

EXHIBIT C.1

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11 *****
12 REMOTE ORAL AND VIDEOTAPED DEPOSITION OF
13 PEGGY BARROLL
14 OCTOBER 21, 2020
15 *****
16
17 REMOTE ORAL AND VIDEOTAPED DEPOSITION of PEGGY
18 BARROLL, produced as a witness at the instance of the
19 United States, and duly sworn, was taken in the
20 above-styled and numbered cause on October 21, 2020,
21 from 1:02 p.m. to 3:29 p.m, before Heather L. Garza,
22 CSR, RPR, in and for the State of Texas, recorded by
23 machine shorthand, at the offices of HEATHER L. GARZA,
24 CSR, RPR, The Woodlands, Texas, pursuant to the
25 Federal Rules of Civil Procedure and the provisions
26 stated on the record or attached hereto; that the
27 deposition shall be read and signed.

New Mexico
Counter De...

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VIDEOGRAPHER:

22

Ms. Kayla Brown

23

24

25

1 ALSO PRESENT:

2 Arianne Singer

 Estevan Lopez

3 Greg Ridgley

 John D'Antonio

4 Erek Fuchs

 Michelle Estrada-Lopez

5 Al Blair

 Bert Cortez

6 Shelly Dalrymple

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19 Collection of Documents Related to AWRM

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New Mexico
Counter De...

1 THE VIDEOGRAPHER: The time is 1:02 p.m.

2 We're on the record.

3 (The witness was sworn.)

4 MR. DUBOIS: Why don't we do
5 appearances. For the United States, I am James
6 Dubois. I am one of the attorneys for the United
7 States, and Jennifer Najjar, Shelly Randel, and I
8 think eventually Mr. Leininger -- yes, Lee Leininger
9 also on for the United States, and I think that is --
10 oh, and Bert Cortez and Ian Ferguson. That's it. So
11 New Mexico?

12 MR. WECHSLER: Jeff Wechsler for the
13 State of New Mexico. We also have Lisa Thompson,
14 Susan Barela, Arianne Singer, Greg Ridgley, John
15 D'Antonio, and Shelly Dalrymple.

16 MR. DUBOIS: For Texas?

17 MS. KLAHN: Sarah Klahn for the State of
18 Texas, and I'm joined by Stuart Somach.

19 MR. DUBOIS: Colorado?

20 MR. HARTMAN: Preston Hartman for
21 Colorado.

22 MR. DUBOIS: Let's go to the amici. Is
23 anyone on for EB -- EPCWID? Renea?

24 MR. HICKS: Hold on. I'm here. I
25 didn't know Maria wasn't on.

1 MR. DUBOIS: I don't see her.

2 MR. HICKS: Okay. She just skipped out
3 on me then. I'm here.

4 MR. DUBOIS: Is anybody else on?

5 MS. COLEMAN: Judy Coleman is on for the
6 United States.

7 MR. DUBOIS: Thank you, Judy. Renea,
8 also, Al Blair is on.

9 For EBID?

10 MS. BARNCASTLE: Yes. This is Samantha
11 Barncastle for the Elephant Butte Irrigation District,
12 and I'm joined by Dr. Erek Fuchs.

13 MR. DUBOIS: Okay. Let me see who else.
14 I'm just sort of scanning through and seeing who's on.
15 Is NMSU on?

16 (No response.)

17 MR. DUBOIS: No. City of El Paso?

18 MR. CAROOM: Doug Caroom for the City of
19 El Paso.

20 MR. DUBOIS: And are there any other
21 representatives on for any of the other amici?

22 (No response.)

23 MR. DUBOIS: Okay. I don't see any.

24

25

1 PEGGY BARROLL,
2 having been first duly sworn, testified as follows:

3 E X A M I N A T I O N

4 BY MR. DUBOIS:

5 Q. All right. Can you state your name for the
6 record, please, Dr. Barroll?

7 A. Margaret Barroll.

8 Q. All right. Now, you've been deposed in this
9 proceeding before once or twice or three times or
10 possibly more so you know the basic ground rules, but
11 I'll go over them anyway. You're under oath as if you
12 were in a court of law. We will try not to talk over
13 each other. Let me finish my questions, and I will
14 try to let you -- to not interrupt your answers. If
15 you don't understand one of my questions, please let
16 me know, and I will try to rephrase it. Otherwise,
17 I'll assume you understand the question. Your other
18 communication devices such as e-mail and texts should
19 be off, and I think that's about it.

Texas
Affirmative

20 You've been identified as a 30(b)(6) witness
21 on behalf of New Mexico with respect to limited
22 topics; is that right?

23 A. That's right.

24 Q. Okay.

25 MR. DUBOIS: Kayla, will you pull up the

1 -- the notice of -- of deposition?

2 (Exhibit No. 1 was marked.)

3 Q. (BY MR. DUBOIS) And, Dr. Barroll, you should
4 have control of that. Have you seen this document
5 before, Dr. Barroll?

6 A. Yeah. I've --

7 Q. Okay.

8 A. -- at least seen the one from September,
9 which I think is the same.

10 MR. WECHSLER: Jim, sorry to interrupt.
11 I would suggest making that exhibit sticker PB as in
12 boy instead of G as in go cart.

13 MR. DUBOIS: Oh. Thank you for catching
14 that.

15 MR. WECHSLER: Peggy, if you go all the
16 way to the top --

17 MR. DUBOIS: Yes, please make that a PB,
18 not a PG.

19 THE VIDEOGRAPHER: Sorry. We're
20 fighting over it right now. Peggy, hang on one
21 second, and I'll change it.

22 THE WITNESS: Thanks.

23 Q. (BY MR. DUBOIS) And, Dr. Barroll, if you'll
24 go down to Pages -- I guess it would be on Page 13 for
25 purposes of -- of your topics.

Texas
Affirmative

1 A. That's right.

2 Q. And my understanding is that you've been
3 identified to -- to testify regarding Topic C?

4 A. That's correct.

5 Q. And the first bullet in Topic D; is that
6 correct?

7 A. Yes.

8 Q. Okay. Now, are there any other topics that
9 you've been prepared -- that you're prepared or
10 authorized to respond to for purposes of the 30(b)(6)?

11 A. No, I don't think that I'm authorized to
12 respond on any other topics.

13 Q. All right. And do you understand that you're
14 testifying as if you are the voice of the State of New
15 Mexico for purposes of this deposition so you're
16 testifying as to the positions of the State and those
17 positions will be binding on the State; do you
18 understand that?

19 A. Yes, I do.

20 Q. Okay. And you also testified as an
21 independent consultant in this case, but you're here
22 today -- are you here today as an independent
23 consultant or are you just speaking on behalf of the
24 State of New Mexico?

25 A. I'm speaking on behalf of the State of New

1 Mexico.

2 Q. Okay. And should we understand that the --
3 well, let me rephrase that.

4 Does -- does your role as a 30(b)(6) deponent
5 today change any of the responses that you gave at
6 your -- your prior depositions as an expert witness in
7 this case?

8 A. No, it does not.

New Mexico
Counter De...

9 Q. Okay. So should we understand the opinions
10 you gave as an independent consultant are also the
11 views of the State of New Mexico?

12 MR. WECHSLER: Well, I'll just object to
13 form. Yeah, to the extent that they are on the same
14 subject, Jim, I mean, there was a lot of subjects she
15 covered in her deposition, and I don't know that they
16 overlap with her designations.

17 MR. DUBOIS: Fair enough. Fair enough.

18 Q. (BY MR. DUBOIS) What did you do to prepare
19 for the deposition today?

20 A. I reviewed a number of documents and I talked
21 with the District 4 staff and I talked with counsel
22 and some of the state engineer office lawyers.

23 Q. Did you review any depositions in preparing
24 for today's deposition?

25 A. Yes, I did. I --

1 Q. Any deposition transcripts. I'm sorry.

2 A. Yes. I reviewed Ryan Serrano's deposition,
3 Cheryl Thacker's deposition, and Estevan Lopez's
4 30(b)(6) deposition.

5 Q. Okay. And who did you meet with from the
6 state -- from the state engineer's office?

7 A. Ryan Serrano.

8 Q. Okay. And what kind of documents -- oh, I'm
9 sorry. Go ahead.

10 A. And also Dave Hotstef [phonetic] from
11 Hydrographic Survey.

12 Q. Okay. And which counsel did you meet with?

13 A. Shelly Dalrymple and Jeff Wechsler.

14 Q. Okay. And you said you -- you reviewed a lot
15 of -- a number of documents. Can you tell me what
16 kind of documents you reviewed?

17 A. The AWRM statute and a few related statutes,
18 the AWRM general statewide rules, the water master
19 order -- metering order, and a few other associated
20 administrative documents associated with the Lower Rio
21 Grande like the Mesilla guidelines and domestic well
22 order, 101 Settlement.

23 Q. Have the AWRM regulations for the Lower Rio
24 Grande been adopted?

25 A. There have not been district-specific

1 regulations for the Lower Rio Grande that have been
2 adopted. There is statewide framework rules and
3 regulations which have been adopted and were succeeded
4 in the constitution in the New Mexico Supreme Court.

5 Q. How are those statewide regulations applied
6 in the Lower Rio Grande?

7 A. They were applied in that they help frame the
8 role of the water master in the Lower Rio Grande. It
9 was kind of almost simultaneously with these framework
10 rules that we appointed the water master, but the
11 water master of the Lower Rio Grande is in accordance
12 with the framework rules on the metering order for the
13 Lower Rio Grande, again, is in accordance with the
14 framework rules, and I think the framework rules do
15 inform the activities of the water master, which are
16 ongoing.

17 Q. Under the Rio Grande Compact, what obligation
18 does the state of New Mexico have with respect to
19 administration of water rights downstream from
20 Elephant Butte Reservoir?

21 A. My understanding from -- especially from
22 listening to Estevan Lopez and rereading his
23 deposition, that New Mexico's Compact responsibilities
24 below Elephant Butte involve one cooperating with
25 Reclamation and the Project in the effectuation of the

1 distribution of the project.

2 Q. What do you mean by New Mexico has the
3 responsibility not to interfere?

4 A. I would say to not pass laws or -- I mean, to
5 -- to ensure that New Mexico's laws and rules and
6 regulations are consistent with the needs of the --
7 the project's distribution of surface water. To work
8 in good faith with the project, like, for example,
9 when Reclamation EBID wanted to add a point of
10 diversion in one of the wasteways, we ended up coming
11 to an understanding with Bureau of Reclamation as to
12 how that fit into their --

13 Q. Does -- does New Mexico have any obligation
14 to administer non-project surface rights to -- let me
15 rephrase that one.

16 Does New Mexico have any obligation to
17 administer water rights in the State of New Mexico to
18 protect or administer the surface water supply of the
19 Rio Grande project once water has been stored in
20 Elephant Butte reservoir?

21 MR. WECHSLER: Object to form.

22 A. Well, the surface water system has been fully
23 appropriated in the Lower Rio Grande and has been
24 since 1907 -- 1908 is my understanding. And so New
25 Mexico cannot grant any additional surface water

1 rights, and New Mexico must enforce against illegal
2 surface water diversions that would be adverse to the
3 project.

4 Q. (BY MR. DUBOIS) What do you mean that the
5 surface water system has been fully appropriated since
6 1907 or 1908?

7 A. I believe that is when the U.S. filed a
8 letter with the territorial engineer appropriating all
9 the surface water of the Rio Grande.

10 Q. But -- but what does fully appropriated mean
11 to you?

12 A. To me, it means that we cannot issue or allow
13 any additional appropriations of surface water and --
14 yeah, I think that's what it means.

15 Q. Okay. So all -- all of the surface water in
16 the Rio Grande has been allocated by appropriation as
17 of that date? Would that be another way of saying
18 that?

19 A. Yes. That's my understanding.

20 Q. Okay. So does New Mexico have any obligation
21 to assure that the usable water released from storage
22 in Elephant Butte reservoir is delivered to the Rio
23 Grande Project below Elephant Butte reservoir?

24 MR. WECHSLER: Object to form.

25 A. Well, as soon as the water -- as soon as

1 usable water is released from storage, it is, in fact,
2 usable water or project supply.

3 Q. (BY MR. DUBOIS) So does the State of New
4 Mexico have any obligation to assure that the usable
5 water that's released from storage is delivered to the
6 project below Elephant Butte?

7 A. I believe that if the Compacting parties or
8 project beneficiaries believe there's a problem in the
9 delivery of project water caused in New Mexico, that
10 New Mexico has the obligation to address that, either
11 as a Compact issue or as a water rights administration
12 issue.

Texas
Affirmative

13 Q. Okay. Does New Mexico take any steps to
14 administer water rights in the Rio Grande basin below
15 Elephant Butte to assure that the project water supply
16 is not depleted or reduced by non-project water users
17 in New Mexico?

18 A. New Mexico takes many steps to administer
19 water below Caballo, below Elephant Butte, in order to
20 protect the water users and protect the project, such
21 as enforcing against illegal diversions, metering
22 groundwater, enforcing against over diversions, our
23 application process by which no additional
24 appropriations can be approved without offsets. There
25 are many steps New Mexico takes for administering

1 water below Elephant Butte.

2 Q. Okay.

3 A. New Mexico does not have an obligation to
4 ensure that no depletions occur.

5 Q. You said that New Mexico has a -- an
6 obligation to prevent over diversion. What are you
7 defining as over diversion?

8 MR. WECHSLER: Object to the form.

9 A. Over diversion would be an excess of the
10 limit of a water right.

11 Q. (BY MR. DUBOIS) And that limit is set by a
12 permit or license? I don't recall exactly what New
13 Mexico calls them.

14 A. Yeah. It depends. We have both permits; we
15 have licenses. But, for example, in the case of
16 irrigation groundwater use, those are set by the 101
17 rule -- sorry -- by the -- the judge's order, the
18 final statement of the judge in the Stream System 101
19 case at the New Mexico adjudication.

20 Q. And so --

21 A. And that's --

22 Q. So that would be -- as I understand it, over
23 diversion under Stream System 101 would be if the
24 diversions exceed either four-and-a-half or
25 five-and-a-half acre-feet per acre?

1 A. That's correct.

2 Q. Is that correct? All right. And so you -- I
3 was just -- I was trying to scratch things down
4 because I don't go nearly as fast as Heather does.
5 You said that the State takes administrative action to
6 -- to prohibit illegal diversions. That was one
7 thing, I think; is that correct?

8 A. Yes. Yes.

9 Q. What are illegal -- what are illegal
10 diversions?

11 A. It can be a broad term, but I -- what I meant
12 in particular was diversions by people who don't have
13 water rights.

14 Q. Okay. And how often has that occurred in the
15 last ten years?

16 A. I believe we've been -- had a case sort of
17 dragging for a number of years involving an illegal
18 river pumper that was shut down.

19 Q. Okay. And you mentioned that in -- can you
20 think of any other -- aside from the river diverter
21 that you're talking about that action was taken
22 against, can you think about -- of any other
23 situations in which illegal diversion -- diverters
24 were attempted to be shut down?

25 A. As far as diversions without water rights,

1 that's the most recent case I know of. I think there
2 have been other cases involving maybe the highway
3 department pumping water out of the river without a
4 water right, and I believe we had some dealings with
5 IBWC about their diversions from the Rio Grande
6 without water rights.

7 Q. All right. The second thing you mentioned
8 was over diversions, and as I understand it, over
9 diversions, as you've defined it, is taking water in
10 excess of the permitted 4-and-a-half or 5-and-a-half
11 acre-feet per acre; is that correct?

12 A. That's correct.

13 Q. Okay. And what's the -- what's the process
14 for -- run me through how that occurs. You've got a
15 pumper, and let's say in 2019, that pumper exceeded --
16 took too much water. That's just sort of my starting
17 point for this. I don't care what the number is.
18 Let's say you took 6 acre-feet. I don't care. How
19 would the -- how would that enforcement occur? Is it
20 -- is the over diversion determined in realtime or at
21 the end of the irrigation season?

22 A. Most often, it is determined at the end of
23 the irrigation season. In some instances, the water
24 master has enough data to tell that someone is
25 approaching their limit and tries to work with them

1 which usually in the first pass, there are a few data
2 points which were erroneous, meter entries, and then
3 work with, again, the agreeable water right owners to
4 come up with a repayment plan, which involves
5 generally that water right diverting less in the year
6 following the under diversion -- the over diversion.
7 Noncooperative water right owners are their -- a
8 packet that's set up to send up to the legal division
9 of the state engineer's office and the enforcement
10 action through the legal division is begun, and often
11 that happening and getting a letter from a lawyer will
12 cause water right owners to become more agreeable and
13 work out a repayment plan for the water master. In
14 general, there are approximately on the order of 200
15 over diversions in a given year, and they are dealt
16 with by the water master through water master local
17 enforcement, most of them, and then he will send
18 recalcitrant ones up to the legal unit of the state
19 engineer's office in Santa Fe, and that total number
20 of enforcement actions that he requests from the legal
21 division varies from 1 to 30 per year, and that would
22 include over diversions and, say, violations -- other
23 violations of the metering order.

24 Q. So if you've got, I think you said about 200
25 over diverters every year, that would have caused --

1 let's take my example 2019, just as -- so I can put
2 some framework on it so I can put some context on it.
3 In 2019, you had roughly 200 people who over diverted.
4 That would cause a shortage to other rights in 2019;
5 is that right?

6 A. Not necessarily. There's a lot of -- there's
7 over diversion, and there's a lot of farmers who do
8 not divert up to their limit. That depletion doesn't
9 necessarily equal impairment so --

10 Q. There's less water available to somebody
11 else, including the surface water users potentially,
12 if you've got over diversion in year one; isn't that
13 right?

14 A. Potentially.

15 Q. Okay. All right. How does it help those
16 folks who have less water available to them in my 2019
17 hypothetical to have additional water in 2020? How
18 does that protect the senior users?

19 A. Again, the water right owner who has over
20 diverted generally only becomes an over diversion by
21 the end of the year, and the stream impacts that the
22 over diversion may even occur after the surface water
23 system, EBID surface water system, EP No. 1 project as
24 a whole has shut down so it's not necessarily going to
25 cause the impact of the surface water system that's

1 being used by water right holders in the same year.

2 Q. Okay. You talked -- so we talked about
3 illegal surface -- illegal diversions, illegal
4 non-permitted diversions, talked about over diversion.
5 I think you mentioned a third administrative practice
6 to -- to assure that water is delivered. Let's -- am
7 I missing that? I thought you -- I thought you
8 mentioned something else, as well.

9 A. Yeah, I -- I may have mentioned the normal
10 permitting process by which we evaluate water right
11 applications we don't allow appropriations without
12 offset. Is that it?

13 Q. That might have -- that might have been it.
14 Let's talk about that for a minute. The -- the
15 offsets are required for permits only issued after, is
16 it 1980?

17 A. Offsets are --

New Mexico
Counter De...

18 Q. Let me just -- let me just -- let me just
19 back up and break that down a little differently. Are
20 offsets required for all water rights?

21 A. No.

22 Q. Okay. What water rights are offset required
23 for?

24 A. New appropriations after the declaration of
25 the Lower Rio Grande under groundwater basin in -- in

1 1980 and 1982.

2 Q. Okay. So --

3 A. And the use of inchoate -- the -- the
4 expansion of inchoate declared water rights that would
5 have been declared, have had declarations prior to
6 1980, expansion of the use beyond 1980 level of the
7 inchoate part.

8 Q. Explain that last part to me, please.

9 A. I only know it from a couple of water rights
10 that relates to.

11 Q. Okay.

12 A. And their NI, you know, non-irrigation water
13 rights, in which the -- I believe the court recognized
14 under the -- I forget which doctrine it is, but you
15 have a certain amount of time to make beneficial use
16 of the water you've declared after the declaration of
17 a basin, that the water right that had been already
18 put to use under the declaration was X, that they
19 would recognize the water right of Y, and the part
20 they hadn't used yet, they are required by the state
21 engineer's office to get offset for when they do use
22 it, and that's a water right associated with, like, a
23 CR RUA and Southern New Mexico Water Utility.

24 Q. Okay. So as I understand it, no offsets are
25 required for either water rights that were in

New Mexico
Counter De...

1 existence prior to the declaration of basin closure,
2 let -- let's just assume 1980 for purposes. I don't
3 really care if it's '80 or '81, and for the perfection
4 of inchoate rights that were declared before 1980, but
5 not perfected before 1980. Is that --

6 A. Offsets are required for the perfection of --

7 Q. Oh, okay. Okay. My misunderstanding.

8 That's why I was asking.

9 A. Yes.

Texas
Affirmative

10 Q. So for the pre-1980 water rights, no offsets
11 are required, regardless of when the appropriation was
12 made; is that correct?

13 A. That's correct.

14 Q. So for all of the water rights that were --
15 that were appropriated between 1908 and 1980, there is
16 no offset required?

17 A. That's correct.

18 Q. Regardless of whether they deplete the flows
19 of the Rio Grande or not, right?

20 A. That's correct.

21 Q. Okay. And the only enforcement of those
22 water rights is to make sure that they do not exceed
23 the permitted amount of under Stream System 101,
24 4-and-a-half to 5-and-a-half acre-feet of water per
25 acre; is that correct?

1 MR. WECHSLER: Object to form.

2 THE REPORTER: I'm sorry, Jeff, did you
3 object?

4 A. That the only -- of those water rights.

5 There's lots of different areas --

6 Q. (BY MR. DUBOIS) That -- that broke -- your
7 answer just broke up on my audio, and I just want to
8 make sure that Heather got it rather than -- and maybe
9 we need to re-answer because it did break up there.

10 MR. DUBOIS: Heather, did you get that?

11 THE WITNESS: Doesn't look like it.

12 THE REPORTER: I was trying to ask Jeff
13 if he objected. They -- y'all spoke over each other
14 so I need to make sure y'all are speaking one at a
15 time.

16 MR. WECHSLER: I did object.

17 MR. DUBOIS: Yeah, I apologize. Yeah.
18 And I do - I do apologize, but it just seemed like it
19 all kind of broke up, and I lost that.

20 Q. (BY MR. DUBOIS) So going back to my question,
21 and we'll start over again and try it again. The only
22 enforcement of those water rights is to make sure they
23 do not exceed the permitted amount of, under Stream
24 System 101, 4-and-a-half to 5-and-a-half acre-feet of
25 water per acre; is that right?

1 MR. WECHSLER: Object to form.

2 A. Let's -- those water rights that were
3 existence and being exercised prior to 1980 do not
4 have any offset requirements, and the state engineer
5 does enforce against over diversion of those water
6 rights. There may be other areas of enforcement that
7 occur as to drilling new wells, transfers. I mean,
8 there is administration of those water rights. I
9 think the statement that there's no enforcement of --
10 of those water rights might be a little broad, and
11 then furthermore, if necessary, the state engineer can
12 administer water rights in priority to curtail water
13 rights in priority, if necessary.

14 Q. (BY MR. DUBOIS) Has that ever been done in
15 the Lower Rio Grande?

16 A. There certainly has not been any curtailment
17 of groundwater rights in priority in the Lower Rio
18 Grande.

19 Q. Prior to the adjudication of water rights in
20 the Lower Rio Grande, did the state engineer have
21 authority to administer a priority call?

22 MR. WECHSLER: Object to form;
23 foundation.

24 A. This might be getting into a legal issue. I
25 believe that in the tri-state decision, the New Mexico

1 Supreme Court may have decided that the --

2 Q. (BY MR. DUBOIS) That was in, what, two
3 thousand -- that was in 2012?

4 A. 2003.

5 Q. Okay.

6 A. Oh, the decision was in 2012. It's -- I
7 mean, the question did -- did the AWRM statute give
8 the state engineer the authority to administrative
9 priority prior to an adjudication being completed or
10 did the state already have that -- state engineer
11 already have that authority under the constitution,
12 and the statute just made it more clear that the state
13 engineer has the authority and the state engineer
14 instructions to get at it to begin the process as
15 necessary to do that. I think the State's position is
16 that the state engineer, under the constitution and
17 statute, has always had the authority to administer in
18 priority.

19 Q. And how would you determine administer in
20 priority should not have adjudication?

21 A. Yeah. That is -- to address that issue is
22 part of what the AWRM statute and framework --
23 framework rules were written to address and in the --
24 the general framework rules, there's a section on how
25 that determination would be made based on the best

1 available information starting with adjudications and
2 -- and going on down the list. But prior to the AWRM
3 statute and the regs, again, I think it is the
4 position of the State of New Mexico that the
5 constitution gives the State to administer -- the
6 state engineer the authority to administer in
7 priority, and the state engineer would have indeed
8 used the best information available to him to perform
9 that administration.

10 Q. Does the State of New Mexico have any
11 policies or administrative practices in place to
12 ensure that non-project water rights in the Rio Grande
13 basin below Elephant -- in New Mexico below Elephant
14 Butte do not reduce or diminish the surface water
15 supply available to EBID?

16 MR. WECHSLER: Object to form.

New Mexico
Counter De...

17 A. The State of New Mexico has policies and
18 administrative practices in place to manage
19 non-project water rights in the Rio Grande basin below
20 Elephant Butte. The purpose of that administration is
21 to protect senior water rights and the Rio Grande
22 Project.

Texas
Affirmative

23 Q. (BY MR. DUBOIS) Have those policies or
24 administrative practices ever been applied or enforced
25 to prevent reduction or diminishment of the surface

1 water supply to the project?

2 MR. WECHSLER: Object to form.

3 A. There has been no priority administration

4 applied in the Lower Rio Grande to curtail water

5 rights that might impact the Rio Grande Project, but

6 there is, again, no -- New Mexico did not have an

7 obligation to prevent all depletions. New Mexico has

8 a right -- water users in the state of New Mexico have

9 a right to deplete water.

10 Q. (BY MR. DUBOIS) Did they have a right under
11 state law to take water away from the project?

12 MR. WECHSLER: Object to form.

13 A. Water users are -- water users in New Mexico

14 cannot divert water that they're not entitled to and

15 so that water users who do not have legal authority

16 cannot divert surface water away from the Rio Grande

17 project if groundwater use is impacting the Rio Grande

18 project, then it would be necessary to, I believe, New

19 Mexico would have to -- sorry. Groundwater use

20 depleting the project were alleged, it would have to

21 be investigated and demonstrated. Groundwater

22 depletions negatively impacting the project

23 demonstrated the New Mexico remedied the priority

24 administration, but this has not occurred.

25 Q. (BY MR. DUBOIS) There hasn't been any

New Mexico
Counter De...

1 investigation that demonstrates that groundwater
2 pumping in New Mexico depletes the flows of the Rio
3 Grande?

4 MR. WECHSLER: Object to form.

5 A. Which investigate and quantify, simulate the
6 impact of groundwater pumping on surface water flows.

7 Q. (BY MR. DUBOIS) I think -- I think you and
8 Jeff spoke at the same time, and I think the response,
9 looking at the transcript, missed the first part of
10 your answer.

11 A. There have been investigations in New Mexico
12 which quantity, investigate, simulate the impact of
13 groundwater pumping on surface water flows. In fact,
14 some of those investigations have been done as part of
15 this litigation by New Mexico experts.

16 Q. Okay.

17 A. And then simulations of the sort was involved
18 in development of the groundwater model used for
19 administration of groundwater rights in the Lower Rio
20 Grande.

21 Q. And I think that you just said that if those
22 investigations demonstrated groundwater depletions
23 negatively impacting the project, that the -- that New
24 Mexico would be required to apply priority
25 administration; is that my understanding?

1 MR. WECHSLER: Object to form.

2 A. I -- I don't think that's what I said. I
3 said if --

4 Q. (BY MR. DUBOIS) Okay.

5 A. -- negative impacts were alleged, and by
6 this, I mean through, say, a priority call or other
7 official complaint alleged and then investigation
8 demonstrated, in fact, that this indeed was a problem,
9 that the depletions occurring from groundwater pump --
10 pumping were impairing the project, then New Mexico's
11 remedy would be priority administration.

12 Q. And does New Mexico have any obligations
13 under the Compact to assure that its non-project water
14 rights don't deplete the project water supply?

15 MR. WECHSLER: Object to form.

16 A. So I -- I guess I base my answer on the
17 opinions that Mr. Lopez prefer -- proffered and that
18 that might be the case and that it's -- so, again, New
19 Mexico is obligated to work in good faith with the
20 Compacting states, with the U.S., with the project
21 resolve issues that are brought to it -- that are
22 brought to New Mexico about the actions -- about the
23 actions of New Mexico water users or the hydrologic
24 conditions within New Mexico.

25 Q. (BY MR. DUBOIS) I'm trying to avoid

1 of the Rio Grande Project to be more transparent so
2 that we could actually track what is an interstate
3 delivery from EP No. 1, but we have never been
4 successful in convincing Reclamation that this would
5 be a good idea.

6 Q. And New Mexico's never put in its own gages
7 as far as any points they have access to?

8 A. New Mexico generally has the USGS put in the
9 gages as we want things gaged, and there are indeed
10 gages on the Rio Grande above Texas.

11 Q. Okay. But none of -- I'm sorry?

12 A. I think there are also gages on some drains
13 and canals passing into Texas in the southern Mesilla
14 basin.

15 Q. Okay. And the gages on the Rio Grande above
16 Texas are close to the border, not close to the
17 border? I mean, saying it's gages on the Rio Grande
18 above Texas, there's about a hundred miles of river
19 between Elephant Butte and Texas, so I'm just trying
20 to get a sense of where those are.

21 A. Yeah. I'm not sure either. There have been
22 a number of them over the years, and I know -- don't
23 know exactly which ones are active right now. Of
24 course, the Courchesne gage, which is within Texas,
25 and it's either USGS or IBWC gage right now, I forget

1 which, does capture the delivery or rather captures
2 the flow of the Rio Grande into the El Paso Valley
3 quite well. It's -- but that's not, of course,
4 Compact delivery points, which are project delivery
5 points, which are deeper within Texas.

6 MR. DUBOIS: Okay. We've been going an
7 hour. Let's take a ten-minute break, Jeff, please.

8 MR. WECHSLER: Sure.

9 THE VIDEOGRAPHER: The time is 2:08. We
10 are off the record.

11 (Break.)

12 THE VIDEOGRAPHER: The time is 2:19 p.m.
13 We're on the record.

14 Q. (BY MR. DUBOIS) Dr. Barroll, I've just got a
15 few handful of follow-up questions, I think, and then
16 I will -- I will at least cut you loose. Whether any
17 others have additional questions, I don't know.

18 So as I understand what you've testified to,
19 New Mexico doesn't think it has an obligation to -- to
20 do anything to curtail junior users unless and until
21 someone complains -- the senior -- senior water user
22 complains? Is that an accurate statement?

23 A. I believe that 's a fair statement, yes.

24 Q. Okay. If Texas makes a complaint, is it
25 Texas' burden to investigate surface water depletions

1 within New Mexico's borders after Texas makes a
2 complaint or is it solely up to the State of New
3 Mexico?

4 A. I believe the Texas -- I believe in general,
5 no, it would not be Texas' responsibility to do that
6 investigation, though, of course, it would be helpful
7 for the complaining party to provide whatever evidence
8 they had regarding their complaint.

9 Q. But it's New Mexico's position that New
10 Mexico is the party that would determine whether the
11 complaint was valid or not?

12 A. I would say in general, in that priority call
13 within the state, it would be the state engineer who
14 would determine whether the call was valid.

15 Q. Okay.

16 A. In the context of Texas and an interstate
17 matter with the Compact, I believe it would go to the
18 Compact Commission to determine whether action needed

New Mexico
Counter De...

19 to be taken. And I guess I would like to make the
20 distinction based on what I was saying earlier, you --
21 you talked about models used to calculate depletions
22 to flow, and our models can and do do that, and that's
23 not always exactly the same as impairment to a senior
24 or other ground -- or -- or other surface water user.
25 Depletion does not always equal impairment. There can

1 be depletions that occur that do not result in any
2 impairment, and what involved in a priority call would
3 be that the senior user was, in fact, impaired, not
4 just the fact that depletions occurred.

5 Q. Okay. If -- if the United States places a
6 call on behalf of the project during the irrigation
7 season, my understanding is what you've said is that
8 the state engineer would then make an investigation of
9 the validity of the call; is that correct?

10 A. I believe that's -- that would happen. It
11 could also just the U.S. making a call on behalf of
12 the project might end up in the Compact commission, as
13 well.

14 Q. So the Compact Commission would assert the
15 duties of the state engineer? I don't understand
16 that?

17 A. Well, I think we're -- we're speculating as
18 to how it would play out, but it seems to me that the
19 Reclamation operating the project which implements the
20 Compact and makes the Compact deliveries, if the -- if
21 Reclamation is complaining they cannot make those
22 Compact deliveries because of actions of New Mexico,
23 that might become a Compact matter that ends up with
24 the Compact Commission and not solely with the
25 engineer.

1 Q. All right. Assume with me for the sake of
2 argument that the United States holds water rights
3 that are, as you pointed out, an appropriation of all
4 of the surface flow, so fully appropriated -- the Rio
5 Grande is fully appropriated as of 1907 or '8 or '3.
6 Let's just -- that's basically what you already
7 testified to, right?

8 A. I -- if I did, I think I might not have quite
9 said it correctly. I don't think the U.S. holds water
10 rights. I think they have a right to store and
11 release water and that the project itself or project
12 end users have water rights and the U.S. has a state
13 -- had recognized the right to impound and re-impound
14 and release and deliver, move the water around.

15 Q. So it's your assertion that the United States
16 couldn't place a call? Is that what you're saying?

17 A. No, I'm not saying that. I believe -- I
18 believe that if the state had -- if the state -- if
19 the United States had believed that actions of New
20 Mexico were making it difficult to make those Compact
21 deliveries that it is entrusted or that it is
22 connecting or making, that they could make a complaint
23 to New Mexico, and it might become a Compact matter
24 with the Compact Commission, but I'm not -- I'm not
25 saying they would not have grounds to make that

1 complaint. I don't know that it is a priority call on
2 behalf of their 1903 water right is all I'm saying.

3 Q. So you're -- is it New Mexico's position that
4 it does not believe that the United States could place
5 a call on behalf of the project?

6 MR. WECHSLER: Form and foundation.

7 A. I think I stated that they could indeed make
8 a complaint that is either a priority call or
9 analogous to a priority call to protect the operations
10 of the project, which are implementing the Rio Grande
11 Compact.

Texas
Affirmative

12 Q. (BY MR. DUBOIS) So if the U.S. placed a call
13 on behalf of the project, how long would an
14 investigation of that call take?

15 A. I don't know.

16 Q. Okay. If the state engineer determined that
17 a call was valid, the state engineer would then make a
18 determination about curtailments in some fashion; is
19 that right?

20 A. That's right. The state engineer --

21 Q. And how long would -- go ahead. I'm sorry.

22 A. The state engineer would make a determination
23 as to what amount of curtailment was necessary, what
24 volume of water, say, was necessary to address the
25 call and probably involving use of groundwater models

1 to take into account any delays as to when the water
2 -- the water associated with curtailing groundwater
3 rights would show up back in the river and would come
4 up with -- he would be tasked with determining the
5 administration date and water rights junior to that
6 date would be curtailed.

7 Q. Any idea how long it would take to come up
8 with that kind of an analysis and plan?

9 A. I don't know. But the tools we've developed
10 as part of settlement talks and as part of our
11 litigation have definitely made it within striking
12 distance that we should be able to perform such an
13 analysis expeditiously.

14 Q. What do you -- what do you define as
15 expeditiously?

16 A. Within months rather than years.

17 Q. Do you recall Mr. Lopez's characterization of
18 Texas' complaint in this action as a formal complaint
19 for purposes of the Compact?

20 A. Yes.

21 Q. Okay. Do you agree?

22 A. Yes.

23 Q. Okay. What has New Mexico done since Texas
24 has filed its complaint to address Texas' concerns?

25 A. Well, we have been investigating the validity

1 of Texas' concerns in extensive detail, and we have
2 made certain determinations as to the validity of
3 Texas' concerns. We, I would say, agree with Texas in
4 that there is a problem in the Lower Rio Grande in New
5 Mexico. We disagree as to the causes of the problem,
6 but New Mexico is acting to try and mitigate this
7 problem through a pilot project, which is currently
8 underway to reduce depletions through groundwater in
9 the Lower Rio Grande in New Mexico.

10 Q. And would you say the U.S. complaint in this
11 action is a complaint for purposes of the Compact or
12 for purposes of a call within the state?

13 A. I would --

14 MR. WECHSLER: Object to form.

15 A. Yes, I believe so.

16 Q. (BY MR. DUBOIS) Okay. And what's New Mexico
17 done since the U.S. filed its complaint to address the
18 U.S. concerns?

19 A. The same things that I described just above.

20 MR. DUBOIS: I don't have anymore
21 questions for you, Dr. Barroll. Thank you.

22 THE WITNESS: Wow.

23 MR. DUBOIS: I said it was only a
24 handful. Take two handfuls, but handful. Ms. Klahn?

25 MR. BROCKMANN: Jim, before you hand it

1 off. This is Jim Brockmann. I mentioned on break
2 that --

3 MR. DUBOIS: I'm sorry. Yes. I did
4 forget, Mr. Brockman, so go ahead, Jim. I apologize.

5 MR. BROCKMANN: Yeah, I just wanted to
6 indicate that I have been on since noon. I was having
7 some microphone problems but wanted to make sure I
8 entered my appearance on behalf of the Albuquerque
9 Bernalillo County Water Utility Authority, and also
10 for the City of Las Cruces. I don't know if there
11 will be a separate transcript, but I was actually on
12 this morning, too, with the same issue. But thanks
13 for letting me get it noted at this point in the
14 deposition.

15 MR. DUBOIS: And my apologies.
16 Mr. Brockmann talked to me on the break, and I got
17 lost in my own -- in my own head in my questions and
18 forgot about it so my apologies.

19 MR. BROCKMANN: No problem.

20 MR. DUBOIS: Ms. Klahn?

21 MS. KLAHN: All right. Are you ready to
22 proceed, Ms. Barroll -- Dr. Barroll?

23 THE WITNESS: Yes.

24

25

1 E X A M I N A T I O N

2 BY MS. KLAHN:

3 Q. All right. I'm Sarah Klahn. I represent the
4 State of Texas. I have a few follow-up questions from
5 what Mr. Dubois asked you. At the beginning of the
6 deposition, he asked you what you had done to prepare
7 for the deposition, and you mentioned looking at the
8 AWRM statute and the statewide framework rules. Which
9 section of your topics that you're authorized to
10 testify about on behalf of the State of New Mexico do
11 -- do you understand the AWRM statute and framework
12 rules to fit under? And feel free to -- I think it
13 was Exhibit 1.

14 A. I think I've got a copy. I believe it's C.

15 Q. Okay.

16 A. 1, 2, and 3.

17 Q. And the water master order was another
18 document you specifically mentioned?

19 A. Yeah.

20 Q. That would be under Topic C or Topic D?

21 A. I'd say it relates to C.

22 Q. Okay. What documents did you review related
23 to Topic D, the first bullet point in Topic D?

24 A. I don't know that I reviewed any document
25 specifically for that point in addition to the ones I

Texas
Affirmative

1 was reviewing for Topic C.

2 Q. So as far as New Mexico's policies relating
3 to the administration of water delivered to EBID
4 pursuant to the 1938 contracts, what policies would
5 you point to that New Mexico has related to that
6 administration?

7 A. Well, the same policies and administration
8 mechanisms that I described earlier, the same policies
9 and administrative mechanisms we use for all water
10 rights in the Lower Rio Grande.

11 Q. So you don't distinguish between the contract
12 water delivered as part of Texas' Compact entitlement
13 and just a routine state water right?

14 A. So when I look at D1, it talks about New
15 Mexico policies relating to the administration of
16 water delivered to EBID pursuant to the 1938
17 contracts, the '70/80 operation and maintenance
18 transfer contracts, and the 2008 operating agreements.
19 Your question talked about delivery to Texas.

20 Q. No my question was -- I'm limiting my
21 question, first of all, to the first clause in that
22 bullet point, and that's New Mexico's policies related
23 to administration of water delivered to EBID pursuant
24 to the 1938 contracts between --

25 A. Okay.

1 Q. -- the United States and the districts. I'll
2 stop. That's all I want to talk about right now.

3 A. Okay. And delivery to EBID, though, you're
4 talking about delivery to Texas?

5 Q. The water that is delivered to EBID under the
6 contract is -- gets there as part of the Compact
7 entitlement that Texas is receiving in the Elephant
8 Butte reservoir; is that how you understand it?

9 A. Yeah. I guess -- I guess there is that --
10 that relationship, that the Compact delivery to
11 Elephant Butte is indeed described as delivery to
12 Texas. Yes. Okay. I'm following you.

13 Q. And the water that Texas is entitled to in
14 Elephant Butte Reservoir is the water that but for the
15 amount that EBID is entitled to under its contract on
16 New Mexico treaty, correct?

17 MR. WECHSLER: Object to form.

18 This is beyond the scope of her -- her
19 subjects.

20 MS. KLAHN: I'm trying to establish the
21 foundation to ask the question I asked five minutes
22 ago and trying to see if she understands the -- what
23 I'm asking. So that's where I'm going with this.

24 A. The administration of water below Elephant
25 Butte Reservoir is the same for all of the water

1 rights below Elephant Butte Reservoir. We do not have
2 a special administration for water associated with
3 water released pursuant -- that had been stored as
4 part of Texas' entitlement under the Compact.

5 Q. (BY MS. KLAHN) Okay. I'm going to work
6 backwards through the transcript and ask you some
7 follow-up questions about some things that Mr. Dubois
8 asked you. So that's what I'm doing is looking for
9 the spot. Towards the end of his questioning, he
10 asked you a question about the -- whether it was New
11 Mexico's position that New Mexico is the party that
12 would get to determine whether a complaint from Texas,
13 I think, was the point of his question at that point
14 was valid, and you went on to say that depletions that
15 occurred do not -- do not necessarily result in
16 impairment. Do you recall that?

17 A. Yes. I recall it.

18 Q. In the context of this litigation, both sides
19 have conducted groundwater modeling, which shows that
20 the groundwater pumping in New Mexico was depleting
21 the surface water of the Rio Grande; would you agree?

22 A. Yes.

23 Q. And would you also agree that even though
24 there's no disagreement, that New Mexico groundwater
25 pumping's depleting the Rio Grande, New Mexico doesn't

1 believe that the depletions impair Texas -- Texas'
2 entitlement; is that right?

3 A. We certainly do not believe there's a
4 one-to-one relationship between depletions and
5 impairment to Texas.

6 Q. What is the relationship?

7 A. It's very complex, and it depends on the
8 water supply conditions and the operations of the Rio
9 Grande Project. That's why we have the two -- you
10 know, the integrated model system in order to simulate
11 all of those parts of the system.

12 Q. So are some of those model runs, runs that we
13 should consider to be New Mexico's admission that
14 there's impairment to Texas?

15 MR. WECHSLER: Object to form.

16 A. I -- no. I think those model runs provide
17 quantitative results that would then feed into any
18 impairment determination.

19 Q. (BY MS. KLAHN) So speaking for New Mexico,
20 your position is that there is some impairment, but
21 you're looking to the Special Master to figure out
22 what that is; is that right?

23 MR. WECHSLER: Object to form. That
24 mischaracterizes her prior testimony.

25 A. Yes. I do not agree with what you said.

1 Q. (BY MS. KLAHN) Where did I go wrong?

2 A. I did not say that there was some impairment.
3 I said, instead, that the quantitative results coming
4 out of the model would then be used in an impairment
5 calculation determination.

6 Q. A few minutes ago, you told me that you don't
7 -- that New Mexico doesn't believe there's a
8 one-to-one relationship between depletions and
9 impairment and then you went onto tell me that the
10 relationship is very complex and referred to your
11 modeling. Is it -- is it your position as the State
12 of New Mexico that any of your modeling provides a
13 basis for finding impairment to Texas?

14 MR. WECHSLER: Object to form.

15 A. We believe that our modeling is the best
16 quantitative calculation of the effects of pumping in
17 Texas and in New Mexico on the Rio Grande Project and
18 thereby on -- on Compact -- on the Compact equities or
19 deliveries or performance.

20 Q. (BY MS. KLAHN) That didn't answer the
21 question.

22 A. I think that our model does form the best
23 basis for any findings related to impairment.

24 Q. And based on your earlier answer, it's the
25 State of New Mexico's position that there's some

1 impairment, but it's complicated; is that right?

2 A. No.

3 MR. WECHSLER: Object to form. Again,
4 mischaracterizes her testimony.

5 Q. (BY MS. KLAHN) So what did your statement
6 mean a minute ago that New Mexico doesn't believe
7 there's a one-to-one relationship between depletions
8 and impairment?

9 A. That just because depletion occurs does not
10 mean that there is impairment downstream.

11 Q. So is it New Mexico's position that there's
12 no impairment to Texas from groundwater pumping in New
13 Mexico?

14 A. I am --

15 MR. WECHSLER: Object to form.

16 A. -- not empowered to testify on behalf of the
17 State of New Mexico on that topic.

18 Q. (BY MS. KLAHN) So, again, towards the end of
19 Mr. Dubois' examination, he was asking you about the
20 State of New Mexico's administrative tools, if you
21 will, for assuring delivery of project water to EBID
22 and EPCWID, and your answer was that, "Water rights
23 are administered in order to protect existing water
24 uses and senior water rights, including the water
25 rights associated with deliveries with the Compact,

1 but the administration we do is not aimed at
2 particular deliveries." I wanted to follow up with
3 that. How can there be administration of water rights
4 that isn't aimed at particular deliveries? What do
5 you mean by that?

6 A. Well, that would seem to be part of the
7 question that Mr. Dubois was asking, what
8 administration did we do to protect particular
9 deliveries or particular flows, and the administration
10 we were performing in the -- in the Lower Rio Grande
11 is not aimed at protection of particular flows or
12 deliveries. Instead, it is normal water rights
13 administration that is aimed at over diversions,
14 stopping illegal diversions, not permitting additional
15 appropriations of water and so on and so forth, not
16 allowing transfers that would impair existing water
17 rights, all in the service of protecting existing
18 water rights and senior right -- water right holders.

19 Q. So is the sense then that if you do those
20 things, everything's going to be fine, and you don't
21 have to worry, and if somebody has a complaint,
22 they'll come to the state engineer and say you need to
23 curtail because I'm not getting my water?

24 A. Typically, if more active water rights
25 administration in priority is to occur, it is as a

1 result of a complaint of a senior who is not receiving
2 their water, yes.

3 Q. You mentioned a couple of times this concept
4 of water users getting together and developing an
5 alternative scheme. You also mentioned a pilot
6 program. Describe the pilot program and this
7 alternative scheme that you were referring to in your
8 testimony today.

9 A. Well, we did not have a fully developed
10 alternative scheme in the Lower Rio Grande. We -- at
11 the moment, we have a pilot program, which there are
12 hopes that might turn into the basis for an
13 alternative administration scheme. The existing pilot
14 program involves money from the State of New Mexico
15 that would be available to pay farmers in order to
16 fallow actively irrigated acreage and thereby reduce
17 groundwater depletions.

Texas
Affirmative

18 MS. KLAHN: Kayla, could you pull up the
19 document that is called ISC fallowing update? I'm
20 going to shut the door, so people can't hear my dogs
21 barking.

22 (Exhibit No. 2 was marked.)

23 Q. (BY MS. KLAHN) Can you see that?

24 A. Yeah.

25 Q. Okay. I can't because I think I've made my

1 Zoom thing go away again, but if you have control of
2 that, let's take a look at that together. This should
3 be marked as Exhibit 2, I think. Is that right?

4 A. Yes.

5 Q. Have you seen this memorandum?

6 A. I think I saw a draft of it.

7 Q. When was that?

8 A. Back in July.

9 Q. Did you review this before your deposition
10 today?

11 A. No.

12 Q. If you'd go down with me to -- it's a cover
13 memo, which the ISC staff apparently sent to the
14 Interstate Stream Commission asking for approval of
15 this project and then the report that follows is
16 provides some examples, as I understand it, of other
17 efforts around the west that the consultant was
18 looking at.

19 A. I haven't read that report.

20 Q. Are you familiar with any of the example
21 projects that the ISC staff are using as a basis for
22 the recommendation?

23 A. I'm -- I'm familiar --

24 Q. Go to PDF Page 12 -- 11, sorry.

25 A. PDF Page 11. I have some familiarity with

1 the Fort Sumner Irrigation District program, though
2 I've never worked on it. I am -- have some
3 familiarity with the Lower Arkansas Super Ditch. I
4 was and had presentations by people involved in that
5 system. I'm not familiar with the Upper Colorado
6 River System Conservation Program. I am familiar with
7 the Rio Grande Water Conservation District Subdistrict
8 No. 1. I've been up there, and I've also attended
9 meetings in which people involved in that system have
10 presented information on how -- how it works.

11 Q. Are any of these projects mandatory for the
12 water users; do you know?

13 A. Not to my knowledge.

14 Q. Is that the concept that New Mexico's looking
15 at, a voluntary project in the Lower Rio Grande?

16 A. Well, the pilot project is indeed voluntary.
17 A farmer wants to get money for fallowing voluntarily
18 would apply and the alternative administration
19 discussions I have been involved with have also
20 involved voluntary -- voluntary systems by which money
21 is paid to farmers who agree to fallow.

22 Q. Did this pilot project -- project arise
23 because of the litigation between Texas and New Mexico
24 in this case?

25 MR. WECHSLER: Object to form;

1 foundation.

2 Q. (BY MS. KLAHN) Do you know?

3 A. There were a lot of reasons that it has come
4 about in part due to the hydrologic conditions and
5 dropping groundwater levels in the -- the Lower Rio
6 Grande in New Mexico, and it's also because of the
7 current litigation and a lot of different causes that
8 are all related to each other.

9 Q. Is the price that New Mexico is looking at
10 paying equivalent to what a pecan farmer could get if
11 he kept his trees in production; do you know?

12 A. I don't know.

13 Q. Is the expectation that pecan farmers
14 wouldn't participate in this because they have
15 permanent cover crop?

16 A. That is the expectation, though we believe
17 it's possible that there may be some orchards that are
18 not doing well that might end up in the program.

19 Q. Has the State of New Mexico done any
20 evaluation of potential folks who would want to
21 participate in this based on what's known about the
22 problems they are having in their production or
23 something like that?

24 A. I do not think we have done any evaluation of
25 that nature about individual farmers' situations.

1 Q. How about any evaluation of potential acreage
2 that might be persuaded to get into this?

3 A. We have done evaluations of what potential
4 acreage we would consider for the program on the basis
5 of irrigation status, but we have not done any formal
6 evaluation of individual farmer interests. Instead,
7 we -- this program is being run together with the
8 Lower Rio Grande Water Users Group, and there have --
9 I believe that the water users group entities have
10 been working with the farmers and have information as
11 to interest among the farmers.

12 Q. When you said at the beginning of your answer
13 there that you have -- the I -- the State of New
14 Mexico has done evaluations of what potential acreage
15 you'd consider for the program on the basis of
16 irrigation status, what does that mean?

17 A. We have evaluated historical irrigation of
18 acreage on an acre-by-acre basis from the remote
19 sensing, NDVI, and other analysis done mostly as part
20 of the litigation technical work in order to ensure
21 that we are not paying the fallowed acre that is not
22 being irrigated.

23 Q. I see. Would the goal be to fallow acreage
24 that is using a lot of water so you'd get a lot of
25 bang for your buck?

1 A. I believe the program will treat acreage
2 equally.

3 Q. So it wouldn't pay more for land that was
4 fallowing or basically wouldn't pay more for -- for
5 ground that's not going to be using a lot of water, if
6 you will?

7 A. I believe we are not making that distinction.
8 I believe that all land that is -- satisfies the
9 requirement for irrigation, having been irrigated,
10 will be treated equally.

11 MS. KLAHN: Kayla, could you pull up
12 that deposition exhibit that Yolanda sent to you this
13 morning? It was a single-page agenda item -- or
14 agenda, sorry.

15 THE VIDEOGRAPHER: Let me make sure I'm
16 pulling up the right one. Hold on.

17 MS. KLAHN: It should say groundwater
18 conservation pilot program. It's a JPEG.

19 (Exhibit No. 3 was marked.)

20 Q. (BY MS. KLAHN) And you have to tell me if
21 it's up because I can't see it.

22 A. I can see it. It's up.

23 Q. And is it the document that relates to some
24 meetings that are scheduled for next week?

25 A. Yes, it is.

1 Q. Okay. How many meetings like this has the
2 State of New Mexico had in the Lower Rio Grande; do
3 you know?

4 A. So there have been internal meetings between
5 the state and water user group representatives and
6 lawyers. There have been a number of them, but I
7 don't know how many. There have been no public
8 meetings, as yet, to my knowledge.

9 Q. So even though this is going to be online,
10 this is the first public -- set of public meetings
11 that's scheduled?

12 A. To my knowledge, that is true.

13 Q. Do you have any understanding of the feedback
14 that farmers have given to the state about this,
15 farmers that you've been talking to anyway? What have
16 they said about this program?

17 A. My understanding is that the water users
18 group entities, which include the New Mexico diverse
19 crop farmers have been involving their farmers in
20 these plans and that they believe there is interest in
21 participation in this program.

22 Q. In the absence of the pilot project, does --
23 is it your understanding that the state engineer could
24 authorize a local group of water users like in the
25 Lower Rio Grande to come up with their own alternative

New Mexico
Counter De...

1 scheme for administering water rights?

2 MR. WECHSLER: Object to form.

3 A. Yes. I believe that it would be possible for
4 another group of water users to organize and come up
5 with an alternative administration scheme, which if
6 acceptable to the state engineer, could be approved as
7 alternative administration.

8 Q. (BY MS. KLAHN) Would that be under the AWRM
9 statute?

10 A. Yeah. Yes, it would.

11 Q. And that was an effort that was begun maybe
12 ten years ago or 15 years ago, not long after the AWRM
13 statute was adopted down in the Lower Rio Grande,
14 right?

15 A. What do you mean, what -- what effort?

16 Q. That wasn't a very com -- understandable
17 question. I apologize. I'm remembering a PowerPoint
18 that you did for the Lower Rio Grande water users
19 group from 2006 about 15 years ago was when the state
20 was looking at adopting local AWRM regulations; is
21 that correct?

22 A. That's correct. So you're right. Shortly
23 after the passage of the AWRM statute and -- and the
24 promulgation of the AWRM general framework regs, we
25 did do a push to try and get district-specific rules

1 in place in the Lower Rio Grande but that did not come
2 to fruition.

3 MS. KLAHN: Kayla, I e-mailed you an --
4 an exhibit that was marked in the Thacker deposition.
5 Could you pull that up.

6 THE VIDEOGRAPHER: Okay. It's pulled
7 up. I'm just going to mark it now.

8 MS. KLAHN: Thank you.

9 (Exhibit No. 4 was marked.)

10 MS. KLAHN: So this is going to be
11 Barroll 3 -- 4, right?

12 THE WITNESS: 4.

Texas
Affirmative

13 Q. (BY MS. KLAHN) Could you turn in this
14 document back to -- the document is Bates numbered,
15 and it -- you're welcome to take a look at it. It's a
16 packet of material we received from New Mexico in
17 discovery. It's Bates numbered, and it starts out
18 with while metering requirements. But if you go back
19 to New Mexico No. 210807, there's objectives -- list
20 of objectives. I don't know if you can hear my dogs.
21 I apologize. They're keeping us safe from the
22 mailman.

23 A. 807. Okay. Let me see if I can rotate this
24 sucker. I rotated it. Okay. So Objectives for Lower
25 Rio Grande District-Specific Regulations.

1 Q. So I want to draw your attention to Letter H.

2 We've talked a lot today about administration and how

3 it works with the Compact and -- Letter H on 210807

4 says that one of the objectives for Lower Rio Grande

5 District-Specific Regulations is to establish a system

6 for administration as required to meet downstream

7 interstate delivery entitlements.

8 A. Yes.

9 Q. Do you have an understanding what that

10 objective was aiming for?

11 A. My recollection is that at this time, I'm

12 uncertain as to whether there was a down -- any

13 Compact constraints or requirements below Elephant

14 Butte due to the language of the Compact being silent

15 or -- or, rather, at least not specifying -- sorry --

16 not specifying delivery targets below Elephant Butte.

17 So -- but we thought that that was possible to occur

18 and also thought, I think at the time we were trying

19 to be proactive, and we were trying to estimate what a

20 reasonable downstream delivery would be based on the

21 knowledge we had at the time and come up with an

22 administrative scheme that would allow us to try and

23 meet that.

24 Q. If the -- are you familiar with the draft

25 district-specific regulations, what the concept was

1 behind them?

2 A. Yes.

3 Q. Was it to drill groundwater wells within a
4 certain distance from the river?

5 A. In those rules, we did have -- we did
6 introduce a new administration scheme or propose a new
7 administration scheme, supply administration, and I
8 believe that was for a short-term temporary
9 curtailment of wells that were close to the river.

10 Q. And what --

11 A. In order to support the Rio Grande Project.

12 Q. And what was the reason for that approximate
13 -- or for that distance from the river for making them
14 based on the distance from the river?

15 A. Because wells that are a significant distance
16 from the river would not provide any effect on the
17 river within the short periods of time we were
18 thinking about the temporary administration.

19 Q. But the wells that are distant from the river
20 are still depleting the river, just taking longer for
21 the effect to hit the river, right?

22 A. Yes. This was a short-term administration
23 and, therefore, we were focused on wells that would
24 give a short-term response to the river.

25 Q. Was there any talk of curtailing or maybe not

1 entirely curtailing, but some curtailment of municipal
2 and irrigation wells -- I'm sorry -- municipal and
3 industrial wells?

4 A. Yes.

5 Q. For the City of Las Cruces?

6 A. I believe that some of their wells would have
7 fallen within that zone near the river for supply
8 administration and then, of course, the AWRM framework
9 rules also provide for depletion limit administration
10 and there was no restrictions on distance from the
11 river that were considered for the application
12 depletion limit administration.

13 Q. There was quite a bit of discussion at the
14 beginning of your deposition about the New Mexico
15 administration policies -- administrative policies to
16 avoid depleting EBID's surface water from what
17 Mr. Dubois was terming as non-project water rights.
18 Do you recall that?

19 A. Yes.

Texas
Affirmative

20 Q. Would you consider EBID farmers holding
21 groundwater rights to have non-project groundwater
22 rights?

23 MR. WECHSLER: Object to form.

24 A. Well, in that discussion, I assumed that
25 Mr. Dubois regarded EBID farmer pumping as not being

1 included in the non-project groundwater rights.

2 Q. (BY MS. KLAHN) I know. I'm -- that's --

3 okay. That's fine, but that's not what I was asking.

4 I was just asking the question what do you consider

5 non-project water rights in the Lower Rio Grande?

6 A. Well --

7 MR. WECHSLER: Form.

8 A. Yeah. It's -- I mean, the project itself

9 doesn't have groundwater rights, but I regard the EBID

10 farmers that are pumping wells as part of a combined

11 right with an EBID surface water right, I would

12 consider that as in the -- in the broader sense within

13 the universe of -- of project-related water rights. I

14 wouldn't consider them in the category of non-project

15 water rights.

New Mexico
Counter De...

16 Q. (BY MS. KLAHN) So in terms of New Mexico's

17 views on administering the Lower Rio Grande, you don't

18 consider curtailment of the EBID farmers as a means to

19 avoid depletions to the Rio Grande?

20 MR. WECHSLER: Object to form.

21 A. Well, I do not think that EBID farm pumpers

22 would be exempt from priority administration.

23 Q. (BY MS. KLAHN) Is conjunctive use one of the

24 policies that the State of New Mexico relies on in the

25 Lower Rio Grande?

1 MR. WECHSLER: Object to form.

2 A. Well, conjunctive use is occurring in the
3 Lower Rio Grande.

4 Q. (BY MS. KLAHN) Mr. Lopez and others have
5 spoken in glowing terms about conjunctive use in the
6 Lower Rio Grande. What do you understand conjunctive
7 use to mean?

8 MR. WECHSLER: Object to form.

9 A. Conjunctive use means use of, in this
10 context, of both a surface water right and a
11 groundwater right. Generally, a surface water right
12 is used first, and when surface water is not
13 available, then groundwater is used.

14 Q. (BY MS. KLAHN) Doesn't conjunctive use
15 typically assume two distinct sources of water? For
16 example, the City of Las Cruces, they have their water
17 rights in the Rio Grande alluvium, and they have the
18 groundwater rights in the Jornada Del Muerto, I think,
19 is how you say that, aquifer, which I've been told on
20 numerous occasions is not connected to the -- to the
21 river. That would be an example of a conjunctive use
22 project where they're using two separate sources of
23 water, correct?

24 MR. WECHSLER: Object to form.

25 A. I never thought of the City of Las Cruces'

1 use of those two aquifers as a conjunctive use
2 program, but I suppose you could consider it so. In
3 my experience, conjunctive use -- the term conjunctive
4 use is always -- the application I've seen of that
5 term has always been to surface water being used
6 conjunctively with groundwater.

7 Q. (BY MS. KLAHN) But if surface water and
8 groundwater are connected, it's not really
9 conjunctive, it's just supplemental, right?

10 MR. WECHSLER: Object to form; outside
11 the scope.

12 A. I think it's conjunctive and supplemental,
13 but I might be falling outside of the limits of my
14 understanding. There's another element of conjunctive
15 management I didn't mention, which was, I mean, part
16 of what we mean when we do conjunctive management of
17 New Mexico is the fact that when a new appropriation
18 is made in groundwater that will affect the surface
19 water, we require offsets. That's another element of
20 conjunctive management in New Mexico.

21 Q. (BY MS. KLAHN) And that's effectively what
22 has been imposed on cities, for example, so their
23 groundwater rights have offsets, right?

24 A. Right.

25 Q. But the groundwater rights for irrigators are

1 behalf this deposition is taken, nor in the regular
2 employ of this attorney; and I certify that I am not
3 interested in the cause, nor of kin or counsel to
4 either of the parties.

5
6 That the amount of time used by each party at
7 the deposition is as follows:

8 MR. DUBOIS - 01:16:41

MR. WECHSLER - 00:00:00

9 MS. KLAHN - 00:45:07

MR. HARTMAN - 00:00:00

10 MR. HICKS - 00:11:48

MS. BARNCASTLE - 00:00:00

11
12
13 GIVEN UNDER MY HAND AND SEAL OF OFFICE,
14 this, the 31st day of October, 2020.

15 

HEATHER L. GARZA, CSR, RPR, CRR

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Page.line	Change From	Change to	Reason
13.10	Hotstef	Hohstadt	Transcript error
14.3-4	"which have been adopted and were succeeded in the constitution and in the New Mexico Supreme Court."	"which have been adopted and were upheld by the New Mexico Supreme Court."	Transcript error/ I misspoke
15.19-20	"New Mexico has the responsibility no to interfere with at or not to – or to ensure that that can occur to work in _"	"New Mexico has the responsibility to ensure its legal and regulatory framework allows Reclamation to deliver Project and Compact waters"	Clarification
15.24-16.1	"To work in concert with Reclamation when it comes to whatever is necessary surface water distribution of the project."	"To work in concert with Reclamation as necessary to assist in the delivery of surface water by the project."	Clarification
18.1-2	"it is, in fact, usable water or project supply."	"it is, in fact, project water, or project supply."	Clarification
24.9		Add to end: "Furthermore, the normal operations of the project, as understood by New Mexico, ensure that project users are delivered what they order. Reclamation adjusts Project releases to ensure the water that has been ordered is in fact delivered, regardless of contemporaneous gains or losses to the stream system."	My answer was incomplete
32.17-24	"A. Water users are -- water users in New Mexico cannot divert water that they're not entitled to and so that water users who do not have legal authority cannot divert surface water away from the Rio Grande project if groundwater use is impacting the Rio Grande project, then it would be necessary to, I believe, New Mexico would have to --sorry. Groundwater use depleting the project were alleged, it would have to be investigated and demonstrated. Groundwater depletions negatively impacting the project demonstrated the New Mexico remedied the priority administration, but this has not occurred."	"A. Water users in New Mexico cannot divert water that they are not entitled to. Water users who do not have legal authority cannot divert surface water away from the Rio Grande project. If it is alleged that groundwater use in New Mexico is impairing the project, then New Mexico would investigate it, and if necessary, remedy it."	Incomplete answer, transcript error
37.7	"information"	"investigation"	Transcript error

37.17-18	"And I say all water rights would be curtailed..."	"When I say water rights would be curtailed..."	Transcript error
39.7	"No."	"Some model runs that have be made in current studies can address this issue."	Incomplete answer
39.23		Add to end: " However, stream depletions calculated by a groundwater model alone cannot determine the actual change in the flows in the Rio Grande because the flow of the Rio Grande to Texas is controlled by Reclamation's operations of the Rio Grande project, which changes response to changes in gains and losses to the stream system."	Incomplete answer
46.15		Add "In part it would depend on the nature of the call. If it were a call based on instantaneous under-delivery of water to Texas, such that Texas was not receiving its Compact apportionment, New Mexico would evaluate the evidence, and rapidly work to resolve the under-delivery by whatever means necessary, ideally in cooperation with Reclamation. If it were a call based on deficits to Project performance or Project efficiency caused by New Mexico, then a more comprehensive evaluation would probably be necessary, but much of the work needed for such an evaluation has taken place as part of past and present hydrologic studies by New Mexico.	Incomplete answer
46.20	"That's right. The state engineer-- Q. And how long would -- go ahead. I'm sorry. A. The state engineer would make a determination as to what amount of curtailment was necessary, what volume of water, say, was necessary to address the call and probably involving use of groundwater models to take into account any delays as to when the water -- the water associated with curtailing groundwater rights would show up back in the river and would come up with -- he would be tasked with determining the administration date and water rights junior to that date would be curtailed."	"That's right. In the case of a call to address an immediate shortfall in delivery to Texas, New Mexico would take whatever steps were necessary to address that shortfall, which might involve other measures than curtailment of groundwater use, because of the delays inherent in groundwater impacts on surface water flows. In the case of a call based on impacts to Project performance or efficiency caused by New Mexico, the state engineer would made a determination as to what amount of curtailment of water use is necessary based on water rights data, and probably model results as well. Based on this analysis the state engineer would determine an administration date, and water rights junior to that date would be curtailed."	Unclear and incomplete answer.

47.9	"I don't know." But the tools we've developed as part of settlement talks and as part of our litigation have definitely made it within striking distance that we should be able to perform such an analysis expeditiously."	"Again, it depends on the type of priority call. In that case of a call made to alleviate an immediate shortfall of water to Texas, so that Texas is not receiving its Compact apportionment, New Mexico would act in a matter of days, to address this shortfall. The actions taken by New Mexico to address such a shortfall may or may not include curtailment of groundwater use, due to the inherent delayed impacts of groundwater pumping on surface water. For a call made by Reclamation to address deficits in project performance or efficiency caused by New Mexico, the more comprehensive analysis required would probably take a longer amount of time, but given the amount of work New Mexico has already done in this area, it should be achieved relatively expeditiously."	Unclear and incomplete answer.
61.5-6	"and it's also because of the current litigation and a lot of different causes that are all related to each other."	"The current litigation is related to the same issues: dropping groundwater conditions in the Mesilla basin."	I misspoke: my language was unclear.
80.13-14	"To provide you information about New Mexico's policies and the information required under Section C."	"The purpose of my testimony is to provide you information about New Mexico's policies and the information required under Section C."	Transcript error

Signature: Peggy Barroll 11/21/2020