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Non-binding Arbitrations Before
Jeffrey C. Fereday, Arbitrator

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Initiated Pursuant to Final Settlement Stipulation
Kansas v. Nebraska & Colorado
No. 126, Orig., U.S. Supreme Court
Decree of May 29, 2003, 538 U.S. 720

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Nebraska's Alternative Water Short Year Plan
(Arbitration Initiated February 8, 2013)

and

Nebraska's Rock Creek Augmentation Plan
(Arbitration Initiated March 21, 2013)

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**PRE-FILED TESTIMONY OF KANSAS WITNESS
SCOTT E. ROSS**

Nebraska's Plan for Alternative Water-Short Year Administration and
Nebraska Rock Creek Augmentation Plan

August 21, 2013

1 **Q: Please state your full name, professional position, and address for the**
2 **record.**

3 A: Scott E. Ross, Water Commissioner for the Kansas Department of Agriculture,
4 Division of Water Resources ("DWR"). I supervise the appropriation, regulation,
5 and administration of water rights in the Stockton Field Office Area, which
6 includes all or portions of the thirty-three counties in northwest Kansas, the South
7 Fork Republican River and its tributaries in northwest Kansas, and the main stem
8 of the same river and its tributaries in north central Kansas.

9
10 **Q: Please describe your educational and professional experience in water**
11 **management prior to joining DWR.**

12 A: I am a native of Atwood Kansas, which is in the Upper Republican Basin. I grew
13 up half a mile from Beaver Creek, one of the South Fork Republican River's
14 tributaries. I have lived and worked in this basin all my life. As a child we spent
15 time fishing and camping at the lake at Parks, Nebraska. I have hiked, hunted,
16 fished and camped at Swanson Lake, Hugh Butler Lake, Harry Strunk Lake,
17 Keith Sebelius Lake, Enders Reservoir, and Harlan County Lake. I graduated in
18 1977 from Fort Hays State University, Hays, Kansas, with a B.S. in Geology. After
19 graduation, I took a position with the Bureau of Reclamation ("Reclamation"). From
20 1978 through June 1981 I worked for Reclamation at its Field Office in McCook,
21 Nebraska. This work included coordinating efforts with agencies of the State of
22 Kansas and the State of Nebraska. This work also included managing construction

1 projects within the Kansas Bostwick Irrigation District ("KBID"), and the Frenchman
2 Cambridge Irrigation District ("FCID") in the Republican River Basin ("Basin").

3

4 **Q: Please describe your work experience since joining DWR.**

5 A: In 1981, I moved from Reclamation to DWR as the Assistant Water
6 Commissioner for North-Central and Northwest Kansas. After training for several
7 months at DWR headquarters in Topeka, I was assigned to the Stockton Field
8 Office. In 1989, I was appointed to be the Water Commissioner for North-Central
9 and Northwest Kansas.

10

11 **Q: As the Water Commissioner for the Basin, what Kansas water laws are you
12 in charge of enforcing?**

13 A: Three main categories. First, the most important set of laws is the Kansas Water
14 Appropriation Act, ("KWAA"), K.S.A. 82a-701 *et seq.*, which governs all water
15 rights in Kansas. Second is an important subset of the KWAA related to minimum
16 desirable streamflows ("MDS"), which I have a duty to protect under the KWAA.
17 Finally, I work on behalf of the Chief Engineer in fulfilling many of DWR's duties
18 and responsibilities under the Groundwater Management District Act ("GMDA"),
19 K.S.A. 82a-1020 *et seq.*

20

21 **Q: Please describe the basic workings of the KWAA.**

22 A: DWR is charged under the KWAA with the administration of water rights, the
23 compliance of water users with the terms of their water rights, and the

1 appropriation of water within the State of Kansas. That duty extends to
2 maintaining Kansas' compliance with interstate water compacts, including the
3 Republican River Compact. The KWAA governs both groundwater and surface
4 water rights. These rights are real property rights, and are administered
5 according to the doctrine of prior appropriation. Every use of water except for
6 domestic use requires a permit. A Kansas water right has five major attributes:
7 (1) a priority date, which is the date of the filing for the right; (2) an authorized
8 quantity, which includes both the rate of diversion and the annual authorized
9 quantity; (3) a specific point of diversion; (4) a specific place of use; and (5) a
10 specific type of beneficial use. The first two attributes cannot be changed. The
11 other attributes can be changed, as long as the applicant for such a change can
12 demonstrate that the change under review will not impair other water rights,
13 whether senior or junior. Surface and groundwater rights are administered under
14 the same priority system, and they are regulated and administered in conjunction
15 with each other. In times of shortage the priority relationship between water rights
16 serves as the foundation for water rights administration. In its simplest form, the
17 priority system prescribes that the most senior water rights will receive water to
18 the extent that water is available for use. The status of all water rights is entered
19 into the Water Right Information System ("WRIS"). This database maintains
20 information on each water right including their annual reported water use. This
21 tracking system is used to evaluate relationships between existing water rights
22 and new applications, track annual water use, and provide data to all internal and
23 external water studies. WRIS is used to develop the water use information used

1 each year in the annual Compact accounting. A great deal of time is also spent
2 on the collection of annual water use data through our water use reporting
3 process. Each water right is required to file an annual water use report, which
4 includes beginning and ending meter readings, a total water diverted value,
5 number of acres irrigated or population served. This is done by point of diversion.
6 This information is also the subject of a fairly extensive review process for
7 compliance with the individual water right.

8
9 **Q: In evaluating whether to grant new water rights or grant changes to existing water**
10 **rights, does DWR conduct an analysis of the available water resources?**

11 A: Yes. DWR conducts a "safe yield analysis." For groundwater, this requires DWR
12 to evaluate the quantity of groundwater available for appropriation which, for a
13 given area (normally a 2-mile diameter circle) considers mainly: (1) the amount of
14 water provided by precipitation recharge, (2) the amount of water already
15 appropriated, and (3) any amount reserved for streamflow as required by law or
16 deemed to be in the public interest. The precipitation recharge values are typically
17 drawn from a report by the U.S. Geological Survey ("U.S.G.S."), although other more
18 site-specific studies may be used if appropriate. In the South Fork Republican River
19 sub-basin in Kansas, the safe yield analysis evaluates site-specific impacts to
20 streamflow caused by groundwater pumping.

21
22 **Q: How does the KWAA protect against possible impairment of senior water**
23 **rights?**

1 A: Any new appropriation cannot impair any other water right, and any change to a
2 water right cannot impair other water rights. If the safe yield analysis of a new
3 application or change application shows an adverse impact on any other water right
4 or appropriation of water, the application will be dismissed.

5
6 **Q: Do you have personal knowledge and experience with water use, water rights,
7 and water management in the Republican River Basin?**

8 A: Yes. As Assistant Water Commissioner and later Water Commissioner, I have been
9 responsible for knowing the surface water and groundwater rights and use in the
10 Kansas portion of the Republican River Basin. I have attended the Republican River
11 Compact Administration (“RRCA”) annual meeting since 1985, where the States’
12 water use data has been discussed and reviewed. As I discuss more fully below,
13 since 2003, I have been a member of the Engineering Committee of the RRCA,
14 where the States annually exchange water use data that is used to compile the
15 annual Compact accounting. For these periods, I have personal knowledge and
16 experience with the surface water and groundwater use data for Colorado, Kansas,
17 and Nebraska and the various water management practices undertaken in these
18 States. Since 1998, I have had a number of opportunities to attend the meetings of
19 the Four States Irrigation Council, which addresses irrigations practices and regulation
20 in Colorado, Kansas, Nebraska, and Wyoming.

21

22 **Q: What experience do you have with surface water rights in the Republican River
23 Basin?**

1 A: I have experience working with Reclamation on water rights related to its irrigation
2 districts, including KBID, the Nebraska Bostwick Irrigation District (“NBID”), and FCID.
3 I have also administered water rights to protect MDS in the Lower Republican River
4 basin, and administered water rights on Beaver Creek in Kansas.

5
6 **Q: Do you know the relative priorities of irrigation district water rights in
7 Kansas?**

8 A: Yes. As with many surface water rights, they are senior to the majority of the
9 groundwater rights in the Kansas portions of the Basin.

10

11 **Q: Are you familiar with irrigation district water rights in Nebraska?**

12 A: Yes, generally speaking. They are administered by the Nebraska Department of
13 Natural Resources (“DNR”). During 2013, all of the surface rights in the Nebraska
14 portion of the Basin were administered.

15

16 **Q: Were any groundwater wells in the Nebraska portion of the Basin curtailed
17 in 2013?**

18 A: Not to my knowledge.

19

20 **Q: Have the surface water rights in Nebraska been declared junior to all
21 groundwater wells in the Nebraska portion of the Basin?**

22 A: Not to my knowledge.

23

1 **Q: Do you have any personal knowledge and experience with the Kansas**
2 **Bostwick Irrigation District?**

3 A: Yes. I have been involved with them both in Contract negotiations in the early
4 1990s, as well as through their operations during times of MDS administration. I
5 have visited KBID lands multiple times and seen their operations during both the
6 non-irrigation and irrigation seasons. I have also worked with them on various
7 matters related to the Final Settlement Stipulation (“FSS”), arbitrations, and the
8 pending Supreme Court litigation.

9

10 **Q: How would you describe their planning process?**

11 A: At the conclusion of the irrigation season, normally in early September, they
12 assess their water supply for the following year. Their analysis includes storage
13 in Lovewell Reservoir, Harlan County Reservoir, as well as the potential for the
14 operations of other reservoirs upstream of Harlan County Reservoir. Further,
15 they will review gage records and transit losses between the upper basin
16 reservoirs and Harlan County Reservoir. Finally, they will assess any potential
17 changes in transit loss between Harlan County Reservoir and their diversion dam
18 at Guide Rock, Nebraska.

19

20 **Q: How might each of these factors impact their delivery of water the next**
21 **irrigation season?**

22 A: KBID has always managed their primary source, Harlan County Reservoir, with
23 careful attention to the following irrigation season. So, they will have made every

1 effort to maintain storage in Harlan County Reservoir, even though it will be
2 necessary to split it with Nebraska Bostwick Irrigation District in the next irrigation
3 season. They also assess the available storage space in Lovewell Reservoir.
4 They couple this with the October prediction from Reclamation on the next year's
5 supply. The October Reclamation prediction is not particularly accurate, but it
6 gives them a sense of what may happen. This information when coupled with
7 their assessment of the potential transit losses from the previous season will give
8 them a sense of what flows may be available to them in the fall, winter and spring
9 before the next irrigation season. This will help prioritize their scheduling of canal
10 work and repairs needed to be completed prior to the next season. Potential
11 upstream operations can also influence some of these decisions. If, for example,
12 Harry Strunk Reservoir ends the season higher than normal, it will be more likely
13 to fill and run water downstream to Harlan County Reservoir. This in turn
14 provides another level of security for the following season's supply. This also
15 would be the case with any of the upper reservoirs. If an upper reservoir is in
16 need of work which will require a lowering of the reservoir to accomplish the task,
17 this too may result in more water in Harlan County Reservoir. Finally, and
18 perhaps most important, all of this gives KBID a sense of how much or even if
19 they will need to run water during the winter to fill Lovewell Reservoir with winter
20 flows. The Courtland Canal was not designed to run in the winter and therefore
21 suffers a great deal of ice damage when they are forced to run water through to
22 Lovewell during cold weather. They will carefully consider their best options
23 when considering timing of winter canal flows.

1 **Q: What is the timing of their planning process?**

2 A: Their operational planning is continuous. The values used for the supply
3 predictions from Reclamation on next year's irrigation supply, begin with a
4 relatively low level of confidence. However, as the fall and winter progress their
5 monthly water supply predictions begin to shape the KBID decisions. They are
6 also planning operations for the next year based the needs of their patrons. If
7 they buy more corn seed, then the potential is there to need more water, so KBID
8 may want to change some of their initial plans to include some winter canal flows
9 that would not have been required otherwise. Many of the KBID patrons are also
10 buying other inputs including crop insurance. Most of this work is concluded by
11 mid-March. It is at the March or April meeting of the KBID board of directors that
12 the annual delivery is set.

13

14 **Q: In your experience, does KBID's annual delivery decided in March or April
15 ever change?**

16 A: Yes, it can be affected by changing precipitation conditions or changing patron
17 demand, among other things.

18

19 **Q: What is the format of the annual delivery?**

20 A: The annual delivery is set as the number of inches of water to be delivered to
21 each acre of land in the district. They have lands that are above Lovewell
22 Reservoir and lands below Lovewell Reservoir. KBID also shares the Harlan
23 County Reservoir water supply with NBID. Reclamation provides both districts

1 with an available supply prediction of equal proportion. Reclamation also
2 includes both Lovewell Reservoir storage and inflows to Lovewell Reservoir in
3 this prediction. Each district may then propose to deliver water at some level at
4 or below the Reclamation prediction. KBID and typically NBID will limit their
5 annual supply level to patrons with some consideration to retain storage for the
6 next season. For example, KBID may have 15 inches per acre available in April,
7 and set the proposed delivery at 10 inches per acre in an attempt to secure a
8 supply for the next year. As the summer progresses, depending on delivery
9 efficiency and precipitation, KBID may choose to shut off releases from Harlan
10 County Reservoir, instead using natural flows in the Republican River as its
11 supply, thus saving more storage for the following season.

12
13 **Q: Once the irrigation season starts does KBID continue their assessment of**
14 **operations?**

15 A: Yes. KBID covers a large geographical area. It will frequently rain in one portion
16 of the district and not in another. Gate changes are made daily to maintain the
17 highest delivery efficiency possible. This requires a continuous monitoring of the
18 Republican River and Courtland Canal, as well as changes in NBID's delivery
19 needs.

20
21 **Q: Can you explain how KDIB operations are linked to the NBID operations?**

22 A: As I mentioned, Reclamation considers them one district with multiple
23 components. It is important to recognize that KBID and NBID share the Guide

1 Rock Diversion Dam. It is at this point water from the Republican River is
2 diverted into the either the Courtland Canal or the Superior Canal. The Courtland
3 Canal deliverers water to Kansas, and the Superior Canal, to Nebraska. NBID
4 typically calls KBID and advises them how much water they need. KBID
5 assesses both the NBID and KBID needs, along with the predicted transit loss.
6 KBID then orders the amount required for both districts from Reclamation and
7 monitors the flows in the river, delivering this water to both district head gates at
8 the diversion dam.

9
10 **Q: Please describe conditions in the Basin between 2003 and 2007.**

11 A: After the FSS was adopted in 2003, basin-wide, precipitation declined and water
12 use by most users increased. The eastern portion of the basin is most heavily
13 reliant on surface water diversion for irrigation, and it was simply dry with little
14 chance of adequate water until the weather changed. All of the Basin reservoirs
15 were at very low levels. However, those with access to groundwater had
16 significantly greater access to water for irrigation. Ground water users in all three
17 states were only limited by their water rights. In the case of Nebraska, these
18 limitations had only recently been established and were tempered with a 3-year
19 to 5-year limit on the total quantity. Therefore, we observed a marked increase in
20 overall water use throughout the basin. As the drought continued through 2006
21 into early 2007, surface water users in the Bostwick Irrigation Districts in the
22 lower portion of the basin suffered an ever increasing loss of access to water.
23 During this period, NBID was able to sell its surface water rights to the

1 groundwater users in the west, but portions of KBID simply didn't have any water
2 available.

3

4 **Q: What happened between 2007 and 2011?**

5 A: By mid-2007 a more normal level of precipitation returned to the Basin. The
6 years 2008-2011 saw average to above average precipitation coupled with
7 slightly above normal temperatures. Water supplies for most of the basin were
8 adequate to meet the demands placed upon the surface water supplies of the
9 basin.

10

11 **Q: Did dry conditions return after 2011?**

12 A: Yes. By the end of the irrigation season in 2011 precipitation was beginning to go
13 below normal again for most of the basin. The fall and winter of 2011 could best
14 be described as above normal temperatures and below normal precipitation.
15 These dry conditions continued through 2012 to the present. Recorded rainfall
16 was down to less than 50% in some areas of the basin. Again, the dry weather
17 limits the use of surface water as it is simply not available. It also leads to
18 increased groundwater use. KBID was able to use the Harlan County Reservoir
19 supply as well as Lovewell Reservoir to meet the needs of its irrigators, but it
20 used up most of the projected 2013 supply. The Republican River below Hardy,
21 Nebraska was also very low and eventually went under the MDS limits, and
22 approximately 190 junior water users in Kansas were regulated in August of 2012

1 for the remainder of 2012 and into the 2013 irrigation season. These MDS
2 orders were only vacated in August of 2013.

3

4 **Q: Please describe your observations of Nebraska's Compact compliance**
5 **efforts in 2012 and 2013, including its "Compact Call Year" designation and**
6 **related actions.**

7 A: At the beginning of 2013, Nebraska elected to issue closing notices for all
8 surface water uses from the Republican River, but groundwater users were not
9 curtailed. Nebraska projected a potential for Compact overuse in 2013.
10 Nebraska's DNR notified Reclamation that Reclamation would have to provide
11 sufficient water to meet Nebraska's projected overuse in 2013 or Nebraska would
12 order the release of the inflow to all of their reservoirs except Harlan County
13 Reservoir, which was going to be allowed to temporarily hold inflows. See Ex.
14 WSY/RC K28. Ultimately, Reclamation offered to sell KBID the water that KBID
15 would normally treat as its 2013-2014 storage by selling the collected inflows
16 using a federal Warren Act contract. According to the deal, the water must be
17 used during 2013. My understanding is that, with no other options to protect its
18 contracted supply of water, KBID elected to purchase the Warren Act water.
19 Nebraska's DNR allowed this storage in Harlan County Reservoir during 2013
20 with the provision that if Nebraska determined it was needed, Nebraska could
21 require that this stored water be evacuated prior to the end of 2013.

22

1 **Q: Can you describe your observations of the events of 2012-2013 on the**
2 **water supply of the basin?**

3 A: At trial last August in Maine, Dr. Schneider testified that he did not believe that
4 2013 would be a Water Short Year. Later in 2012, Nebraska's DNR predicted a
5 Water Short Year, as did Reclamation. Nebraska gave the local Natural
6 Resources Districts ("NRDs") an opportunity to develop a plan of action regarding
7 groundwater use to help Nebraska remain in compliance with the Compact. Then
8 Nebraska's DNR issued closing notices to all the surface water users above
9 Hardy, Nebraska. DNR directed Reclamation to release all inflow to their
10 reservoirs. DNR gave Reclamation and the U.S. Army Corps of Engineers,
11 which operates Harlan County Reservoir, until April 1, 2013, to come up with a
12 plan to make up the DNR projected shortfall. The federal agencies did not
13 complete a plan in time, and DNR ordered the 2013 collected inflows to be
14 released from all federal reservoirs except for Harlan County Reservoir.
15 Eventually, DNR ordered the collected inflows to be released from Harlan County
16 Reservoir beginning on May 1, 2013.

17

18 **Q: What did the NRD action plans contain?**

19 A: I don't know. We were not allowed to see them.

20

21 **Q: How does the regulation by Nebraska's DNR work within the priority**
22 **system?**

23 A: It doesn't.

1 **Q: Why not?**

2 A: The irrigation district rights were started in the 1950s therefore, their earliest
3 priority dates would be in the 1950s. The water development records clearly
4 illustrate that the majority of the groundwater development in all three states
5 began in the late 1960s and early 1970s. Kansas and Colorado closed the basin
6 to new appropriations in the 1980s, but Nebraska continued to allow new
7 groundwater development until the FSS was signed in 2002. As between
8 surface water users and groundwater users, Nebraska does not recognize any
9 priority of surface water users over groundwater users. Nebraska's DNR issued
10 closing notices to surface water users in the Republican River Basin, but the
11 NRDs did not curtail any groundwater pumping.

12

13 **Q: When did you first begin attending RRCA annual meetings?**

14 A: I began attending the RRCA annual meetings, in 1985.

15

16 **Q: What was the water availability situation in the Basin around that time?**

17 A: At that time Kansas had closed most of the Upper Republican Basin in Kansas to
18 new appropriations, as had Colorado. At this point, Chief Engineer, David Pope
19 began to insist that Nebraska take similar actions. At about that time I began
20 working with other DWR staff to provide field support to conduct investigations
21 and to address Nebraska water users when asked to do so.

22

1 **Q: During the course of you time at DWR, how many Chief Engineers have you**
2 **worked under?**

3 A: Three. Guy Gibson, who served until 1982; David Pope, who served from 1983 to
4 2007; and David Barfield, who has served since 2007.

5
6 **Q: From your viewpoint, could you give us a summary of the approach that each**
7 **successive Chief Engineer took of regarding the administration of the**
8 **Republican River Compact?**

9 A: Yes. Under Mr. Gibson, the Republican River Compact was not a priority, because he
10 served during a time before Kansas began to focus on deteriorating water conditions
11 in the Republican River Basin. Mr. Pope took an entirely different approach. Soon
12 after becoming Chief Engineer, he took steps to close the Upper Republican sub-
13 basins to new appropriations of water, as he believed that these sub-basins had been
14 fully appropriated. We aggressively addressed those rights that had been potentially
15 abandoned, and we began to evaluate the basin hydrology in Colorado and Nebraska
16 to determine those actions needed to secure our water supply for the Lower portion of
17 the Basin. Upon joining DWR, David Barfield was assigned by Mr. Pope to fill a
18 position with our Technical Services team. One of the first assignments given to Mr.
19 Barfield was to evaluate the hydrology of the Upper Republican sub-basins and report
20 on their remaining un-appropriated water supply. These sub-basins were closed to
21 new appropriations based largely on the reports prepared by Mr. Barfield and his
22 team. Mr. Barfield's lengthy experience with the DWR and the RRCA has been
23 largely technical. His duties were to make sure that Kansas understood the technical

1 aspects of the RRCA accounting and modeling. As problems with Nebraska's
2 compliance mounted, Mr. Barfield became the DWR representative to the
3 Engineering Committee of the RRCA, and Mr. Pope's primary liaison to the modeling
4 and accounting committees during development of the FSS. As Chief Engineer, Mr.
5 Barfield has been committed to ensuring that Kansas remains in compliance with the
6 Compact, and that any changes approved by the RRCA are technically sound. His
7 charge to the staff and Kansas' technical consultants involved with the RRCA has
8 been, and continues to be, to closely examine each new proposal brought to the
9 RRCA and to make sure it has specifically stated goals and technically verifiable
10 outcomes. In my view, his approach has not changed in the nearly 30 years that I
11 have worked with him. Mr. Barfield does not approach the RRCA or any other task at
12 DWR with personal passion or prejudice. He is simply trying to make the technically
13 correct decisions regarding the future water supply of the basin. As you might expect,
14 being Chief Engineer is not an easy job, and it has been especially trying during dry
15 periods, when Mr. Barfield has been forced to make numerous unpopular decisions.

16

17 **Q: How would you describe the transition from David Pope as Chief Engineer to**
18 **David Barfield as Chief Engineer?**

19 A: I would describe it as seamless. By the time Mr. Barfield became Chief Engineer, he
20 had already devoted more than two decades of work to Republican River issues, so
21 the transition was very smooth. The two men both invested significant portions of their
22 careers in the resolution of the issues facing the Republican River Compact. Both
23 men believed that they were dealing with honest, straightforward, and technically

1 capable individuals representing the other states. Both men were and are committed
2 to protecting the long term future water supplies from the Republican River. This,
3 must by necessity include the Republican River water users in the two other states.
4

5 **Q: When did you become a member of the RRCA Engineering Committee?**

6 A: After the FSS was signed, so in 2003 or shortly thereafter.
7

8 **Q: When did you become chairman of the Engineering Committee?**

9 A: In 2012. I am currently the chairman. The chair of the Engineering Committee
10 rotates with the chair of the RRCA, and Kansas is currently the chair.
11

12 **Q: What are the duties of the Engineering Committee?**

13 A: Members of the Engineering Committee in each state are responsible for
14 completing the data collection and reporting water use annually. They are
15 responsible for producing the annual accounting of water use, which is used to
16 establish the Compact allocations for each state, which in turn is used to
17 determine whether each state is in compliance with the Compact. The committee
18 also has the annual task to discuss and provide recommendations for the
19 resolution of various issues that the FSS has required the RRCA to resolve.
20

21 **Q: Have there been any problems with resolving some of these issues?**

22 A: Yes. Since 2006 the States have not been able to agree on the final accounting,
23 or the accounting procedures. We have not even been able to agree on the

1 actual water use data submitted by all three states. Kansas has asked for the
2 metered water data collected by both Nebraska and Colorado. Nebraska has
3 given us a summary by county as well as a summary by NRD, but Nebraska has
4 been unwilling to provide the Engineering Committee with actual metered data
5 collected by the NRD's, or the meter data from Nebraska surface water users in
6 the Basin. As for Colorado, its wells in the Basin were not initially metered. Meter
7 orders were issued in 2009, but we have not been provided with complete
8 access to the meter data Colorado. This has not, to date, been available without
9 a well by well query of the Colorado water well data base.

10
11 **Q: How would you describe Mr. Barfield's interaction with the Engineering**
12 **Committee?**

13 A: The Kansas interstate water group is really one team with different players who each
14 have a different job. The Engineering Committee venue typically provides the most
15 frequent direct communication among the three states during the period between
16 annual meetings. Mr. Barfield has wants to be informed of any progress the
17 Engineering Committee is making on various assignments, and he provides input
18 when decision points are developed. I would not describe Mr. Barfield as directly
19 involved in the workings of the Engineering Committee.

20
21 **Q: Has Mr. Barfield ever directed you or anyone else on the Kansas team,**
22 **including the Engineering Committee, to reject any proposal brought to the**
23 **RRCA by Colorado or Nebraska?**

1 A: No, in fact quite the contrary. When either of these states chooses to make a
2 proposal, Mr. Barfield and the interstate team have invested a great deal of time
3 evaluating each proposal offered from either of the other states. Mr. Barfield
4 continues to seek resolution of these proposals, without sacrificing Kansas water
5 supplies.

6
7 **Q: How would you describe Nebraska's participation in the Engineering**
8 **Committee?**

9 A: Prior to Kansas' first expressing concern for the increase water use in Nebraska at the
10 1985 Annual Meeting of the RRCA, I observed the Engineering Committee meetings
11 as a friendly forum for the exchange of data and other technical matters. Between
12 1985 and 1997, the Engineering Committee meetings became more technical and a
13 bit more contentious, but certainly not what I would describe as hostile. During the
14 period from 1997-2003, the same time as the litigation in *Kansas v. Nebraska &*
15 *Colorado*, the Engineering Committee's work load was relatively intense, with a great
16 deal of discussion about how to resolve various issues of accounting and modeling.
17 While I was not directly involved in the negotiations or the final writing of the FSS,
18 those meetings I did attend were certainly courteous and largely productive. Since the
19 adoption of the FSS in 2002-2003, the meetings have been more difficult to schedule,
20 and very little is being accomplished regardless of the setting. Colorado has
21 withdrawn from most of the discussions of the Engineering Committee, and Nebraska
22 has become increasingly reluctant to provide any direct input as well. Nebraska and
23 Kansas have been prompt in providing adequate data to complete the Accounting

1 Procedure computations, but Colorado continues to wait until the last possible
2 moment to provide their records. The Colorado water use information is not really
3 water use but an estimated water use from Crop Water Requirement calculations.
4 The actual Colorado water use records have never been provided. While providing
5 summary data for the RRCA accounting, Nebraska and Colorado continue to withhold
6 the actual meter data, so little confirmation of the other state' use has been possible.
7 More recently, when Kansas has attempted to open a discussion about a particular
8 matter at the Engineering Committee level, Nebraska has chosen to bring it to the
9 RRCA, without review of such matters at the committee level.

10
11 **Q: Could you identify any instances of what you just described?**

12 A: In these instances, Dr. Schneider of Nebraska has characterized these attempts by
13 Kansas to open a discussion as a demand. On page 16 of Dr. Schneider's expert
14 report on Rock Creek beginning with the second full paragraph, "In an additional
15 example, Mr. Barfield notes that "[o]n September 27, 2012, Kansas presented to the
16 engineering committee of the RRCA an outline of its concerns and issues with
17 augmentation plans, and invited further dialog on the matter. However, this was not a
18 proactive measure. In fact, the engineering committee had been assigned the task of
19 generating a framework for augmentation plans during the annual meeting on August
20 31, 2011, Nebraska repeatedly requested that Kansas indicate if there was any
21 augmentation plan that they would be agreeable to." Dr. Schneider seems to be feel
22 that it is up to Kansas to propose a solution to the problem of Nebraska's Compact
23 violations. In fact the notes from the 2011 and 2012 Engineering Committee

1 discussions found that on August 23, 2011, Dr. Schneider asked that the “Framework
2 for Future Augmentation Plans” be added to the EC agenda. This topic was assigned
3 to the EC at the annual meeting August 31, 2011. In an e-mail February 17, 2012, the
4 discussion of augmentation plans was added to the EC meeting agenda. During the
5 May 24, 2012 EC call, the discussion of this topic was once again on the agenda. I
6 asked if this topic had any potential for resolution. Dr. Schneider responded that it
7 was something we might be able to work on after August. He questioned whether
8 there was anything Kansas would accept. I responded, “Yes, plenty of opportunity for
9 an acceptable plan, Kansas just needs to be cautious about how it will be applied.”
10 This was again a topic of discussion on June 26, 2012. Dr. Schneider again asking if
11 Kansas will accept anything. Kansas continues to review all of the limited information
12 Nebraska provides making every attempt to move this process to completion while
13 protecting Kansas water supply.

14
15 **Q: How would you describe the tone of the RRCA Annual Meetings since the**
16 **signing of the FSS?**

17 A: The annual meetings have become more frustrating to Kansas and Nebraska, as is
18 evident by Dr. Schneider’s reports in this arbitration, and their continued accusatory
19 remarks about Kansas in general and Mr. Barfield in particular. The tone of the
20 annual meetings has become increasingly hostile since Dr. Schneider assumed his
21 leadership position within the Nebraska team. As the drought persists, Dr. Schneider
22 has become increasingly vocal in his protests of Kansas’ desire to have more specific
23 plans of action with more concrete outcomes.

1 **Q: Do you believe that Kansas has taken a position of opposition at the RRCA**
2 **level to proposals brought by either Colorado or Kansas?**

3 A: Not at all. In 2002 Kansas signed the FSS with the three states all understanding that
4 changes would be needed to Nebraska's water management approach. The FSS is
5 a document that sets forth those areas of agreement and those areas where
6 additional work and agreement are needed. With the signing of the FSS, the States
7 intended and expected to work into the future to resolve those issues that were not
8 stipulated. Those areas that were not identified in the FSS as being agreed upon
9 were very quickly placed in the forefront as the drought intensified between 2002 and
10 2006. Nebraska found itself in violation of the Compact and FSS, and consuming in
11 excess of Nebraska's allocations for every year during that period. Kansas placed a
12 great deal of trust in those who signed the FSS and believed it had every right to
13 expect the respective states to honor their commitment. Kansas was asked to trust
14 the other states to do what needed to be done to come into compliance. In signing
15 the FSS, Kansas committed to that bond. Since the signing of the FSS, both of the
16 other states have violated the Compact and FSS. Kansas has found it necessary to
17 continue to devote considerable time and resources in numerous attempts to find
18 mutually acceptable solutions for the others States' overconsumption. We have
19 provided technical input, suggestions on methods to achieve compliance only to find
20 ourselves being criticized as making unreasonable demands. Kansas has never
21 been out of compliance with the Compact or the FSS, and repeatedly has been found
22 to have acted reasonably by independent arbitrators.

1 **Q: Let's turn to the Nebraska's work on augmentation proposals. When did**
2 **you first hear about plans for augmentation in Nebraska?**

3 A: In 2009, Kansas first began hearing about a study of proposed Augmentation
4 projects. We obtained this information primarily from newspaper articles, and did
5 not initially receive information about such projects from Nebraska or its NRDs.
6 Kansas heard nothing in detail, just that the Republican River Basin NRDs were
7 considering a number of potential locations for augmentation of the flow in the
8 Republican River through groundwater diversions. At the Engineering Committee
9 level, Kansas began asking if the committee could begin to review and discuss
10 these locations and Nebraska's preliminary plans for augmentation. Kansas was
11 advised by Nebraska that because these augmentation projects were NRD plans
12 and that Nebraska DNR was not involved, the RRCA did not need to be informed
13 about them. The initial mention of a specific Rock Creek site was first made
14 public in a newspaper article on February 1, 2011, when the Upper Republican
15 NRD announced their purchase of the land. Again, Kansas became aware of the
16 project through Nebraska newspaper articles. Kansas did not receive a formal
17 Rock Creek Augmentation Plan until December of 2012, after the 2012 Annual
18 Meeting of the RRCA in Junction City, Kansas.

Pursuant to 28 U.S.C. §1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on August 19th, 2013.


