

2/29/2012

SCOTT ROSS

1

1 .

2

No. 126, Original

3

IN THE SUPREME COURT OF THE UNITED STATES

4 .

5 .

6 STATE OF KANSAS,

7 Plaintiff,

8 v.

9 STATE OF NEBRASKA

10 and

11 STATE OF COLORADO,

12 Defendants.

13 .

14 .

15 DEPOSITION OF

16 SCOTT E. ROSS

17 taken on behalf of the Defendant State of
18 Nebraska, pursuant to Notice to Take Deposition,
19 beginning at 8:00 a.m. on the 29th day of
20 February, 2012, at 109 Southwest 9th Street, in
21 the City of Topeka, State of Kansas, before
22 Michelle D. Hancock, RPR, C.S.R.

23 .

24 .

25 .

(Main Office)
Topeka, KS
785.273.3063

Appino & Biggs
Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

2

1 APPEARANCES

2 .

3 .

4 ON BEHALF OF THE PLAINTIFF:

5 John B. Draper

6 Donna Ormerod, Paralegal

7 Montgomery & Andrews, P.A.

8 P.O. Box 2307

9 Santa Fe, New Mexico 87504-2307

10 505-982-3873

11 jdraper@montand.com

12 .

13 Christopher M. Grunewald

14 Assistant Attorney General

15 120 SW 10th Avenue, 2nd Floor

16 Topeka, Kansas 66612-1597

17 785-296-2215

18 chris.grunewald@ksag.org

19 .

20 Burke W. Griggs

21 Department of Agriculture

22 109 SW 9th Street, 4th Floor

23 Topeka, Kansas 66612

24 .

25 .

(Main Office)
Topeka, KS
785.273.3063

Appino & Biggs
Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

3

1 ON BEHALF OF THE DEFENDANT STATE OF NEBRASKA:

2 Thomas R. Wilmoth

3 Donald G. Blankenau

4 Blankenau Wilmoth LLP

5 206 South 13th Street, Suite 1325

6 Lincoln, Nebraska 68508-2002

7 402-475-7080

8 tom@aqualawyers.com

9 don@aqualawyers.com

10 .

11 Justin D. Lavene

12 Assistant Attorney General of Nebraska

13 2115 State Capitol

14 Lincoln, Nebraska 68509-8920

15 402-471-2064

16 justin.lavene@nebraska.gov

17 .

18 .

19 FOR THE DEFENDANT STATE OF COLORADO:

20 Peter J. Ampe

21 Assistant Attorney General

22 1525 Sherman Street, 5th Floor

23 Denver, Colorado 80203

24 303-866-5032

25 peter.ampe@state.co.us

(Main Office)
Topeka, KS
785.273.3063

Appino & Biggs
Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

4

1 Dale E. Book
2 Spronk Water Engineers, Inc.
3 1000 Logan Street
4 Denver, Colorado 80203-3011
5 .
6 .
7 .
8 .
9 .
10 .
11 .
12 .
13 .
14 .
15 .
16 .
17 .
18 .
19 .
20 .
21 .
22 .
23 .
24 .
25 .

(Main Office)
Topeka, KS
785.273.3063

Appino & Biggs
Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

5

1 INDEX

2 .

3 .

4 Certificate ----- 103

5 .

6 .

WITNESS

9 ON BEHALF OF THE DEFENDANT

10 STATE OF NEBRASKA: PAGE

11 SCOTT E. ROSS

12 Direct-Examination by Mr. Wilmoth 6

13 Cross-Examination by Mr. Ampe 94

14 .

EXHIBITS

16 ROSS DEPO EXHIBIT NO: MARKED

17 No 1 Deposition Notice 7

18 No 2 "Consequences of Overpumping" 65

19 No 3 DWR Powerpoint presentation 68

20 No 4 "The View From Kansas 4 States 2011" 76

21 No 5 4-4-11 memo from Scott Ross 87

22 No 6 8-18-10 memo from Scott Ross 88

23 No 7 8-17-10 memo from Gordon Aycock 90

24 No 8 FCID Testimony for the MRNRD IMP

25 June 8, 2012 91

(Main Office)
Topeka, KS
785.273.3063



(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

6

1 SCOTT E. ROSS,
2 of lawful age, having been first duly sworn on his
3 oath to state the truth, the whole truth, and
4 nothing but the truth, testified as follows:

5 DIRECT-EXAMINATION

6 BY MR. WILMOTH:

7 Q. Good morning, Mr. Ross. How are you
8 today?

9 A. Good morning. How are you?

10 Q. Good, thank you. Before we begin, can
11 you spell and state your name for the record?

12 A. Certainly. Scott, S C O T T, E. Ross, R
13 O S S.

14 Q. And you've sat through a number of
15 depositions, so you know the drill. Is there any
16 medication or ailment that you're currently
17 suffering that would preclude you from testifying
18 truthfully and accurately today?

19 A. No, sir.

20 Q. Thank you. I'd like to give you a copy
21 of the subpoena that was provided to you, I should
22 say the amended subpoena, and ask if you've seen
23 that document.

24 MR. DRAPER: It's going to be Exhibit 1
25 to the deposition?

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

7

1 MR. WILMOTH: Yes, sir.

2 A. Yes, I have.

3 (THEREUPON, Ross Deposition Exhibit No 1
4 was marked for identification.)

5 BY MR. WILMOTH:

6 Q. Have you brought any additional materials
7 with you today in response to the second -- second
8 page of that subpoena?

9 A. No, I have not.

10 Q. All right. Thank you. I wanted to ask
11 you to tell me with as much specificity as you
12 can, Mr. Ross, what your role is in the Kansas
13 litigation team at this point.

14 A. At -- at this juncture, I'm of course
15 water commissioner for the Division of Water
16 Resources, and the Republican River or the
17 majority of it is within my field office area of
18 northwest and north central Kansas. At the moment
19 I'm the chairman of the Republican River Compact
20 Engineering Committee and have been on that
21 committee since about 2006. So I've been involved
22 with the various information gathering sort of
23 operations with regard to the compact for -- since
24 about 1985.

25 Q. And does that include information

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

8

1 gathering on both sides of the border?

2 A. Yes, it -- it could.

3 Q. Could you tell me what kind of
4 information you gather from the State of Nebraska?

5 A. Primarily that would be from --
6 information from the Bureau of Reclamation, the
7 daily reports, and the various projects they have
8 underway with Kansas and Nebraska. I have --

9 Q. Do you gather that directly from the
10 bureau or --

11 A. Yes.

12 Q. -- do you obtain it elsewhere?

13 A. No.

14 Q. Okay.

15 A. Probably minimal information over the
16 years from the NRDs and the irrigation districts.

17 Q. What type of information do you gather
18 from the NRDs?

19 A. Mostly has to do with various programs
20 they have underway. We've recently been visiting
21 with the lower Republican NRD about some of their
22 soil moisture monitors. You know, had -- had
23 contact over the years with both the upper and
24 middle Republican NRDs on various metering
25 projects and that sort of thing.

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

9

1 Q. And do you attend the meetings of the
2 districts?

3 A. Not regularly. I have been to -- to each
4 of the meetings, but I -- I don't normally make a
5 habit of attending.

6 Q. Could you tell me the last meeting you
7 attended for each of the three districts, the
8 upper, middle and lower Republican?

9 A. I was at a hearing of the middle on their
10 -- the initial phases of their IMP development, or
11 this third IMP development. That was probably
12 over a year ago.

13 Q. I'm sorry. Did you say that -- was that
14 middle?

15 A. Yes.

16 Q. That middle NRD?

17 A. Yes. Probably been a number of years
18 since I was at any of the meetings with the upper
19 Republican NRD. And then probably within a year
20 meeting with the lower NRD, their IMP development.

21 Q. With regard to the middle Republican NRD
22 meeting, did you provide any comments directly or
23 indirectly on the third-generation IMPs?

24 A. No.

25 Q. And I assume by your answer that you did

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

10

1 not attend the third-generation IMP hearings for
2 either the upper or lower district, is that right?

3 A. The lower district, we were there -- I'm
4 not sure they called it a hearing. They've had
5 several. This one was a special meeting, and we
6 didn't provide any testimony there either.

7 Q. Is it the state of Kansas's practice to
8 provide testimony at those hearings or is that not
9 something the state does?

10 A. We typically do not do that.

11 Q. Have you had any contact, say in the last
12 year, with any of the board members of any of the
13 districts? And by that I mean the national
14 resource districts.

15 A. Yes. I understand. I -- I don't recall
16 any. Now that's not to say there may not have
17 been a board member call our office and -- and not
18 identify themselves as a board member. I certainly
19 can't -- can't name the board members of the NRDs.

20 Q. Sure. Now, with regard to the irrigation
21 districts, could you tell me with whom you
22 interact for those districts?

23 A. Typically for the Nebraska irrigation
24 districts, and I assume that's --

25 Q. Yes.

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

11

1 A. -- what you want to talk about.

2 Q. Yes.

3 A. Mike Delka, and -- and I will communicate
4 with Mike probably, oh, once or twice a year, and
5 Brad Edgerton. Brad I'll probably talk to, oh,
6 four or five times a year.

7 Q. And Mr. Delka's with the Nebraska
8 Bostwick Irrigation District, correct?

9 A. That's correct.

10 Q. And who is with Mr. Edgerton with?

11 A. Edgerton -- Brad is with the Frenchman
12 Cambridge Irrigation District.

13 Q. Any other folks in Nebraska that you
14 regularly communicate with? About compact
15 compliance issues --

16 A. Yeah.

17 Q. -- obviously.

18 A. Thanks. I have some relatives that live
19 in Nebraska, and I communicate with them fairly
20 frequently. Not -- not that I can think of at the
21 moment.

22 Q. What type of information do you typically
23 receive from or exchange with Mr. Delka or Mr.
24 Edgerton?

25 A. Operations sort of data in terms of

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

12

1 delivery schedules, when they're going to start,
2 when they're going to shut off, changes to the
3 river flows, releases, specifically from Harlan
4 County are typically things that I might be
5 talking to Brad and -- and Mike about.

6 Q. And what do you do with that information
7 in your day-to-day work?

8 A. We're going to be looking at how -- how
9 those flows will impact our users below the border
10 in Hardy, or -- or even above Hardy, but between
11 -- typically between that area in Jewell and
12 Republic County, Kansas that sort of the river
13 snakes back and forth across the state line. We
14 have users there kind of on -- on both sides and
15 -- and in between.

16 Q. On both sides of the river you mean?

17 A. On -- on both sides of the state line.

18 Q. Both sides of the state line.

19 A. Between Nebraska and Kansas.

20 Q. Gotcha. And so some of those users are
21 diverting water under a Kansas water right for use
22 in Nebraska, is that what you're saying?

23 A. Well, we have some of that. The -- the
24 ones I'm specifically thinking of are places where
25 we have a Kansas user say upstream of a Nebraska

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

13

1 user that is upstream then of another Kansas user.

2 So you'll -- you'll have water flowing from this

3 one to the -- to the guy downstream in Nebraska --

4 Q. Sure.

5 A. -- who's using water, and so we're trying

6 to determine how much water we can get from one to

7 the other.

8 Q. Do you have any sense as to how many

9 acres or how much water use occurs in that way,

10 meaning transboundary?

11 A. Not really.

12 Q. Do you have any idea how many individuals

13 would be involved?

14 A. Oh, four or five. I mean, not -- not a

15 great number.

16 Q. Now, I assume that you also speak to

17 various districts, perhaps groundwater management

18 districts or irrigation districts in the state of

19 Kansas, is that right?

20 A. Oh, certainly, yes.

21 Q. Could you tell me which of those you

22 commonly interact with?

23 A. Commonly going to interact with

24 groundwater management districts. I'm going to be

25 talking to GMD 4, that's Wayne Bossert and his

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

14

1 staff and -- and their board. We're regular
2 attendees at their meetings. Groundwater
3 management district number two, I have some
4 interaction with Tim Boese and his staff. I have
5 probably minimal interaction with groundwater
6 management district number one, Jan King, and her
7 staff. That's pretty minor, you know, maybe once
8 or twice a year kind of thing.

9 Q. Uh-huh. Is GMD 4 in the Republican river
10 basin?

11 A. Yes. GMD 4 is in northwest Kansas.

12 Q. And how about two?

13 A. Two is in kind of central Kansas. It's
14 south of the Smoky Hill River in McPherson and --
15 well, yeah, there would be some GMD 5, too, but I
16 don't know that any of that's in my field office,
17 so these are more interactions on -- outside the
18 Republican River basin, GMD 1 and 2.

19 Q. And how about the irrigation districts in
20 the state?

21 A. All of the irrigation districts are in
22 our field office, so I have interactions with the
23 board of directors of the Almena Irrigation
24 District, Prairie Dog Creek from Norton Reservoir.
25 I have probably more interaction with the

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

15

1 Kirwin-Webster Irrigation District, and they are
2 jointly managed. Andy Wilson is their manager.
3 Have quite a bit of interaction with the Glen
4 Elder Irrigation District, water from Waconda
5 Reservoir, and then the Kansas Bostwick Irrigation
6 District, and of course Kenny Nelson is the
7 manager there.

8 Q. And you might have already done this, but
9 did -- did you just list those from essentially
10 east to -- or west to east across the state?

11 A. Uh-huh.

12 Q. So Alma is the westernmost and --

13 A. Yes.

14 Q. -- KBID is the easternmost?

15 A. Yeah.

16 Q. How does the net irrigation requirement
17 vary across those districts from one to the other?
18 Not within the districts, but from one to the
19 other?

20 A. Now, are we talking groundwater
21 management districts or irrigation districts?

22 Q. I'm talking irrigation districts. Excuse
23 me.

24 A. Okay. Net irrigation requirements in
25 Alma Irrigation District are going to be on the

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

16

1 order of -- well, let me qualify this. When
2 you're talking about net irrigation requirements,
3 I'm going to go to the published data from the
4 Kansas Irrigation Handbook and talk about their
5 listing of 50 and 80 percent net irrigation
6 requirements.

7 Q. Okay.

8 A. So what -- is that the question?

9 Q. Well, my -- my question was really based
10 on your personal observations, but if the handbook
11 is produced as a result of personal observations,
12 I suppose that's fine.

13 A. Okay. Well, that -- that's typically
14 what I'm going to - I'm going to think of in
15 terms of net irrigation requirements, so --

16 Q. Okay.

17 A. -- the 50 percent net irrigation
18 requirement in Almena is going to be on the order
19 of probably 1.3 acre-foot per acre.

20 Q. And I believe you said there was an 80
21 percent requirement?

22 A. 80 percent net irrigation requirement is
23 going to be about 1.5 acre-foot per acre.

24 Q. And can you explain the difference just
25 for the record between the 50 percent and the 80

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

17

1 percent values, what they represent?

2 A. Yeah. The 50 percent -- the net
3 irrigation requirements are based on the percent
4 chance rainfall for that particular county in
5 Kansas. And there's a production for each county
6 in Kansas. So that 50 percent means average
7 annual rainfall. 80 percent means a 20 percent
8 chance of drought. So the 80 percent net
9 irrigation requirements are going to be a bit
10 higher than the 50 percent.

11 Q. Is there anything tracked below a 50
12 percent such as a 20 percent --

13 A. No.

14 Q. -- requirement?

15 A. That's -- that's not anything that -- and
16 there's probably some data that you can derive
17 that, but we don't use it for anything.

18 Q. Could the -- could the Kansas handbook be
19 used to derive that information? Would that be an
20 appropriate use of that information?

21 A. There are probably some formulas in there
22 from which you could take precipitation data and
23 do that. I'm not aware that we've ever done it.

24 Q. Is the handbook available online or on
25 some other publicly available source?

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

18

1 A. It's publicly available from the NRCS.

2 Q. Okay. And for Kirwin-Webster, could you
3 explain to me what the net irrigation requirement
4 is?

5 A. As you move east, of course, the rainfall
6 goes up and -- and the net irrigation requirements
7 go down, so the Kirwin-Webster probably going to
8 be on the order of -- 50 percent is probably 1.1
9 or 2, and the 80 percent is probably in the 1.4 to
10 5. There's not a lot of difference between that
11 and Almena irrigation district.

12 Q. So the 1.1 would be one -- one -- would
13 be 13 inches, one acre-foot, plus an inch? Is
14 that what you're saying?

15 A. It's -- it's 1.1 acre-foot per acre.

16 Q. Acre-foot per acre. Okay. And how about
17 Glen Elder?

18 A. Glen Elder would be a bit lower.
19 Probably the 50 percent is going to be on the
20 order of 1 acre-foot per acre, and -- and a high
21 of probably 1.2 acre-foot per acre.

22 Q. And how about KBID?

23 A. KBID is probably .9 acre-foot per acre
24 and 1.1 -- 1 to 1.1, depending on sort of an east
25 and west part of the districts.

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

19

1 Q. And how does irrigation efficiency vary,
2 again, from east -- excuse me -- from west to
3 east? Is there any significant difference in the
4 efficiencies of irrigation in each of the four
5 districts?

6 A. Okay. Let -- let's -- let's make sure I
7 understand the question. Are we talking about the
8 irr -- the efficiency of the irrigation district
9 operation or the efficiency of the delivery system
10 to the field?

11 Q. The latter.

12 A. Okay. Generally, if we're talking to
13 application efficiency to the field, that is -- is
14 a function of system, and so --

15 Q. Such as a center pivot --

16 A. Right. Exactly.

17 Q. -- or a lateral --

18 A. Center pivot, you --

19 Q. Furrow irrigation.

20 A. -- know, low pressure drop nozzles is
21 going to be roughly 95 percent efficient in
22 Alma, and it's going to be the same efficiency
23 in Kansas Bostwick.

24 Q. Gotcha. And what is the difference among
25 irrigation type by district? Is there significant

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

20

1 differences? Is center pivot irrigation, for
2 example, dominant in one but not in another?

3 A. There will be some significant
4 differences based on the terrain and the layout of
5 the district with regard to -- either that terrain
6 or infrastructure -- other -- other public
7 infrastructure. For example, Alma Irrigation
8 District probably has the least number of center
9 pivots and -- and the most furrow or flood
10 irrigation, simply because the district is
11 parallel to Prairie Dog Creek, which is parallel
12 -- generally parallel to Highway 383 and the
13 railroad tracks, so you've got lots of small,
14 irregularly shaped fields. Don't lend themselves
15 well to center pivot irrigation.

16 Q. Gotcha.

17 A. As you move to say Kansas Bostwick, it's
18 probably -- oh, they've been developing more
19 pivots as time's gone on, so they've -- they
20 probably are somewhere in the neighborhood of 50
21 percent pivot irrigation now. Glen Elder
22 irrigation is probably in the 80 percent pivot
23 range. So they kind of -- that's kind of the
24 range.

25 Q. And how about Kirwin Webster?

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

21

1 A. Kirwin will be have a few more pivots --
2 excuse me -- pivots than Webster does. Both of
3 them are probably in the -- oh, Kirwin is probably
4 30 percent, maybe 40 percent pivots, and Webster
5 is probably 25.

6 Q. And with regard to the Kansas Bostwick
7 Irrigation District, then, you mentioned 50
8 percent as center pivot. Do you know what the
9 other balance would be?

10 A. There's some what we would refer to as
11 hand moved sprinkler, but I'd say the majority of
12 the rest of it is going to be flood or furrow
13 irrigation.

14 Q. And has that remained consistent over
15 time since the district began or did the center
16 pivots come along at a particular point in the
17 district's development?

18 A. Pivots have been developed probably a
19 little slower until more recently, and that's in -
20 - in terms of probably from the 1990s on we've
21 seen a pretty steady increase in pivots within the
22 KBID district.

23 Q. How has that affected efficiencies,
24 on-farm delivery efficiencies in KBID?

25 A. Oh, I -- on-farm efficiencies are -- are

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

22

1 one of -- you've got a pivot, and the pivot is
2 capable of achieving 90, 95 percent efficiency.
3 But in order to get that 90 or 95 percent
4 efficiency, you have to manage the pivot. You can
5 overwater a piece of ground or become inefficient
6 just through operation. The pivot doesn't
7 automatically do that for you. So I think there's
8 a definite improvement in efficiency, but it takes
9 awhile to learn how to run one, so I'd say their
10 efficiency has been steadily improving as far as
11 farm delivery.

12 Q. And with regard to crop type that's grown
13 within each of the districts, is there a
14 significant variation among crop type grown as you
15 move from the west to the east?

16 A. Alma district is going to be
17 predominantly corn, more so even than the others.

18 Q. What do you attribute that to?

19 A. Higher elevations, low -- a shorter
20 growing season, and a long history of corn.
21 Alma Irrigation District typically services some
22 of the largest livestock industry in Kansas, in -
23 in northwest Kansas, and so a lot of that corn is
24 a feed source for that and two or three ethanol
25 plants, so, you know, that -- that sort of lends

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

23

1 itself to corn. The Kirwin and Webster Irrigation
2 Districts are probably, because of their history
3 of shortages, got more of a balance between corn
4 and soybeans. It's probably still predominantly
5 corn, but there will be more soybean mix and
6 perhaps a -- an increase in soybeans if -- if the
7 water supply is low.

8 Q. How often can they make that shift? Is
9 that something that occurs annually or is that a
10 -- something that they do on a decadal period or
11 what?

12 A. Oh, no. No, that -- that's -- by and
13 large those decisions are made annually.

14 Q. Based on the available water supply?

15 A. Yeah. And you can throw some milo or
16 grain sorghum in there as -- as part of the -- the
17 way they adapt to a water shortage.

18 Q. And how about Glen Elder?

19 A. Glen Elder is going to be predominantly
20 corn, but -- again, a few beans, but it will be
21 probably a higher percentage of corn, look more
22 like the Alma district because, again, there's -
23 - there's some significant livestock industry --

24 Q. Sure.

25 A. -- in that valley as well.

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

24

1 Q. And how about KBID?

2 A. KBID adapts more the corn, soybeans,
3 although they've seen an increase in alfalfa
4 recently because of some larger alfalfa producers
5 and some bigger alfalfa contracts throughout the
6 -- really the Great Plains. So they will see
7 annual -- annual change -- alfalfa is not
8 something that you change annually. It's -- it's
9 sort of on about a five-year rotation, really. So
10 you'll see some annual changes in corn and
11 soybeans, and that will be based on water supply.

12 Q. Uh-huh.

13 A. And the market. You know, when corn's
14 high --

15 Q. Right.

16 A. -- corn gets planted, so --

17 Q. What about dryland cropping patterns? Do
18 you see a lot of dryland cropping in any of the
19 districts?

20 A. Some. You -- you will see, as -- as
21 water supplies in any district are short,
22 typically the response is to apply more water to
23 better acres and then dryland -- as opposed to
24 limit water supply on all acres, you would
25 typically cut the acres where you could get an

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

25

1 adequate water supply for whatever crop you're
2 going to grow, and then dryland the rest.

3 Q. Is it appropriate for me to refer to that
4 as stacking? Is that a practice of stacking the
5 water on the best acres?

6 A. Call it whatever you like. I --

7 Q. Okay.

8 A. -- understand what you're talking about.

9 Q. Okay. That -- with regard to stacking,
10 is it always possible to get the water to the best
11 acres or is that sometimes a challenge given
12 topography and location and other things, of
13 delivery systems?

14 A. Yes, it -- it can -- it can be a result
15 -- stacking may or may not be successful based on
16 the delivery system, and I'm talking about the
17 canal and lateral systems.

18 Q. Uh-huh. The location of those --

19 A. Yes.

20 Q. -- you mean relative to the good --
21 so-called good lands or --

22 A. Right. The land versus the location of
23 the delivery system.

24 Q. So to the extent that the water can be
25 delivered in an efficient manner, people will

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

26

1 attempt to stack on the best acres.

2 A. I think so.

3 Q. And is there variation between the amount
4 of dryland crops that are typically grown as you
5 move from west to east in the state, in the four
6 districts?

7 A. Okay. Can you ask -- ask that again?

8 Q. As you move from the Almena district
9 easterly toward the KBID district, is there any
10 variation in the amount of dryland crops typically
11 grown? The amount of acreage that's devoted to
12 dryland crop?

13 A. Not -- not that I could point to.

14 Q. That just depends on water supply --

15 A. Yes.

16 Q. -- at the time?

17 A. Water supply and soil moisture supply,
18 typically.

19 Q. What types of dryland crops are typically
20 grown in the four districts?

21 A. Milo or grain sorghum would be probably
22 more -- more predominant in the Almena Irrigation
23 District and the -- and the western districts. By
24 the time you move east, that's probably -- Kansas
25 Bostwick you're not going to see an awful lot of

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

27

1 milo grown. More -- more of that is going to be
2 -- there will be some dryland soybeans. Most of -
3 - most of the dryland is going to be milo or
4 wheat. And the further east you go that -- that
5 gets to be predominantly wheat.

6 Q. So in KBID mostly it's -- it's wheat?

7 A. Yeah.

8 Q. Okay. And that's spring wheat, I assume.

9 A. Winter wheat.

10 Q. Winter wheat. Thank you. Do you observe
11 any differences in the way that return flows are
12 managed among the four districts? Again, kind of
13 starting west and --

14 A. Yeah.

15 Q. -- going east as we have been talking.

16 A. Yes, from the standpoint that the Almena
17 Irrigation District operates their system a bit
18 differently than the others. Almena has a very
19 limited supply, so they're typically making
20 efforts to deliver two inches or maybe four
21 inches. And so they make every effort to -- it's
22 called checking up a canal, blocking it, fill it,
23 and then they will try and deliver in a very timed
24 fashion within say a week or 10 days.

25 Q. So the -- let me make sure I understand

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

28

1 this blocking concept that -- well, could you just
2 explain it, please.

3 A. Sure. You have a canal system, and the
4 canal system typically just runs water through it
5 and then you deliver water to laterals from it.

6 Q. And if the waters passes all of the
7 laterals, it --

8 A. Yes.

9 Q. -- leaves the system, and I suppose heads
10 down the river.

11 A. Right.

12 Q. Okay.

13 A. Just goes back typically to the stream to
14 -- as a wasteway.

15 Q. Okay.

16 A. They -- Almena Irrigation District will
17 block the wasteway, if you will, and fill the
18 canal system, and then make a -- typically, you're
19 going to deliver water incrementally as you move
20 down the stream -- down the canal system, so water
21 gets to this guy first, he gets water.

22 Q. Sure.

23 A. The next guy gets his and so on. What
24 Almena does is fill the canal and start delivering
25 of everyone. And, obviously, it can't be done

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

29

1 simultaneously, but -- but as quickly as possible.

2 Q. Uh-huh.

3 A. And then they will get water to the
4 system -- to their fields for a week. Then they
5 will shut off the canal, but they will leave the
6 block in -- at the wasteway, and perhaps two weeks
7 or three weeks later do the same thing again, and
8 then that's their irrigation season. They're
9 done. And they try and target either a stage of
10 growth for soybeans or corn or whatever the
11 majority of the users are planting, and that's
12 typically corn.

13 Q. Uh-huh.

14 A. Okay? The -- that's probably a pretty
15 high -- considering the operation, fairly high
16 efficiency for a very small amount of water. The
17 other districts don't typically do that. They're
18 making more of the standard, traditional kind of
19 delivery, and that would be include Kansas
20 Bostwick. Kansas Bostwick just has a more
21 efficient operation because they've buried lots of
22 laterals and line canals and they have more --
23 more people to do a more sort of regimented
24 delivery system.

25 Q. Are there any wasteway flows out of KBID?

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

30

1 A. Oh, certainly.

2 Q. Are those measured in any way, do you
3 know?

4 A. They have a -- they check their wasteways
5 every morning and make an estimate of -- of the
6 flows going past that wasteway and then regulate
7 accordingly.

8 Q. Do you know if that information is
9 recorded and reported anywhere else?

10 A. If -- if it is, it would be from the
11 Bureau of Reclamation. They would report it to
12 them.

13 Q. I'd like to talk to you a little bit
14 about the issue you touched on with regard to the
15 timing of delivery and the mechanisms for actually
16 delivering water in the fields in Almena and
17 compare that to what goes on in KBID. What's the
18 typical delivery schedule in KBID?

19 A. Well, KBID will typically begin
20 deliveries the last week in June. I think they
21 would probably prefer to start the first week in
22 July, but typically sometime between June 15th and
23 July 1st they'll begin their irrigation season,
24 and then, depending on the stage of the crop, that
25 that -- deliveries will continue, and they're

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

31

1 probably typically going to be off by September
2 1st. I mean, I have -- I think this last year
3 they ran until September 5th or 6th, but normally
4 it would be September 1st.

5 Q. And is the -- let's assume there's a --
6 some block of water available for irrigation
7 delivery. Is that water typically delivered in a
8 uniform way over the course of that period or is
9 more water delivered earlier in the season or
10 later in the season?

11 A. They're going to -- they're very demand
12 oriented and they're big enough and have enough
13 infrastructure to operate that way, so typically
14 you may have people who -- because recall the
15 increase in alfalfa production, alfalfa could
16 typically benefit from deliveries earlier in the
17 season, and -- and so they will have people asking
18 for water probably before they start their normal
19 season, but then you've got the -- the stage of
20 growth of the corn, typically, isn't going to
21 demand water until you're probably into say early
22 to mid July and then have another demand period as
23 they're filling ears early part of August, so
24 they're going to regulate -- they're going to
25 manage on a daily basis as opposed to a block of

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

32

1 water kind of thing.

2 Q. Okay. And so when you say it's demand
3 oriented, does that mean that literally people
4 call up and say --

5 A. Literally.

6 Q. -- I'm ready for my water, send it on
7 down, and I'll have at it.

8 A. And -- and they will -- they I think
9 require a 48-hour notice for delivery, so -- so
10 they're going to have people, for instance,
11 calling in Wednesday, and my field's going to be
12 ready, I'm going to be ready to deliver water on
13 Friday, and I'm going to need two cfs and I'm
14 going to need that through the following
15 Wednesday.

16 Q. Are there often other users on the system
17 that might be able to take water at the same time?
18 Or is it literally done on a farm by farm basis,
19 the water delivery?

20 A. You're -- you're going to take today's
21 orders, and you're going to say, I have seven
22 people, I need 20 cfs. And those seven people are
23 going to be able to -- and you're going to make
24 the call to the Bureau of Reclamation and say we
25 need X amount of water delivered and take that at

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

33

1 Guide Rock, and those seven people are going to
2 get water. Now, if somebody else happens to come
3 in and you've got some extra water you could make
4 a delivery if there was some efficiency or -- or
5 maybe get rain in part of the district so that guy
6 really doesn't want to irrigate, and you may be
7 able to pick up somebody else at the other end
8 that can --

9 Q. I see. I guess what I'm getting at,
10 perhaps inartfully, is my assumption that if one
11 person calls in, asks for water delivery, it would
12 be relatively inefficient to deliver water only to
13 that person on that day, and it might be more
14 efficient to deliver say to 7 or 10 people who you
15 thought might be needing water within the next
16 week.

17 A. And that's correct.

18 Q. How's that addressed?

19 A. That's -- that's basically a -- as I
20 indicated earlier, alfalfa, for instance, would be
21 a crop that could use water earlier, but if you've
22 only got three people that need water for their
23 alfalfa, you're probably going to say, hang on,
24 we're going to see if there's some more people
25 that need water.

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

34

1 Q. Sure.

2 A. Because it's not very efficient to
3 deliver. And typically they would not deliver
4 that.

5 Q. Okay.

6 A. I -- I haven't delved into their
7 operations enough to say, well, I need five
8 people, not three. I -- I don't know how that
9 works.

10 Q. Okay. If I understand some of the
11 information that we've received, the State has
12 taken an interest in acquiring all or a portion of
13 Almena's water rights, is that true, or am I
14 mistaken about that?

15 A. Kansas Department of Wildlife & Parks has
16 a longer term lease on a sort of a minimum pool at
17 -- at Norton Reservoir. They have to acquire that
18 from the Almena Irrigation District, so they have
19 done that. In general, that is a -- a lease
20 agreement that allows them to maintain a higher --
21 higher pool for fish, wildlife and recreation, and
22 gives the irrigation district an opportunity to
23 use water above that pool, and that's typically
24 what's been happening.

25 Q. When you say above the pool, you mean in

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

35

1 the reservoir above that --

2 A. Yes.

3 Q. -- base --

4 A. Above that base --

5 Q. -- volume.

6 A. -- foundation.

7 Q. All right. Do you know what the lease
8 payment was on that lease?

9 A. I do not.

10 Q. Has the state taken a similar interest in
11 any of the other reservoirs within any of the
12 other irrigation districts?

13 A. They have talked to Webster Irrigation
14 District, and I know those -- those negotiations
15 are sort of an on-off thing. And so I can't --
16 can't give you any insight into where they're at
17 or anything like that, but I know they have talked
18 to Webster.

19 Q. Do you know whether either the game and
20 parks department or the Kansas DWR have
21 repurchased water at Harlan County Lake, for
22 example?

23 A. No.

24 Q. Have you ever been involved in
25 conversations involving the potential improvement

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

36

1 of the KBID system? For example, the expansion of
2 level of reservoir?

3 A. Yes.

4 Q. What are the nature of those discussions,
5 typically?

6 A. Initially, they were -- I was involved in
7 the appraisal study by the Bureau of Reclamation
8 looking at various ways to -- to improve the
9 system below, the delivery system in Kansas, and
10 that included an expansion of Lovewell Reservoir,
11 in addition to some other -- other projects that
12 had some potential. I was then involved with the
13 Kansas water office, put together a technical
14 committee to look at various delivery/operational
15 sort of changes in the -- in the Lower Republican.
16 Those included expansion of Lovewell, increasing
17 the pool at Lovewell.

18 Q. Do you have an opinion about whether the
19 expansion of Lovewell is something that would be
20 beneficial to KBID or improve their system?

21 A. I -- I think it has potential to -- to
22 improve their system, improve their overall
23 operations.

24 Q. How so?

25 A. Well, any -- any time you have -- have

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

37

1 more water, then your decision making process is -
2 - is easier, and -- and there are efficiencies of
3 scale; so -- and, for instance, operating canals
4 at a fuller capacity is typically more efficient
5 delivery than quote-unquote running on the bottom.
6 So, yeah, the potential is there.

7 Q. And would that project be of benefit
8 mostly to the area that's in -- I think is below
9 Lovewell?

10 A. Oh, certainly.

11 Q. Or could any of that water be used above
12 Lovewell?

13 A. No. They don't -- they don't have a
14 delivery mechanism to take water from Lovewell to
15 the above Lovewell.

16 Q. Would it have any effect on the
17 operations of Harlan County Lake in terms of
18 essentially prolonging the supply at Harlan County
19 Lake for delivery above Lovewell?

20 A. Potentially I think it could.

21 Q. Did you interact with KBID in the
22 2005-2006 time frame?

23 A. Oh, yeah.

24 Q. Are you aware of any actions that the
25 district took either as a district or its

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

38

1 irrigators took individually to cope with the
2 circumstances of the short supply facing it at the
3 time?

4 A. Well, certainly both -- both parties,
5 both the district and the individuals, took some
6 actions. For instance, they -- during that time
7 frame, to the extent minimum quantities were
8 available for the upper, they tried to make
9 deliveries. They were pretty minor. There were a
10 number of -- say from 2002 through about -- well,
11 to the present, really, but we saw an increase in
12 the installation of higher efficient systems.
13 Whether that was the installation of -- of new
14 pivot systems or the conversion of pivot systems
15 from, you know, high angle impact nozzles to drop
16 nozzles, those -- those are the kinds of things
17 the individuals were doing.

18 Q. Uh-huh.

19 A. And then the crop choices. We saw many
20 individuals employing a stacking process on their
21 farms. Land -- certain lands were being
22 drylanded, that kind of thing.

23 Q. Are you familiar with any of the lands at
24 issue in this proceeding that are outside of KBID?
25 And to be specific about that, I'm referring to

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

39

1 the lands that are identified by Mr. Book in his
2 report as having been short of water due to a lack
3 of return flows that might have come through KBID.

4 A. Yes.

5 Q. Can you tell me whether there are any
6 differences in any of the issues that we've
7 discussed between KBID and those lands outside
8 KBID? Let's begin with system type, for example.

9 A. Probably not whole scale differences.
10 You're going to have some infrastructure delivery
11 system -- for instance, you're not going to
12 typically have a canal -- or a center pivot walk
13 across a canal system.

14 Q. So most of these users take their water
15 from some type of surface diversion into a lateral
16 canal --

17 A. Either -- either surface or wells.
18 Either one is going to be an independently owned
19 and operated delivery system.

20 Q. Gotcha.

21 A. So there's some -- some opportunities, I
22 think, for folks to probably have -- during that
23 period of time, we saw a number of center pivots
24 going up on lands because of our minimum desirable
25 streamflow regulation, more efficient systems were

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

40

1 being installed.

2 Q. And how did the MDS have that impact?

3 A. Same sort of concepts that were going on
4 in Kansas Bostwick. If water supplies were short,
5 I need to be as efficient as I can possibly
6 deliver them, so --

7 Q. I see.

8 A. -- I'm going to make those infrastructure
9 changes.

10 Q. So the MDS reduces the supply in a sense
11 and the response is the move to center pivots?

12 A. Move to more efficient irrigation.

13 Q. Okay.

14 A. That -- that includes -- for those people
15 who didn't add center pivots, you might have seen
16 a -- I can think of at least a couple of people
17 who shortened the rows so they could deliver more
18 efficiently with flood.

19 Q. How about the crop type? Any material
20 differences between inside and outside KBID? And,
21 again, all these questions are really just
22 directed at those lands below KBID --

23 A. Yeah, I understand.

24 Q. -- that are at issue.

25 A. Yes, there were probably some similar

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

41

1 types of changes, going to either lower plant
2 population, corn or soybeans, that kind of thing.

3 Q. And you observed the stacking operation
4 applies outside of KBID also? Or is it less -- is
5 there less flexibility to stack in those types of
6 systems?

7 A. There's certainly less flexibility to
8 stack in terms of - of did people take that
9 option on their own individual water rights? Yes,
10 that's -- that probably did occur.

11 Q. And as far as delivery efficiencies
12 within and outside of KBID, are they significantly
13 different?

14 A. The on-farm delivery again?

15 Q. Yes.

16 A. No, not significantly different.

17 Q. I guess, again, that just depends on the
18 nature of the system type.

19 A. Sure. And the operator.

20 Q. And the operator.

21 MR. WILMOTH: I'm a little bit nervous to
22 go too much longer without trying to get this
23 thing set up. Why don't we - why don't we take a
24 timeout here and we'll reconvene.

25 (THEREUPON, a recess was taken from 8:45

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

42

1 a.m. to 10:47 a.m.)

2 BY MR. WILMOTH:

3 Q. Mr. Ross, you're familiar with the Kansas
4 Bostwick Irrigation District, obviously. What is
5 the nature of your familiarity? How did you gain
6 that familiarity?

7 A. Well, I -- primarily from with my work
8 with the division of water resources, but I was
9 initially introduced to Kansas Bostwick while I
10 worked for the Bureau of Reclamation.

11 Q. And what was your role at the bureau at
12 the time you worked with KBID?

13 A. My role at the Bureau of Reclamation at
14 that time was I - I managed what was called the
15 Young Adult Conservation Corps, but I had limited
16 opportunities to work with the other branches of
17 -- in the McCook office doing various other
18 projects because of my background in geology, so I
19 spent a brief bit of time working with the
20 hydrology section.

21 Q. And did you perform any work within the
22 KBID boundaries on behalf of the bureau?

23 A. Very limited, but I looked at some of the
24 drain project installation.

25 Q. Is this drains that were being installed

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

43

1 or drains that had already been installed?

2 A. The particular one that I was looking at
3 was a -- a plan to install drains. It's a very
4 limited piece of their drainage system, but that's
5 -- they asked me to look at some of the geology
6 work that they had done.

7 Q. And what was the purpose of your
8 particular review in that respect?

9 A. The purpose of the drain system there was
10 to address some problems they were having with
11 high water tables that the local folks believed
12 were being created by the irrigation district's
13 canals and lateral system.

14 Q. Is that a common occurrence in irrigation
15 districts in your experience?

16 A. That's the only one I'm aware of, but I
17 don't have a real broad experience in -- in
18 irrigation districts per se.

19 Q. What was the cause of the elevated water
20 tables, do you know?

21 A. Canal and lateral seepage, and -- and
22 just the introduction of additional water to those
23 lands.

24 Q. And why was it important to drain those
25 lands?

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

44

1 A. During the initial phases of the Bostwick
2 irrigation district operation, water levels were
3 -- were rising, and that --

4 Q. These are groundwater levels, to be
5 clear?

6 A. Groundwater levels, yes. And so they
7 were creating problems with water in basements,
8 just low lying fields, all sorts of things with --
9 high water tables create problems.

10 Q. So this was in the 1960s through --

11 A. No, this was --

12 Q. -- the '70s?

13 A. -- in late 1970s.

14 Q. Late 1970s? And I infer, then, that the
15 drainage system was installed by the bureau?

16 A. In cooperation with the Bureau of
17 Reclamation and Kansas Bostwick, yes, and KBID.

18 Q. Can you tell me a little bit about the
19 nature of that system, for example, how many miles
20 are there? Is it drain tiles? Is it pipes?

21 A. Some of each, drain tiles and pipes. I
22 don't -- I don't know a great deal about it, but
23 it -- I think, you know, the bureau installed
24 something on the order of 250 miles of drains
25 initially, and then I know from -- from other work

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

45

1 that Kansas Bostwick has installed additional
2 drains.

3 Q. Are there any plans to bring on more
4 drainage?

5 A. Not that I'm aware of.

6 Q. Did you conduct any specific geological
7 analyses to determine, for example, where to
8 locate the drains or how they should be designed?

9 A. My work on that was fairly limited, and
10 it was primarily to evaluate some of the -- the
11 sampling that had already been done, so I didn't
12 do any initial investigation on any of it. It was
13 more of a review on actual information they
14 already collected.

15 Q. And can you describe for me generally the
16 geologic nature of the lands within KBID?

17 A. In general, they are Pleistocene in age.
18 They are known locally as the Meade formation.
19 They're primarily eolian deposits that are
20 relatively permeable. They don't have a very well
21 developed internal drainage system. They're not
22 deposited in a -- in a streamflow type
23 environment, so you sort of have to create a
24 drainage system.

25 Q. So although they're relatively permeable,

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

46

1 the water that was applied the through the
2 irrigation district was not percolating downward
3 into the aquifer sufficiently? Is that what
4 caused this drainage problem?

5 A. It -- it moves -- moves relatively slowly
6 in a vertical sense. So you're -- the drains are
7 trying to create a -- a horizontal movement
8 through that material, draining back into the
9 stream system. And there is no real aquifer,
10 quote-unquote, under the Meade formation that's
11 natural. There's probably some minor aquifer
12 characteristics in places, but as far as an
13 aquifer, per se, there didn't seem to be an
14 extensive regional aquifer kind of thing like you
15 would think of the High Plains aquifer, anything
16 like that.

17 Q. So from a lay person's perspective, what
18 would cause the water to perch like that, just the
19 lack of permeability through the system?

20 A. No, it's as if you're just filling up a
21 cup. It has no way to move away from there.

22 Q. Okay.

23 A. And it builds up.

24 Q. And that's due to the nature of these
25 soil types and --

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

47

1 A. Uh-huh. Yes.

2 Q. Are the soil types uniform throughout the
3 district?

4 A. Oh, I'm not a soil scientist, so I don't
5 know that I could give you a very good reference
6 look at the general soil types.

7 Q. How about just generally the geology? Is
8 the geology uniform?

9 A. It's fairly consistent across the
10 district.

11 Q. And how about the area of -- outside the
12 district? Are those roughly the same, area within
13 and without the district?

14 A. The district generally sits on top of the
15 Meade formation, which is stratigraphically higher
16 than some of the surrounding alluvial formations
17 and -- and some of the other Pleistocene areas
18 around it. And then that's all primarily
19 underlain by crustaceous material, so it sits
20 stratigraphically higher than -- than most of the
21 area around it that -- that grades down into the
22 Republican River alluvium and some of the
23 tributary alluvium.

24 Q. If the drainage infrastructure had not
25 been installed, would those lands be irrigable, or

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

48

1 would they essentially be drowned out?

2 A. I don't know as anybody was looking
3 specifically at that type of analysis. Understand
4 that the drainage system was designed to alleviate
5 a problem, and -- and as specifically as possible,
6 so -- and as quickly as possible. It's -- it's
7 one of those kind of things that I don't think
8 anybody was looking at -- at preserving the
9 quote-unquote district.

10 Q. Uh-huh. And what happens to the water
11 once it enters these drains?

12 A. The drains typically go into -- well,
13 almost exclusively go into the -- to the, you
14 know, surface drainage system that local
15 tributaries into -- to the Republican River
16 system.

17 Q. So would I be correct, then, envisioning
18 essentially just an outflow pipe --

19 A. Yes.

20 Q. -- that is cut into the -- the vertical
21 face of the river channel or something like that?

22 A. Yes.

23 Q. Do you have any idea approximately how
24 long it takes the water applied to the fields to
25 work through the drains and back into the river?

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

49

1 Or tributaries?

2 A. Well, not -- not specifically. Of course
3 the -- the travel time will be different for each
4 -- each drain or section of drains, but in a
5 broader sense, relatively quickly. I mean, the
6 intent is to move -- move it fairly quickly out of
7 the subsurface.

8 Q. Uh-huh. And do the drains lay out in the
9 district uniformly or are there areas that are
10 more drained than others, if you will, that have a
11 higher concentration of drains?

12 A. I don't know as I can really tell you
13 that now that the system has gone certainly beyond
14 what I did 30 some years ago.

15 Q. How about any differences in the drainage
16 structure between the area above and below
17 Lovewell?

18 A. Not that I'm aware of.

19 Q. So it's basically the same.

20 A. Yeah, I -- I -- whatever characteristics
21 there are, are, as far as I know, not uniform.

22 Q. And so do you have any sense as to how
23 many -- how many of these drains on a percentage
24 basis relative to the whole, drain into
25 tributaries versus the main stem of the river?

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

50

1 A. I'm not sure I understood the question.

2 Q. I inferred from your comment that some of
3 the drains drain into tributaries and some of them
4 drain into the main stem. And my question is, on
5 a percentage basis, relative to the whole, how
6 many drain to tributaries?

7 A. I -- I don't have any idea.

8 Q. Is any of that drainage water ever
9 intercepted and reused within the district?

10 A. Yes.

11 Q. Approximately how much of the whole on a
12 percentage basis?

13 A. Oh, I -- I don't know that I can give you
14 a very solid number. There is certainly some.

15 Q. Can you tell me physically how that
16 occurs?

17 A. Typically that -- that water is drained
18 into a tributary at that point and frequently
19 picked up by surface water diversions to apply
20 that water to lands adjacent to the district or
21 outside the district.

22 Q. Okay. So these are folks that are
23 picking up return flows for use outside the
24 district. Is that what you're saying?

25 A. Typically, yes.

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

51

1 Q. Okay. Let me ask you my question this
2 way: Does that occur within the district? And --
3 and perhaps I wasn't clear. What I want to learn
4 is whether the folks within the district utilize
5 any portion of this wastewater that leaves the
6 drains.

7 A. Probably. I -- I can't necessarily point
8 you specifically to a place, but I -- given the
9 number of surface water diversions that are -- are
10 within there, I would say that's highly likely
11 that happens.

12 Q. And can you tell me physically, does it
13 -- how would that occur? Do folks put the pump in
14 the river or in the tributary or do they divert
15 the water again?

16 A. Those are typically going to be
17 rediversions. In other words, we're going to have
18 a separate pump. Frequently those would involve
19 some sort of a structure to capture that water and
20 reapply it.

21 Q. To your knowledge, is that something that
22 the district participates in or is that something
23 that the individual farmers within the district do
24 to maximize the available water supply?

25 A. Farmers would be doing that on their own

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

52

1 under a separate water right, typically. So this
2 is not something I generally would expect the
3 district to participate in.

4 Q. So do I understand, then, that some of
5 the individuals within the district have a state
6 issued water right that allows them to make that
7 diversion and reuse?

8 A. Yes.

9 Q. Do you have any idea how many of those
10 are in existence?

11 A. Oh. Relatively small number. I would
12 guess, you know, 10 or 12.

13 Q. On a state issued water right, would the
14 source be named as one of these tributaries or
15 would it be named some other way?

16 A. The source would typically be a tributary
17 to the Republican River, ta-da-da-da, whatever
18 that happens to be.

19 Q. Okay. In other words, this is not a
20 derivative of a KBID right, for example --

21 A. Oh, no. No, no.

22 Q. -- to Harlan County Lake?

23 A. No.

24 Q. Okay. To your knowledge, do folks within
25 the district utilize groundwater supplies at all?

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

53

1 A. Yes, there are some.

2 Q. Can you explain to me generally how many
3 acres are also supplied with groundwater?

4 A. I can't give you an actual number of
5 acres per se, but there are typically folks within
6 the -- the district boundary that have removed --
7 well, I shouldn't say removed -- utilize a well,
8 and typically you're not going to see folks apply
9 water from a well onto lands that are getting
10 water from KBID. It will be -- it will be water
11 that's -- or land that's adjacent to a KBID tract
12 that's been certified. It may be within the
13 boundaries of the district --

14 Q. Yes, sir.

15 A. -- but it's not necessarily water that
16 you -- it wouldn't necessarily be illegal, but
17 you'd have a separate water right for the well and
18 that well would be applying water, again,
19 typically, outside the district, but there's
20 nothing that would prevent him from having lands
21 that are also certified by the district and apply
22 well water.

23 Q. Uh-huh.

24 A. There aren't very many of those, I don't
25 think, but --

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

54

1 Q. Do you have an opinion as to why that is?

2 A. Just typically or historically more water
3 was available from the district than -- than you
4 would typically produce from a well.

5 Q. More surface water --

6 A. Yes.

7 Q. -- was available than groundwater would

8 --

9 A. Yes.

10 Q. -- be available. And returning to the
11 drainage discussion we were having, are you
12 familiar with the uses made below KBID of that
13 water that returns to the system?

14 A. Yes.

15 Q. Who are the typical users of that water?

16 A. Irrigators, but we have some
17 municipalities that utilize water from those
18 streams -- tributaries and the -- and the
19 Republican River. There's probably some small
20 industrial rights in there, too, so those are the
21 typical type of users.

22 Q. And in your experience, if those users
23 don't intercept the return flows from KBID, what
24 happens to those flows?

25 A. Well, under the current situation, water

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

55

1 is going to end up in Milford Reservoir, and then
2 that water is contracted, then, to the other users
3 in the Kansas river system through the marketing
4 program that's done by the water office.

5 Q. And what has been the extent of
6 participation in that program?

7 A. Which program?

8 Q. In the water marketing program.

9 A. That's not really something I'm very
10 involved with. It's -- it's operated by the
11 Kansas Water Office, but they have some contracts
12 from Milford Reservoir. I -- I don't know that I
13 can tell you exact numbers of how much of that
14 water has been contracted or for what.

15 Q. Sure. I'd like to talk to you a little
16 bit about the general KBID system beginning at
17 Harlan County Lake. Are you familiar with the
18 system all the way through?

19 A. Pretty much.

20 Q. And how did you gain that familiarity?

21 A. Lots of experience of -- of being there
22 with private water rights, and then again probably
23 to a lesser extent actually being involved with
24 the KBID discussions, so --

25 Q. Did you -- do you commonly speak with Mr.

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

56

1 Nelson, for example, the district manager?

2 A. Oh, yeah.

3 Q. And do you often speak with his board
4 members?

5 A. All of his board members happen to be
6 holders of other water rights. I'm not typically
7 talking to a Kansas Bostwick board member about
8 Kansas Bostwick. I'm typically talking to his
9 board members about their water rights.

10 Q. What is your understanding of how the
11 district calls for and delivers water from Harlan
12 County Lake?

13 A. Well, my understanding is that -- that
14 they -- as we discussed earlier, they have an
15 orders, people call in a -- a need, and then Kenny
16 Nelson will make a call to the Bureau of
17 Reclamation giving them a quantity and a timing
18 for delivery to Guide Rock. The Bureau of
19 Reclamation -- and in that process they also
20 include Nebraska Bostwick in -- in the order from
21 the bureau. Kenny Nelson actually operates the
22 diversion dam at Guide Rock and makes -- makes the
23 diversions, so once that is established, it takes
24 24 to 48 hours to deliver the water from Harlan
25 County down the river to be diverted into the

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

57

1 canal system at Guide Rock, and then it goes
2 either into the Courtland Canal or the Superior
3 Canal.

4 Q. Do you have any idea what the system
5 losses are from the point A to point B that you
6 just discussed from Harlan County Lake down to the
7 canal?

8 A. Okay. From -- from Harlan County Lake
9 down to?

10 Q. To the canal.

11 A. To Guide Rock?

12 Q. Yes.

13 A. Okay. No, I -- that varies with the
14 conditions of the stream. If the stream is low,
15 and, you know, temperature is high, that could be
16 fairly significant, in addition to the -- the
17 groundwater depletions that are occurring -- and
18 surface water users that are occurring between
19 Harlan County and Guide Rock, so that's -- that's
20 a pretty variable number.

21 Q. Is that true generally throughout the
22 rest of the system?

23 A. Throughout the rest of the system --

24 Q. The rest of the system below Guide Rock.

25 A. You talking about the river system or the

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

58

1 canal system?

2 Q. The canal system. Excuse me.

3 A. No, that's not typically going to be --
4 you probably can't -- can't compare those losses
5 one to the other simply because they're two
6 entirely -- I mean, one's a natural system, the
7 other one is a manmade system that has maintenance
8 and --

9 Q. Sure.

10 A. -- and board attention, so --

11 Q. So do you have an opinion about the
12 losses below Guide Rock within the canal system?

13 A. They occur.

14 Q. Do you have any idea what the extent of
15 losses is, let's say above Lovewell and then we'll
16 ask about below Lovewell.

17 A. Okay. Well, and, again, part of that is
18 depending upon the conditions that you're --
19 you're running. It's always more efficient to --
20 to run higher flows than it is lower flows. The
21 - the percentage of loss in a canal system
22 increases with a lower volume of water. So in
23 other words, if I have a higher canal system, I
24 have water to deliver, my losses are -- are less
25 percentagewise than they will be if I'm running on

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

59

1 the bottom, a higher percentage of that is going
2 to be lost.

3 Q. Uh-huh.

4 A. So in terms of the system losses above
5 and below, I'm not aware of any significant
6 differences between the two, whether it be any
7 kind of, you know, geology or hydrology.

8 Q. Do you have any idea what the system
9 losses were in '05 and '06?

10 A. I -- we -- obviously Dale Books provided
11 you with -- with his analysis, and I don't have
12 any reason to think that those weren't fairly
13 accurate. He's done way more research on that
14 than I have.

15 Q. You don't have any personal knowledge of
16 it then?

17 A. No.

18 Q. I'm glad you brought up Mr. Book's
19 report. I'd like you to tell me, with respect to
20 what I refer to as the Book One report --

21 A. Yeah.

22 Q. -- which hopefully you know what I'm
23 talking about.

24 A. I do.

25 Q. Which is the -- essentially the Kansas

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

60

1 loss analysis. I'd like you to tell me what
2 information you provided to Mr. Book specifically
3 to work on that report.

4 A. Most of that would have simply been
5 directing him to sources for that information, and
6 that would include things like the Bureau of
7 Reclamation's annual operating plan, some of the
8 monthly distribution reports that come from Kansas
9 Bostwick, the other irrigation districts, more of
10 a -- I don't know that I provided him with -- with
11 very much or any individual analysis that me or my
12 staff did.

13 Q. Okay.

14 A. It was more of a, where do I find this
15 kind of information, and I was more able to say,
16 well, you get this from KBID or this from the
17 bureau or that type thing.

18 Q. Thank you. You anticipated my next
19 question. So Mr. Book took these sources and
20 prepared a report. Did he ever ask you to review
21 and validate the assumptions or conclusions in his
22 report after it was generated and finalized?

23 A. I read the report, and I -- I provided
24 him with some comments about, you know, things
25 that I saw in there that -- that I had some

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

61

1 questions about, but I don't think it was very --
2 I mean, there wasn't a great lot that I
3 challenged.

4 Q. To your knowledge, were there any
5 portions of the report that were revised based on
6 your feedback?

7 A. Not that come to mind immediately.

8 Q. Did you participate in any regard with
9 what I call the Book Two report, which is an
10 analysis of measures Nebraska was theoretically
11 required to take in '05 and '06?

12 A. Really none. I mean, very minimal.

13 Q. How about the Book Three report, which is
14 the future compliance analysis that he prepared?

15 A. Absolutely none.

16 Q. Okay. I'd like to ask you the same basic
17 questions with regard to the reports prepared by
18 Drs. Hamilton and Robison. Are you familiar with
19 those reports?

20 A. Generally, yeah, uh-huh.

21 Q. Did you provide any information directly
22 to them to support their preparation of those
23 reports?

24 A. Lots of the same kind of answers would
25 apply to them. Where can I find things and -- and

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

62

1 sort of directing them to sources rather than
2 providing them directly with information.

3 Q. And did they ask you to review or comment
4 or validate any of the conclusions or assumptions
5 in the report before they finalized it?

6 A. I was -- I was involved in part of the
7 review while it was being developed, but there was
8 no individual request of me to review a section of
9 it.

10 Q. And did you provide any feedback at all
11 on that report in the interstitial period between
12 its commencement and the conclusion of the report?

13 A. Not that I recall.

14 Q. Let me ask you whether in the context of
15 identifying sources of potential information --

16 A. Uh-huh.

17 Q. -- did you simply identify those sources
18 and direct the others to locate it or did you
19 actually gather, collate and produce that
20 information for them?

21 A. I don't recall doing any -- typically, I
22 would identify the source and -- and check it out,
23 if you will, to make sure that the kind of
24 questions could be answered if they went to that
25 source, but I didn't typically gather any

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

63

1 information for them. That was -- that was their
2 information to -- to get and utilize as they
3 needed.

4 Q. Okay. I'd like to ask you the same thing
5 about Dr. Cluckie's report. Have you ever seen
6 that document?

7 A. Yes, I have.

8 Q. And did you provide any information
9 relevant to that particular report?

10 A. Probably even less than -- than I would
11 have with the Hamilton report.

12 Q. Okay. And how about Mr. Barfield's
13 report? You know the report to which I refer?

14 A. Oh, yes, yeah.

15 Q. Mr. Barfield's report, did you provide
16 any information or assumptions on which that
17 report is based?

18 A. I don't think so. I was again involved
19 in discussions of the development, but not -- not
20 specifically reviewing or critiquing the report.

21 Q. Mr. Ross, I'd like to hand you what's
22 labeled as a fact sheet that I printed off the
23 Department of Agriculture website. Do you
24 recognize this document or its subject matter, at
25 least, understanding that you may not have

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

64

1 prepared it?

2 A. Yes.

3 Q. Generally speaking, what's the topic of
4 this document?

5 A. The title is: Consequences of
6 Overpumping.

7 Q. Did you participate in any regard in
8 developing this document?

9 A. Not this document.

10 Q. Are you familiar with the -- the process
11 of enforcement?

12 A. Very familiar.

13 Q. Limitations on water use in the state?

14 A. Yes.

15 Q. Could you take a quick look at the bullet
16 points in the left-hand column on the page here
17 and just tell me if those are generally
18 representative of the consequences of overpumping
19 in Kansas?

20 A. Yes, they are.

21 Q. My question is whether you find those to
22 be an effective deterrent to overuse?

23 A. In general, yes.

24 MR. WILMOTH: Mark this as Exhibit 2,
25 please.

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

65

1 (THEREUPON, Ross Deposition Exhibit No 2
2 was marked for identification.)

3 BY MR. WILMOTH:

4 Q. Do you have a good feeling as to how many
5 individuals within the regulated community proceed
6 past the offense violation and receipt of notice
7 of non-compliance?

8 MR. DRAPER: Did you say a good feeling?

9 MR. WILMOTH: Yeah, I did.

10 BY MR. WILMOTH:

11 Q. Did you have a good feeling about that?

12 A. Not really.

13 Q. By that I mean --

14 A. Not a good feeling per se.

15 Q. Yeah. A sense of -- of how many folks
16 typically are non-responsive in the face of a
17 notice of non-compliance?

18 A. And I can only speak to my field office.
19 A very small percentage actually get to the second
20 offense.

21 Q. Okay. And I assume that a smaller
22 percentage then get to the third offense?

23 A. Yes. A very small percentage.

24 Q. Have you ever gotten to the fourth
25 offense?

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

66

1 A. Yes.

2 Q. How many times?

3 A. Once.

4 Q. And did that lead to the fifth offense?

5 A. My response to that is not yet.

6 Q. Okay. Very good. We will leave it at

7 that. But if he happens to be reading the

8 transcript, I'd encourage him to go back to four.

9 (THEREUPON, an off-the-record discussion
10 was had.)

11 BY MR. WILMOTH:

12 Q. What do you typically do in your capacity

13 as the manager of the Stockton field office with

14 regard to these enforcement actions? Is it your

15 role to go out and put boots on the ground and --

16 and evaluate usage or do you have staff that do

17 that?

18 A. Typically that's going to be my staff

19 that does that.

20 Q. What role do you play in this process?

21 A. Generally I'm the one that's -- that's

22 drafting and signing the orders.

23 Q. Which would indicate whether you're

24 receiving a first offense or a --

25 A. Correct.

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

67

1 Q. -- second offense, et cetera, et cetera.

2 A. Yes.

3 Q. Now, there have been some discussions, I
4 guess, about some changes to Kansas law resulting
5 from a recent drought. Does that sound familiar?
6 I think --

7 A. I don't --

8 Q. -- they --

9 A. -- think there's been any changes in
10 statute yet. Well, today.

11 Q. I think the issue is referred to in
12 Kansas as the drought emergency term permits or --

13 A. Yes.

14 Q. And/or multi use accounts, flex accounts,
15 is that right?

16 A. Yes. Yes, I'm familiar with those.

17 Q. Could you tell me generally what that
18 issue is all about, how it came about and what's
19 being done to address it.

20 A. In late 2010 most of the southern half of
21 the state --

22 Q. And just for the record, Mr. Ross, we'll
23 mark that as Exhibit 3, and before you get too far
24 down the road, are -- are you familiar with this
25 PowerPoint presentation?

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

68

1 A. Not specifically.

2 (THEREUPON, Ross Deposition Exhibit No 3
3 was marked for identification.)

4 BY MR. WILMOTH:

5 Q. Okay. Unfortunately it doesn't have any
6 slide or page numbers on it, but I think the topic
7 that we're discussing starts on about page 10 or
8 11.

9 A. Give me a hint.

10 Q. (Indicating.) If -- if that refreshes
11 your recollection --

12 A. Titled: Severe Drought of 2011?

13 Q. Yes. If that doesn't refresh your
14 recollection you can ignore it, but I thought it
15 might be useful for our discussion.

16 A. Yeah, I'm -- I'm generally familiar --

17 Q. All right.

18 A. -- with this.

19 Q. Could you just continue on where you
20 were. You were explaining to me the nature of the
21 problem that arose and how it was being addressed.

22 A. In -- in late 2010 most of the southern
23 half of the state began to experience a drought,
24 and as that drought progressed into 2011, we were
25 doing our normal compliance and enforcement work

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

69

1 and -- and had a number of -- of water users
2 coming into the southern two field offices saying
3 basically I've pumped all my water right and I
4 need some help. The solution was a -- a temporary
5 process that became known as the drought --
6 emergency drought term permits, drought emergency
7 term permits.

8 In general, if a water user wanted to sign a
9 -- if a water user wanted to sign up for a term
10 permit, they would be allowed to basically use all
11 of their 2011 water right quantity, and up to all
12 of their 2012 quantity in 2011. But they -- they
13 were foregoing -- their base water right was
14 suspended through 2012. And so it essentially
15 allowed folks who wanted to participate in that
16 program to file a drought term permit agreeing to
17 suspend their base right, and they were in turn
18 granted a two-year 2011-2012 term permit allowing
19 them to divert any -- up to twice their authorized
20 quantity in that period of time.

21 Q. And what did they give up in order to
22 obtain that privilege?

23 A. About 400 bucks.

24 Q. Okay.

25 A. They didn't really give up anything.

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

70

1 Q. Okay. So if I understood you, that was
2 in 2010 that that occurred?

3 A. No, it's 2011.

4 Q. Okay.

5 A. But the drought began in 2010, and -- and
6 those drought emergency term permits were
7 authorized about the first of July 2011.

8 Q. Okay. Now, this program was well
9 received, yes?

10 A. Very well received.

11 Q. And participation was high?

12 A. Very high.

13 Q. And are there some existing proposed
14 changes to that program?

15 A. That -- that program expired December
16 31st of -- of 2011. We're not accepting any more
17 of those drought term permits applications. Well,
18 I -- I -- yes. As of today, that -- that's true.
19 That the -- we have proposed a multi-year flex
20 account that would allow folks to -- Kansas has
21 had a multi-year flex account program for probably
22 close to 10 years with almost no participation.
23 And that is being modified literally as we speak.

24 Q. Is that discussed a few pages further
25 into this document? Looks like this (indicating)?

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

71

1 A. Uh --

2 Q. Is that what you're referring to?

3 A. Yes, that is the -- that is the current
4 other option multi-year flex account is the
5 existing statute.

6 Q. Okay. And what was the reason for the
7 lack of participation?

8 A. You'll notice the second bullet point
9 under the other - other options, multi-year flex
10 account, the second option is 10 percent
11 conservation factor.

12 Q. Uh-huh. What does that mean?

13 A. That means we're going to take that
14 amount of water that -- the average water use from
15 2009 through 2010, we're going to take that times
16 five and then we're going to take 10 percent off
17 of it.

18 Q. So in order to participate in the program
19 you'd give up 10 percent of your --

20 A. Average --

21 Q. -- average, right?

22 A. -- annual use from 2009 -- 2000 to 2009.

23 Q. And so folks were unwilling to forego
24 that or to sacrifice that 10 percent in order to
25 participate in the program?

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

72

1 A. Generally that's true. That's the case.

2 Q. And is that the subject matter of the
3 proposed change?

4 A. That -- that's one piece of it, yes.

5 Q. Could you tell me what is being proposed
6 today and how it will differ from what currently
7 exists, if it's adopted?

8 A. And what's being -- I -- I haven't -- I
9 haven't read anything from the legislature today,
10 so I can't tell you what's being proposed today.

11 Q. All right.

12 A. I will tell you that was -- the 10
13 percent was the subject of -- of the change, and
14 I'm not aware that -- in general it was to be
15 removed from the statute with other provisions
16 that have been under consideration.

17 Q. So if the 10 percent conservation factor
18 were removed, do I understand then that people
19 would essentially have this base allocation
20 equivalent to their average use from 2000 to 2009?
21 Multiplied by five? Is that how it works?

22 A. That's -- that's one of the proposals.
23 The current proposals include a couple other
24 provisions, but I'm not sure what will actually
25 get signed. They -- the intent is to give those

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

73

1 folks a longer period of time to manage water, the
2 five years.

3 Q. So I assume by that description that a
4 water user would be allowed, for example, in year
5 one to exceed its average, but in year two to make
6 that up and be neutral?

7 A. In general, yes, that's right.

8 Q. Is that how it's --

9 A. Yeah.

10 Q. -- designed to work?

11 A. Uh-huh.

12 Q. Is there any what I will call carryover
13 between five-year periods? So, for example, if
14 you -- well, I think you understand my question.

15 A. Yes, I do. I think I understand your
16 question. Are -- you're saying at the end of the
17 five-year period what happens?

18 Q. Yes.

19 A. And under the current proposal it's my
20 understanding that -- and, again, I'm kind of
21 shooting from the hip here because we don't have
22 the final -- final language.

23 Q. Sure.

24 A. It's -- it's not and has never been an
25 intent to allow any carryover at the end of the

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

74

1 five-year -- this is not a water right. It's a
2 separate permit.

3 Q. Okay.

4 A. So at the expiration of that -- that
5 permit you go back to ground zero, to your base
6 right, to an annual allocation.

7 Q. So this is not something that would
8 continue beyond the five-year window? In other
9 words, it's not a rolling average that --

10 A. No.

11 Q. -- continues into the future?

12 A. No. It's a separate term permit that has
13 a five-year duration.

14 Q. Have you heard any increased interest in
15 the program if those changes were to be adopted?
16 Have your folks with whom you regularly
17 communicate expressed an interest?

18 A. We -- in -- in my field office, we've --
19 we've had some increased interest. I don't think
20 you're going to see, at least in our area, we --
21 we don't -- we didn't issue very many drought term
22 permits, so we don't have a lot of people who are
23 - are --

24 Q. Uh-huh.

25 A. -- you know, imminently threatened with

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

75

1 that process. I think it's of interest, and we'll
2 see some increase over what we did the previous
3 multi-year flex account program.

4 Q. How do you keep track of the water use
5 under that program or any other program within
6 your field office?

7 A. Kansas has a fairly extensive water use
8 program. For example, and since I think about
9 1957, water users are required to file an annual
10 water use report telling us how much water they
11 used.

12 Q. Like a self survey type document?

13 A. Well, it's a little more than -- more
14 than that. They're -- they're actually required
15 by statute, and there are fines for failing to
16 file a water use -- a complete and accurate water
17 use report. Everyone in -- in my field office,
18 for instance, is -- is required to have a meter,
19 and the beginning and ending meter readings are
20 reported and recorded, and then we go through
21 various -- various analytical processes to examine
22 that water use. These multi-year flex accounts, I
23 -- I know will be a part of that process. There
24 may be some additions to that process --

25 Q. Uh-huh.

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

76

1 A. -- that are visited on these folks with
2 multi-year flex accounts.

3 Q. With regard to the drought that
4 precipitated the institution of this program, did
5 you all anticipate that drought occurring?

6 A. I'd make a fortune if I could anticipate
7 droughts.

8 Q. Do you employ any forecasting tools or
9 anything else to try and determine the likelihood
10 of its reoccurrence?

11 A. Not really.

12 Q. Is everybody doing okay or do you want a
13 quick break or anything?

14 MR. DRAPER: How you doing?

15 THE WITNESS: I'm fine.

16 MR. DRAPER: Let's do it.

17 BY MR. WILMOTH:

18 Q. I'd like to hand you another PowerPoint,
19 Mr. Ross, and this one bears your name on it.
20 Just would like to ask you if you recognize this
21 document which we'll mark as Exhibit 4.

22 (THEREUPON, Ross Deposition Exhibit No 4
23 was marked for identification.)

24 A. Yes.

25 BY MR. WILMOTH:

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

77

1 Q. Could you please tell me the purpose for
2 which this document was prepared?

3 A. It's a PowerPoint presentation that I
4 gave at the Four States Irrigation Council in
5 2011.

6 Q. And the Four States Irrigation Council is
7 what organ -- what -- what's the nature of that
8 organization?

9 A. It's generally the irrigation districts
10 from Nebraska, Kansas, Colorado and Wyoming, have
11 -- have a four states irrigation council that they
12 have an annual meeting every year.

13 Q. I wanted to ask you about the slide that
14 is about four pages in titled: What Kansas is
15 Seeking. Do you see that slide?

16 A. Uh-huh.

17 Q. My question is whether you participated
18 in the development of any of these requests, or
19 whether you're simply reporting the fact that
20 Kansas is seeking those?

21 A. I was involved in the discussions that
22 came up to the development of -- of these four
23 bullet points, but as far as this, I was just
24 simply reporting, this is what Kansas is asking
25 for.

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

78

1 Q. Did you participate in the development of
2 any analyses presently before the court in this
3 action identifying the scope of groundwater
4 pumping reductions that should be pursued?

5 A. Not individually. Not personally.

6 Q. I believe that I understood you to say
7 you participated in assisting Mr. Book with the
8 Book One report, at least in finding information.
9 Am I correct in inferring, then, that you helped
10 to formulate the damages request?

11 A. Yeah, a similar kind of process of -- of
12 interacting from more of a field position.

13 Q. Okay. You don't have any independent
14 analysis, though, of --

15 A. No.

16 Q. -- of the scope of damages.

17 A. No, I didn't do anything independently.

18 Q. Okay. And I -- I assume the same answer
19 applies to the next two bullet points?

20 A. Yes.

21 Q. On the next page, the first slide
22 explains that the -- Nebraska's current compliance
23 is due principally to wet conditions. Is that
24 your opinion today?

25 A. It is.

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

79

1 Q. And do you believe that the third --
2 third-generation integrated management plans have
3 played any role in that process?

4 A. Any role in?

5 Q. Any role in furthering compact
6 compliance.

7 A. I don't -- I don't know that I have an
8 opinion on that.

9 Q. Do you have an opinion about the relative
10 contribution of Nebraska's efforts in ensuring
11 compliance, or is it entirely due to hydrologic
12 condition? In other words, has -- has Nebraska
13 done anything at all to further compact compliance
14 in your view or is it purely an accident of
15 hydrology?

16 A. I don't think I have an opinion on that
17 either.

18 Q. Okay. So what -- what is the basis of
19 your opinion that compliance is due principally to
20 wet conditions?

21 A. The fact that -- that we've had above
22 normal precipitation and -- and the streamflows
23 have recovered, reservoir levels are higher, and -
24 - and that results in compliance.

25 Q. Regardless of what Nebraska does, you

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

80

1 mean.

2 A. Yes. Under those -- those situations,
3 Nebraska can't hardly be out of compliance.

4 Q. Uh-huh. And I assume that you share the
5 concern of Kansas that at some point in the future
6 Nebraska will be out of compliance again?

7 A. That's true.

8 Q. And do you know when that will be?

9 A. The next time we have an extraordinary
10 drought.

11 Q. Nebraska will be out of compliance.

12 A. That is my feeling, yes.

13 Q. And on what do you base that opinion?

14 A. History and observation.

15 Q. But you don't know what the allocations
16 will be under the compact as we sit here today, do
17 you?

18 A. No, I don't.

19 Q. And you don't know what groundwater
20 pumping will be today -- or then as we sit here
21 today, do you?

22 A. No, sir.

23 Q. I note the last bullet point indicates
24 that consumptive use in Nebraska remains
25 effectively unchecked. What do you mean by that?

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

81

1 A. We don't have final information to
2 indicate that consumptive use has been reduced.

3 Q. So the reduction in groundwater pumping
4 shown in Figure 8 is also just an accident of
5 hydrology, in your view?

6 A. Okay. Ask the question again, please.

7 Q. There's a reduction in pumping shown on
8 Figure 8 of your PowerPoint here. From 2002 to
9 2009. Do you see that? My question is, do you
10 attribute that reduction entirely to hydrologic
11 accident or something else?

12 A. I don't -- I don't know that I've done
13 enough analysis to be able to give you a -- a
14 response to that. In -- in general, increased
15 precipitation results in lower pumping, Kansas and
16 Nebraska.

17 Q. Are you aware of any restrictions on
18 pumping in Nebraska?

19 A. Yes.

20 Q. What are those?

21 A. Just the current A&P restrictions.

22 Q. And those do include a mandatory
23 reduction, do they not?

24 A. They do.

25 Q. On the following slide here, beneath the

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

82

1 Figure 8, there's a map of water level changes in
2 the High Plains Aquifer. How have water levels
3 changed in northwest Kansas?

4 A. Generally, they continue to decline at a
5 rate of about half a foot a year, average.

6 Q. And how does that relate to declines or
7 increases in the Nebraska portion of the basin?
8 Is the same true in Nebraska?

9 A. Is the same what true?

10 Q. What's happening to the groundwater
11 levels in Nebraska? In the Nebraska portion of
12 the basin?

13 A. It's my understanding that generally
14 they're declining as well.

15 Q. Uh-huh. Is that uniformly true?

16 A. Well, probably no more so than it is in
17 Kansas. You -- it's all a more site location than
18 -- generally it's -- it's declining, but that's
19 not specific to each individual site.

20 Q. Are there any portions of the basin
21 within Nebraska that show elevating groundwater
22 levels, increasing groundwater level?

23 A. I believe there are.

24 Q. What portions are those?

25 A. Some -- some isolated portions along the

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

83

1 tributary alluvium and the alluvial corridors.

2 Q. What do you attribute that to?

3 A. Precipitation increases, relative.

4 Q. I'd like to move you forward a couple of
5 slides. On the next page you've got a discussion
6 of economic analysis and modeling. Do you see
7 that?

8 A. Uh-huh. Yes.

9 Q. This may relate to a conversation we had
10 earlier, and we don't need to revisit it, but I'd
11 like to make sure I understand the nature of these
12 statements. What do you mean by irrigation
13 scheduling when you used it in this slide?

14 A. Irrigation scheduling is -- is generally
15 a -- a process of either -- either accounting for
16 your soil moisture reservoir, in terms of how much
17 water is being applied versus evapotranspiration.
18 It can also mean in lower supplies -- lower water
19 supplies targeting to the stage of the crop.

20 Q. Kind of the timing issue we talked about
21 before?

22 A. Exactly.

23 Q. Are there other factors that affect
24 scheduling such as precipitation?

25 A. Certainly, yes.

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

84

1 Q. And soil moisture, is that what you said
2 earlier?

3 A. Yes.

4 Q. And in the next bullet point down you
5 indicated that more efficient systems don't save
6 water but lead to greater profits. What do you
7 mean by that?

8 A. As per our earlier discussion about more
9 efficient center pivots don't necessarily lead to
10 less water use, because you can overwater with a
11 center pivot as well as you can a flood.

12 Q. So that's a management question --

13 A. Yes.

14 Q. -- or management issue?

15 A. It's all about -- you know, within the --
16 within the limits of the irrigation system, the
17 real reductions or -- or the -- the issues of
18 water savings come about as a result of
19 management.

20 Q. And at the end there you've got a
21 statement that diminishing incremental revenue
22 exists with each additional inch applied. Is that
23 basically the same concept as the law of
24 diminishing returns as we would commonly
25 understand it?

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

85

1 A. Yes. Basically it's the -- the crop
2 curves at the higher end tend to -- in general,
3 they're curvilinear, so that, you know, as you
4 apply more water at -- at the top end you're going
5 to get less bushels per inch.

6 Q. So is that another way of saying
7 essentially that the 10th inch is less valuable
8 than the ninth inch and so on?

9 A. Yes.

10 Q. In your role as the Stockton field office
11 manager, do you interact with any of the
12 groundwater management districts as their
13 activities involve IGUCAs?

14 A. There are no IGUCAs within groundwater
15 management districts except southwest, and that's
16 not in my field office area, so --

17 Q. Okay. Thank you. I spoke a little bit
18 with Mr. Pope yesterday about the Walnut Creek
19 IGUCA and the corrective controls. You've got a
20 slide concerning that issue on the next page, I
21 believe, perhaps two forward -- two forward. Can
22 you tell me a little bit about what led to the
23 Walnut Creek IGUCA?

24 A. Probably not any more than Mr. Pope told
25 you yesterday, that this -- this isn't -- isn't

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

86

1 part of my field office, I was the --

2 Q. Okay.

3 A. -- outside looking in.

4 Q. I notice at the bottom of this side -- at
5 the bottom of this page is a slide that states
6 economic impacts may not be permanent. Could you
7 explain what you meant by that?

8 A. I honestly don't recall.

9 Q. Do you have any recollection of what the
10 -- the graphic there represents?

11 A. The -- the graphic is -- is basically
12 demonstrating that the economists that have looked
13 at this took the -- the diamond line, if you will
14 --

15 Q. Uh-huh.

16 A. -- versus the square line. And you will
17 see that they -- the diamond line or the control
18 is an exhibit of economic stability indicators for
19 a select control counties that were adjacent to
20 these next to the wet Walnut area.

21 Q. Uh-huh.

22 A. And so you can see they have a very
23 similar economy until about 1992 or '93 when the --
24 the target or Walnut Creek area drops and the
25 revenues drop from, oh, probably 1.25 down to

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

87

1 nearly .5.

2 Q. Uh-huh.

3 A. And -- and the study was to see what --
4 what the economies -- how -- how the Walnut Creek
5 economy recovered. And so --

6 Q. I see.

7 A. -- you can see it dropped and then came
8 back, and it -- and in some cases has even
9 exceeded that of the control.

10 Q. I see. So the control was a -- maybe a
11 broader economic perspective and the graphic
12 depicts a relationship between the Walnut Creek
13 area and that broader graphic?

14 A. The intent of this graph was to compare
15 similar economic situations or a similar economic
16 community adjacent to Walnut Creek.

17 Q. Gotcha. I understand now. I'm sorry.
18 Thank you. Mr. Ross, earlier I talked to you a
19 little bit about your relationship with the Bureau
20 of Reclamation and FCID, and I just was hoping you
21 could identify this document for me.

22 (THEREUPON, Ross Deposition Exhibit No 5
23 was marked for identification.)

24 A. This looks like an e-mail I sent to Aaron
25 Thompson and Craig Scott and Brad Edgerton

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

88

1 regarding an inquiry by them about what I was --
2 what I was aware of as far as the acceptance of
3 this case.

4 BY MR. WILMOTH:

5 Q. Do you commonly work with the bureau or
6 FCID to reach a common understanding of Kansas's
7 objectives in the basin?

8 A. We have -- we have conversations as -- at
9 their request. I don't typically seek to involve
10 them beyond their asking questions about -- like
11 this was probably a result of just a, hey, where
12 we at? What happened?

13 Q. Uh-huh. Did you work with either or both
14 of those entities in developing the case that
15 Kansas has brought today before the court?

16 A. Oh, I don't think so. That wouldn't
17 typically have been something we would have done.

18 Q. Let me see if I can refresh your
19 recollection. This is an electronic
20 communication. I'd like you to identify it,
21 please, Exhibit 6.

22 (THEREUPON, Ross Deposition Exhibit No 6
23 was marked for identification.)

24 BY MR. WILMOTH:

25 Q. Do you recognize that?

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

89

1 A. Not -- not specifically. I mean, I
2 communicate with Patrick Erger on a number of
3 different issues including here -- he's been
4 involved with some of the conservation committee
5 work and some of the water -- what do I want to
6 say? Some of the recent programs for water
7 conservation, they've been trying to involve
8 Kansas and Colorado and Nebraska in some programs
9 to do some -- some studies.

10 Q. Do you remember the topic of this meeting
11 that's being discussed on August 18, 2010?

12 A. You know, honestly, I really don't. We
13 -- we had talked about, I would guess from -- from
14 this perspective, with some -- some issues we were
15 talking about, and this is about the time when we
16 would have been talking about some operational
17 changes at Lovewell, that the Corps of Engineers
18 was -- was instituting some changes in the amount
19 of water that could be stored in the flood pool.
20 Whether that's exactly referencing this, I don't
21 know.

22 Q. There's a -- I've got another
23 communication I can share with you. This was
24 apparently transmitted to you the day before by
25 someone at the bureau?

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

90

1 A. Uh-huh.

2 (THEREUPON, Ross Deposition Exhibit No 7
3 was marked for identification.)

4 BY MR. WILMOTH:

5 Q. Can you identify that? That's Exhibit 7.
6 I didn't bother to include the whole transmittal,
7 but if you'll flip the page, you'll see that that
8 presentation was attached.

9 A. Okay.

10 Q. Does that refresh your recollection at
11 all?

12 A. Gordon Aycock and I were talking about --
13 this would have been some of the initial
14 information that Jim Schneider was -- was
15 presenting on how they were forecasting under the
16 IMP process, how to forecast water supplies, and
17 -- and that being the case, if these two -- I'm
18 going to assume that these two are related, if
19 nothing else to look at, I'm assuming these two
20 are related, then the operational changes that I
21 was talking about with Patrick Erger were just
22 trying to get a better understanding of what
23 changes that would make from the bureau's
24 standpoint, from an operational standpoint of --
25 of irrigation districts, basically Harlan County.

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

91

1 Q. When you say changes, are you referring
2 to changes that might arise out of the forecasting
3 mechanism?

4 A. The -- the changes that might result as a
5 -- if that was -- was being implemented, what
6 changes would that mean from bureau of operations.
7 Earlier we had discussed, for instance, how Kenny
8 Nelson --

9 Q. Uh-huh.

10 A. -- gains access to close.

11 Q. Right.

12 A. So those are the types of operational
13 changes we would have been discussing is, how --
14 how would this change.

15 Q. And I hand you a third communication
16 here. About a month preceding that. Just ask if
17 you could identify that for me, Exhibit 8.

18 (THEREUPON, Ross Deposition Exhibit No 8
19 was marked for identification.)

20 A. Yeah. It's just -- Frenchmen Cambridge
21 is -- this is the testimony that Brad Edgerton
22 gave at the Middle Republic NRD IMP hearing.

23 BY MR. WILMOTH:

24 Q. So let me ask you this set of questions.
25 Can you please describe to me how you work with

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

92

1 the bureau or FCID to understand or formulate
2 opinions about the third integrated management
3 plans in Nebraska? Have you had any meetings?
4 Have you had any discussions? Have you shared
5 information with either of those two entities?
6 Have you received information from either of them?

7 A. We have -- I -- I've probably had
8 discussions with -- with Brad Edgerton
9 periodically. And I talk to the folks at the
10 bureau office in McCook fairly regularly in terms
11 of looking at the conditions of districts and --
12 and operations, not just Harlan County, but of
13 course any of the other bureau operations in -- in
14 Kansas. In terms of their perspective on -- we
15 share information occasionally on things like
16 testimony at -- on IMPs and that sort of thing. I
17 usually share that, as I did here, with the rest
18 of our compact group.

19 Q. Have you individually developed any
20 analyses of the third-generation IMPs that you've
21 shared with other FCID or the bureau?

22 A. Uh --

23 Q. And by analyses, I'd want to clarify, I
24 mean technical analyses.

25 A. I haven't personally, individually.

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

93

1 Q. Have you shared any analyses that were
2 conducted by the state of Kansas?

3 A. Not that come to mind. I mean, there --
4 there could have been some -- some sharing along
5 the way, but I don't recall any of it, anything
6 specific.

7 Q. Did you receive any technical analyses
8 conducted by either the bureau or FCID by
9 addressing the likely performance of the
10 third-generation IMPs?

11 A. Probably that -- depending on how you
12 want to classify that as technical, we certainly
13 had copies or -- or access to their testimony on
14 the third-generation IMPs, and -- and we would
15 have looked at that information.

16 Q. Sure. Aside from the actual testimony,
17 are you aware of any information that might have
18 supported that testimony that was shared with you
19 by either of those two entities? Any backup
20 information, if you will, or supporting analysis?

21 A. Not -- not typically anything that I'm --
22 I'm specifically recalling that we shared with
23 them or that they shared with us.

24 MR. WILMOTH: Well, I said 12:30, but why
25 don't we take a break now. I'm starving. It's

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

94

1 noon.

2 MR. DRAPER: Okay.

3 MR. WILMOTH: We can go off the record.

4 (THEREUPON, a recess was taken from 11:58
5 a.m. to 1:11 p.m.)

6 MR. WILMOTH: Mr. Ross, we have no
7 further questions for you, but I believe Mr. Ampe
8 does.

9 MR. AMPE: I do.

10 CROSS-EXAMINATION

11 BY MR. AMPE:

12 Q. Hello, Mr. Ross. You were so
13 disappointed that I asked so few questions of your
14 previous boss. Just a couple -- just so the
15 record is clear, I'm not sure if this was covered,
16 but what's your official position within DNR -- or
17 within the State of Kansas?

18 A. I am the water commissioner at the
19 Stockton Field Office for the Kansas Department of
20 Agriculture's Division of Water Resources.

21 Q. And what areas does your office cover?

22 A. My office generally covers the -- begins
23 at a point to -- the southeast corner of our
24 office is the corner of Marion County, and the
25 point at which the drainage basin of the Smoky

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

95

1 Hill river on the east, it goes along the Smoky --
2 south rim of the Smoky hill drainage all the way
3 to Colorado, and north to Nebraska along that same
4 drainage except the Republican River cuts off at
5 the Clay County/Cloud County line.

6 Q. So generally northwestern Kansas.

7 A. Northwest one-third of Kansas.

8 Q. All right. And if I recall it correctly
9 going from west to east, the tributaries or sub
10 basins to the Republican River are the Arika Ree,
11 the South Fork, Driftwood Creek, Beaver Creek,
12 Sappa Creek and then Prairie Dog Creek.

13 A. That's correct.

14 MR. DRAPER: Ooh. Very impressive.

15 BY MR. AMPE:

16 Q. And so within those sub basins do you
17 know approximately how many irrigated acres there
18 are, all together?

19 A. Not right off the top of my head.

20 Q. Within a few hundred thousand?

21 A. Probably less than 100,000.

22 Q. Total amongst them all?

23 A. Yeah.

24 Q. And are you familiar, are those irrigated
25 acres primarily irrigated from groundwater or

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

96

1 surface water?

2 A. Primarily would be groundwater.

3 Q. Is there any conjunctive use in that
4 area? In other words, someone that has both
5 surface and groundwater?

6 A. Certainly.

7 Q. You have any idea how many acres are
8 covered by conjunctive use?

9 A. Probably -- I guess give or take 5,000.

10 Q. And any idea total how much purely
11 surface water acres there are?

12 A. Ooh. Well, purely surface water acres?

13 Q. Surface water only. No groundwater
14 associated with it.

15 A. Just -- just guessing, less than 2,000.

16 Q. Less than 2,000? Are they spread sort of
17 evenly throughout your area or are they
18 concentrated in a certain area like Norton
19 Reservoir or something like that?

20 A. Okay. Let me make sure I'm answering the
21 question that you're asking. I'm -- I'm talking
22 about only the sub basins to the Republican.

23 Q. Yes.

24 A. Okay. Primarily those are going to be
25 below Norton Reservoir, but that won't be

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

97

1 exclusive.

2 Q. Exclusively? Okay. Any idea how many
3 purely surface water acres there are in say South
4 Fork?

5 A. Oh, probably less than 500.

6 Q. And an easy one. How about off the Arika
7 Ree River?

8 A. None.

9 Q. How about Beaver?

10 A. Oh, maybe a couple hundred.

11 Q. So sounds like the majority of the
12 surface water only acres are based off the
13 reclamation project?

14 A. Yeah. That's probably true.

15 Q. So very -- or I should say relatively few
16 acres are that sort of purely private surface
17 water acres.

18 A. That's correct.

19 Q. Sounds like maybe less than a thousand
20 acres total?

21 A. Probably about a thousand, yeah.

22 MR. AMPE: That's all I have.

23 MR. DRAPER: All right. I'm going to
24 step out for a moment. We'll be right back.

25 (THEREUPON, an off-the-record discussion

(Main Office)
Topeka, KS
785.273.3063


Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

98

1 was had.)

2 MR. DRAPER: So we can go back we can go
3 back on the record. No further questions.

4 MR. WILMOTH: Thank you, Mr. Ross.

5 THE WITNESS: Thank you.

6 MR. DRAPER: And so we'll pass on to Mr.
7 Perkins.

8 (THEREUPON, the deposition was concluded
9 at 1:19 p.m.)

10 .
11 .
12 .
13 .
14 .
15 .
16 .
17 .
18 .
19 .
20 .
21 .
22 .
23 .
24 .
25 .

(Main Office)
Topeka, KS
785.273.3063

Appino & Biggs
Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

99

1 SIGNATURE

2 .

3 The deposition of SCOTT E. ROSS was taken
4 in the matter, on the date, and at the time and
5 place set out on the title page hereof.

6 .

7 It was requested that the deposition be
8 taken by the reporter and that same be reduced to
9 typewritten form.

10 .

11 It was agreed by and between counsel and
12 the parties that the deponent will read and sign
13 the transcript of said deposition.

14 .

15 .

16 .

17 .

18 .

19 .

20 .

21 .

22 .

23 .

24 .

25 .

(Main Office)
Topeka, KS
785.273.3063

Appino & Biggs
Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

100

1 AFFIDAVIT

2 .

3 STATE OF _____:

4 COUNTY/CITY OF _____:

5 .

6 Before me, this day, personally appeared,
7 SCOTT E. ROSS, who, being duly sworn, states that the
8 foregoing transcript of his/her Deposition, taken in
9 the matter, on the date, and at the time and place set
10 out on the title page hereof, constitutes a true and
11 accurate transcript of said deposition, along with the
12 attached Errata Sheet, if changes or corrections were
13 made.

14 .

15 _____

16 SCOTT E. ROSS

17 .

18 SUBSCRIBED and SWORN to before me this _____
19 day of _____, 2012 in the
20 jurisdiction aforesaid.

21 .

22 _____

23 My Commission Expires

Notary Public

24 .

25 .

(Main Office)
Topeka, KS
785.273.3063

Appino & Biggs
Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

101

1 DEPOSITION ERRATA SHEET

2 RE: APPINO & BIGGS

3 REPORTING SERVICE, INC.

4 FILE NO.: 20014

5 CASE: STATE OF KANSAS vs.

6 STATE OF NEBRASKA AND STATE OF COLORADO

7 DEPONENT: SCOTT E. ROSS

8 DEPOSITION DATE: February 29, 2012

9 To the Reporter:

10 I have read the entire transcript of my Deposition taken in the
11 captioned matter or the same has been read to me. I request that
12 the following changes be entered upon the record for the reasons
13 indicated. I have signed my name to the Errata Sheet and the
14 appropriate Certificate and authorize you to attach both to the
15 original transcript.

16 PAGE LINE FROM TO REASON

17	_____			
18	_____			
19	_____			
20	_____			
21	_____			
22	_____			
23	_____			
24	_____			
25	_____			

(Main Office)
Topeka, KS
785.273.3063



(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

102

1	PAGE	LINE	FROM	TO	REASON
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					

24 SIGNATURE: _____ DATE: _____

25 SCOTT E. ROSS

(Main Office)
Topeka, KS
785.273.3063



(Metro Kansas City)
Overland Park, KS
913.383.1131

2/29/2012

SCOTT ROSS

103

1 CERTIFICATE

2 STATE OF KANSAS

3 ss:

4 COUNTY OF SHAWNEE

5 I, Michelle D. Hancock, a Certified
6 Shorthand Reporter, commissioned as such by
7 the Supreme Court of the State of Kansas,
8 and authorized to take depositions and
9 administer oaths within said State pursuant
10 to K.S.A. 60-228, certify that the foregoing
11 was reported by stenographic means, which
12 matter was held on the date, and the time
13 and place set out on the title page hereof
14 and that the foregoing constitutes a true
15 and accurate transcript of the same.

16 I further certify that I am not related
17 to any of the parties, nor am I an employee
18 of or related to any of the attorneys
19 representing the parties, and I have no
20 financial interest in the outcome of this
21 matter.

22 Given under my hand and seal this
23 day of _____, 2012.

24 _____
25 Michelle D. Hancock, C.S.R. No. 0392

(Main Office)
Topeka, KS
785.273.3063

Appino & Biggs
Reporting Service, Inc.
Technology Specialist in Today's Litigation
Toll Free: 888.273.3063
www.appinobiggs.com

(Metro Kansas City)
Overland Park, KS
913.383.1131