.

11 Now, the Kansas Bostwick Irrigation
12 District, of course, was very short in supply, and
13 that's the surface water project that directly takes the
14 water from the Republican River through the Courtland
15 Canal, into -- in and above Lovewell. And there were
16 some years in there where they got no water,
17 essentially, to the part of the District above Lovewell
18 and limited supplies below Lovewell, because Lovewell
19 did provide some storage from off-year use.

20 I guess I would say that this was a very
21 difficult thing for me personally. I had to administer
22 water. I had gone into the process of working with
23 these same people, these water users, during the course
24 of the settlement, trying to make the best judgments
25 that we can and could at the time in regard to what we

1 thought would result in real wet water to Kansas.

2 That's what we were after. That's what
3 we've always been after, is actual real water to satisfy
4 our uses in Kansas.

5 And the level of disappointment and the
6 concern about those people that simply didn't get water
7 during that period was very difficult, because I had
8 been involved in trying to come up with a settlement
9 process that I thought would resolve the long-term
10 dispute and avoid retracted litigation for years in the
11 original case.

12 And yet, during this very period when we
13 needed the water the most, it wasn't there. And yet,
14 the numbers kept coming in year-by-year in terms of the
15 extent of the overuse in the accounting year-by-year,
16 and it was very difficult.

17 So the supply was extremely short for both
18 people in the Bostwick project and the water users
19 downstream of Hardy that rely upon the river itself, as
20 well. It actually extends on down below Milford
21 Reservoir, frankly, but I won't get into that, unless
22 you want me to.

23 MR. DRAPER: Your Honor, this might be a
24 good point to take the morning break.

25 ARBITRATOR DREHER: Okay.

1 Before we do, I would like to go back to a
2 statement that Mr. Pope made about, you know, having
3 reservations about using surface water as a source for
4 compliance. And you indicated that there were several
5 reasons for that and yet, I only took notes about
6 availability during drought and dry periods.

7 So I wanted to make sure that I captured
8 any other reasons that you might have for having
9 reservations about the use of surface water in the long
10 term, at least.

11 THE WITNESS: Those are the critical
12 points: Availability -- physical availability of water
13 that is -- actually can be counted upon, there is
14 something in place that would provide an assurance for
15 future use that is going to really happen -- you just
16 don't try to go out and lease some water in May of a
17 given year -- so that Kansas can know that that water is
18 going to be available and react accordingly.

19 And, I guess, the third point that I think
20 I talked about in some detail is the lack of definition
21 of how this additional surface water is going to be
22 accounted for as it relates to Harlan County Reservoir.

23 There are some details there that really
24 just need to be worked out, in all fairness to both
25 parties. It's not just from a Kansas standpoint. The

1 reality is if that water is leased by Nebraska and a lot
2 of money is spent trying to make some water available
3 and then it can't be put to use, you can't just run it
4 down the river for a reclamation project. It has to go
5 onto the project lands.

6 And the only way Nebraska is going to get
7 credit, from a Compact compliance standpoint, is if
8 water is worked through the project, at least under my
9 understanding of things as they stand today, so that it
10 gets delivered to Kansas and shows up as additional
11 allocation and beneficial use.

12 ARBITRATOR DREHER: Remind me again when
13 the -- I was trying to look it up here and I'm not
14 finding it offhand. When is the determination made that
15 the year is, in fact, going to be a water-short year for
16 administration purposes?

17 THE WITNESS: There is a monthly
18 computation made by the Bureau of Reclamation and
19 provided to the States and all the interested parties
20 beginning in the winter, in the fall.

21 ARBITRATOR DREHER: October.

22 THE WITNESS: I forget exactly wish.

23 ARBITRATOR DREHER: October 1.

24 THE WITNESS: Yes, October 1. And they do
25 that monthly accounting. And then the official

1 determination that it really is a water-short year
2 period, I believe, is July 1.

3 I think there is a possibility that you
4 could end up not being water-short after all; but you
5 have those values, you know, January and February and
6 March, in through there, to know what to plan for from
7 that standpoint. I need to check the figures, but I
8 believe, though --

9 ARBITRATOR DREHER: That's right, the
10 monthly accounting is done beginning October 1 through
11 June 30.

12 And with all due respect to the expertise
13 that you and Hal and Roger brought to this, you know, I
14 can understand the frustration, you know, if surface
15 water is provided on an ad hoc basis and it is provided
16 late; but how in the world do farmers prepare in either
17 state for, quote/unquote -- or in Colorado, for that
18 matter -- for water-short administration when the
19 official determination isn't made until July? It seems
20 rather late.

21 THE WITNESS: Well, I personally agree with
22 you, okay. But it's among the things that were bartered
23 for in regard to when that official date would be, given
24 the fact that I think, as one could probably imagine,
25 Nebraska wanted to potentially be in a situation where

1 if it didn't turn out to be water-short, that they don't
2 get stuck with the restrictions after the fact --

3 ARBITRATOR DREHER: Right.

4 THE WITNESS: -- and so that weighed into
5 it.

6 And the other provisions -- there is lots
7 of provisions, you know, that is packaged that, you
8 know, we would be getting -- during the water-short year
9 period we would be getting advisory letters from the
10 Director of DNR, Nebraska -- I forget the exact dates,
11 but I think like in the first of March or something like
12 that and again around June or so in terms of what
13 actions were really being taken by Nebraska to make sure
14 this stuff happens.

15 ARBITRATOR DREHER: But by July, there is
16 not much they can do. I mean, it's so late.

17 THE WITNESS: Well, and I think the key
18 point out of this -- you're correct. The key point out
19 of this is counting on a surface water fix is very
20 difficult. Yes, there is the problem of us in using the
21 water -- "us" being Kansas -- but it's hard for Nebraska
22 to count on the fact that this is always going to work.

23 And that's why, I think, getting a handle
24 on the total system and the groundwater depletions has
25 to occur. You can't wait until it's too late and hope

1 for the best, in my view.

2 It's extremely important to have the system
3 in some assemblance in balance. It's not in balance.
4 There is nothing in this record that would show that
5 this system is in balance, with all due respect. And
6 with all due respect to the expertise of the three of
7 us, two of the three States made decisions back in the
8 late '70s and early '80s to curtail future groundwater
9 development. If you look at the graphs in these
10 reports, you will find lines that level off during that
11 time period for two of the three States.

12 ARBITRATOR DREHER: And I appreciate the
13 fact it didn't for Nebraska, but that was a fact that
14 you knew when you went into the negotiations on the
15 Final Settlement Stipulation?

16 THE WITNESS: Yes, it was.

17 What we also thought we had was an
18 agreement that was binding and that would be complied
19 with and that the steps would be taken and they would be
20 difficult and would take some change in the status quo.

21 And I think the question we're evaluating
22 today, among others, is: Has there been sufficient
23 change in the status quo and what can we count on in the
24 future?

25 ARBITRATOR DREHER: Well, from my

1 perspective, the FSS is binding. There is no question
2 about it.

3 THE WITNESS: I appreciate hearing that.

4 ARBITRATOR DREHER: But I wish I could tell
5 you what is the ideal solution and that remains to be
6 seen.

7 All right. We'll take our 15-minute break.

8 (Break was taken from 10:35 to 11:00.)

9 ARBITRATOR DREHER: You may proceed.

10 MR. DRAPER: Thank you.

11 Q. (BY MR. DRAPER) Just a few concluding
12 questions, Mr. Pope.

13 In your experience as chief engineer and
14 Compact representative, how would you put the situation
15 that we're in with respect to the compliance with
16 interstate obligations and in context with other similar
17 situations in the western United States?

18 A. Well, there are a number of interstate
19 disputes that have occurred around the country. There
20 are not a large number of cases on interpretation
21 enforcement of interstate river compacts, but there are
22 some.

23 The one I have tracked for many years has
24 been the Pecos River Compact dispute and matter that was
25 taken to the U.S. Supreme Court, I believe, in 1974 and

1 then ultimately a number of decisions and various things
2 came to -- the litigation, I think, came to a close
3 around 1988 or so.

4 That's one I would use as somewhat of a
5 comparison, I think, because it has essentially gone the
6 whole route.

7 I just mention parenthetically, of course,
8 we've been involved -- or Kansas has been involved for
9 many years in terms of a dispute that went to the
10 Supreme Court on the Arkansas River.

11 And, of course, there has been this case
12 and there has been the case that Nebraska and Wyoming
13 had on the North Platte River.

14 So all of those I'm pretty familiar with
15 those, because I either knew the principals on a
16 personal basis and followed them closely. In many cases
17 we looked at precedence and all of those kinds of
18 things.

19 But in regard to the question of the Pecos
20 River is one where the Compact was entered somewhat
21 along the same time period, went to the Supreme Court,
22 had decisions that led to court decree. And I have had
23 some experience in terms of observing the efforts made
24 by the state of New Mexico to comply with the Pecos
25 River Compact and the Decree.

1 I got most involved in that, just briefly
2 stated, by getting sort of personally acquainted with
3 Tom Turney when he was the state engineer of New Mexico.
4 I had actually known the two previous state engineers:
5 Luis Martinez and, frankly, to some degree, Steve
6 Reynolds in the latter part of his career. But it was
7 really Tom and I that got pretty well acquainted. And
8 we would see each other at meetings and spend some time
9 really talking about our respective challenges in terms
10 of administering water in our states and particularly as
11 it related to compacts.

12 And then New Mexico hosted a meeting in the
13 Association of Western State Engineers and there was
14 quite a bit of focus on what they were doing at that
15 time, both in the meeting and some side discussions.

16 And then I have observed that since and, of
17 course, have known John D'Antonio quite well and seen
18 him at various meetings in both New Mexico and
19 elsewhere.

20 But my observation of that particular
21 situation is that New Mexico took some early actions to
22 comply with the terms of the Decree, but went about its
23 business of working on a pretty comprehensive compliance
24 plan.

25 There were some individual acts they took

1 early on to make sure they stayed in compliance. And
2 they have an obligation -- I won't go into all the
3 details, but they have to annually meet a certain
4 obligation. And if they don't meet that, there is some
5 pretty significant consequences in terms of that matter.

6 And this more comprehensive plan that they
7 developed really has evolved over the years, but it has
8 included some major components that I'm aware of, and
9 they spent a lot of money implementing that plan,
10 something in the order of about \$100 million, actually,
11 up to the current time, as I understand it. There are
12 several acts of the New Mexico legislature and efforts
13 that are underway.

14 But the three major components that I think
15 are relevant here to compare in terms of future
16 compliance is: First, there certainly were some
17 short-term leases of water that they entered into with
18 the Carlsbad Irrigation District to ensure some surface
19 water deliveries, going back into the 1990s and early
20 2000s, as I recall. Their long-term compliance plan was
21 then predicated on something quite differently, however.
22 It was predicated on getting the system -- the river
23 system, groundwater surface water system, what they
24 describe as in balance. And they approached that a
25 couple of different ways.

1 First of all, they have actually purchased
2 land and water rights in selective locations in
3 substantial amounts, relative to the quantity of water
4 involved here, to literally dry up those lands and take
5 them out of production and use that water for Compact
6 compliance. And so these are permanent long-term
7 decisions that have been made that will provide water.

8 Secondly, they also acquired some lands and
9 water rights. I think they may be trying to sell back
10 some of the land now, but originally they acquired land
11 and water rights -- I think it was something that New
12 Mexico legislature wanted to do -- where there were
13 groundwater pumping. And their idea was to reduce the
14 demand on the system because they knew they couldn't
15 control the groundwater on an on-off basis in such a way
16 to ensure compliance. And so they had to get the
17 system, as they describe it, in balance so that those
18 demands on the system were not too great.

19 And thirdly, then -- so the first
20 component, second component. And now the third
21 component I will describe involves an augmentation
22 system where they have actually gone out and
23 investigated and located and developed -- I don't think
24 they're completely done, but they have a substantial
25 amount of their augmentation system in place, where they

1 would literally pump groundwater from the system.

2 All this has to be, I'm sure, accounted for
3 and worked properly within the system that is set up in
4 terms of that particular compact; but they can deliver
5 on a realtime basis substantial amounts.

6 I think they're planning 15,000 acre-feet,
7 and I think I have understood something like 10,000 or
8 so is in place that they can use -- I don't think
9 they've had to use it yet -- to augment the system to
10 make sure that their delivery is met each year to Texas.
11 They can accumulate some credits in the future, so they
12 have some cushion that they have built up with these
13 various mechanisms that they have used at the current
14 period of time.

15 I think what is important here in regard to
16 comparison is, this was a more comprehensive compliance
17 plan that has defined components that are effective.
18 They can be relied upon, they work, and they have stayed
19 in compliance ever since the final order of the court
20 was issued.

21 And so that's, I think, a substantial
22 attribute in terms of what New Mexico has been able to
23 do and it has been over a period of years.

24 Q. Is there a river master in that basin that
25 was appointed by the Supreme Court?

1 A. Yes. One of the things that was done was
2 the Special Master recommended a river master, and the
3 Supreme Court agreed, in the -- I think that probably
4 came in that last decision or so in the late '80s. And
5 there had been such an inability or unwillingness,
6 whatever, of New Mexico to comply, that the Special
7 Master recommended a river master and that person has
8 been since put into place.

9 It seemed to be something that really has
10 helped ensure that the actions were taken that needed to
11 be taken to comply with that Decree.

12 ARBITRATOR DREHER: Is that Dr. Neil Grigg
13 from CSU? Is that who is the river master?

14 MR. DRAPER: Yes, Your Honor.

15 Q. (BY MR. DRAPER) Mr. Pope, in your view,
16 would a river master be an appropriate element of future
17 compliance in the Republican Basin?

18 A. Yes, I think it would be. It's pretty
19 apparent to me that there is a real struggle within
20 Nebraska -- with all due respect, and I know there has
21 been a lot of effort made in certain ways, but there is
22 a real struggle with getting the actions taken that are
23 necessary to ensure that compliance really occurs on an
24 ongoing basis in the future. I think a river master
25 would be one way to make sure that the system in place

1 works or some system -- somebody there is in place that
2 can ensure that that will happen.

3 So I think my answer would be yes. I can
4 go further if you want me to on that.

5 Q. Is there any other consideration that
6 you're referring to there?

7 A. Well, simply that the system that's in
8 place in Nebraska has -- that I have observed over the
9 years has, of course, employed a method where the local
10 units of government, called Natural Resources Districts,
11 have been assigned the responsibility to manage
12 groundwater. And historically, the State has been
13 responsible to administer surface water, and then they
14 have spent a number of years trying to figure out how to
15 make that work in the case of interrelated surface
16 waters and groundwaters, and particularly with regard to
17 the need to comply with interstate compact obligations.
18 And I'm sure you will have or will hear more about those
19 efforts.

20 But it seems to me the difference between
21 that situation and what happened in New Mexico is in New
22 Mexico, you have a strong central figure through the
23 state engineer and the Interstate Streams Commission,
24 that those two that can -- they're related, can ensure
25 that things take place.

1 There is not a central figure, with all due
2 respect, in Nebraska that has the joint responsibility
3 to ensure these things really take place.

4 Clearly, there is more effort being spent
5 together, but I am concerned that it doesn't happen
6 because of the NRD doing certain things and the State
7 doing certain things. A river master could really help
8 ensure that that would happen.

9 Q. In that regard, what is the makeup of the
10 boards of the NRDs?

11 A. Each of the Natural Resources District, as
12 I understand it, has an elected board. They are
13 largely, if not completely, made up of water users,
14 which are almost all irrigators, I believe. And so
15 those are the people that are the governing body for the
16 Natural Resources District.

17 Q. Are they groundwater users?

18 A. Well, I believe a large number of them are.
19 I don't know that I can say that they all are.

20 I have observed over the years that the
21 surface water irrigators in Nebraska are kind of a
22 minority, compared to the groundwater irrigators.
23 Something in the order of, you know, one out of seven,
24 or something like that, acres or something of the sort
25 in terms of -- so that the -- I think the dominating

1 factor in regard to the NRDs who have the groundwater
2 management responsibilities are going to be groundwater
3 irrigators, because they -- the surface waters -- are
4 really managed by the State and the irrigation
5 districts. And so they are really split pretty much
6 along those lines, I believe.

7 Q. Are you aware of the part of the Kansas
8 proposal for future compliance that involves shutting
9 down groundwater irrigation over some 500,000 acres?

10 A. Yes, I'm aware of the plan and the
11 submittals that have been made in that regard and have
12 attended the meetings of the RRCA -- special and regular
13 meetings of the RRCA these last few years, even after I
14 retired.

15 Q. Does that element of the proposal appear to
16 you to be an excessive part of the proposal?

17 A. No, I don't think so. If you put that in
18 the context of the problem at hand and the system at
19 hand and how it has evolved, I don't believe it is
20 excessive.

21 It recognizes that there is a significant
22 problem in regard to how much water is put to beneficial
23 use in Nebraska in the Republican River Basin year
24 in/year out, and the impact of that on the flows of the
25 river and compliance with the Compact.

1 It's a lot of acres, there is no doubt; but
2 the plan submitted by Kansas also recognized that if
3 there was a hydrologically equivalent alternative, well,
4 then that could be considered as well. It has to be, I
5 think, in my view as I understand the plan, something
6 that can be relied upon.

7 Q. How would the remaining acreage in the
8 Republican Basin in Nebraska compare with the acreages
9 that were -- that are under groundwater irrigation in
10 the other states historically if the Kansas proposal
11 were accepted?

12 A. Well, round numbers, from my recollection,
13 there are about 400,000 acres of irrigated land each in
14 the Colorado and Kansas portions of the basin.

15 Now, in Kansas, that's referring to the
16 Upper Republican portion that really matters for
17 purposes of Compact accounting; the downstream portion
18 is not included in that. So they're each about 400,000
19 acres.

20 My understanding is that Nebraska has
21 something in the order of about 1.2 million acres of
22 irrigated land at the present time. And so, roughly,
23 500,000 acres would leave about 700,000 acres of
24 irrigated land in Nebraska. So it would still be larger
25 than what is in each of the other two states and it is

1 still a substantial amount of acreage.

2 The growth that has occurred for a number
3 of years has really brought that total up.

4 Q. Would the acreage left in irrigation be in
5 any way comparable to the amount that was in irrigation
6 in Nebraska at the time that the other states closed off
7 any further development?

8 A. I think if you again look at the growth of
9 irrigation in the three states, there was a rapid growth
10 in all three states in the '60s and '70s. Some started
11 in the '50s, but again, in the late '70s. As the
12 restrictions were put into place in Colorado and Kansas,
13 that leveled off.

14 And I believe if you go to that point where
15 it leveled off in Kansas and Nebraska, where it was, you
16 know, determined that the supply was essentially fully
17 appropriated, that that's about where you would reach.
18 That's a point probably about where you would reach in
19 Nebraska, something in that ballpark, you know, give or
20 take a few years.

21 There was some continued growth for a
22 number of years. And then we saw this really big spurt
23 up in the 1990s that took place in Nebraska that really
24 continued up through 2002-2004 period, as I said
25 earlier.

1 So I think there was something in the order
2 of 300,000 acres or so developed, even after we were
3 trying to mediate this dispute back in the late '90s --
4 mid-to-late '90s.

5 MR. DRAPER: No further questions at this
6 time.

7 ARBITRATOR DREHER: I was going to ask a
8 question, but I think I will hold it for now.

9 Do you need a break or not?

10 MR. WILMOTH: No.

11 ARBITRATOR DREHER: Okay, all right.

12 Then with cross, we'll start with Colorado.

13 MR. AMPE: Thank you.

14 CROSS-EXAMINATION

15 BY MR. AMPE:

16 Q. Just a couple questions, Mr. Pope. Nice to
17 see you again.

18 A. You, too, Pete.

19 Q. I promise nothing about the ongoing
20 disagreement of how to properly pronounce the river that
21 our two states share.

22 A. I thought about getting into that, but I --
23 there is an interesting story about that, probably not
24 the time or place.

25 Q. To your knowledge, does water-short year

1 administration apply to Colorado?

2 A. There is a provision in the FSS that does
3 relate to Colorado about water-short year compliance.

4 Q. And that just refers to whether or not
5 Colorado can use its Beaver Creek allowance in another
6 subbasin, essentially -- to paraphrase?

7 A. To paraphrase, that's correct. It is not
8 allowed to use its -- it's not allowed to use that in
9 the context of what would ordinarily be the other
10 requirements.

11 Q. But it doesn't affect Colorado's five-year
12 rolling average?

13 A. There is not a two-year period for
14 Colorado.

15 Q. Just to your knowledge, do you know of any
16 surface water irrigation out of Beaver Creek within
17 Colorado?

18 A. Not to my knowledge.

19 Q. Would it surprise you to know that there is
20 no base flow within Beaver Creek within Colorado?

21 A. Probably wouldn't surprise me.

22 Q. And also just to correct something.

23 Although I do appreciate your estimate of
24 irrigated acres in Colorado, I don't think we're quite
25 there yet.

1 Exhibit K to the model documentation, I
2 will just make a reference, shows in the neighborhood of
3 660,000 acres under irrigation within Colorado.

4 Would that sound about right to you?

5 A. I didn't recall it being quite that high,
6 but I will accept the facts as they are.

7 Q. We have reduced it a bit, but that's been
8 in all the documentation from roughly '79 to 2000,
9 that's roughly an average of 650,000?

10 A. Okay.

11 MR. AMPE: Nothing further.

12 THE WITNESS: Maybe I was just being
13 hopeful.

14 MR. AMPE: As I said, I appreciate your
15 trust in Colorado's ongoing efforts.

16 Nothing further. Thank you.

17 ARBITRATOR DREHER: Just a point of
18 clarification, Mr. Ampe.

19 What was the number you said in Colorado?

20 MR. AMPE: It, of course, varies from year
21 to year and the acreage from predevelopment to 2000 is
22 listed in Exhibit K to the model documentation and it is
23 listed by county, and that is the irrigated acreage used
24 in the model itself, roughly in the neighborhood of
25 650,000 acres.

1 ARBITRATOR DREHER: 650 or 615?

2 MR. AMPE: 650,000 acres.

3 All right. Mr. Wilmoth?

4 CROSS-EXAMINATION

5 BY MR. WILMOTH:

6 Q. Good morning, Mr. Pope.

7 A. Good morning.

8 Q. Thank you for coming and joining us again.

9 A. Sure.

10 Q. We'll try to get through some of these as
11 fast as we can and be sure we get out of here on time.

12 Even though we're a little bit ahead, we'll
13 try to get done before noon.

14 ARBITRATOR DREHER: Take your time.

15 THE WITNESS: I like that idea.

16 Q (BY MR. WILMOTH) Mr. Pope, obviously you
17 have a great deal of experience. I do want to clarify
18 for the record one thing, however. And that is, that
19 you are here appearing on behalf of Kansas as a lay
20 witness; is that correct? In other words, you have not
21 been designated as an expert in the areas of hydrology
22 or anything like that?

23 A. Not in this proceeding, to my knowledge,
24 no.

25 Q. And so the opinions that you express with

1 regard to Mr. Barfield's report, which has been offered
2 as an expert opinion, are based on your own
3 observations?

4 A. They're based on my observations.

5 Q. Thank you.

6 You mentioned throughout your testimony a
7 couple of times references to proliferation of wells
8 after 2002 and irrigated acreage in Nebraska; is that
9 correct?

10 A. I spoke in terms of irrigated acreage. I
11 don't know that I said proliferation of wells after
12 2002.

13 Q. Do you know what the -- what has happened
14 since 2002 with regard to the consumption of groundwater
15 in Nebraska? Has it gone up or down?

16 A. Since 2002?

17 Q. Yes.

18 A. I think that would depend on each
19 individual year in regard to that question.

20 There had been some years, at least, in
21 there where it probably has gone down. I would have to
22 look at the specific figures.

23 Q. Would it surprise you if it were trending
24 downward?

25 A. It would surprise me, except for perhaps

1 the last couple of years, but I think there are several
2 factors at work here.

3 You know, if you look at years -- each year
4 is different in regard to things like precipitation. So
5 one has to -- you know, have to -- we had -- the late
6 '80s through 1992 were very dry -- low-flow dry years.

7 Comparing to those -- you know, there may
8 be some years in there where it would be less. So it
9 depends on what you compare to.

10 Q. I'm just comparing or trying to ascertain a
11 trend between 2002 and 2007.

12 A. Well, 2007 is likely less than 2002.

13 Q. That was my question.

14 A. Those were vastly different years in regard
15 to the weather and climatic conditions.

16 Q. Thank you.

17 You mentioned in response to a question
18 from Mr. Draper that the irrigated lands available in
19 Nebraska after implementation of Kansas' proposed remedy
20 would somehow be roughly equivalent to those in Colorado
21 and Kansas; is that your testimony?

22 A. The testimony is that the -- what I think I
23 said, and what I meant to say, was that the -- if you
24 deducted the, roughly, 500,000 acres of land that would
25 be curtailed under the Kansas proposal would put

1 Nebraska, in a time sense, back where Kansas and
2 Colorado were when their development leveled off.

3 Q. And so is it your testimony that it's
4 acceptable to eliminate roughly 500,000 acres of
5 irrigated land in Nebraska because that result is
6 equitable?

7 A. That's not what was inferred by my comment.
8 It was really putting it in perspective in
9 terms of acreages within the basin.

10 I think what is important is what is really
11 necessary to achieve future compliance.

12 Q. And in your view, it's necessary to ensure
13 that the irrigated acreage amount return to the
14 1970s-1980s?

15 A. Again, that's not what I said.

16 Q. I'm trying to connect the dots. Can you
17 clarify for me.

18 A. I think it's -- it was a comment that -- an
19 answer that I provided to put in perspective what that
20 change in acreage would look like, compared to what it
21 was then and compared to the amount of acreage when
22 things leveled off in Kansas and Colorado.

23 That's a very different issue than the
24 answer I gave in regard to what is in the Kansas remedy
25 in regard to future compliance to comply with what is

1 required by the FSS and the Compact.

2 Q. So the relationship between irrigated lands
3 in Nebraska and Colorado and Kansas after implementation
4 of the Kansas remedy is not relevant as to whether or
5 not it should happen; is that what you're saying?

6 A. We're here talking about future compliance.
7 And what is important, I think, is what is necessary to
8 achieve that.

9 The testimony on those acreage figures was
10 really to sort of put in perspective in terms of what
11 that means.

12 Q. I just want to be clear.

13 You're not suggesting that Nebraska is
14 required to have irrigable land area that is equivalent
15 to what is in Colorado or Kansas; right?

16 A. I wasn't suggesting that you have to go
17 back to a particular time, per se. It was really in the
18 context of what does this mean.

19 Q. Thank you.

20 You mentioned earlier some opinions about,
21 or experience with issues in New Mexico and the Pecos
22 River?

23 A. Yes.

24 Q. Do you recall that, generally?

25 A. Yes.

1 Q. Something I wrote down that you said is, if
2 I understood correctly, it took New Mexico, I believe
3 you said a period of years to implement some of these
4 programs that you mentioned they're currently involved
5 in to ensure Compact compliance. Is that accurate?

6 A. What I said, I believe, was, yes, they
7 spent a number of years getting to where they are. But
8 the two key points was: First of all, they have been in
9 compliance ever since the Decree has been issued. They
10 took the steps that were necessary early on to achieve
11 that, even though they had some periods where they were
12 really questioning, so they had to take specific early
13 actions.

14 But in addition to that, as the years went
15 by, they developed a more comprehensive Compact
16 compliance program that they now have in place that
17 embodied ways to get the system into balance and to
18 provide those long-term assurances.

19 Q. And the FSS was signed when?

20 A. December 15 of 2002.

21 Q. And do you know when it was approved by the
22 court?

23 A. Spring of 2003, or somewhere in there.

24 Q. Thank you.

25 I will hand you what I will mark as Exhibit

1 No. 22 -- Nebraska Exhibit No. 22, which is the 44th
2 Annual Report of the RRCA.

3 Do you recognize this document, Mr. Pope?

4 A. Yes.

5 Q. And is it, to the best of your knowledge, a
6 copy of the RRCA Annual Report for this year?

7 A. Yes, it appears to be.

8 Q. Would you please turn to page 2 in this
9 document.

10 A. Yes.

11 Q. And are these essentially the minutes of a
12 meeting conducted January 12, 2005?

13 A. Yes. They appear to be minutes or, at
14 least, a summary of the special meeting held January 12,
15 2005.

16 Q. That's a better characterization. Thank
17 you.

18 And on page 2, Section D, it talks about
19 2003 accounting. Do you see that?

20 A. Yes.

21 Q. What is -- what does that paragraph mean?

22 A. It was the -- it appears, I believe, in
23 looking at just this paragraph, that it was the actual
24 action that was taken by the RRCA to approve the 2003
25 accounting that had not yet been done.

1 Q. Thank you.

2 On page 24, if you could look at that,
3 please. There is a sentence in the second full
4 paragraph under the Engineering Committee Report
5 beginning "Commissioner Patterson."

6 A. 24, did you say?

7 Q. Yes.

8 A. Yes.

9 Q. And is that essentially the same statement,
10 only for the 2004 accounting?

11 A. It's a broader action, but it includes
12 acceptance of the Engineering Committee report; but
13 included within that, as I read this paragraph, was
14 approval of the 2004 accounting, and also this approval
15 of the -- there was a past accounting done for that
16 other period.

17 Q. And if you would turn to page 18, I just
18 want to verify the date that this meeting occurred was
19 July 27, 2005; is that correct?

20 A. Based on this, it appears to be, yes, the
21 summary of the -- of the annual meeting for the 44th
22 Annual Meeting, which, I guess, was 2004 -- for 2004.

23 Q. Thank you.

24 A. Wait a minute, let's see. Well, it's the
25 44th Annual Meeting.

1 Q. Thank you. That's all the questions we'll
2 have on that exhibit, thank you.

3 Now, one of the things that you mentioned
4 was some difficulty that was experienced by the Kansas
5 farmers, I inferred, in receiving water that was
6 essentially made available by the State of Nebraska for
7 Compact compliance.

8 Do you recall that general line of
9 discussion?

10 A. Yes, I think so.

11 Q. And are you familiar with Appendix B to the
12 FSS; that is, the kind of timeframes for various events
13 to occur?

14 A. I think I am. I think I know the one
15 you're referring to.

16 Q. And this is the one that talks about
17 water-short year administration, and other things, and
18 certain deadlines are set forth there, and it's just one
19 page. And you're more than welcome to look at mine if
20 you like.

21 A. Depends on the question whether I need to
22 look at it or not.

23 Q. Very good.

24 Do you know when Nebraska is required to
25 advise Kansas of its planned actions for water-short

1 years?

2 A. Well, I think it would be good if I looked
3 at the document. But if I recall, there is some sort of
4 a spring early-year notice and then another one, I
5 think, around June 30.

6 Q. It's the red tab.

7 A. Yeah. April 30.

8 Q. April 30?

9 A. And then the June 30 for the actions
10 actually being taken, basically.

11 Q. Very good, thank you.

12 So if I understood, one of the things that
13 you were saying was essentially Nebraska was providing
14 this water too late in the year to be used. However,
15 Appendix B doesn't seem to require Nebraska to say
16 anything about water-short year planning until April 30;
17 is that your understanding?

18 A. You have to be careful not to mix apples
19 and oranges here, in the sense that Appendix B and the
20 actions that are listed here are the whole range of
21 actions that would be planned and taken by Nebraska to
22 comply with water-short year administration.

23 The earlier testimony that I provided was a
24 subset or a specific item related to. If, indeed,
25 surface water is one of the actions that would be

1 provided, I think my testimony was that on the Kansas
2 end, decisions are being made by the farmers in the
3 January/February timeframe.

4 And that testimony was along the lines that
5 to make the water most useful, frankly, for, I think I
6 mentioned both States benefits', early decisions that
7 can be relied upon are going to result in more benefit
8 to Kansas and they're also going to result in more
9 beneficial use and benefits to Nebraska in regard to the
10 result that you would achieve from a given amount of
11 water.

12 So I think they are really two related, but
13 different things.

14 Q. And did I understand you to testify earlier
15 that in some cases Nebraska had informed Kansas of its
16 intentions as early as March?

17 A. Would you say that again?

18 Q. Do I understand your earlier testimony to
19 be that in some cases Nebraska informed Kansas of its
20 intentions as early as March?

21 A. Intentions for what?

22 Q. I'm asking you.

23 You had mentioned something about some
24 information that was provided regarding these issues by
25 Nebraska in March.

1 A. I don't recall that specific testimony or
2 what would have been provided.

3 Q. That's fine, that's fine.

4 And we did establish earlier that we don't
5 actually know if there is going to be a water-short year
6 administration until late June, early July; is that
7 correct?

8 A. The final determination is not made until
9 then.

10 I think we also said that there are monthly
11 determinations made so people will know what to plan for
12 and what to expect.

13 Q. But as far as expending State resources, do
14 you think it's necessarily unreasonable for Nebraska to
15 try to wait as long as it can before it actually knows
16 whether it needs to deliver that water under water-short
17 year administration, in your personal experience as a
18 water administrator?

19 A. I don't think -- I don't think it's
20 reasonable for Nebraska to wait until July 1 in a
21 water-short year period and hope for the best and end up
22 out of compliance.

23 Q. Very good.

24 You offered various opinions regarding that
25 issue of Nebraska compliance.

1 The accounting for '03 and '04 was approved
2 in 2005. Do you know when the accounting for 2005 was
3 approved?

4 A. Not by explicit date, but I would believe
5 that ordinarily the -- you're talking about for the year
6 2005?

7 Q. Yes.

8 A. The FSS and procedures require information
9 to be exchanged, I think, it's by April 1 or April 15 or
10 something like that, so that preliminary computation can
11 be made. And then those are typically finalized and the
12 work of Engineering Committee is done, such that the
13 administration can act upon that matter in its meeting,
14 which is typically in August.

15 And so with the exception of any matters
16 that can't be resolved, there should be action taken
17 each year in August for the preceding year.

18 Q. And so as Mr. Dreher observed earlier, for
19 lack of a better phrase, the accounting is kind of
20 retrospective, it's backward-looking?

21 A. To some degree it is, in the context of not
22 knowing, for sure, what the numbers are until, at least,
23 the following April and information is exchanged on a
24 preliminary basis. There are ways to estimate what has
25 happened in model runs and things like that; but, yes.

1 Q. And do you know when the original
2 Integrated Management Plans were adopted in Nebraska?

3 A. I don't know precisely. I know the general
4 period, but I don't know precisely.

5 Q. What is your understanding of the general
6 period?

7 A. Something like 2005.

8 Q. And when did you leave your position with
9 the State?

10 A. June of 2007.

11 Q. And do you know when the current IMPs were
12 adopted?

13 A. I think the date varied by each District;
14 but in a final sense, during the first half of 2008.

15 Q. So that's after you left your position with
16 the State; is that correct?

17 A. Yes.

18 Q. Have you read the new IMPs?

19 A. I've looked at them. I can't tell you that
20 I've studied every word, but I've -- I have a fairly
21 good understanding of their contents, I think.

22 Q. And what is the basis of your opinion that
23 those IMPs are not effective?

24 A. I don't recall stating that opinion,
25 exactly.

1 Q. I'm sorry, I guess I inferred that since we
2 have heard from you, that more was required of Nebraska
3 than she was intending to use.

4 A. I think your inference is correct.

5 Q. But your testimony is not necessarily that
6 the IMPs are ineffective?

7 A. It is. I mean, since you asked me the
8 question -- I was trying to be accurate in terms of what
9 I think I had said, but I don't believe the efforts that
10 have been made -- in fact, the way I have seen it, the
11 efforts that have been made are adequate to ensure
12 future compliance. And certainly, a part of that
13 effort, a large part of it, as I understand it, would be
14 what is contained within the IMPs.

15 Q. Right. Which you just indicated you had
16 not studied in great detail; is that correct?

17 A. I think I testified that -- I think I said
18 that I believe I have a pretty good understanding of the
19 contents and the key elements of the IMPs and have
20 looked at them.

21 Q. In formulating your views about those IMPs,
22 did you rely in any part on Mr. Larson's work?

23 A. I have relied on Mr. Larson's work for my
24 understanding of the impact of groundwater pumping on
25 streamflow. It's a piece of the overall puzzle, yes;

1 and, you know, some other things.

2 Q. I would like to ask you briefly to return
3 to the issue of the RRCA accounting procedures just
4 briefly, if you would.

5 Do you have a copy of what is Kansas
6 Exhibit --

7 MR. WILMOTH: Excuse me. John, what is the
8 number?

9 Q (BY MR. WILMOTH) -- Exhibit 31. That would
10 be --

11 A. Are you talking about the transcript?

12 Q. -- the transcript.

13 A. Yes.

14 Q. Could you please turn to page 65 for me.

15 A. Yes.

16 Q. Would you please read lines 9 through 20
17 for me?

18 ARBITRATOR DREHER: Mr. Wilmoth, what page
19 are you on?

20 MR. WILMOTH: I am on page 65.

21 THE WITNESS: Are you ready?

22 ARBITRATOR DREHER: Yes.

23 A. Starting with line 9 on page 65, "Finally,
24 in connection with the accounting procedures, I would
25 note that they can be modified by action of the RRCA,

1 and that's found in stipulation section" -- 1 -- is that
2 1.F. page 5? Or I.F., I guess it's 1.F. "While the
3 settlement teams have worked hard to make the documents
4 comprehensive and significant changes are not expected,
5 it is expected that there will be some modifications
6 with the completion of the model to fully conform with
7 its output and other changes may occur from time to
8 time, as well as the possibility that advances in
9 technology, for example, could allow for improved
10 methods."

11 Q. Thank you.

12 And would you please turn to page 60 of the
13 transcript line 5, in particular, is where I would like
14 to focus your attention.

15 A. Starting with line 5, "The State will be
16 considered in compliance with Section IV as long as the
17 five-year running average, statewide computed beneficial
18 consumptive use does not exceed the State's five-year
19 running statewide allocation, and as long as any
20 upstream State's sub-basin use does not impair the
21 ability of a downstream State to use its allocation from
22 the same sub-basin."

23 Q. Thank you.

24 And both of those statements, I believe,
25 are your testimony to Special Master McKusick; is that

1 correct?

2 A. I think so. I have to verify the chain
3 here.

4 Q. If you just look at the preceding page 59,
5 I believe you can identify that.

6 A. It looks like that's where I started and
7 apparently continued that section.

8 Q. So this reflects your understanding of the
9 concept of averaging being in Compact compliance; is
10 that correct?

11 A. I think, yes. There may be some additional
12 verbiage here, as well.

13 Q. But you earlier, I believe, testified that
14 the Compact compliance employs averaging some measure?

15 A. Yes.

16 Q. I would like to ask you to assume, for the
17 sake of argument, that 2004 to 2008 five-year accounting
18 shows a positive average.

19 A. Can you repeat that? I'm sorry.

20 Q. Certainly.

21 Assume, for the sake of this question, that
22 2004 to 2008 accounting shows a positive five-year
23 average. The numbers are irrelevant.

24 A. Okay.

25 Q. If Nebraska were -- had overconsumed,

1 excuse me, in 2004 by 10,000 acre-feet, what would be
2 the effect?

3 A. Well, for the five-year compliance period
4 of 2004 through 2008, if the average was a positive
5 number zero or above, then for that five-year period
6 Nebraska would have achieved compliance.

7 Q. And in 2004, what would be the ramification
8 of the overage?

9 A. 2004 is an individual accounting year
10 that's a part of potentially several different other
11 periods. It has to be looked at individually as a part
12 of those periods -- within those periods.

13 Q. Was it -- I beg your pardon?

14 A. It has to be looked at in the context of
15 each of the individual periods. A single year, by
16 itself, is not the measure --

17 Q. Okay, very well. Thank you.

18 A. -- for purposes of Compact compliance.

19 Q. And so there would be no real ramification
20 for the overage in 2004 legally, in your understanding?

21 A. I think we want to be careful that for that
22 particular five-year period. There may be other
23 ramifications for 2004 as a part of some other period.

24 Q. But not independently?

25 A. I'm sorry.

1 Q. But not independently?

2 A. There is not a compliance test for a single
3 year. There are years that can fall within several
4 different compliance periods.

5 Q. Thank you.

6 I would like now to turn to a scenario that
7 Mr. Dreher posed to you.

8 If you would recall, he was questioning you
9 about two-year averaging. And I believe that the
10 scenario was negative 30,000 in 2005 and positive 60,000
11 in 2006; in other words, Nebraska were under her
12 allocation in 2006 by 60,000 acre-feet and over her
13 allocation by 30,000 acre-feet in 2005.

14 Do you recall that general --

15 A. Yes.

16 Q. -- example?

17 In the two-year average, under that
18 scenario, there would have been a positive 15,000,
19 correct?

20 A. It --

21 Q. If you need a calculator, that's fine. I
22 know I would.

23 A. Yes. 60,000 over for 2006. 30,000
24 under --

25 Q. It's just the inverse. 30,000 over in '05;

1 60,000 under in '06.

2 A. Well, the best way, in my view, to say what
3 that means is the sum of the positive and the negative,
4 because you end up with, in that particular two-year
5 period of a 30,000 positive number.

6 If you use it in the context of an average,
7 it would be 15,000 acre-feet per year, and you still get
8 30,000. So the result of the two-year period is an
9 average of 15,000 or a total --

10 Q. Right. But --

11 A. -- of 30,000 acre-feet.

12 Q. Right. But the average is 15,000?

13 A. Per year.

14 Q. Yes, very good.

15 Now, I just would like to invert that
16 example, such that the average is negative.

17 In other words, that Nebraska was under her
18 allocation in 2005 by 30,000; in 2006 was over her
19 allocation by 60,000. So it's the exact same, only the
20 numbers are reversed. The former was -- '05 used to be
21 negative; now it's a positive and vice versa.

22 Would that result in a negative of 15,000,
23 on average?

24 A. You had -- I'm sorry, I like to write these
25 things down, but you have an overage of 60,000?

1 Q. In 2006, correct.

2 A. In 2006. And you have a positive number of
3 30,000 in 2005?

4 Q. Correct.

5 A. So your two-year number is a minus 30,000
6 acre-feet and the average is a minus 15,000 per year;
7 reaching the same conclusion, the result is minus
8 30,000.

9 Q. And that's exactly my question.

10 My next question, however, is very
11 important, I think, for these proceedings; and that is:
12 When you are talking about averaging, here in your
13 testimony to the Special Master McKusick, was it your
14 understanding at that time that Nebraska would be made
15 to pay on the negative 15,000 two-year average or on the
16 total negative 30,000?

17 A. The total negative 30,000, broken down by
18 each individual year, if necessary. I think the, you
19 know, issue of damages or something is a different
20 question.

21 Q. So let me give you this example.

22 Let's assume that in 2005 the same number
23 occurred; in other words, a positive 30-. Are you with
24 me?

25 A. 2005 is positive 30-.

1 Q. Positive 30-.

2 2006 is a negative 31,000. Do you
3 understand that, as far as I've got it?

4 A. I'm doing the math with you so far.

5 Q. Okay. And the average, I believe, would be
6 a negative 500; is that correct?

7 A. You have a negative 1000 acre-feet and an
8 average for minus 500 for the two-year period, 500 per
9 year.

10 Q. Correct. And I will repeat the same
11 question.

12 Was it your understanding, when you were
13 testifying to Special Master McKusick, that under that
14 scenario Nebraska would be required to pay on the 500 or
15 on the 31,000?

16 A. I don't recall testifying on that question
17 in terms of what Nebraska would have to pay. I think we
18 were hoping, that day, there would be compliance.

19 Q. What would your view be based on your
20 expertise in this area, or your personal experience, I
21 should say?

22 A. Well, I can do the math in regard to what
23 the sums and averages are.

24 As I said in my testimony in response to
25 Mr. Dreher's questions, it's not my job to be providing

1 legal opinions or policy decisions for Kansas.

2 Q. So you have no opinion on this matter?

3 A. I don't have an opinion in terms of what
4 your hypothetical was: What would Nebraska have to pay
5 on? I can do the math here in terms of the numbers.

6 Q. My question relates specifically to your
7 understanding of the accounting. In virtue of all of
8 your experience, implementing it and thinking it
9 through, the question seems to me very important and we
10 really need to get to the bottom of it. I've asked this
11 of Mr. Barfield in his deposition and could not get an
12 answer.

13 I'm hoping you can answer it.

14 MR. DRAPER: Your Honor, he is pressing
15 Mr. Pope for a legal conclusion, and I will object to.

16 MR. WILMOTH: I'm not asking as a legal
17 matter. I'm just asking when he talks about whether
18 Nebraska is in compliance or out of compliance and what
19 needs to be done into the future.

20 As you know, Mr. Arbitrator, it's very
21 important for Nebraska to understand how that is being
22 viewed, not only from a damages' perspective, but also
23 from the crediting issue perspective, which is my next
24 question.

25 MR. DRAPER: Again, the further statement

1 of counsel shows just how pure a legal question this is.

2 I would continue my objection.

3 ARBITRATOR DREHER: Well, let me tell you
4 what my thinking is and I'm not sure I know what my
5 decision is.

6 But, to me, this isn't really a legal
7 conclusion. It's really an interpretation based upon
8 his expertise; but the reason I am hesitant
9 is that Nebraska made a point that this -- Mr. Pope
10 was qualified as a lay witness, not as an expert
11 witness.

12 And I'm not sure -- I have not seen any
13 track that the crediting issue was thought about. And
14 in my decision on legal issues, I suggested that it had
15 not been fully submitted to the RRCA, which, to me,
16 means that I don't think Mr. Pope has participated in
17 what -- in that particular issue, and I'm not sure it's
18 fair to ask him for his opinion.

19 So I don't think he has to answer.

20 MR. WILMOTH: Okay, very well. That's all
21 we have.

22 ARBITRATOR DREHER: All right.

23 I think we'll take our lunch break now and
24 when we come back, you can do redirect.

25 I'm not sure what sort of a break you want.

1 MR. DRAPER: If we come back at 1:30.

2 ARBITRATOR DREHER: All right.

3 That will be fine, 1:30.

4 (Break was taken from 11:57 to 1:30.)

5 ARBITRATOR DREHER: Mr. Draper, please
6 proceed with redirect.

7 REDIRECT EXAMINATION

8 BY MR. DRAPER:

9 Q. I would like to -- to begin my redirect, I
10 would like to show you, Mr. Pope, a set of documents
11 that relates to the question that was raised during the
12 question of you by Mr. Dreher and by Nebraska.

13 Do you recognize what we have marked as
14 Kansas Exhibit 56?

15 A. Yes.

16 Q. What does that consist of?

17 A. This is a series of letters. The top one
18 is dated November 3, 2004 from Roger Patterson, who was
19 then the director of the Department of Natural Resources
20 to the Lower Republican Natural Resources District. It
21 has attached a letter dated October 22, 2004 from Alice
22 Johns, who was then the area manager for the Bureau of
23 Reclamation, Kansas -- Nebraska-Kansas Area Office,
24 which spoke in terms of water-short year administration
25 determinations.

1 Q. And to whom is that letter addressed from
2 Alice Johns?

3 A. The letter from Alice was addressed to
4 Roger Patterson, myself and Hal Simpson, who were the
5 three state engineers for the three States.

6 And then attached to this group of letters
7 is identical letters, as best I can tell, to each of the
8 other Natural Resources Districts in the Republican
9 River Basin with the same attachment, per Ms. Johns.

10 Q. What does that set of letters tell you
11 about the efforts of the Department of Natural Resources
12 at this time prior to the 2005 year with respect to
13 attaining compliance with the FSS?

14 A. Well, I think there are several things that
15 can be determined from the letter, but it does
16 illustrate that Mr. Patterson was providing notice to
17 the Natural Resources Districts that the projected water
18 supply was less than 119,000 acre-feet and, therefore,
19 was forecast, at least, to be water-short year
20 administration for the first water-short year
21 determination under the FSS. He was expressing concerns
22 there in paragraph 2 about 2005, since that was the
23 first of the two-year running average.

24 He noted that if it remains dry, it will be
25 critically important to control water use in 2005 to

1 avoid the need for any more significant -- for
2 significant cutbacks in 2006 and suggested that rules
3 need to be put in place by the NRDs for 2005 that will
4 allow Nebraska to -- uses the term "remain in compliance
5 with the Republican River Compact."

6 So I think it shows that advance actions
7 can be requested and taken. In this particular case, he
8 was relying upon the Natural Resources Districts to take
9 the actions, which, I think, as it turned out, may not
10 have happened; but the -- but it's not necessary, in my
11 view -- and this letter, I think, reinforces the fact, I
12 think, Mr. Patterson agreed with that -- to wait until
13 July 1 of the following year before you do anything to
14 try to take actions that will be necessary.

15 I think this also, essentially, illustrates
16 that Mr. Patterson's understanding of the two-year
17 water-short year -- well, that the 2006 water-short year
18 period included 2005 and 2006, essentially the same
19 response, I think, that I gave earlier in my testimony.

20 So I think the letter is a demonstration
21 that there was, at least, an attempt at that time early
22 on to recognize this problem.

23 Q. And is it consistent with the fact that if
24 there were going to be cutbacks in pumping, that that
25 would have to occur through the Natural Resource

1 Districts?

2 A. Yes, that's the way I read it.

3 Q. This question that is, in some ways,
4 addressed by these letters of whether realtime
5 compliance with Compact obligations that can only be
6 known for sure after the accounting period is over, is
7 that an unknown problem in western water?

8 A. Well, I'm certainly aware of several
9 instances where that is the situation. And by that
10 is -- I mean, that you don't know for sure in terms of
11 the final computations until after the period has ended.
12 It's not a unique or unusual situation in the interstate
13 river compact matters that I'm aware of.

14 I would cite two instances. The Pecos
15 River compact example that I mentioned and talked about
16 this morning, those determinations are made for a given
17 year and New Mexico is required to take the actions
18 during the course of that year, not knowing for sure
19 what the final answer is.

20 I mean, if there is a problem, well, then
21 they have to deal with it through a mechanism that is
22 set up in that particular decree.

23 Another example, which I think is actually
24 more parallel in some respects, is the -- our
25 Kansas-Arkansas River Compact Administration -- for the

1 benefit of Pete -- the result from all over the
2 litigation and the decree that was ultimately fashioned
3 by the States and the Special Master and submitted to
4 the Court, embodies really an analogous situation, in
5 the sense that the determination of what happened is not
6 known until shortly after the year; and that, then,
7 becomes values that are played into the overall Compact
8 compliance scheme.

9 In that particular case, I would note that,
10 notwithstanding all the issues that we have dealt with,
11 I would say that Colorado has adopted rules and
12 regulations for the Ark River Valley and its groundwater
13 use that require certain things to be done in advance in
14 the spring of the year -- of the year that would be in
15 question in terms of what offsets are available for
16 pumping and things of that nature.

17 It's a very different system hydrologically
18 than we're talking about here for the Republican River
19 Basin because those tend to be alluvial wells; but they
20 provide notice, they require commitments from their
21 water users during the course of the year before they
22 can pump or before certain things can happen.

23 And so there is a methodology for -- in
24 certain instances, for steps that can be taken before
25 you get to the end result.

1 The other factor I would mention in this
2 particular case, meaning the Republican River FSS, is
3 that we're talking about either two-year or five-year
4 accounting periods. And so you know what the
5 result is for all the years, except the last one, in the
6 period.

7 If it's a five-year period, you know in the
8 first four years, and you can then take actions to
9 adjust and, hopefully, you don't wait until the last
10 year to do everything, but -- and you can have the data
11 pretty readily available.

12 Most of the data that is needed by the
13 States to make their preliminary assessments are data
14 that they have available to themselves. They can do
15 analysis, they can do computer runs, they can do
16 assessments of flows, all kinds of things.

17 So I don't think it's an insurmountable
18 problem, is my point in regard to anticipating where
19 they're going to end up.

20 MR. DRAPER: No further questions.

21 ARBITRATOR DREHER: I don't have any
22 additional questions either.

23 MR. DRAPER: We would just move the
24 admission of the three exhibits that were discussed
25 during Mr. Pope's testimony.

1 Those are Kansas Exhibits 40, his
2 curriculum vitae; 31, the transcript of the January 6,
3 2003 hearing; and 56, which is that group of letters
4 discussed on redirect.

5 ARBITRATOR DREHER: Any objection?

6 MR. WILMOTH: We have no objection.

7 MR. AMPLE: None.

8 MR. WILMOTH: We would also move Nebraska
9 Exhibit 22, which was the 44th Annual Report of the
10 RRCA.

11 ARBITRATOR DREHER: Any objection?

12 MR. DRAPER: No objection.

13 MR. AMPLE: None.

14 ARBITRATOR DREHER: They're all admitted,
15 then.

16 Thank you, Mr. Pope.

17 (WHEREUPON, Kansas Exhibits 31, 40 and 56
18 and Nebraska Exhibit 22 were admitted into evidence.)

19 THE WITNESS: Thank you.

20 ARBITRATOR DREHER: Call your next witness.

21 MR. DRAPER: Thank you, Your Honor.

22 We would call Mr. David Barfield.

23 DAVID BARFIELD,

24 having been first duly sworn, was examined and testified
25 as follows:

1 ARBITRATOR DREHER: Mr. Draper, I probably
2 don't need to restate it, but again, because of content
3 in Mr. Barfield's report, I'm interested in the latter
4 part, not the first part.

5 MR. DRAPER: Very good, yes.

6 DIRECT EXAMINATION

7 BY MR. DRAPER:

8 Q. Mr. Barfield, you previously testified.
9 However, we did not mention your curriculum vitae, which
10 is Kansas Exhibit 16. Do you have a copy of that with
11 you?

12 A. I do.

13 Q. Relying, in part, on that, would you
14 briefly describe your experience and qualifications with
15 respect to the Republican River Basin and the issues in
16 this proceeding.

17 A. Okay. Well, with respect -- you know,
18 obviously, the document has my general education in
19 terms of a bachelor's in civil engineering and a
20 master's in water resources and my various professional
21 experience. I'll just start with the experience that
22 started in 1992 with respect to interstate water issues
23 then.

24 Since that time, for 15 years I was
25 basically sort of the lead technical representative on

1 our team that dealt with, you know, various interstate
2 water matters, Republican River, the Ark, with
3 Colorado-Missouri River issues, are sort of the dominant
4 interstate issues that I've dealt with over those 15
5 years.

6 And certainly, the Republican River has
7 been, you know, very significant part of that work. As
8 I think I mentioned yesterday, I've been on the
9 Engineering Committee since 1994 and I think the lead
10 representative that entire time.

11 And, thus, have sort of dealt with the
12 matters before us for those years helping to work
13 through the issues and raising the issues and
14 determining whether we could resolve the issues through
15 the Compact Administration, including the facilitated
16 negotiations of '95 to '97, and then being a participant
17 in the litigation team and the settlement team that
18 later led to the FSS.

19 And then again, sort of our lead
20 Engineering Committee representative as we sought to
21 work together with the other States to implement the
22 Final Settlement Stipulation.

23 And then, of course, more recently, over
24 the last since Mr. Pope's retirement, then I have also
25 served as Kansas Commissioner and continued to have a

1 significant role in the Engineering Committee for much
2 of the time, as I couldn't replace myself until I become
3 permanent chief engineer. And it took some time to get
4 somebody up to speed.

5 So anyway, I've had very significant
6 involvement in this matter for those years.

7 Q. I would like to now turn to what has been
8 marked as Kansas Exhibit No. 6, your expert report.

9 A. I've got it.

10 Q. Keeping in mind the request of the
11 Arbitrator, would you, using the report and recognizing
12 that the Arbitrator and the parties have had a chance to
13 review it, briefly touch on each of the major points in
14 the report.

15 A. Okay.

16 Q. And also, if you could include your basis,
17 at least, briefly as you go through.

18 A. Okay. All right.

19 Well, I guess, again, the first half of the
20 report I'll just sort of do it in a very summary
21 fashion, understanding you've had a chance to review it
22 and so forth.

23 The Introduction, essentially, just sort of
24 restates the remedy that we are sort of requesting or
25 finding in this proceeding, and ultimately the Court, in

1 terms of the remedy we requested back in December of
2 2007. Then it just sort of rehearses some of the
3 general background related to the Compact and
4 development of the basin, Colorado's noncompliance with
5 the Compact for four years prior to, you know, us filing
6 the litigation.

7 Figure 2, I might just touch on briefly
8 because it also --

9 ARBITRATOR DREHER: I think you meant
10 Nebraska. You said "Colorado"; I think you meant
11 Nebraska.

12 THE WITNESS: Thank you. I meant Nebraska.
13 Appreciate that correction. Excuse me, Pete.

14 MR. AMPLE: You just saved yourself some
15 cross-examination.

16 THE WITNESS: That will come in subsequent
17 proceedings, not in this one, I would think.

18 A. Figure 2 gives the development of what is
19 called Groundwater-exclusive irrigated acreage within
20 the basin -- within the Republican River model domain.

21 If might, I might just touch on it for a
22 brief moment or two here.

23 It's actually not all groundwater. There
24 are some commingled that are not in this particular
25 graphic; but again, and we've talked about this enough

1 already. Kansas and Colorado's development stopped in
2 the late 1970s or essentially did and Nebraska's
3 continued on. And their expansion in acres, as Mr. Pope
4 mentioned, continued on, even after 2002.

5 I might just touch on this Colorado acreage
6 question that came up.

7 David, I think, was remembering a graphic
8 that was a number of wells within the model domain and
9 Kansas and Colorado's peaked at about 4000; but the
10 irrigated acreage, as Mr. Ampe mentioned, was
11 significantly greater in the 600,000 range.

12 Pete, actually, I think this graphic is
13 actually more accurate, that it's a little bit under
14 600,000. The numbers put in the model datasets were
15 actually found to be incorrect.

16 Q. And this graphic takes the acreages up
17 through what? 2007?

18 A. I believe it's 2007. And these are
19 actually taken from the model input datasets.

20 Q. And what does it show the acreages to be in
21 the States?

22 A. Well, again, roughly 400,000 for Kansas;
23 just a bit over, just about under 600,000 for Colorado.
24 And within the Republican River Basin, which is the blue
25 line, just under a million -- I'm sorry,

1 1.2 million acres.

2 Now, again, that's groundwater-exclusive
3 acres. There are some additional commingled acres in
4 addition. The red line is all the acres within the
5 model domain that extends into the Platte Basin.

6 Q. What were the acreages back at the time
7 that Colorado and Kansas stopped further well
8 development?

9 A. It was in the range of 800,000 acres.

10 Q. In Nebraska?

11 A. In Nebraska, within the Republican River
12 Basin. Again, those are groundwater-exclusive only.

13 Q. All right, please proceed through your
14 report.

15 A. Sure.

16 The report then just rehearses some of our
17 efforts to resolve the dispute through the Compact
18 Administration.

19 Section B just rehearses some of the
20 Bureau's statements of concern with the Compact
21 Administration.

22 Figure 3 is a graphic that just shows
23 inflows in Harlan County in blue and precipitation and
24 notes the significant downward trend.

25 Again, Figure 4, I think we've already

1 seen. So again, I won't rehearse that. It just shows
2 the groundwater models, what it predicts as outflows
3 from the groundwater system into the surface water
4 system in the historic period and as projected by the
5 State of Kansas in its future runs, both under the
6 base-case scenario that Mr. Larson described, as well as
7 our proposed remedy.

8 Again, Section C speaks to our impacts to
9 some of the periods of overuse that are in the historic
10 record and references an attachment to the report that I
11 won't go into.

12 Section D, then, just goes through the
13 Final Settlement Stipulation. And again, I don't feel
14 like we need to rehearse that. Mr. Pope, I think
15 gave -- you know, he and I share a lot of the same
16 history and he shared some of this information I think
17 with this group, so I will just respond to questions at
18 the appropriate time, if there are any.

19 Again, Figure 5 is something we've already
20 spoke about in this proceeding. It just shows the
21 projected -- well, the historic groundwater depletions,
22 due to Nebraska's well pumping, and then our projections
23 under the status quo, as Mr. Larson described, as well
24 as the remedy.

25 Section E just describes Nebraska's

1 noncompliance from the -- since the FSS was developed.
2 Again, the accountings for 2003 and 2004 have been fully
3 accepted, as we have heard about this morning. And I
4 reported on the acceptance of the 2005 and 2006, the
5 degree of agreement on those.

6 And I apologize for not having page
7 numbers, but later on in Section E, I would just like to
8 highlight a couple of brief points.

9 Ann Bleed, after Roger Patterson, moved on,
10 was first deputy director, then interim director and
11 then finally director.

12 She -- you know, she -- and I've seen a
13 number of these -- the State of Nebraska did projections
14 into the future in terms what does the future look like
15 in there terms of their groundwater depletions under
16 various scenarios. And, you know, I personally have
17 seen her make some of those presentations and seen some
18 of the results.

19 And they took those results to the basin
20 and, as is mentioned here, in December 16 she and
21 Governor Heineman went to the basin and spoke about what
22 she viewed as required for the State of Nebraska to come
23 in compliance with the Republican River Compact and
24 spoke of reductions in pumping that were substantially
25 more restrictive than the current proposals in the IMPs

1 that we'll talk about here in just a minute --
2 reductions of, you know, to 3 to 6 inches in what are
3 called the Quick Response Areas, which are actually
4 quite similar to the 2 1/2 mile corridor that we have,
5 and then, you know, in the 9 to 11 1/2 inches in the
6 upland areas.

7 So she spoke about, and saw, the need for
8 very significant reductions to come in compliance with
9 the Compact. In contrast, the IMPs that we'll talk
10 about more specifically, the IMPs, you know, in 2005
11 had, you know, relatively modest reductions.

12 So I guess that will be my highlights for
13 the first half of the report.

14 Should I pause or just continue?

15 Q. If you would go ahead with the rest of your
16 report.

17 A. Okay. Well, sort of the second half of the
18 report, I guess, speaks to remedies and specifically to
19 sort of our analysis of the sufficiencies of the
20 Integrated Management Plans and the Rules and
21 Regulations of the NRDs.

22 Again, you know, it's our belief that the
23 Kansas remedy is what is necessary for the State of
24 Nebraska to come into compliance, for it to restore
25 the -- you know, the system into some sort of state

1 where they have a reasonable shot at getting in
2 compliance, especially during the very critical periods
3 when this Compact is supposed to work.

4 In the remedy letter that I sent to the
5 State of Nebraska, I said, This is our plan, you know,
6 this is -- again, as we have -- Mr. Book and Mr. Larson
7 testified to yesterday, this is the process by which we
8 determined the necessary level of depletion that we
9 believe the State of Nebraska could use and stay within
10 those dry five-year allocations, and this is how we saw
11 that it could be done. But we offered to the State of
12 Nebraska in that letter that if they could find a
13 hydrologically equivalent method, reliable method, even
14 in compliance, we were hoping for that.

15 I guess you'll hear from us -- and the
16 State of Nebraska has stated that it has a plan in terms
17 of its Integrated Management Program. And I guess the
18 rest of this report is sort of speaking to why we do not
19 deem that as a hydrologically equivalent method.

20 Q. Mr. Barfield, just as we go into the remedy
21 section, can I call your attention to the first section
22 of the report on page 1 under the heading of
23 "Introduction."

24 Do you have a listing there of the remedy
25 that is being requested?

1 A. Yes, I do. And let me highlight that for a
2 moment.

3 Again, six things that my December 19
4 letter laid out as the State of Kansas requesting of an
5 order of the Supreme Court that Nebraska be held in
6 civil contempt for its violations the water-short year
7 2006; that Nebraska be required to pay damages for those
8 violations, including costs, interest and attorney fees.

9 And then, again, specifically specifying
10 our shutdown of wells within 2 1/2 miles of the stream
11 and outside of that corridor, irrigated acreage added
12 after the year 2000; and then any further restrictions
13 required to meet the water-short year test or
14 alternative remedy that ensured compliance.

15 Four, that they would reduce their CBCU and
16 other means until the effects of the reduction in
17 groundwater pumping would manifest itself, recognizing
18 it takes a period of several years.

19 Five, requesting a river master be
20 appointed.

21 And six, that the Court would establish
22 sanctions for future violations of the decree.

23 Q. Thank you.

24 A. Okay. So I'm back to the report Section
25 III, Remedies. And I think I've covered Section 3a

1 then.

2 Section 3b then speaks to my view of
3 Nebraska's plan and its various inadequacies.

4 First section, a little I, speaks to the
5 IMPs being hydrologically inadequate. And again,
6 Mr. Larson provided a summary of the underlying analysis
7 here that, in part, leads us to this conclusion.

8 The current IMPs provide for some reduction
9 in pumping. Actually, it's not entirely clear the
10 degree to which pumping reductions are required by those
11 Integrated Management Plans and the associated rules and
12 regulations.

13 As was sort of evidenced in the testimony
14 in cross-examination yesterday, there are differences in
15 terms of how we read those requirements. There is a
16 number that is referenced in the Upper and Middle IMPs
17 that is not consistent with the allocations provided in
18 the regulations of the NRDs. And we are uncertain about
19 how those two fit together.

20 If I might just give an illustration maybe
21 at this point.

22 There was a reference made -- excuse me --
23 to -- for the Upper Republican NRD of a goal that
24 pumping reductions should achieve the level of 425,000
25 acre-feet per year, on average. And then it was noted

1 that our modeling reports of the -- our modeling
2 analysis had an average of 495,000 acre-feet.

3 If you take the certified acreage for the
4 District and multiply it times the allocation that is
5 provided, ignoring the substantial carryovers that are
6 allowed, the pumping that is allowed underneath those
7 rules of the NRD are approximately 485,000 acre-feet.

8 So this has led us, I guess, to being
9 uncertain as to exactly what the IMPs and the rules of
10 the NRDs do allow in terms of pumping, and similarly for
11 the other NRDs.

12 So I guess we conducted that analysis, and
13 it's referenced in Figure 6 that we already saw. And it
14 essentially says that under what we see as really the
15 only sort of -- the most hard-and-fast requirement of
16 the rules and regs and IMPs, that the pumping reductions
17 that would exist in the future achieved very little in
18 terms of slowing the future depletions and restoring the
19 system to a place where Nebraska can be in compliance
20 during the critical dry periods. And, I think, that's
21 still -- that's our view; that's my view.

22 And again, how the almost 3 million
23 acre-feet of carryover that is allowed under the IMPs
24 and the regulations of the NRDs fits in this is
25 difficult for us to discern as well, what is the meaning

1 of these pumping restrictions when there are so
2 substantial carryovers that can be used.

3 So in our view, in my view, the IMPs are
4 grossly inadequate to get the State of Nebraska in a
5 state where it can comply during the critical dry
6 periods.

7 Q. Do you show the carryovers on the
8 second-to-last page of your report?

9 A. Yeah. I have a table that the State of
10 Nebraska provided us. It's entitled "Totals" -- yeah,
11 it's actually, I think, the second attachment to the
12 report.

13 It's entitled "Totals for Certified
14 Groundwater Irrigated Acreage by NRD in the Republican
15 River Basin." Actually, those list in the top table
16 there the certified acreages of each of the NRD. The
17 second table on that same page actually is the
18 carry-forward allocations that are currently allowed by
19 the NRDs, or, at least, this is what we were provided in
20 April of 2008.

21 And as you see, there is approximately
22 243,000 acre-feet of carry-forward allocation allowed in
23 the Lower Republican NRD; 287,000 acre-feet in the
24 Middle Republican NRD; and over 2.4 million acre-feet in
25 the Upper Republican NRD.

1 Q. And that gives you a total in the range of?

2 A. Over 2.9 million acre-feet. Just under
3 Figure 6 in the report, we sort of critique an analysis
4 that the State of Nebraska provided as sort of evidence
5 that the IMPs were sufficient during dry periods.
6 However, we tend to disagree with the construct of that
7 particular analysis.

8 In Mr. Book's analysis, shows it's our view
9 that Nebraska's analysis during dry periods, at least
10 for the 2006 -- to 2002 to 2006 period, was, I believe,
11 211,000 acre-feet.

12 Their dry-year analysis used one that was
13 20,000 acre-feet larger and their computed depletion
14 were also lower and they still weren't in compliance.

15 Section i -- or ii speaks to my view that
16 the IMPs are administratively inadequate.

17 State of Nebraska has two different
18 entities: The State DNR that regulates surface water
19 and then the local political subdivision of the Natural
20 Resource Districts to regulate groundwater use.

21 Q. Let me just make sure that I'm tracking.

22 Are you looking at the page after Figure 6?

23 A. Yes, I am. The title of the section is
24 "Nebraska's IMPs are administratively inadequate."

25 You know, the State of Nebraska is

1 responsible for compliance with the FSS; the IMPs
2 actually explicitly state so. But -- and they are --
3 actually, the State DNR is responsible for surface water
4 administration; but, for the most part, the regulation
5 of groundwater use is delegated to their Natural
6 Resource Districts.

7 Obviously, there is increasing efforts to
8 coordinate those two in basins that are overdeveloped or
9 fully developed. Under their LB 962 it's still our
10 belief, my belief, in reviewing the IMPs, that that
11 degree of interaction is insufficient to ensure that the
12 actions that are necessary to get to compliance will, in
13 fact, do so.

14 The NRDs still are required to approve any
15 changes to the IMPs. They are required to take actions
16 in terms of reducing any allocations that are provided
17 for in their rules. And so if they are unwilling to
18 act, the State has little ability to require them to
19 act.

20 There is provisions under statute for a
21 board, an interrelated water review board, that can be a
22 mechanism or they can seek to go to require additional
23 action; but that mechanism has been untested to date and
24 I'm sure would take substantial time to come up with a
25 remedy in terms of if they're not complying with the

1 Compact.

2 The next section, Section 3, titled
3 "Nebraska water purchases are inadequate." Again,
4 everyone has had a chance to review the report, and I
5 think David Pope has spoken significantly on this point,
6 and I probably don't feel the need to add to it at this
7 point in the discussion.

8 Section IV just speaks to the fact that
9 their remedy, as proposed, is not going to really solve
10 the problems in the basin. And as a result of that --
11 as a result that groundwater depletions under their
12 remedy will continue to rise in the future, that the
13 State of Kansas can expect that the frequency of
14 problems in this basin dealing with overuse of their
15 allocations and undersupply to Kansas will increase in
16 frequency, and I would expect would increase in
17 magnitude, as well, until they can get the -- their use
18 within something on the order of 175,000 acre-feet that
19 we believe is necessary.

20 And again, the overuse will manifest
21 themselves in years when we need the water supply.

22 And in Nebraska's analysis -- we worked
23 with the state of Nebraska significantly in the early
24 part of 2008 -- we worked with the State of Nebraska
25 significantly in early 19 -- 2008, excuse me, working

1 through an examination of these issues to ensure that we
2 understood fully what the State of Nebraska was offering
3 in terms of a remedy, making sure that the model runs
4 were being done; if we both did model runs, that we were
5 getting the same results and reviewing one other's
6 analysis.

7 The State of Nebraska provided a number of
8 analyses based on long-term averages, but it's our view
9 that they ignore the need to comply during these
10 critical periods.

11 You know, Nebraska at various times has
12 stated that the drought was the cause of its inability
13 to comply.

14 And in Figure 7, I just wanted to highlight
15 a couple things as well.

16 Certainly, the year 2002 was a very dry
17 period. In fact, it was the driest year in this period
18 that is examined, 1918 to 2007. We took the weighted
19 average of the precip stations within the Republican
20 River Basin in Nebraska. The dotted blue line is a
21 depiction of the percentage of exceedance or
22 nonexceedance for each year within this record. Within
23 the 1918 to 2007 period the graphic displays the results
24 for 1980 to 2008.

25 And, as we see, we had two very dry years,

1 2002 and 2003; but every year since 2002 was wetter than
2 average, and 2007 was a 91 percent nonexceedance value,
3 so an extremely wet year. 2007 was also -- 2008, excuse
4 me, was also quite wet.

5 It was a question to Mr. Pope earlier about
6 the lower pumping that has occurred in recent years, as
7 opposed to earlier pumping, and the higher than average
8 precipitation, I think, is a part of the reason for
9 those lower pumping in recent years. But regardless,
10 Nebraska is required to comply in all periods.

11 Section V speaks to my view, our view, that
12 Nebraska's history of noncompliance and the inadequacy
13 of its plan requires the appointment, in our view, of a
14 river master.

15 And again, I think Mr. Pope has sort of
16 spoken to this topic sufficiently in terms of the need
17 to have an independent party that would, as I say in my
18 report, prevent Nebraska from placing its own economic
19 self-interest above its legal obligation to Kansas since
20 it has more to gain from noncompliance than their loss.

21 You know, lastly, you know, the report says
22 that we believe sanctions for future violations are in
23 order, given these things.

24 The conclusion just essentially sort of
25 restates what we are seeking here. I might just see if

1 there are any attachments that I need to add comments
2 to.

3 Q. Yes, if you would.

4 You referred to one of them, but if you
5 would briefly note the attachments and what their
6 significance is.

7 A. Okay. Attachment 1 -- and I apologize the
8 print is so small here. It just actually gives the
9 19 -- a summary of the 1959 to 1994 accountings of the
10 RRCA with respect to Nebraska's adjusted allocations
11 consumptive use and difference; i.e., compliance or
12 noncompliance. Noncompliance would be the negative
13 numbers or, at least, its use in excess of its adjusted
14 allocations in those years.

15 The second attachment is the certified
16 acreages for each of the NRDs, as well as the carryover
17 we spoke to.

18 I attached a copy of the 2007 Annual Report
19 for the Kansas Bostwick Irrigation District. It's just
20 a reference to a statement I made in the report with
21 respect to shortages in the 19 -- early 1990s.

22 And then, finally, I have attached
23 Mr. Pope's letter of January 24, 2007 to Ann Bleed
24 expressing concern at that time with respect to the
25 inadequacies of Nebraska's actions.

1 Q. And if you would briefly state for the
2 record your ultimate conclusion from the analysis that's
3 reflected in this report.

4 A. Well, my ultimate conclusion is that, you
5 know, the State of Nebraska has obviously not been in
6 compliance in this period we've been speaking about, and
7 their plan for compliance is -- does not provide -- is
8 insufficient and does not provide Kansas with any
9 assurance that in the next dry period, that the State of
10 Nebraska will be in a position to retain -- you know, to
11 remain within its allocations.

12 MR. DRAPER: Thank you.

13 No further questions at this time.

14 ARBITRATOR DREHER: Mr. Barfield, I would
15 like to return to this -- back to the issue of how
16 Mr. Larson modeled -- simulated the results of
17 implementing the IMPs.

18 And I know where the number that the State
19 of Nebraska referred to yesterday -- the 425,000 acre
20 feet for the upper NRD, where that came from. And I
21 don't remember if in your testimony you said that you
22 modeled 485- or what the number was that --

23 THE WITNESS: My recollection -- it's in
24 Mr. Larson's report -- but for the Upper Republican, my
25 recollection is 495,000.

1 I, actually, have a copy of the exhibit
2 that we had up on the board yesterday. And I believe
3 the 425- was the IMP limit and for the Upper Republican,
4 495,000 was what we modeled for sort of the average use
5 of the Upper Republican NRD in our simulation.

6 ARBITRATOR DREHER: And that -- the 495,000
7 was based upon a 20 percent reduction of acreage?

8 THE WITNESS: Yeah. Let me tell you my
9 understanding of how that number was arrived at and why
10 it's different than the 425-.

11 We took the irrigation depths 1998 to 2002
12 and reduced the irrigation depths by 20 percent, but
13 applied them to the 2006 irrigated acreage, which is why
14 they're higher than the 425,000. I think the 425,000
15 was premised on the acreage that existed in the 1998 to
16 2002 period, as opposed to the acreage that existed in
17 2006.

18 ARBITRATOR DREHER: I see, okay.

19 And so that's your understanding for the
20 difference, one is essentially based on the average
21 acreage over what period of time?

22 THE WITNESS: Are you talking about ours or
23 theirs?

24 ARBITRATOR DREHER: Theirs.

25 THE WITNESS: Well, theirs, I think -- the

1 425,000, as I understand it, is just they compiled
2 records as to the use in 1998 to 2002 and reduced it by
3 20 percent.

4 ARBITRATOR DREHER: Okay. And you did a
5 20 percent reduction on the irrigation application by
6 using the 2006 acreage?

7 THE WITNESS: Right. Going to the future.

8 ARBITRATOR DREHER: And will you clarify
9 for me what is meant by "certified groundwater irrigated
10 acreage" in -- it's in your report. It's the tables
11 right before the annual 2007 report for the Kansas
12 Bostwick.

13 THE WITNESS: Right. Well, as I understand
14 it, the NRDs have gone through a process of certifying
15 all their acreage, irrigated acreage, within their
16 District so that every acre that is irrigated has to --
17 had to go through a process of being determined to be
18 certified and, therefore, provided an allocation under
19 their rules.

20 And so we requested that the department
21 provide us with those totals and they provided us, in
22 April, the totals that are provided here.

23 ARBITRATOR DREHER: Are those, then,
24 similar to what is called "classified acres" under the
25 Kansas Bostwick Irrigation District?

1 THE WITNESS: Well, in some sense, I
2 suppose they are. "Classified" is a term of art of the
3 Bureau of Reclamation in surface water projects; but, in
4 essence, I think classified acres within the Bureau --
5 within the Kansas Bostwick Irrigation Districts are
6 lands that are allowed to receive water from the
7 irrigation project. And here in the groundwater system,
8 as I understand it, these are acres that are determined
9 to have allocations within the rules of the NRDs.

10 So I think they're analogous.

11 ARBITRATOR DREHER: Lastly, you know, it
12 seems to me like simulating future results from the
13 status quo, however you define the status quo, was an
14 issue that would have rightly been taken up by the
15 Republican River Compact Administration, rather than
16 have the two States each making their own simulation
17 saying, This is what is right; no, this is what is
18 right.

19 Was an attempt made to try to reach
20 resolution on what the future might be using the RRCA,
21 as opposed to the States individually?

22 THE WITNESS: The RRCA, to my recollection,
23 has never done any joint futures as you suggest. I've
24 seen Colorado futures; I've seen Nebraska futures.
25 We've obviously done them ourselves; but no, the

1 Administration has never done any joint futures.

2 Again, the model -- you know, modelers, at
3 least my experience in working with the different states
4 on this, don't have any trouble running the same model,
5 getting the same results. And, you know, the results
6 that I was seeing out of the modeling efforts that were
7 done by the other States looked consistent with our
8 results.

9 And even in the RRCA portion of the dispute
10 resolution process we're in, when we all had the same
11 sort of modeling inputs and assumptions, we came up with
12 the same results.

13 That being said, you know, making a future
14 is a different thing and you, obviously, have to make a
15 number of assumptions and there is various methods to
16 implement that.

17 ARBITRATOR DREHER: Well, the one issue
18 that you mentioned, both during your testimony and your
19 report, was the appropriate starting heads to use for
20 the water-short year administration simulation. And it
21 seems like that would have been an issue that the RRCA
22 Engineering Committee could have flushed out, but I
23 guess they were never asked to do that.

24 THE WITNESS: That's right. The
25 Administration never asked them to run a future

1 projection. Each State was, I guess, left to make
2 determinations as to what it needed to do to come into
3 compliance.

4 ARBITRATOR DREHER: I think I said the last
5 question was my last one, but I've got another one.

6 Has Kansas done any simulations to project
7 whether and, if so, how much additional water Kansas
8 might receive during good years if this remedy was put
9 in place? In other words, as I understand it, this is
10 Kansas' proposed remedy to ensure compliance during each
11 and every year. So if you're going -- if this is what
12 is required to obtain compliance in the worst years,
13 doesn't that imply that in the better years, Kansas is
14 going to get -- receive more water than what they
15 otherwise might be allotted under the Compact?

16 THE WITNESS: Two responses. First of all,
17 the remedy in terms of the 2 1/2 half miles in 2000
18 doesn't get them in compliance every year. It gets them
19 in a state to where we believe they can get in
20 compliance with other means; but secondly, I guess to
21 answer your fundamental question, there is nothing that
22 prevents the State of Nebraska from finding other ways
23 to use its allocations, to develop additional storage or
24 additional uses that can be utilized during these years
25 of plenty.

1 What we're saying is to get into compliance
2 during the critical dry periods, we've got to get the
3 system into some sort of -- something closer to balance.

4 Even the remedy that we propose does not
5 get the system to safe yield or full balance because,
6 you know, the depletions continue to rise over time, but
7 they get -- they get in the neighborhood of that.

8 So with the State of Nebraska -- we are not
9 seeking to deprive the State of Nebraska from using its
10 allocations.

11 ARBITRATOR DREHER: I did not word my
12 question that way.

13 THE WITNESS: Okay, right.

14 ARBITRATOR DREHER: I simply was wanting to
15 see if you had run a simulation check to see how much
16 additional water might accrue if this was done.

17 THE WITNESS: Right. And the answer is no.

18 ARBITRATOR DREHER: All right.

19 Mr. Wilmoth?

20 MR. WILMOTH: Thank you.

21 CROSS-EXAMINATION

22 BY MR. WILMOTH:

23 Q. Good afternoon, Mr. Barfield. Welcome
24 back.

25 A. Good afternoon.

1 Q. I think what I will do, I've got a couple
2 of things going on in here.

3 One is, of course, your compliance
4 analysis, which is kind of the Kansas proposal. And
5 then there is this Nebraska -- essentially, Nebraska's
6 plan. And I think it would probably be easiest if we
7 started with -- just kind of bifurcated that, so we all
8 know what we're talking about.

9 I will just start asking you some questions
10 about the Kansas concept.

11 A. Okay.

12 ARBITRATOR DREHER: Just for my benefit,
13 Mr. Wilmoth, I had assumed that you would focus on the
14 Nebraska compliance plan during the response part of
15 this. Is that --

16 MR. WILMOTH: Yes, I do have some questions
17 about Mr. Barfield's testimony regarding Nebraska's
18 compliance plan.

19 ARBITRATOR DREHER: Okay, all right.

20 MR. WILMOTH: So I did intend to address
21 them both, since Mr. Barfield spoke to both issues.

22 ARBITRATOR DREHER: Sure.

23 MR. WILMOTH: Before I start,
24 Mr. Arbitrator, I want to make sure that I don't go
25 beyond my bounds here with regard to this crediting

1 issue and stop me if I misinterpreted your wording and
2 stop me if any of my questions go beyond the bounds
3 because I don't mean to offend you or the Court or your
4 ruling.

5 My understanding was this, from your final
6 order: This issue can be addressed at hearing and in
7 posthearing briefs to the extent it must be addressed in
8 considering Kansas' proposed remedies or other
9 alternative remedies or plans that may be considered at
10 hearing for future compliance with the Compact and the
11 Final Settlement Stipulation.

12 So I do have a question about that, and I
13 think you will see, if you will indulge me, how it
14 relates directly to that issue.

15 ARBITRATOR DREHER: Okay.

16 Q (BY MR. WILMOTH) Rather than firing numbers
17 at you, Mr. Barfield, if I could just do a little quick
18 analysis on the board here.

19 ARBITRATOR DREHER: Sure.

20 Q (BY MR. WILMOTH) I'm going to take some
21 hypothetical numbers that are really easy just to
22 remember so it will be easy to calculate the averages
23 and everything else.

24 For purposes of this question, what I am
25 trying to do is understand how you all view the world

1 with regard to future compliance requirements in light
2 of this proceeding and the potential for a damage
3 payment. And it's important to understand that, because
4 if we don't know how you're looking at that, then it's
5 difficult for us to analyze your plan and, obviously in
6 this issue, Kansas has the burden of proof.

7 So for purposes of this hypothetical, what
8 I would like to do is assume -- and this can be applied
9 to any situation where you have consecutive water-short
10 years. Let's assume for the sake of argument some easy
11 numbers.

12 In 2010 Nebraska was a positive 10; in
13 other words, they underutilized their allocation by
14 10,000 acre-feet. In 2011, they overutilized, or they
15 were over their allocation by 20,000 acre-feet, so you
16 have a negative 20.

17 Now, what I am struggling with is this
18 number. And let me give you the three alternatives that
19 I think are possible. And, I think, that in the
20 deposition -- the exchange we had during your
21 deposition, I'm not sure that we got to the answer for
22 this, but there are three possible scenarios.

23 One is that you are looking at an average
24 for these two years, the negative 5 -- stop me if my
25 math is wrong; I'm not an engineer. And that would be

1 an average, and I think we had some debate legally in
2 the briefs earlier about, Well, it should be average or
3 it shouldn't be average or whatever. I'm not asking a
4 legal question here.

5 Or if I interpreted Kansas' position
6 before, you take that average and times it by 2 because
7 that's paying twice.

8 Or -- and this is what I thought I first
9 understood you to say in your deposition earlier that
10 this water-short year is really a trigger mechanism to
11 see if there was compliance or not; and then if there
12 was not compliance, then you would pay on the actual
13 depravation at any point in time.

14 Does that sound familiar?

15 If you would like, I can pull the
16 deposition transcript, if you would like to refresh your
17 memory, but this was kind of the conversation we were
18 having.

19 A. Right.

20 Q. And we didn't really resolve it, did we?

21 A. Not fully, no.

22 Q. So here is the upshot, this is where I
23 really want to go.

24 When we're calculating compliance on a
25 going-forward basis, when you sit down and think, Okay,

1 what does Nebraska need to do, we have another
2 compliance period here, two years. So this average has
3 to be at least zero or else we're going to be
4 noncompliant again.

5 So let's take any one of these things,
6 there's three different scenarios: Either Nebraska is
7 made to pay for this violation to the tune of 5000 -- on
8 5000 acre-feet, excuse me, in which case if the credit
9 is provided -- and I assume some credit might be
10 provided -- then you have to be positive 15 year,
11 because you have a negative 15/positive 15 to stay in
12 compliance in the future on the next year.

13 Or if it's negative 10, you have to be --
14 if my number is right, plus 10, or if we paid on this
15 volume, then, at least in theory, you could zero out
16 this number -- this number, of course, would be zero.

17 And I'm not asking us to address a legal
18 conclusion about how this needs to be done, but what I
19 need to understand is when you all project out forward,
20 what do you assume needs to be done in this year, if
21 anything? Or is the answer very simply, there is no
22 credit?

23 That's the question I'm trying to get at.
24 It's this year we need to figure out.

25 A. Okay, so what is your question?

1 Q. My question is, how is it when you
2 calculate future compliance for Nebraska you account for
3 a potential payment on this?

4 A. And as in the deposition, I don't have an
5 answer for that.

6 The FSS speaks to measures of compliance,
7 how -- you know, it doesn't speak to damages, it doesn't
8 speak to credits, it doesn't speak to repayments.

9 Q. And to be clear, I'm not asking how the FSS
10 would treat this.

11 I'm just saying when you determine what we
12 need to do in creating your remedy, does it account for
13 this in any way at all?

14 A. No, it doesn't. It looks forward, and
15 Mr. Book's analysis laid out its assumptions, what does
16 the State of Nebraska need to do to get its groundwater
17 depletions in a state where it can get to compliance.
18 It does not deal with potential credits.

19 Q. So this, then -- the answer to this
20 question right here is 20, right, on these years, is 20?

21 A. Well, under the FSS, if you were minus 20
22 in 2011, you would need to be plus 20 in 2012 to be in
23 compliance.

24 Q. So if I understand what you're --

25 A. Plus 20.1. Actually, no. Plus 20 is good

1 enough. If it's zero, you're still fine, excuse me.

2 Q. So under this -- just so I'm clear, under
3 this, it's money and water, right?

4 A. I'm not saying that. I'm telling you what
5 the FSS requires. You know, it provides for tests --
6 the various tests of compliance: You know, the
7 water-short year test, the five-year test, the tributary
8 test. It prescribes and expects each State to get in
9 compliance and says what that looks like. And, I think,
10 provides a measure of noncompliance in the result, but
11 does not address how you calculate damages or how
12 repayments figure in.

13 Q. All right, thank you. That helps clarify
14 it.

15 Mark that as Nebraska Exhibit 23, please.

16 Now, with regard to your analysis and
17 understanding that there is no recognition of this issue
18 in it, one of the things that Mr. Dreher asked you,
19 which is, indeed, kind of the \$24,000 question, I think
20 is, doesn't this remedy of yours assume essentially that
21 Nebraska needs to remain under her allocation virtually
22 every year, or is that not the practical consequence of
23 it?

24 A. Well, the remedy would get groundwater
25 depletions to, you know, approximately 175,000 acre-feet

1 so that the State of Nebraska can be in compliance
2 during the critical dry periods.

3 During other periods, the State of Nebraska
4 could have the ability to make use of its allocations in
5 other ways.

6 Let me have you restate your question.

7 Q. Well, my question is, essentially: Isn't
8 it true that Nebraska would need to be within her
9 allocation every single year, under your remedy?

10 A. Every single --

11 Q. Every single year, isn't that a practical
12 consequence of it?

13 A. Well, Nebraska has a test of compliance in
14 every single year and, at least as a minimum, in every
15 single year it has a five-year test of compliance that
16 it must meet. And in water-short years, it has two
17 additional tests of compliance, the water-short year at
18 Guide Rock, and there is actually a tributary test that
19 hasn't got much focus here, because Nebraska is in
20 compliance with that test.

21 Q. But within that five-year average, Nebraska
22 could theoretically exceed her allocation in any one
23 year, as long as the average was --

24 A. Yes, yes.

25 Q. But your remedy doesn't account for that,

1 does it?

2 A. Not necessarily. I mean, Nebraska could
3 use, in any individual year within a five-year, a
4 significant amount of surface water and be over its
5 allocation in that year.

6 Q. So do I understand, though, that your
7 remedy would require Nebraska's groundwater consumption
8 to be at or below 175,000 acre-feet every year?

9 A. Yes. Because, again, Nebraska cannot turn
10 off and turn on those groundwater depletions and use
11 more in wet periods and less in dry periods. The system
12 is just -- just too big.

13 Q. And you are of the opinion that there is
14 really not enough surface water out there to buy; and so
15 really, the only way to deal with this issue is to
16 curtail the groundwater to that level -- sorry,
17 groundwater consumption to that level?

18 A. Well, as David testified, you know, the
19 State of Nebraska, in this latest dry period,
20 essentially used all the surface water that was
21 available and didn't get there.

22 And our expectation is, without some
23 significant reduction in groundwater use, that the
24 available water in the next critical dry period will be
25 even less -- available surface water.

1 That doesn't mean -- I mean, if the State
2 of the Nebraska was to go to the Bureau and -- I mean,
3 there may be ways to make surface water an option, I
4 guess. I guess we are not seeing as a reliable source
5 of water the sort of ad hoc, wait until we're in trouble
6 and see if there is surface water, is not in our view --
7 in my view, a reliable method to get to compliance.

8 I believe the State of Nebraska would have
9 to contract with the Bureau and ensure that limiting
10 surface water from those projects at a fairly early
11 stage would have to be required in order to be
12 service-reliable.

13 Q. So the primary thing that you would
14 recommend is reduced groundwater consumption?

15 A. Yes.

16 Q. And when you tried to figure out how far
17 down to reduce groundwater consumption, you were
18 attempting to hit the target that Mr. Book developed; is
19 that right?

20 A. Yes.

21 Q. And is it your understanding that Mr. Book
22 developed that target, based on what amounts to the 40th
23 percentile hydrology?

24 A. That sounds right.

25 Q. And so that 175,000 groundwater CBCU is

1 something Nebraska would have to maintain as if there
2 were a 40 percent hydrology into the future?

3 A. Yes.

4 Q. And co-counsel wanted me to clarify by
5 hydrology, I mean climatological circumstances,
6 essentially?

7 A. Precipitation, yes.

8 Q. And when Larson and Perkins looked at this,
9 essentially they took 50-year period out. And in the
10 historical record, is there ever a 50-year period of
11 40th percentile hydrology that lasts that long?

12 A. Not to my knowledge.

13 Q. Thank you.

14 With regard to -- I would like to
15 transition, if I may now, into the Nebraska IMP issues.

16 A. Okay.

17 Q. I'm sure it won't shock you that I will
18 introduce Exhibit 24, which is a copy of your deposition
19 from the 13th of January. If you would look at the
20 second page, line 9 on the bottom. This is
21 approximately one week before your expert report was
22 submitted.

23 And on line 9 your response to my question:
24 "Have you reviewed the IMPs?" How did you respond?

25 A. "I had not personally reviewed them in any

1 depth. I relied on, I think, Nebraska's
2 characterization and staff characterization of those for
3 the most part, but I have some general knowledge of
4 their content. I reviewed specific pieces of them."

5 Q. That's sufficient, thank you.

6 Obviously, you formulated some fairly
7 significant opinions about the IMPs in the intervening
8 period.

9 Could you tell us what you did between the
10 13th and 20th that formulated those perspectives?

11 A. Well, I guess let me, first of all, maybe
12 expand on the statement I made.

13 I was referring to the fact that I had not
14 read them word for word. My knowledge of them, I think
15 at that time, was based upon looking at the pertinent
16 sections related to -- you know, the IMPs and the rules,
17 you know, they're pretty significant documents and they
18 have a lot of different aspects to them.

19 You know, I had reviewed the significant
20 pieces of them with respect to the controlling
21 provisions as to allocations and so forth and heard
22 presentations of the State of Nebraska in our Dispute
23 Resolution process.

24 Again, that was a significant process, a
25 lot of exchanging of documents and interviewing State of

1 Nebraska personnel and NRD personnel in terms of what
2 the IMPs had in them and what they didn't have in them.

3 So I think I would state that the knowledge
4 wasn't between this deposition and when I wrote my
5 expert report.

6 Q. So nothing changed between those two dates?

7 A. No.

8 Q. And I think you testified earlier that
9 there is still some uncertainty about the actual
10 requirements of the IMPs?

11 A. Yes. I have reviewed the regs and the
12 IMPs; and, yes, Kansas has some uncertainty. And again,
13 I mention in my deposition -- and it's true -- that I
14 have relied on staff to help me understand what is in
15 these IMPs. And, quite frankly, there are things that
16 are not clear to us in terms of features of them and
17 their -- how enforceable they are and such.

18 Q. But you are sure that they're inadequate?

19 A. Yes. Well, it is my opinion, reviewing
20 them, that they are inadequate in the ways that I
21 describe in my report.

22 Q. Given the former, your uncertainty about
23 their concept, how do you conclude the latter?

24 A. Well, if the IMP is written in a very vague
25 way, ambiguous way, then how can it be relied upon to

1 achieve compliance?

2 Q. And I guess the converse of that would be
3 if it were concrete and articulated, you would be more
4 comfortable?

5 A. Yes.

6 Q. I anticipate that that will happen later
7 today.

8 A. I imagine we'll have a lot of discussion on
9 that.

10 Q. One of the things that you mentioned
11 earlier just as a point of housekeeping, I do want to
12 ask you about this.

13 You had mentioned previously the concept of
14 making sure that the Compact works in critical periods
15 or critical times, something to that effect?

16 A. Uh-huh.

17 Q. Are you referring there to times of reduced
18 flows or what did you mean by that?

19 A. Yeah, reduced water supply.

20 Q. Both, I guess, reduced --

21 A. And typically, they -- yeah, reduced flows,
22 reduced allocations. Those are the time those
23 allocations are typically most critical to all States.

24 Q. And you offered some opinions about the
25 administrative inadequacy of the IMPs.

1 I think I heard you say at one point that
2 it was unclear to you that the NRDs and the DNR could
3 work together sufficiently; is that fair?

4 A. Well, I said that ultimately, the NRDs must
5 approve any additional regulation. The regs provide for
6 certain allocations, although they provide significant
7 flexibility in terms of carryover and so forth, but they
8 seem to be sort of the hard and fastest requirement.

9 There are provisions in the IMPs and
10 corresponding in the regs that sort of say if more
11 action is necessary, there is mechanisms for hearings to
12 do that; but it's not clear that the State can come to
13 the NRD and require them to do that.

14 So that our reliance upon the system,
15 that's why we're questioning it.

16 Q. So just to be clear, that's based
17 principally on your reading of the rules and regs, not
18 on any kind of experience you have in NRD and DNR in IMP
19 planning processes?

20 A. Yes, it's based on the reading.

21 Q. And you also mentioned that the plans, the
22 IMPs were hydrologically inadequate?

23 A. Yes.

24 Q. And did you rely principally on the work of
25 Dr. Larson/Perkins for that?

1 A. Yes.

2 Q. Thank you.

3 MR. WILMOTH: I don't believe I have
4 anything further, Mr. Arbitrator.

5 ARBITRATOR DREHER: Point of clarification,
6 Mr. Wilmoth. This exhibit that you referred to, is it
7 24 or 23?

8 MR. POWERS: Which one is that?

9 ARBITRATOR DREHER: It's the excerpt of the
10 deposition.

11 MR. WILMOTH: 24.

12 ARBITRATOR DREHER: 24.

13 MR. WILMOTH: 24.

14 ARBITRATOR DREHER: What is 23 then?

15 MR. WILMOTH: Nebraska 23 is the figure.

16 ARBITRATOR DREHER: All right. Maybe we
17 should take our 15-minute afternoon break now, assuming
18 Colorado has no questions.

19 MR. AMPE: No questions.

20 (Break was taken.)

21 MR. DRAPER: Thank you.

22 ARBITRATOR DREHER: Mr. Draper, redirect?

23 MR. DRAPER: Thank you, Mr. Dreher. We
24 have no further questions on redirect.

25 I would like to offer the exhibits that

1 were discussed Mr. Barfield's testimony, if I may.
2 Those consist of his curriculum vitae Exhibit 16, Kansas
3 Exhibit 16; and his expert report, Kansas Exhibit 6; and
4 the set of letters to the NRDs, which is Kansas Exhibit
5 56.

6 ARBITRATOR DREHER: Any objection?

7 MR. WILMOTH: No.

8 MR. AMPE: No.

9 ARBITRATOR DREHER: All right, they're
10 admitted.

11 (WHEREUPON, Kansas Exhibits 6, 16 and 56
12 were admitted into evidence.)

13 MR. WILMOTH: Thank you.

14 Nebraska would move Exhibits 23 and 24,
15 which are the figure and the deposition portion.

16 ARBITRATOR DREHER: Any objection?

17 MR. DRAPER: No objection.

18 MR. AMPLE: No objection.

19 ARBITRATOR DREHER: All right, they're
20 admitted.

21 (WHEREUPON, Nebraska Exhibits 23 and 24
22 were admitted into evidence.)

23 ARBITRATOR DREHER: Mr. Wilmoth, you need a
24 few minutes here?

25 MR. WILMOTH: If I may just to compile a

1 couple of documents. Thank you.

2 (Break was taken from 3:20 to 3:42.)

3 ARBITRATOR DREHER: All right, please
4 proceed, Mr. Wilmoth.

5 MR. WILMOTH: Mr. Arbitrator, for her
6 responsive case on the compliance issue, Nebraska would
7 call as its first witness, Mr. James Williams.

8 JAMES WILLIAMS,
9 having been first duly sworn, was examined and testified
10 as follows:

11 DIRECT EXAMINATION

12 BY MR. WILMOTH:

13 Q. Good afternoon, Mr. Williams. How are you
14 today?

15 A. Doing well.

16 Q. Good.

17 Just very briefly, could you please state
18 your occupation and general job description.

19 A. I'm the Republican River Coordinator for
20 the State of Nebraska in the Nebraska Department of
21 Natural Resources.

22 Q. And just generally, the nature of that work
23 entails what?

24 A. The nature of the work involves sitting --
25 at this point, the position consists of being the

1 Nebraska representative on the Engineering Committee. I
2 also oversee, as part of that, the annual accounting
3 issues; and a large part of my position involves ongoing
4 communications with Natural Resources Districts and the
5 field offices.

6 Q. And when you refer to the Engineering
7 Committee, you're speaking about the Republican River?

8 A. That's correct, the Republican River
9 Compact Administration Engineering Committee.

10 Q. Do you have a copy of the Nebraska
11 compliance binder there with Nebraska Exhibit 20?

12 A. The document would be Nebraska Compact
13 Compliance?

14 Q. No. The document would be your curriculum
15 vitae, what Mr. Lavene just handed you.

16 A. Oh. Yes, I do have that in front of me.

17 Q. Is that a true and correct copy of your CV?

18 A. I believe it is.

19 Q. And I would like you to turn your attention
20 now to what is marked as Nebraska Exhibit 15, please.

21 A. Yes.

22 Q. Is that a copy of a report that you
23 participated in preparing?

24 A. Yes, I coauthored this report.

25 Q. With who?

1 A. With Dr. James Schneider.

2 Q. And Dr. Schneider is also with the
3 Department of Natural Resources; is that right?

4 A. That is correct.

5 Q. All right, very good.

6 And you were generally responsible for a
7 portion of the report and Dr. Schneider for another
8 portion, in broad picture terms; is that correct?

9 A. That's correct. We drew from a number of
10 resources. There were several people who commented and
11 helped us draw information together.

12 I would say, in general, I was the primary
13 author on Sections 2, 3 and 5 and Dr. Schneider was the
14 primary author on those sections which had a significant
15 modeling component to them, being Sections 4 and 6.

16 Q. Very good, thank you.

17 Before we get into detail on the compliance
18 report, do you have any corrections to that report that
19 you would like to make?

20 A. Yes, I do. That would be two corrections.
21 First of all, Appendix F was revised yesterday. The
22 numbers in the right-hand column did not change --

23 MR. WILMOTH: This will be Nebraska Exhibit
24 25. It was a mathematical error.

25 MR. DRAPER: Where is the Appendix in

1 Exhibit 50?

2 MR. WILMOTH: In the back.

3 MR. DRAPER: It's the last document?

4 MR. WILMOTH: I don't believe it's the last
5 document.

6 THE WITNESS: It's near the end.

7 MR. DRAPER: And you're giving this
8 correction page a new exhibit number?

9 MR. WILMOTH: It's Exhibit 25. It's
10 intended to be a substitution. Mr. Williams can explain
11 this better than I can, but apparently there were
12 some -- some numbers here that did not add up to these
13 numbers. These numbers now change on the right-hand
14 side, but I will let Mr. Williams explain it better.

15 Q (BY MR. WILMOTH) Why don't you explain now
16 that everyone has a copy of this.

17 A. Sure. The right-hand column did not change
18 the allocation minus CBCU, plus the IWS essentially did
19 not change. Some of the numbers that went into that
20 were incorrect and they've been corrected.

21 MR. DRAPER: Just for comparison so we
22 understand as you're going forward, where does this
23 appear in your original report, so we know where to
24 look?

25 THE WITNESS: In the Table of Contents it

1 is listed out at the top of the second page as coming
2 after Appendices D and E and before Appendices G, H and
3 I. The title of this document is -- as seen on the page
4 is "Estimated compliance through 2012 using 1992 - 1995
5 climate for the years 2009 - 2012."

6 MR. WILMOTH: About three-quarters of the
7 way back, John.

8 ARBITRATOR DREHER: Can you hold a minute?

9 MR. DRAPER: It turns out there are
10 appendices of appendices.

11 MR. WILMOTH: Right.

12 ARBITRATOR DREHER: That's what I'm
13 struggling with. Getting close. All right, I see,
14 okay.

15 Q. (BY MR. WILMOTH) Mr. Williams, is this
16 intended to substitute for the current Appendix F?

17 A. Yes. The document that has just been
18 handed out is the substitute for the current Appendix F.
19 The purpose of providing it here is simply to be whole
20 and complete. I did not actually intend to speak to
21 that at this point.

22 Q. That's fine.

23 A. There is a second item that the parties
24 should be aware of, and that is for the Upper Republican
25 Natural Resources District, which would be Appendix C of

1 the overall document. The Integrated Management Plan
2 was included, but the rules and regulations associated
3 with that plan were not included.

4 Yesterday, I believe Nebraska introduced
5 both the plan and the associated rules and regulations
6 as an exhibit, so the parties have that.

7 MR. WILMOTH: And for the record, I believe
8 that was Nebraska 16.

9 Q. (BY MR. WILMOTH) Thank you, Mr. Williams.

10 Why don't you begin with an overview of the
11 document, its structure and then walk us through the
12 material portions of the document.

13 A. Certainly. Just so the parties here are
14 following along as I review the document, just so you're
15 aware, I think that you can follow most of what I am
16 doing if you refer to the Table of Contents page. And
17 at your convenience, you may choose to, in addition,
18 take a look at Appendix D, which is the December 2008
19 Annual Forecast. That consists of a letter and some
20 text, but I, later on in this presentation, plan to
21 especially go over the tables at the end of that
22 document.

23 This document lays out Nebraska Compact
24 compliance. And I would like to make it clear that my
25 message here today, my purpose is to describe and make

1 it clear that Nebraska will comply with the Republican
2 River Compact and with the Final Settlement Stipulation.

3 Nebraska has made concrete real changes.
4 We've made changes every year since signing the
5 stipulation; and that with the current Integrated
6 Management Plans that are in place, we're in a good
7 position moving forward.

8 So as we take a look at this document, in
9 general, we'll talk about a bit of the background in
10 relation to Section 2 with the distribution of water
11 management responsibilities. We'll talk about the
12 current plans in the associated forecasting that's
13 involved in Section 3. And I will leave to my coauthor,
14 Dr. Schneider, a discussion of the performance of the
15 IMPs by the new plan to discuss some items related to
16 those unusual years in which we don't get as much rain.
17 And so we have that section called "Closing the Gap."
18 And those are actions that are available that Nebraska
19 has explored in which to make up for any lack or needs
20 at that point.

21 I will leave to Dr. Schneider discussion of
22 Section 6, which would be the impacts of the Kansas
23 plan.

24 If we could have our first graphic, and I
25 think we may have this as an 8 1/2 by 11.

1 MR. DRAPER: Is this a page out of the
2 report?

3 THE WITNESS: This is not a page out of the
4 report. This is a separate document that has recently
5 been assembled.

6 Those of you familiar with Compact
7 compliance will recognize the structure as being similar
8 to Table 3 out of the RRCA accounting worksheet.

9 MR. DRAPER: Excuse me. Mr. Dreher, we had
10 a deadline for submitting exhibits in this case. This
11 was back in January and February where we were
12 submitting exhibits in conjunction with our expert
13 reports, January 20 and then February 17, and at that
14 point we had to submit our exhibits. We even asked
15 Nebraska for a slight extension on ours and they did not
16 agree to that. Therefore, we have kept our direct case
17 to the exhibits that we have provided ahead of time.
18 And I think it's incumbent upon Nebraska to do so the
19 same.

20 This appears to be something that has been
21 assembled and presented that hasn't been given to us
22 before.

23 MR. WILMOTH: Mr. Arbitrator, for sake of
24 clarity, you may have not noted I did not offer this as
25 an exhibit. I did not attempt to have it marked. It's

1 purely demonstrative. I don't intend to introduce it as
2 an exhibit, John.

3 MR. DRAPER: Fair enough. I think that we
4 can have demonstrative exhibits that can explain a
5 witness' testimony; but as far as exhibits, the final
6 for those to be presented was long ago.

7 ARBITRATOR DREHER: All right, you may
8 proceed.

9 Q. (BY MR. WILMOTH) Please proceed,
10 Mr. Williams.

11 A. During 2002, the settlement among the
12 States was reached and simply using this as -- this
13 demonstration as a timeline so that we can be aware of
14 what was happening when.

15 At the same time Nebraska put into place
16 legislation which required the creation of a water
17 policy task force that met over a period of
18 approximately a year and a half and put together
19 recommendations that were taken back to the legislature
20 in late 2003.

21 During 2003, also the RRCA completed work
22 on the groundwater model in that timeframe. And in
23 2004, the legislature put into place many of the water
24 policy task force's recommendations in an
25 all-encompassing bill that was labeled LB 962.

1 And for the purpose of our discussion here,
2 the main point of LB 962 was that it required the
3 creation of Integrated Management Plans, which I'll
4 refer to as IMPs in this discussion, that are joint
5 documents between the Natural Resources Districts, which
6 I'll refer to as NRDs and the Department of Natural
7 Resources, which is, of course, DNR.

8 The period of the first IMPs was 2005 to
9 2007 after they were completed, shortly after the
10 legislation was put in place in 2004. These IMPs were
11 subsequently revised during their final year in 2007 and
12 the new ones contain significant changes, significant
13 reductions and the new IMPs are valid for the period
14 2004 through 2008.

15 And so, I think, that kind of sets the
16 stage.

17 Yes, historically, Nebraska has had a
18 division between the administration of surface water by
19 DNR and the administration of groundwater by the NRDs,
20 but Nebraska has recognized that, in many or all cases,
21 these are, in fact, tied together and current Nebraska
22 law, as best I understand it -- I'm certainly not a
23 lawyer or an expert on the law -- but it requires that
24 these things be administered jointly by the NRDs and
25 DNR.

1 So what is the nature of these? The
2 joint --

3 ARBITRATOR DREHER: Can I interrupt?

4 THE WITNESS: Yes, sir.

5 ARBITRATOR DREHER: Do you have a cite to
6 the law that requires that they be administered jointly,
7 I think is what you said?

8 THE WITNESS: I believe we may have written
9 that in here, but it's in LB 962 requires that. At the
10 bottom of page 3 of our report it discusses the
11 "optimize the beneficial use of interrelated groundwater
12 and surface water supplies." And so it would be found
13 in that Nebraska statute.

14 ARBITRATOR DREHER: But I had read that and
15 remembered that it would not specifically identify that
16 the IMPs are administered jointly by the Department and
17 the NRDs.

18 THE WITNESS: Let me rephrase my
19 understanding.

20 The creation of the IMPs is jointly. The
21 IMPs, as I understand it, are administered just by the
22 NRDs.

23 ARBITRATOR DREHER: All right, thank you.

24 THE WITNESS: They are not in effect until
25 a hearing; they are passed by their boards, but orders

1 are signed by our department.

2 A. Moving to Section 3, discussing these
3 Integrated Management Plans, first of all, the nature of
4 them is they are not vague or ambiguous. They are
5 dynamic, they're reviewed on a regular basis, they are
6 flexible, they are implemented through legally binding
7 rules and regulations, and they do have concrete
8 changes.

9 And if we could go to the next
10 demonstration here, this is simply a series of quotes
11 out of the Upper Republican Natural Resources District
12 IMP.

13 Q. Just to stave off any objection, these two
14 are demonstrative. This information is already in the
15 record. It's just an easy way to refer to it.

16 MR. DRAPER: I think if these are going to
17 be used as demonstrative up there with the witness,
18 that's perfectly fine. But handing them out as an
19 exhibit is inconsistent with that. If the witness needs
20 to use something, that's fine; but to essentially
21 accomplish the purpose of coming in with late exhibits
22 through this procedure is not proper.

23 ARBITRATOR DREHER: Well, as I understand
24 what they're trying to do, they're trying to provide
25 something that is readable by us, as opposed to trying

1 to scratch this out on a white board. So I don't
2 know -- I mean, they could do the same thing simply by
3 writing it out. I don't know that that would be any
4 different than what -- except it's certainly more
5 complex than what we have already done, you know; for
6 example, where yesterday Mr. Wilmoth scratched out some
7 figures on the flip chart and that was admitted, he
8 offered it as an exhibit, it was admitted.

9 As I understand it, he is not offering
10 these as exhibits in honor of the agreement because
11 these were essentially preprepared.

12 So I would suggest that -- I was not aware
13 of the agreement between the States; but if there was an
14 agreement that formal exhibits had to be provided to the
15 States beforehand, then I would not -- to the extent
16 that these are construed as an exhibit, I wouldn't
17 accept them.

18 To the extent that they're construed as
19 explanatory and these 8 1/2 by 11 copies are offered as
20 a matter of ease for our reading, I don't think that's
21 inappropriate, but I would say let's see where they go
22 with it.

23 MR. DRAPER: That will be fine,
24 Mr. Arbitrator. I would note that there is a difference
25 between introducing an exhibit on cross-examination,

1 which was what was happening yesterday, versus your
2 direct case, where you had a deadline to provide the
3 documentation that you would use in the presentation of
4 that that's a month or two ago, that you insisted that
5 the other State comply with it and then to come in here
6 and circumvent it in a superficial way is a little bit
7 disturbing, but I accede your thoughts on that and I
8 suggest you go forward.

9 ARBITRATOR DREHER: Okay, please proceed.

10 A. I have three illustrations. This is the
11 first of the three.

12 These illustrations consist of quotes out
13 of the respective IMPs and rules and regulations.

14 On the handout that we've handed out, they
15 are the same as what we have on the tripod, with the
16 exception that we also have where these quotes were
17 taken from.

18 Let me caution you that the page numbers
19 are separate in all of the IMPs from the rules and regs,
20 so if you can't find it, either you're in the IMP and
21 should look at the rules or vice versa.

22 Having said that, I would like to directly
23 speak to a couple of pieces in here.

24 Some concern has been expressed regarding
25 the base allocation in the NRDs and the vagueness in

1 comparison with some of the other strictures.

2 Yes, we will agree that in the Upper
3 Republican NRD, that the allocation is 65-acre inches
4 over a period of five years. The individual grower has
5 the option to use an average of 13 inches per year.
6 However, I would like to point out that in this -- in
7 the associated compliance standard for the NRD, as a
8 whole, Section A, the NRD is held to a 20 percent
9 reduction in pumping from 1998 to 2000 baseline. So the
10 average during that year has to be cut, the volume
11 pumped by 20 percent and the number given is actually
12 rounded down to 425,000 acre-feet on average.

13 So they may exceed this in some years, but
14 over the same five-year average of the RRCA accounting,
15 they're required to stay within that.

16 There is another standard that they also
17 must meet at the same time, so it would be the tighter
18 of the two; and that is, should the water supply be
19 lower than expected, they are also required to stay
20 within 44 percent of the Nebraska allowable groundwater
21 depletions to the river as determined by the groundwater
22 model. The RRCA GWM would be the Republican River
23 Compact Administration Groundwater Model.

24 Moving to our next illustration, a very
25 similar --

1 ARBITRATOR DREHER: Before you go on --

2 THE WITNESS: Yes, sir.

3 ARBITRATOR DREHER: -- I'm not sure I

4 understand the difference between A and B. And I assume
5 again that this information is in the exhibits that you
6 have already offered; is that accurate?

7 THE WITNESS: That is accurate. These are
8 quotes from the IMP and associated rules and regs of the
9 Upper Republican.

10 ARBITRATOR DREHER: So help me understand
11 the difference between A and B. I mean, are they both
12 applicable every year?

13 THE WITNESS: That is correct. It is our
14 understanding that they are both applicable -- well, all
15 three, if you're taking into account also the
16 restriction on the individual grower, they're applicable
17 every year. However, the 20 percent reduction in volume
18 is on a moving average, if you will, and so your
19 flowchart as to whether or not Nebraska considers the
20 Upper Republican NRD to be in compliance would have a
21 decision box on whether or not, on average, they have
22 exceeded 425,000 acre-foot. And if the answer is,
23 they're still in compliance there.

24 The second question, which would be asked
25 is: Is the Nebraska allowable depletion to the river

1 being exceeded, is it -- is the Upper Republican using
2 more than 44 percent of the Nebraska allowable
3 depletion? Both of those must be met every year, is my
4 understanding of this IMP.

5 ARBITRATOR DREHER: But the allowable
6 depletion could change from year-to-year?

7 THE WITNESS: That's a good point, and that
8 is exactly the point that the ongoing cap is 425-.
9 That's not changing. In other words, that cannot go up,
10 but it is possible that they would be held to a tighter
11 control due to part B.

12 ARBITRATOR DREHER: But they don't know
13 what their -- they don't know what the 44 percent is of
14 until after the fact?

15 THE WITNESS: That is correct. This is
16 decided upon at the time of the annual meeting when the
17 numbers are finalized for the RRCA, as a whole.

18 At that point, the NRDs will know what
19 their percentage of the groundwater depletions to the
20 river were and at that point we would discuss how that
21 would be fixed on an ongoing basis.

22 ARBITRATOR DREHER: And regarding the
23 425,000, were you here yesterday when -- I forgot the
24 witness' name, the modeler was being cross-examined by
25 Mr. Wilmoth.

1 MR. WILMOTH: Mr. Larson.

2 ARBITRATOR DREHER: Yes, Mr. Larson. As he
3 testified yesterday, and as Mr. Barfield testified again
4 today, the number that they put in their simulations was
5 495,000, not 425,000.

6 THE WITNESS: I was here, yes, I heard
7 that.

8 ARBITRATOR DREHER: And I asked
9 Mr. Barfield for his explanation of it and he offered an
10 explanation.

11 What is your explanation of the difference
12 between 495- and 425-, or do you have one?

13 THE WITNESS: Not being a modeler, I
14 understood what they said regarding taking current
15 certified acres and applying depths that have
16 historically been applied, I understand that. I don't
17 understand the full implications of that.

18 What I do know is that from 2008 through
19 2012 the Upper Republican NRD has agreed to hold itself
20 to 425,000 acre-foot per year, and at that time this IMP
21 will be reassessed and new ones will be signed by DNR
22 and the NRD.

23 ARBITRATOR DREHER: And are there carryover
24 provisions, as we heard Mr. Barfield describe?

25 THE WITNESS: There are carryover

1 provisions; this is correct.

2 ARBITRATOR DREHER: Are you going to
3 address that?

4 THE WITNESS: The individual grower is
5 allowed to carry over -- my understanding is in the
6 Upper Republican, it's unlimited. They have never had
7 growers carrying over large portions, or more than one
8 year, if you will; at least that's not typical. And I
9 understand the Upper Republican is considering changing
10 that particular rule that they have.

11 Having said that, the NRD, as a whole, is
12 held to 425,000 acre-feet per year, never mind what the
13 carryover provisions are.

14 ARBITRATOR DREHER: All right.

15 A. Moving to our next illustration, this is a
16 series of quotes out of the IMP and associated rules and
17 regulations for the Middle Republican Natural Resources
18 District. It is somewhat similar to the illustration
19 that we just viewed for the Upper Republican.

20 We have the base allocation listed at the
21 top. 12 inches per year is a reduction from the prior
22 IMP. This is the allocation than an individual grower
23 may choose to use.

24 While I put quite a bit of information on
25 here, I would like to skip down to the bottom for the

1 purpose of this discussion. And again we have Sections
2 A and B.

3 In the Middle Republican, they have agreed
4 that, on average, they will not pump a volume greater
5 than 24 -- 247,580 acre-feet over the long terms. That
6 would be an annual volume. And that, again, is a number
7 that is rounded down by 20 percent from their baseline
8 pumping volume, the average during 1998 to 2002.

9 The same discussion would apply, the
10 individual grower in the Middle Republican is allowed to
11 carry over one year's worth of allocation from the prior
12 IMP. In fact, they were allowed to carry over the
13 allocation that they had the previous year, which was
14 13 inches, if I'm not mistaken. That's certainly true
15 on the Lower Republican.

16 But again, they're held to a volume, an
17 average volume per year. They are also held to a
18 standard which may be tighter than that, which is of the
19 Nebraska allowable depletions to groundwater -- sorry,
20 to the river due to groundwater pumping. The Middle
21 Republican has agreed to deplete no more than
22 30 percent.

23 So as an NRD, they have agreed that their
24 growers will not deplete more than that amount and they
25 have a number of ways that they would be allowed to make

1 up the difference if they run into a problem with these
2 standards.

3 ARBITRATOR DREHER: Such as?

4 THE WITNESS: I'll get to that in my
5 report.

6 I wanted to just add that the Lower
7 Republican IMP is set up slightly differently. They
8 agree to a greater reduction in their allocation. That
9 would be our final --

10 Q (BY MR. WILMOTH) Just in the interest of
11 time, Mr. Williams, I think --

12 A. Skip that one.

13 Q. -- move along and make sure Mr. Dreher's
14 question is answered.

15 ARBITRATOR DREHER: Let me ask one
16 regarding the Lower, if you're going to skip over it. I
17 presume -- maybe I shouldn't presume, but I presume that
18 the sum of the proportion of the net depletions of the
19 State of Nebraska's allowable groundwater depletions
20 total 100 percent?

21 THE WITNESS: That is correct. The Lower
22 is held to 26 percent of the allowable depletions to the
23 river due to groundwater pumping.

24 MR. WILMOTH: I didn't mean to move him
25 along too quickly, Mr. Arbitrator. I just thought you

1 wanted to get to the other options.

2 ARBITRATOR DREHER: I do.

3 MR. DRAPER: I just want to be sure we're
4 clear about the status of these new documents that they
5 are presenting. They're just demonstrative and the
6 Arbitrator will be handing these back during -- or at
7 the end of this examination; is that right?

8 ARBITRATOR DREHER: That's fine. One
9 question, Mr. Draper.

10 To some extent this is similar to what
11 happened in Nebraska's response case on damages where
12 Mr. Sunding, during their responsive case, drew several
13 figures -- three, I think -- and those were offered as
14 exhibits, and I don't believe you objected to that.

15 MR. DRAPER: That's right. And I think we
16 need to allow a little bit of freedom for the witnesses
17 to express themselves and use the butcher paper, if
18 necessary. Under those circumstances, I didn't find
19 that objectionable.

20 But these are preprepared, they were not
21 given to us at any time. The first time we saw it was a
22 few minutes ago. And in light of the fact that this is
23 their direct case and the witness is not proposing to
24 stand up and draw a diagram on this, it seems to me that
25 it's appropriate to hold Nebraska to the same standard

1 that they insisted we be held to.

2 MR. WILMOTH: Well, just for the record, I
3 don't recall that exchange, John, you keep referring to,
4 but I'm having a hard time with the recollection; but
5 regardless, the sole purpose of these is to help
6 everyone in this courtroom understand what is in the
7 IMPs, which are already in the record.

8 If you don't want that assistance, that's
9 fine. I'm just trying to make it easy for everybody.

10 MR. DRAPER: Well, we would all like to
11 make it easier for the Arbitrator to understand our view
12 of the case, and I think that's appropriate, but we
13 ought to do it in an even-handed way.

14 ARBITRATOR DREHER: Well, I don't think
15 Nebraska objected to the idea of handing these back, if
16 that would resolve your concern, then that would be --
17 that's okay with me.

18 MR. WILMOTH: I mean, I believe we've
19 already stated for the record that these are not
20 intended to be marked as exhibits, so I don't know what
21 the objection is other than just the visual component of
22 it.

23 MR. DRAPER: I think the issue is resolved.
24 I just wanted to clarify that and, of course, we're here
25 for your judgment on how these things should be handled.

1 I just wanted to express our position on that.

2 ARBITRATOR DREHER: All right.

3 MR. DRAPER: Thank you.

4 A. Next I would like to direct your attention
5 to the tables that we provided in the forecast.

6 Q. (BY MR. WILMOTH) And, Mr. Williams, before
7 you do that, can you provide some context for this
8 forecast that you're referring to, please.

9 A. Certainly. This forecast document is
10 Appendix D, and in this case it's the December 2008
11 Annual Forecast. This forecast arose as a result of
12 Nebraska's legislative bill.

13 ARBITRATOR DREHER: I'm sorry, where are
14 you at now?

15 THE WITNESS: I was referring to this
16 document here.

17 MR. WILMOTH: I would refer you to page 7
18 of the report. Is that where the discussion of annual
19 forecasting appears?

20 THE WITNESS: Yes.

21 ARBITRATOR DREHER: All right.

22 A. Page 7 of the report. It was incorporated
23 into law in 46-715.5.

24 Q. (BY MR. WILMOTH) And what is the purpose of
25 this forecast?

1 A. The purpose of this forecast is to, as best
2 we can, create a planning tool so that we may move
3 forward with some knowledge of what to expect during the
4 coming year, given that precipitation is never a known
5 item, but it allows the entire State, specifically the
6 Natural Resources District, some knowledge of what they
7 may need to do to be in compliance, both in the short
8 term and the long term.

9 Q. And is this one of the newer tools that you
10 were referring to that is in the toolbox, so to speak?

11 A. It's not in our Closing-the-Gap section,
12 but it is an important part of remaining in compliance,
13 and it works hand in hand. It's a tool that works with
14 the IMPs, in general, which is the primary tool used to
15 remain in compliance.

16 And I wanted to go through this table,
17 specifically Table 1, in this forecast just to --

18 Q. Is that Appendix D that you're referring
19 to?

20 A. That is, correct. It's Table 1 out of
21 Appendix D.

22 MR. DRAPER: D as in dog?

23 THE WITNESS: That is correct, yes.

24 MR. DRAPER: Is that halfway through the
25 document or just to give us a rough approximation?

1 THE WITNESS: Probably quite a bit further
2 than that, because it's after all of the IMPs. In fact,
3 it's immediately after the IMPs.

4 A. On an annual basis, DNR, in association
5 with the NRDs, is required to forecast available
6 depletions to streamflow, both in the short term and the
7 long term. We have interpreted that to mean that we
8 should take a look at the available depletions one year
9 out and ten years out.

10 And so for the immediate upcoming year, in
11 this case, 2009, the information that we used was the
12 draft current accounting procedures, the procedures as
13 revised in 2005 and approved in 2006 by the RRCA for
14 those years 2005, '06 and '07. This forecast is
15 required by the end of the year. And so for us to get a
16 good handle on what has happened during the current
17 year -- in this case, 2008 -- we have to do a
18 preliminary accounting as soon as possible.

19 And so immediately towards the end of
20 irrigation season, our modeler works to take known heads
21 from the prior year and known precipitation during 2008
22 and creates a modeling run.

23 Typically, he has used either power records
24 for this preliminary run scaled from the meters last
25 year. In other words, he knows the power usage, the

1 electric power usage the prior year and the current
2 year, and we have the known meters the prior year. And
3 so he is able to scale that pretty well.

4 We're concentrating primarily on Nebraska
5 pumpage, as you can imagine, because it's for a Nebraska
6 tool here.

7 We estimate surface water diversions and,
8 to some extent, that's possible without knowing the
9 precipitation during -- sorry, this would be the year
10 immediate past. We don't have the final numbers, but we
11 have a good idea of who irrigated when and where. And
12 we have to guess at the streamflow through the end of
13 the year because we're discussing this with the NRDs
14 along during October and November. But by the end of
15 October, typically most of the major storms are finished
16 and we have a pretty good idea what streamflow might be
17 through the end of the year.

18 And then for the forecast, in this case we
19 looked at the 35th percentile record at each weather
20 station. So this would be a dry-year forecast. For the
21 pumping, we estimated the 80 percent of the baseline as
22 we have outlined in the IMPs.

23 The streamflow admittedly is an estimate
24 primarily, based on what we know about the condition of
25 the reservoirs. For example, currently Harlan County

1 Lake is full, Harry Strunk is full, Hugh Butler has some
2 in it, Swanson has a bit, and so we have a pretty good
3 idea of what streamflow will look like downstream from
4 those streams, and we go with estimates and our
5 knowledge of recent streamflow in the area. And the
6 same is true for the surface water diversions.

7 My point in referring to this document is
8 to show that Nebraska has put into place in the Nebraska
9 law a requirement that we look ahead with the best
10 optics that we can, if you will, to take a look at what
11 will compliance look like during the coming year.

12 Q. And I realize that you didn't do the
13 modeling work with regard to most of this report and
14 that Dr. Schneider did that; but, generally speaking,
15 what is the upshot of that?

16 I think it would help the Arbitrator
17 understand the purpose of your discussion of closing the
18 gap which you mentioned you would get to.

19 A. As has been stated by other witnesses in
20 this proceeding, the modeling numbers do not change a
21 lot from year-to-year. They do change with
22 precipitation in that the way the model is currently
23 run, depletions are higher if it's wet; they're not as
24 high if it's dry.

25 And so by starting with estimated heads

1 from the end of the current year and estimating a rather
2 dry-year on the pumping, we can get a pretty good idea
3 of what depletions will be during the coming year.

4 Q. What I'm referring you to is Section 4 of
5 the report.

6 ARBITRATOR DREHER: Mr. Wilmoth, before you
7 move to Section 4, let me ask a question about Table
8 1 --

9 MR. WILMOTH: Certainly.

10 ARBITRATOR DREHER: -- since we're here.

11 I can see, in part, why there is some
12 confusion created about the way that you represent the
13 reduction in pumping. And when we looked at the
14 provisions from the IRP, we saw three criteria which
15 weren't -- I think you said they weren't necessarily the
16 same. There was the 80 percent of the 1998 through 2002
17 baseline pumping; that was one criteria.

18 Then there was a number that you said that
19 the individual higher NRDs would not exceed. In the
20 case of the Upper NRD, it was 425,000.

21 And then there was this percentage of the
22 allocation, which we talked about could vary from
23 year-to-year. In the case of the Upper NRD, it was
24 44 percent of the allowable.

25 And yet, in Table 1, it only talks about

1 80 percent of the 1998 through 2002 baseline pumping.

2 You know, it would be clearer, I think, if
3 there were projected numbers for each of the three NRDs
4 in that row, rather than simply an 80 percent of the
5 1998 through 2002 pumping.

6 In the projection, which of the criteria is
7 likely to control? The 80 percent, the fixed
8 allocation, or the proportion of the allocated
9 consumptive beneficial use?

10 That's information that I think the NRD
11 should have if, in fact, you're relying on them to hold
12 themselves to within whatever those limits are.

13 I guess that really wasn't a question, was
14 it?

15 MR. WILMOTH: That's okay.

16 THE WITNESS: Thank you for the advice.

17 MR. WILMOTH: It will be noted. We'll take
18 it back to Director Dunnigan, I'm sure.

19 THE WITNESS: Let me comment in response to
20 that.

21 The law was passed in 2007. Our first
22 forecast was completed in late '07 and actually was --
23 the final document came out early '08. This was our
24 second one. And our first performance period for all
25 three of those criteria that we listed in the Upper

1 Republican, for example, comes home to rest, if you
2 will, in August of 2009.

3 So that will be -- something like that
4 would be incorporated into future discussions, and
5 that's kind of built into the system.

6 ARBITRATOR DREHER: All right. Proceed to
7 Section 4.

8 Q. (BY MR. WILMOTH) If you would,
9 Mr. Williams, again, I know you weren't responsible for
10 the bulk of the modeling in this Section 4, but you do
11 have some familiarity with the conclusions.

12 What I would like you to do at this point
13 is talk a little bit about those conclusions, if you
14 could share your views about that and then proceed to
15 explain this section entitled "Closing the Gap" in
16 Section 5. And I believe you said you also were
17 explaining Section 6; is that right?

18 A. Certainly I didn't want to imply that I
19 knew nothing about the performance of the IMPs. That
20 section discusses documents that were put together a
21 year ago to describe the modeling and the associated
22 accounting worksheet information that was put together
23 prior to passage of the IMPs.

24 And so the two situations that we spent a
25 lot of time with would be the average-year, compliance

1 where we took the 50th percentile rainfall at each
2 precipitation station, plugged that into the model. And
3 we also estimated what we might see as far as streamflow
4 goes if you have average rainfall.

5 And then we also plugged in long-term,
6 ongoing year-after-year 35th percentile rainfall from
7 each station. And so that was our dry scenario, and
8 that matched what we're currently doing one year at a
9 time.

10 Our first forecast looked at both the 50th
11 and 35th percentile and it was somewhat redundant. We
12 decided to go just with the dry-year case, with the
13 current forecast, 35th percentile.

14 And so that annual forecast kind of lines
15 up pretty well with our assessment that, in the long
16 run, we believe the current IMPs -- that is, over the
17 five-year period of the IMPs -- given average rainfall,
18 that Nebraska will be in compliance with no further
19 measures.

20 Q. Thank you. And there is potentiality, I
21 guess, if you will, that Nebraska could experience a
22 shortfall; is that correct?

23 A. That is true. And that was predicted by
24 the dryer scenario, 35th percentile long-term, year
25 after year.

1 Q. And roughly, how big is the shortfall we
2 are talking about?

3 A. In the long-term scenario, it was something
4 on the order of 10,000 acre-feet. I can't recall
5 exactly, I could look that up. We came out with a
6 number that was somewhat larger than that in Table 2 of
7 our forecast, and that was primarily because we have
8 some large reservoirs that are full and we expect to see
9 a lot of consumptive use out of those surface water
10 reservoirs; but it does, in fact, correspond with the
11 dryer scenarios that were used in creating the IMPs.

12 Q. If there were a shortfall to occur, what
13 tools are available to the State of Nebraska to adjust
14 that shortfall?

15 A. Right. And that goes back to the question
16 that Mr. Dreher was asking a few minutes ago: What do
17 you do in that case.

18 That is addressed by our closing-the-gap
19 section.

20 I would like to, first of all, refer to
21 Section C there with the dry-year leasing of surface
22 water.

23 Q. What page is that on?

24 A. Dry-year leasing of surface water is on
25 page 12, but it is also listed out as Appendix H, which

1 is basically at the end of the document, one page before
2 the end of the document, where surface water leased in
3 Nebraska has been tabulated.

4 The State of Nebraska has been quite
5 successful at leasing large volumes of surface water in
6 2006, '07 and '08. And they were joined by the NRDs in
7 2007, as well. And, quite frankly, you may look at that
8 as the lowest hanging fruit on the tree, but it's only
9 one of many tools that may be used to close the gap.

10 The State has also put a lot of effort into
11 studies on augmentation, as has the State of Colorado.
12 That's covered in Section 5F, which is on page 15.

13 We are not very long -- very far along in
14 our augmentation study, but we still consider that to be
15 a very viable solution in those rare years where we need
16 to close a gap, where we need to come -- come into
17 compliance or used too much.

18 Having said that, I would like to talk
19 about several of the other things.

20 In our documents we try to stick to current
21 accounting procedures, to the extent possible, so that
22 we always are an apples-to-apples comparison; but I do
23 think it is important to state that we have a couple of
24 issues with accounting that we believe are errors in the
25 accounting that we would like to see fixed. And this

1 would be both with respect to surface water leasing --
2 sorry, surface water usage or accounting with the
3 Haiglar Canal and also in the way that the groundwater
4 model is used.

5 Q. And for clarity sake, these are issues
6 we'll be addressing later in this proceeding?

7 A. Yes, they'll be addressed later. And I
8 simply wanted to point out that these issues would
9 change the compliance picture for Nebraska as you look
10 towards the future that should they be held -- upheld in
11 this proceeding following.

12 As we've discussed to some extent, Nebraska
13 also believes that water is exchangeable for money, if
14 you will, and that should damages be paid on, for
15 example, 2005 and 2006, that somehow that must come into
16 the 2007 accounting. That is the '03 through '07
17 accounting. We've pointed that out in this section as
18 well.

19 There are other items; for example,
20 vegetation --

21 ARBITRATOR DREHER: Let me stop you there
22 and ask you a question on that point.

23 THE WITNESS: Sure.

24 ARBITRATOR DREHER: You know, prior to the
25 time that these reports were submitted to me, I had

1 heard some -- I don't mean thirdhand, I mean, in the
2 briefings that were submitted on the legal issues --
3 there was some implication that Nebraska's gains from
4 overuse exceeded Kansas' actual losses from that
5 overuse. That was an issue I looked at and decided, but
6 then when I saw Mr. Barfield's report, which is
7 Exhibit -- I'm not sure which one that is. It's Kansas
8 Exhibit 6 -- he makes a pretty definitive statement
9 that -- this is on -- I don't know what page it is.
10 It's on the page following Figure 7 in the second
11 paragraph, which is on the -- which is the third
12 paragraph above the section titled "Conclusion."

13 And in the first sentence of that paragraph
14 he says -- it has to do with a river master. He said,
15 "Second, a River Master would prevent Nebraska from
16 placing its own economic self-interest above its legal
17 obligations to Kansas since Nebraska's gain from
18 non-compliance is substantially greater than our loss."

19 So now I'm seeing a specific -- it's not
20 quantified, but at least in a general sense, an
21 acknowledgment that, at least from Kansas' perspective,
22 Nebraska's gain is, indeed, from one of an overuse.
23 Nebraska's gain is, indeed, larger than Kansas' loss.

24 And so one of the issues on the
25 crediting -- and I'll put it in terms of a question.

1 If, in fact, Nebraska's gain from overuse
2 is larger, let's say substantially larger, than Kansas'
3 actual loss, if Nebraska gets credit for any damage
4 payment, isn't that an incentive to continue overuse of
5 the water, particularly if it gets credit for the
6 payment? Because the payment for actual loss would be
7 less than Nebraska's gain. So Nebraska would always be
8 ahead potentially or -- let me put it in a question.

9 Wouldn't Nebraska always be ahead by paying
10 damages and then getting credit for the payment in
11 subsequent accounting?

12 THE WITNESS: I don't believe that I could
13 speak to the amount of damages, and my testimony is that
14 Nebraska law requires that Nebraska be in compliance
15 with the Compact, no matter what the damages are. We
16 believe that it plays into it, but I don't believe that
17 anyone has settled exactly how that would happen.

18 ARBITRATOR DREHER: Okay. Well, I've put
19 the concern out there in the form of a question, and I
20 hope people understand it and at some point in this
21 proceeding would -- if you're not able to address it, at
22 some point in this proceeding it would get addressed.

23 THE WITNESS: I believe I understand your
24 question, and I wish I had a more solid answer for you
25 myself.

1 ARBITRATOR DREHER: Okay. You may proceed.

2 I'm sorry for interrupting.

3 Q (BY MR. WILMOTH) Are there any other
4 portions of the report you would like to call to our
5 attention, Mr. Williams, recognizing again that the
6 Arbitrator has had an occasion to read it once, and that
7 Mr. Schneider will be available?

8 A. I understand that. I did want to mention a
9 couple of things.

10 Nebraska has put a lot of money into
11 vegetation management and studying vegetation
12 management. We know that removing certain species from
13 the riverbed will allow the water to flow more freely.
14 Quantifying the benefits in terms of reduced consumption
15 is much more difficult. And while that's being studied,
16 I don't think I'm in any position to put forward any
17 potential gains from that, but I understand that that is
18 something that the State and the NRDs are concerned
19 about.

20 Nebraska has been involved to a great
21 extent in incentive programs to not farm or simply do
22 dry farming on properties. These are often in relation
23 to federal programs. That's an ongoing thing, and
24 currently some of the NRDs are working to apply for a
25 wet funding this year. So I will simply state that

1 that's there as well.

2 And I think I have covered the document, my
3 knowledge of it, at least as an overview at this point.

4 MR. WILMOTH: We have no further questions
5 and we'll turn it over to you and Mr. Draper.

6 ARBITRATOR DREHER: Let me ask a question,
7 and I meant to reread this this morning, and I didn't
8 get through it.

9 But Kansas has presented modeling
10 simulations of the effects as they -- of the IMPs as
11 they understand it, and I'm not -- I mean, obviously
12 there is a difference in understanding, but they've done
13 the simulations of the effects as they understand it.

14 Has Nebraska done a similar simulation of
15 the IMPs, as you understand?

16 THE WITNESS: Absolutely. We've done a lot
17 of modeling related to that.

18 ARBITRATOR DREHER: But that's not in your
19 report, is it?

20 THE WITNESS: Actually, it is, in terms of
21 the appendices. Appendix E is rather a large document.
22 This was originally presented at the March 2008 Special
23 Meeting of the RRCA. The document is titled "Future
24 Impacts Under Average Conditions."

25 Q. (BY MR. WILMOTH) Mr. Williams -- in answer

1 to the question, what is the purpose and content of
2 section 4 of this report?

3 A. Right. Section 4 discusses the work that
4 was done to review the IMPs both under average and dry
5 conditions. We also reviewed the next five years as
6 projected by Kansas.

7 So along with Appendix E, the future
8 impacts under average conditions, we also have Appendix
9 G, which would be the future impacts under dry
10 conditions. For simplicity sake, we took a slightly
11 different approach, and again I'm not a modeler.

12 This is what I understand the modelers
13 worked through; and that is, we took the 50th percentile
14 rainfall on an ongoing basis for the average conditions
15 and the 35th percentile rainfall on a long-term basis
16 for the dry conditions.

17 Let me also add to that that these IMPs are
18 dynamic. They are supposed to change in time with
19 changing conditions. And where Kansas has taken a look
20 50 years into the future and their remedy is specified
21 now for the next 50 years, Nebraska has written the IMPs
22 to cover a five-year period, one year of which is past.
23 And Nebraska also reviews the performance under that IMP
24 every year. By law the IMPs will be reviewed and
25 revised as necessary during 2012, but they might be

1 revised, should we have some extremely dry years prior
2 to that time.

3 ARBITRATOR DREHER: Well, I'll try to do it
4 as a question. Let me express the concern that I have
5 got. And I don't know where the truth lies in all of
6 this. The truth may be sufficiently hidden that it will
7 never show itself, but we'll see.

8 If I look at Mr. Book's analysis of future
9 compliance that we heard about yesterday, he looked at
10 the five-year period from 2002 to through 2006 and
11 computed that, on an average annual basis, Nebraska's
12 overuse would be 31,000 acre-feet per year.

13 And I asked Mr. Larson a question, in part
14 knowing the answer, but I wanted to see what his
15 response would be as to -- I think I used the word
16 draconian in terms of the, you know, curtailing
17 groundwater irrigation of 515,000 acres per 31,000
18 acre-feet shortfall.

19 And the answer, in part, for that was that
20 while there is these legacy effects that are yet to
21 express themselves in diminished streamflow from past
22 pumping. And, you know, if you look at Figure 5 in
23 Kansas' Exhibit --

24 MR. WILMOTH: Excuse me, Mr. Arbitrator.
25 Is that Exhibit 5 in the Barfield report?

1 ARBITRATOR DREHER: Yes. Is that Exhibit
2 6? Is that what that was? Yes.

3 Figure 5 in Exhibit 6 -- Kansas Exhibit 6,
4 you see that if -- you know, if the 2002-2006 period, if
5 you look at that, the annual volume of net impact -- the
6 net Nebraska impact of Republican River flow --

7 MR. WILMOTH: Excuse me, Mr. Arbitrator. I
8 don't believe Mr. Williams has a copy. May I show him a
9 copy.

10 ARBITRATOR DREHER: Sure, I'm sorry. I
11 keep thinking that you have those books up there, and
12 you don't.

13 MR. WILMOTH: We're running out of space.
14 We have three books already, so we'll see what we have
15 left.

16 THE WITNESS: Yes, sir.

17 ARBITRATOR DREHER: Do you see the figure
18 I'm referring to? So if you look at that -- just
19 visually look at the 2002-2006 period that Mr. Book
20 used, you know, on average, you're looking at an annual
21 volume of projected -- maybe not projected -- of
22 Nebraska impact on Republican River flow of about
23 180,000 acre-feet a year.

24 And then if you look out in the period,
25 say, you know, the mid-2040s, you see that that's

1 growing now to maybe 320,000. And, you know, I'm not --
2 not giving credit in this analysis to the effect of the
3 IMPs, because I don't know what the effect of those IMPs
4 is yet. I mean, I've heard Kansas' version of it, and I
5 need to look at what Nebraska's version is.

6 But potentially there is a -- potentially,
7 depending upon the IMPs, there is a legacy depletion
8 working through the system that could be -- maybe it's
9 not this high -- this may be an overestimate, but it
10 could be another 140,000 acre-feet of depletion that is
11 already working through the system.

12 And, you know, looking at an IMP on a
13 five-year basis, you know, my question is: How does
14 your approach, even being able to adjust the IMPs, how
15 does it address that legacy depletion of that magnitude?

16 THE WITNESS: I would prefer to leave a
17 discussion of the details of this modeling to my
18 coauthor Jim Schneider, but I think I can help you a
19 little bit with what you're trying to grapple with here.

20 If I could refer you back to Appendix D
21 again, and I think the easiest thing to take a look at
22 would be the first page of that appendix, being the
23 first page is a letter dated December 30, 2008.

24 ARBITRATOR DREHER: Okay, I'm there.

25 THE WITNESS: Okay. Our long-term forecast

1 was constructed by taking a look at the relationship
2 between Nebraska allocations and streamflow, given a
3 streamflow at Hardy, plus diversions at the Courtland
4 Canal.

5 In other words, when you graph these out,
6 which is the information behind this document, then you
7 will see that there is something of relationship there.

8 ARBITRATOR DREHER: I lost you. What part
9 of the document are you referring to?

10 THE WITNESS: I'm sorry, it's really not in
11 this particular document, but I'm simply stating that we
12 have looked at declining streamflows -- that is to say,
13 declining water supplies in the basin -- and we are well
14 aware of and we have made the NRDs aware of that. For
15 example, if you look at the two bullet points on the
16 first page of this letter, that while the available
17 water supply during 2009 is projected to be 261,130
18 acre-feet, that in ten years the available water
19 supply -- that is to say, our allocation plus our
20 modeled imported water supply -- is projected to be
21 203,225 acre-feet.

22 ARBITRATOR DREHER: If you give me a
23 minute.

24 What I was looking at is the difference
25 between the 2009 forecast of available water supply and

1 the 2019 available water supply and comparing that
2 against the possible legacy effect that is projected --
3 that has been simulated by Kansas, and at least at first
4 blush, they appear to be somewhat consistent. So if, in
5 fact, Nebraska -- if, in fact, Nebraska's approach is
6 able to address these legacy effects, then that's
7 something that should be considered; but these legacy
8 effects appear to me to be pretty darn significant.

9 And, you know, the difficulty -- and again
10 here, I'm not asking a question again, I'm making a
11 statement. But the difficulty in these regional aquifer
12 systems, you're not dealing with an alluvial aquifer
13 that necessarily is in close proximity to the
14 hydraulically connected river or has a hydraulic
15 transmissivity that is consistent with river cobble.

16 These regional systems, the lag effects are
17 not only significant, they can take a long, long, long
18 time to express themselves.

19 And, again, my concern would be is
20 Nebraska's approach of adjusting these IRPs -- right?

21 MR. BLANKENAU: IMPs.

22 ARBITRATOR DREHER: IMPs, Integrated
23 Management Plans -- I keep thinking of integrated
24 resource plans.

25 THE WITNESS: We can work with either term

1 in the present context.

2 ARBITRATOR DREHER: But, you know, making
3 adjustments on a short-term for something that is pretty
4 large coming through the system, I just wonder if the
5 NRDs are ready for this, and if Nebraska can make the
6 changes fast enough to accommodate it.

7 And that's not a question, it's just -- I'm
8 just stating a concern.

9 THE WITNESS: Yes. And let me summarize by
10 stating that this is part of the legally required annual
11 forecast that the Department of Natural Resources has
12 done. It was developed in consultation with the NRDs,
13 meetings have been held. They are aware of the
14 potential for declining streamflows, declining water
15 supplies over the coming years.

16 And once again, the IMPs are dynamic.
17 They're designed to be reviewed not only annually, but
18 over whatever period they are in place. The current
19 ones are five-year IMPs.

20 ARBITRATOR DREHER: All right. Does
21 Colorado have any questions for this?

22 MR. AMPE: No, we don't.

23 ARBITRATOR DREHER: Mr. Draper, would you
24 prefer to start cross now or would you prefer to wait
25 until the morning?

1 MR. DRAPER: If we start it now, I would
2 like to take a short break ahead of that. Given the
3 fact that we're approaching 5 o'clock, it may be better
4 to start first thing in the morning.

5 ARBITRATOR DREHER: Because you have a
6 total of 15 minutes. I'm taking Sam at his word that
7 the guards are going to come. So if that's acceptable
8 to folks, I would say let's adjourn for today and start
9 first thing in the morning.

10 MR. WILMOTH: That's fine with us.

11 (WHEREUPON, the hearing recessed at 4:47
12 p.m. to be continued Friday, March 13, 2009, at 9:00
13 a.m.)

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CERTIFICATE

I, Dyann Labo, Registered Professional Reporter, do hereby certify that the above-named proceedings were reported by me in stenotype; that the within transcript is true and correct, to the best of my knowledge and belief.

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