

SUPREME COURT OF THE UNITED STATES
NO. 141, ORIGINAL

STATE OF TEXAS,)
)
 Plaintiff,)
)
 VS.) VOLUME XVIII
)
 STATE OF NEW MEXICO)
 AND STATE OF COLORADO,)
)
 Defendants.)

TRANSCRIPT OF PROCEEDINGS

The above-entitled matter came on for HEARING before HONORABLE MICHAEL A. MELLOY, SPECIAL MASTER, held REMOTELY via Zoom, on NOVEMBER 9, 2021, commencing at 11:02 a.m.;

Proceedings reported by Certified Shorthand Reporter and Machine Shorthand/Computer-Aided Transcription.

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1 **JUDGE MELLOY:** Looks like we have
2 everyone. Are we ready to go? Again, this is in
3 Original No. 141, Texas versus New Mexico, Colorado,
4 and the United States. Let me ask the parties who
5 will be appearing for this witness to enter their
6 appearance, please. For -- Ms. Klahn for Texas; is
7 that right?

8 **MS. KLAHN:** No, Your Honor. It'll be
9 Mr. Goldsberry with this witness. I just have a
10 preliminary matter after you take appearance.

11 **JUDGE MELLOY:** Okay. Mr. Goldsberry, do
12 you want to enter your appearance?

13 **MR. GOLDSBERRY:** Good morning, Your
14 Honor. Francis Goldsberry for the State of Texas.

15 **JUDGE MELLOY:** Then for New Mexico,
16 Ms. Thompson?

17 **MS. THOMPSON:** Lisa Thompson for the
18 State of New Mexico. Good morning.

19 **JUDGE MELLOY:** Mr. Dubois for the United
20 States.

21 **MR. DUBOIS:** Good morning, Your Honor.
22 James Dubois for the United States.

23 **JUDGE MELLOY:** Mr. Hartman?

24 **MR. HARTMAN:** Yes, Your Honor. Preston
25 Hartman for the State of Colorado.

1 **JUDGE MELLOY:** All right. Before we
2 start with the witness, what's your issue, Ms. Klahn?

3 **MS. KLAHN:** Your Honor, Texas would like
4 to move the deposition designations of Cheryl Thacker,
5 who was a 30(b)(6) witness for the State of New
6 Mexico, and we'd like to move that into evidence.
7 It's marked as Texas Exhibit 1215, and we'd also like
8 to ask permission to file an amended exhibit list,
9 which would include this exhibit as well as some
10 marked during Dr. Miltenberger's testimony back at the
11 beginning of the trial.

12 **JUDGE MELLOY:** Just a second.

13 **MS. THOMPSON:** Your Honor, could I
14 respond, please?

15 **JUDGE MELLOY:** Just one second, please.
16 Okay. 1215, and what did you say about an amendment
17 to that?

18 **MS. KLAHN:** Well, it's not on the --
19 it's not on the current Texas exhibit list, which ends
20 at Texas 1209. We marked two exhibits during
21 Dr. Miltenberger's examination back in October, and
22 then there's several other deposition designations,
23 which we're not introducing today. Ms. Thacker's is
24 deposition designation marked Texas 1215 and so we
25 just wanted to also ask for permission to file an

1 amended exhibit list that would reflect those
2 additional, I think, six exhibits.

3 **JUDGE MELLOY:** Tell me again, who is Ms.
4 Thacker? What is her role?

5 **MS. KLAHN:** Yeah, Ms. Thacker is an
6 employee of Mr. Serrano's at the District 4 Office of
7 the State Engineer, and she was identified by the
8 State of New Mexico under Rule 30(b)(6) as someone
9 knowledgeable about administrative matters and state
10 law and related issues, and we feel like this is an
11 opportune time to introduce that testimony because of
12 Mr. Serrano's testimony today.

13 **JUDGE MELLOY:** All right. Okay. Ms.
14 Thompson, you can respond.

15 **MS. THOMPSON:** Thank you, Your Honor. I
16 wanted to just alert the Court that we had no notice
17 of this request from Texas. This has been an ongoing
18 issue that I understand particularly Ms. Dalrymple has
19 been addressing for the State of New Mexico. We do
20 have objections to their designations. We had counter
21 designations, and my understanding is that there was
22 an agreement to hold off submitting these until later
23 time, potentially even until the spring. Again, there
24 was no notice of this today whatsoever, and we have
25 not reviewed -- gone back to review that designation

1 or our counter designations at this time.

2 **MS. KLAHN:** May I be heard, Your Honor?

3 **JUDGE MELLOY:** You may.

4 **MS. KLAHN:** Under Rule 32(a)(3) a
5 30(b)(6) deposition can be used for any purpose
6 including being introduced at this point in trial.
7 Ms. Thompson is correct, there's been an ongoing
8 dispute about whether Ms. Thacker's testimony was
9 replaced or supplemented by a subsequent witness,
10 Dr. Barroll; however, we've been trying to get some
11 concrete evidence of such agreement to withdraw Ms.
12 Thacker's testimony since September, and we've not had
13 any communication from counsel with New Mexico on this
14 issue, even though it was asked for at least several
15 weeks ago. I don't -- we don't think it exists. We
16 think that there's just a disagreement about how the
17 scope of these two witnesses may or may not overlap,
18 and currently, what we have is designations and
19 counter designations, which are reflected in Texas
20 1215, and it's -- and we are not planning to call Ms.
21 Thacker at trial. So there's no reason to delay
22 introducing this exhibit.

23 **JUDGE MELLOY:** Are you objecting to the
24 counter designations?

25 **MS. KLAHN:** No.

1 **JUDGE MELLOY:** So do you have a
2 substantive objection, Ms. Thompson, or is it just
3 procedural?

4 **MS. THOMPSON:** My understanding, Your
5 Honor, is that it's both, that there has been written
6 agreement between Ms. Dalrymple and Mr. Deitchman from
7 Texas. A group of attorneys that this designation
8 will be held off while there were some objections
9 worked out. My understanding is there were ongoing
10 communications that we're happy to submit to the Court
11 to -- to prove those ongoing communications so this,
12 for us, is a complete surprise when Ms. Dalrymple has
13 been working diligently with Mr. Deitchman on working
14 out these objections and these designations, and we'd
15 be happy to go ahead and collect those communications
16 and file with them -- with you today.

17 **MS. KLAHN:** Your Honor, there's no more
18 meet and confer to do here. We've been meeting and
19 conferring with New Mexico on this issue, as I said,
20 for several months, and there's no resolution. They
21 are free to, I guess, file something if they want to
22 file something, but we don't see that any more
23 discussion on this is going to resolve anything, and I
24 think Mr. Dubois can perhaps speak to the issue of the
25 specific issue that New Mexico objects to, Your Honor.

1 They say that -- that Ms. Thacker's testimony was,
2 quote, replaced by Dr. Barroll's testimony, who was
3 subsequently designated as a 30(b)(6) witness. She
4 testified about a month after Ms. Thacker did. We
5 don't have an objection to the idea that Dr. Barroll's
6 testimony may supplement Ms. Thacker's testimony, but
7 there's no -- there's literally no evidence that there
8 was some agreement that this testimony should've been
9 replaced, so we want to submit Ms. Thacker's
10 testimony. We think it's appropriate.

11 **JUDGE MELLOY:** Well, I'm not -- I want
12 to look at it before I make a final decision, but let
13 me take a look at the testimony, but let's proceed
14 with our -- the witness today.

15 **MS. KLAHN:** Thank you.

16 **JUDGE MELLOY:** All right. Well, let me
17 ask this question. Did you anticipate -- I'll ask --
18 well, either Ms. Klahn or Mr. Goldsberry. Do you
19 anticipate using 1215 to cross-examine the New Mexico
20 witness, Mr. Serrano?

21 **MR. GOLDSBERRY:** No, Your Honor.

22 **JUDGE MELLOY:** Okay. All right. Very
23 good. All right then. Ms. Thompson, you may call
24 your witness.

25 **MS. THOMPSON:** Thank you, Your Honor.

1 The State of New Mexico calls Ryan Serrano.

2 **JUDGE MELLOY:** Mr. Serrano, I need to
3 swear you as a witness. Would you raise your right
4 hand, please? Do you swear or affirm that the
5 testimony you're about to give would be the truth, the
6 whole truth, and nothing but the truth?

7 THE WITNESS: I do.

8 **JUDGE MELLOY:** All right. Mr. Serrano,
9 I need to go over -- well, first of all, let me ask
10 you to state and spell your name for the record.

11 THE WITNESS: It's Ryan John Serrano.
12 That's R-Y-A-N, J-O-H-N, S-E-R-R-A-N-O.

13 **JUDGE MELLOY:** And as I started to say,
14 Mr. Serrano, I need to go over a couple of the ground
15 rules we review with each of the witnesses. First,
16 let me ask you: Is there anyone in the room with you
17 during your testimony?

18 THE WITNESS: There is not.

19 **JUDGE MELLOY:** Do you have any documents
20 available to you, other than the exhibit books?

21 THE WITNESS: No, sir.

22 **JUDGE MELLOY:** And then finally, I need
23 to advise you that you're not allowed to have any
24 communication devices available during your testimony,
25 including iPhones, iPads, laptops, et cetera, with

1 e-mail or texting capability or anything of that
2 nature. Do you understand?

3 THE WITNESS: Yes, sir.

4 JUDGE MELLOY: All right. So before we
5 start the examination, let's talk about the exhibits.
6 On the Texas list, we have Joint Exhibits 467, 468,
7 474, which we show all as having been previously
8 admitted, and then we have New Mexico 162, 162A, 163
9 -- excuse me, 263, New Mexico 263, New Mexico 428, New
10 Mexico 429, and New Mexico 431, which is also the same
11 as US-485, all which are A exhibits and will be
12 admitted. And we have New Mexico 432, which is the
13 same as US-489, New Mexico 433, New Mexico 465, which
14 is the same as US-486, which will be admitted as A
15 exhibits. Then we have New Mexico 486 and New Mexico
16 538, both of which are A exhibits and will be admitted
17 -- and will be admitted. Then we have New Mexico 4 --
18 excuse me -- 542, and on the exhibit list, there's a
19 parenthesis, use Colorado 004, but our records don't
20 show that they're the same. Can anybody explain that
21 or do you know what's going on there?

22 MR. DUBOIS: Your Honor, I think that
23 might simply be an error in the exchange of
24 information. I think that 542 and Colorado -- New
25 Mexico 542 and Colorado 4 are not the same document,

1 and I believe it's New Mexico 542 that they want to
2 admit.

3 **MS. THOMPSON:** And that's correct.

4 **JUDGE MELLOY:** Colorado 4 is a huge
5 document. So, okay, we can ignore Colorado 4?

6 **MR. DUBOIS:** Yes.

7 **JUDGE MELLOY:** All right. Then New
8 Mexico 542 is admitted. New Mexico 612, New Mexico
9 669 and 670 are all A and will be admitted. New
10 Mexico 674, which is the same as US-422 is an A and
11 will be admitted. New Mexico 757, 762, 785, and 786
12 are all A and will be admitted. New Mexico 789, 793
13 are both A and will be admitted. New Mexico 807,
14 which is the same as Texas 843, is an A and will be
15 admitted. New Mexico 879 and 879A are both A and will
16 be admitted. New Mexico 927, 929, and 939 are all A
17 and will be admitted. New Mexico 2083 is an A and
18 will be admitted. New Mexico 2376 is an A and will be
19 admitted and then New Mexico Demonstrative 29, 53, 54,
20 55, 56, and 57 are all As and will be admitted, same
21 with New Mexico Demonstrative 58 and 59 will be
22 admitted, and then Texas 830 and 838 are demonstrative
23 and will also be admitted. Cross-examination, Texas
24 826 and 829 are A and will be admitted, and I think
25 that is it. Did I miss anything?

1 **MR. DUBOIS:** Your Honor, also on that --
2 on the -- on the cross-examination list was New Mexico
3 710, which was an A exhibit, but the United States is
4 withdrawing that one from consideration. On further
5 consideration, there was nothing particularly
6 interesting in it so we're withdrawing 710.

7 **JUDGE MELLOY:** Okay. 710 is withdrawn.
8 All right. Anything else? All right. Then Ms.
9 Thompson, you may proceed with your examination.

10 **MS. THOMPSON:** Thank you, Your Honor.

11 RYAN SERRANO,
12 having been first duly sworn, testified as follows:

13 DIRECT EXAMINATION

14 BY MS. THOMPSON:

15 **Q. Good morning, Mr. Serrano.**

16 **A. Good morning.**

17 **Q. Mr. Serrano, what's your current professional**
18 **title?**

19 **A. I'm currently the Lower Rio Grande Water**
20 **Master.**

21 **Q. Where is your office located?**

22 **A. We are located at 1680 Hickory Loop, Suite J**
23 **in Las Cruces, New Mexico.**

24 **Q. Mr. Serrano, what is a water master in New**
25 **Mexico?**

1 A. A water master generally is charged with
2 overseeing the apportionment, measurement, and
3 distribution of waters within the water master
4 district.

5 **Q. And are there other water masters in New**
6 **Mexico throughout the state, other than just in the**
7 **Lower Rio Grande or what I'll refer to as the LRG?**

8 A. Yes, there are. There are several.

9 **Q. And then looking at Page 2 of our**
10 **demonstrative exhibit, where does a water master's**
11 **authority derive from?**

12 A. There are a couple different locations.
13 Primarily, it derives from statute, and you can see
14 here in that first bullet point, state statute is
15 referenced there, 72-3-2, and then the next two bullet
16 points, that comes from New Mexico Administrative
17 Code, so New Mexico Administrative Code is intended to
18 further refine the previous statute so there's --
19 there's other additional duties identified in
20 administrative code.

21 **Q. Mr. Serrano, for today at a high level for**
22 **now, what have you been asked to testify to, what**
23 **topics?**

24 A. Metering and measurement, as well as what we
25 do to report, some enforcement and compliance issues,

1 as well as some general administrative issues.

2 Q. Okay. So we're going to talk about in detail
3 those topics you just mentioned, but I want to first
4 just briefly go through your professional background.
5 So looking at Slide 3 on your demonstrative, on the
6 left-hand side, if you could just walk us through your
7 education first, please.

8 A. Yes. So I attended high school in Santa
9 Rosa, New Mexico. There's only one high school there,
10 very small town. While I was in high school, I was
11 enrolled in a few classes at Luna Community College,
12 completed those courses, and they -- those credits
13 transferred to New Mexico State University, where I
14 attended and received a degree, a bachelor of science
15 in geography and a minor in geographic information
16 systems.

17 Q. Did you work anywhere during your time in
18 college?

19 A. Yes. I was very fortunate my junior year to
20 have gotten a paid internship with the Office of the
21 State Engineer in 2007.

22 Q. And how many years did you work as an intern?

23 A. Two years.

24 Q. And what did you do after you graduated from
25 college?

1 A. After I graduated, again, I was very
2 fortunate enough to have a position available at the
3 State Engineer's Office, and I applied for it as an
4 assistant water master, went through that interview
5 process, and was selected as the candidate.

6 **Q. How long did you hold that position?**

7 A. From 2009 through 2012.

8 **Q. And then what position did you acquire after**
9 **being assistant water master?**

10 A. In 2012, the water master at the time took a
11 different position in the office, and his -- that
12 position was opened. I applied for it and, again, was
13 the selected candidate.

14 **Q. So how long have you been the Lower Rio**
15 **Grande Water Master now?**

16 A. Since 2012, so going on ten years.

17 **Q. Okay. Let's turn to the demonstrative, Page**
18 **4. The header on this demonstrative is, "The Lower**
19 **Rio Grande Water Master District, the Geographic**
20 **Boundary." The map on the left, I'll just represent**
21 **for the Court, is also Exhibit New Mexico 669, and the**
22 **one on the right is Demonstrative -- New Mexico**
23 **Demonstrative 57, both of which have been admitted.**

24 **Mr. Serrano, do you recognize those two maps?**

25 A. Yes, I do.

1 Q. And are both of these maps official records
2 of the State Engineer's Office?

3 A. Yes, they are.

4 Q. And then the map on the right, even though
5 it's demonstrative, you also use that map in your
6 annual reports; is that right?

7 A. That's correct. And I think the version of
8 the map shown here on the screen on the right-hand
9 side is directly pulled from one of our annual
10 reports.

11 Q. So using the map on the left, just to start
12 with, would you please describe the geographic area
13 covered by the water master district in the LRG?

14 A. Sure. So the water master district is a
15 pretty large district. It encompasses approximately
16 4,200 square miles. Starting at its northern extent,
17 you can see there on the map at the base of Elephant
18 Butte Reservoir down to its southern extent at the
19 Texas and New Mexico state boundaries and then, also,
20 the international boundary with the country of Mexico,
21 and from east to west, it goes -- you can see pretty
22 clear there on that map at the east, it's bounded by
23 the Organ Mountains there, and to the west, on the
24 West Mesa in Las Cruces and up into parts of the black
25 range and the Gila National Forest.

1 **Q. Does the Lower Rio Grande Water Master**
2 **district include other basins besides the LRG Basin?**

3 A. It does. So specifically, there's two
4 additional administrative basins that are included.
5 The first being the Hot Springs administrative basin,
6 and you can see here on the map in the very far
7 northwest corner, that's the Hot Springs Basin there,
8 and then immediately below that, there's the Las
9 Animas administrative basin.

10 **Q. For purposes of your testimony today, will**
11 **you be just focusing on the LRG Basin and not giving**
12 **testimony on the Hot Springs or Las Animas basin; is**
13 **that right?**

14 A. That's my understanding, yes.

15 **Q. So then the map on the right, it's just a**
16 **different version of the water master district**
17 **boundaries. Would you just describe this map for us?**

18 A. That's correct. This is more of a -- I
19 guess, an artistic view of the map on the left, and it
20 kind of does a better job of showing some of the
21 different landmarks within the district, some of the
22 major cities. You can see the city of Truth of
23 Consequences, the village of Hatch, city of Las
24 Cruces, all the way down to the southern end, we see
25 Santa Teresa and Sunland Park.

1 Q. Then if we turn to Page 5 of the
2 demonstrative, please. What document is being shown
3 here on this slide?

4 A. This is State Engineer Order No. 169, the
5 creation of the water master district.

6 Q. Does it also create the position of the water
7 master?

8 A. It does, yes.

9 Q. And what's the date of this order? If you go
10 to the last page, actually. If we could pull up --

11 A. 431?

12 Q. -- New Mexico Exhibit 429, we can look at the
13 details of it. 431. Sorry. If you turn to the last
14 page, what's the date on this order?

15 A. This is December 3rd of 2004.

16 Q. And who was it signed by?

17 A. State engineer at the time, John D'Antonio.

18 Q. Is he still the same state engineer today?

19 A. Yes.

20 Q. To your knowledge, why was the LRG water
21 master position created?

22 A. Well, as I understand it, in the context of
23 -- of active water resource management and that
24 legislation that was passed in and around the same
25 time, it allowed for several tools and additional

1 jurisdictional authority granted to the state
2 engineer. Some of those tools included the creation
3 of water master districts and the appointment of water
4 masters to help administer the State's limited
5 resources, and I believe that's the purpose the Lower
6 Rio Grande Water Master District was created at that
7 time, and I understand there was several other
8 districts that were identified as areas of critical
9 need.

10 **Q. I'm going to walk through just a couple**
11 **sections in this order. If we turn on -- look at the**
12 **first page, please, under the statutory authorities,**
13 **what is this section describing in Paragraphs 3 and 4?**

14 A. It's just generally describing the state
15 engineer statutory authority to oversee all the waters
16 within the State of New Mexico.

17 **Q. And then at the bottom of that same page**
18 **under, "Findings of facts," what does the first**
19 **paragraph describe?**

20 A. Here it describes that in order to properly
21 apportion the waters of the Lower Rio Grande Stream
22 System in Sierra and Dona Ana Counties, the
23 establishment of the Rio Grande Water Master District
24 and the appointment of a water master is necessary.

25 **Q. Then looking at Page 2, Paragraph 3, we're**

1 **still under the findings of facts. What is this**
2 **summarizing here in this paragraph?**

3 A. Here, it's just identifying some of the major
4 water users within the district, to include the
5 Elephant Butte Irrigation District, the City of Las
6 Cruces, and a number of mutual domestic water users
7 association, as well as commercial industrial uses,
8 and a few other users within the district.

9 **Q. And then under findings of fact, Paragraphs 5**
10 **and 6, these are both short statements, but what are**
11 **these two paragraphs describing?**

12 A. That the recent drought in the state has
13 created some water shortage crisis, specifically
14 within the Lower Rio Grande Stream System, in that the
15 shortage of water within the Lower Rio Grande is a
16 problem affecting all the citizens of both Sierra and
17 Dona Ana Counties.

18 **Q. And then on the same page under conclusions**
19 **of law, the second header administration of affected**
20 **water rights, if we could call out Paragraph 4 there,**
21 **what is Paragraph 4 concluding here?**

22 A. That the state engineer concludes the
23 administration of groundwater rights in the district
24 is necessary for the protection of the public and
25 protection of prior surface water and groundwater

1 rights in the district, as well as to prevent waste.

2 Q. Okay. Then onto Page 3, Paragraph 6, this is
3 stating, "The state engineer concluded that the water
4 master of the district created by this order shall
5 perform certain duties." Would you describe, based on
6 Paragraph 6, what these duties are?

7 A. Yes. And these duties, they kind of carry
8 over from the statutes and the administrative code
9 that I mentioned earlier. You see here in
10 Subparagraph A, that first duty says to curtail
11 illegal diversions. The next one, B, is, "Measure and
12 report water usage in the district; C is curtail out
13 of priority diversions determined by the state
14 engineer to be causing injury to senior rights; D,
15 administer water usage according to any agreements
16 entered into by the water right owners of the
17 district; and E, coordinate, where indicated, with the
18 United States Bureau of Reclamation and with the
19 Elephant Butte Irrigation District ditch riders so as
20 to ensure appropriate regulation and control of
21 groundwater withdrawals."

22 Q. And do you agree that that's an accurate list
23 of your duties?

24 A. Yes.

25 Q. On a practical level, though, day-to-day,

1 **what do your duties entail?**

2 A. Well, we do a number of different things.
3 Primarily, we conduct field investigations and
4 inspections of points of diversions and water right
5 places of use to ensure compliance with all applicable
6 state laws, rules, regulations, court orders, as well
7 as permit conditions, and we also regulate and control
8 the water usage within the district. We measure and
9 report that usage, and we also take enforcement and
10 compliance actions.

11 **Q. Do you enforce metering requirements?**

12 A. Yes, we do.

13 **Q. Do you collect meter data in recordings?**

14 A. Yes, we do.

15 **Q. Do you and your assistant water masters**
16 **perform any collection and input of that information**
17 **into the WATERS database?**

18 A. Yes. So any -- any reading that we collect
19 in the field or any reading that's submitted to us
20 gets entered into our standardized WATERS database.

21 **Q. And that's a public database; is that right?**

22 A. It is, yes. There's a public facing user
23 interface that the public can access.

24 **Q. As part of your job duties, are you required**
25 **to prepare an annual report?**

1 A. Yes, ma'am.

2 Q. And then since you're the water master, do
3 you also -- are you responsible for overseeing your
4 staff?

5 A. Yes. So I currently have a staff of four
6 assistant water masters, and they assist me in my
7 duties.

8 Q. And then back on the order, at the very
9 bottom of Page 3 rolling over to Page 4, it says, "it
10 is so ordered." What does this document then
11 ultimately order?

12 A. That it's necessary to create a water master
13 district and appoint a water master.

14 Q. And then if we then go onto demonstrative
15 slide Page 6, please, of our demonstrative,
16 Mr. Serrano, looking at the information of the
17 left-hand side, do you have a staff that help you with
18 your duties that you just described?

19 A. I do, and they're broken up into two
20 different categories. I have one senior assistant.
21 You can see here that gentleman's name is Juan Carlos
22 Benavides, and I have three additional assistant water
23 masters. You can see here that those individuals are
24 Demetrio Alanis, Danny Carrillo, and Russell Cody
25 Sensiba.

1 Q. And then just to the right of that, do you
2 recognize this chart?

3 A. I do. This is our organizational chart for
4 the District 4 Office of the State Engineer.

5 Q. Before we discuss the chart in detail,
6 explain for us and the Court the State Engineer's
7 Office District. So when you say District 4, what
8 does that mean?

9 A. District 4 is the district that is
10 responsible for administering water rights within a
11 few different basins, the lower Rio Grande, the
12 Tularosa, the Hueco, the Salt, the Las Animas, and the
13 Hot Springs.

14 Q. If we look at New Mexico Demonstrative 63,
15 this was a supplemental exhibit. I don't know if
16 there were any objections to this or not as a
17 demonstrative?

18 MR. GOLDSBERRY: No objection.

19 JUDGE MELLOY: 63 is admitted.

20 Q. (BY MS. THOMPSON) So are you familiar with
21 this map shown on the screen of the state?

22 A. Yes. This map comes from our Website.

23 Q. Is it showing the different state engineer
24 districts throughout the state?

25 A. It does. It shows the administrative

1 boundaries within each of the seven districts within
2 the state.

3 Q. Just to highlight then, District 4 is the
4 district that you're going to give testimony about
5 shortly on that organizational chart; is that right?

6 A. That's correct.

7 Q. Okay. So if we could go back then to New
8 Mexico Demonstrative 59, Page 6. Mr. Serrano, will
9 you just start at the top then and just walk us
10 through how District 4 is set up and then, you know,
11 specifically highlighting, if you could, your water
12 master group?

13 A. Okay. So at the top of the chart, you see
14 here in the demonstrative, you can see here we have
15 our -- our district manager, and that gentleman's name
16 is Craig Cathey listed there. Immediately under
17 Mr. Cathey's name, there's two positions. One is
18 currently vacant. These are our engineering tech or
19 domestic technicians that we have in the office. They
20 report directly to Mr. Cathey. And then immediately
21 below that, you can see there's four different
22 sections or groups within the office. Moving over to
23 the far left-hand side, you can see that's my group.
24 That's the Lower Rio Grande Water Master Group, and
25 you can see the four employees that I just spoke about

1 earlier. Immediately adjacent to that moving right,
2 you can see the header there. It says, "Vacant."
3 That's our Tularosa Basin Group, and they deal with
4 water rights administration in the Tularosa Basin, the
5 Salt Basin, and the Hueco Basin. And then continuing
6 to move on to the right, you can see there, there's
7 the next column with the header for Ms. Cheryl
8 Thacker. She's the basin supervisor or basin manager
9 for the Lower Rio Grande Basin Administrative Group,
10 and they review and issue permits in the Lower Rio
11 Grande, the Hot Springs, and the Las Animas Basin --
12 basins. And then moving on over to the right, the far
13 right-hand side, this is our water rights abstracting
14 bureau, our local group, and you can see there the
15 manager there is Ms. Nancy Erickson, and she has a
16 staff of six individuals, and there's currently three
17 vacancies in her group.

18 **Q. Mr. Serrano, so on the water rights**
19 **abstracting group, could you just explain what it is**
20 **that they do, what their functions are?**

21 A. So that's a group that maintains our -- our
22 statewide database, and they're charged with
23 abstracting and entering all transactions that come
24 into the State Engineer's Office into our -- again,
25 our standardized database and doing a QA/QC process

1 and making sure everything that's entered is accurate.

2 Q. So essentially, archiving documents, hard
3 copies, and keeping up with the online database?

4 A. That's correct.

5 Q. And then you mentioned, I think the third
6 column over, Ms. Thacker heads up the LRG water rights
7 group. Explain a little more detail what their
8 functions are.

9 A. So the water rights group there under Ms.
10 Thacker, they review and entertain applications that
11 are submitted to the state engineer, and they'll make
12 recommendations and then approve or deny permits.

13 Q. And the Tularosa group, that's not something
14 that you're addressing today, right? That's a
15 separate basin that has separate regulations, correct?

16 A. That's correct. I won't be addressing that
17 today.

18 Q. So the moving back to your group and your
19 assistants, you mentioned earlier what your duties
20 are. How do your assistant water master duties differ
21 from your duties?

22 A. Well, primarily their function is to be our
23 eyes and ears are present in the field. They spend
24 approximately 60 percent of their total work hours in
25 the field conducting field inspections, like I said,

1 ensuring compliance with all permit conditions,
2 applicable rules and regulations, identifying illegal
3 uses, drafting field reports and making
4 recommendations back to me on any actions they see
5 that might need to be taken.

6 **Q. Where do you and your assistant water master**
7 **spend most of your time? Are you in an office or are**
8 **you out in the field mostly?**

9 A. Primarily, we're out in the field. My time
10 more recently has been more office in preparation for,
11 of course, this proceeding, but most of the time
12 generally, we're in the field.

13 **Q. And when you're in the field, do you utilize**
14 **any special equipment while you're out in the field?**

15 A. Yes. We have lots of equipment, all the way
16 from the very bottom end from basic hand tools, you
17 know, shovels and things of that nature that we use to
18 clean ditches and make sure that our measurement sites
19 are operating properly all the way up to, you know,
20 high-tech radio communications equipment, ultrasonic
21 flow meter devices that we use for testing meters,
22 flow tracker equipment that we use for in stream
23 measurements, GPSs that we use for requiring fill
24 locations and identifying places of use. A lot of
25 different tools.

1 Q. If we move onto Demonstrative Page 7, please,
2 on the left-hand side of this slide, does it correctly
3 list your three primary activities that you do in the
4 field?

5 A. Yes, it does.

6 Q. Then on the right-hand side, there's two
7 pictures. Would you just briefly describe what the
8 top picture is showing?

9 A. You can see here in the top picture, that's a
10 photo that was -- that was taken of me. Here, we're
11 in the field. We're conducting a field measurement,
12 trying to establish a flow rate using our ultrasonic
13 test equipment, and then getting and taking those
14 results and comparing it to the accuracy of the
15 installed meter to make sure that that particular
16 meter on that well is operating within plus or minus
17 10 percent, as is required by the metering order. And
18 then moving onto that bottom photo, that's another
19 photograph that was taken here meeting with some of
20 our contractors at this location. This is the Holguin
21 river pump site. We're getting ready to start
22 construction here on a surface water measurement site
23 that we own and operate at this location.

24 Q. Okay. We'll come back to that later and
25 discuss in more detail why there's a measurement at

1 that particular site, but let's turn to more specifics
2 of the administration in the Lower Rio Grande Basin.
3 Do you track all water uses, you know, as far as
4 tallying and totalizing those water uses in the LRG
5 Basin?

6 A. Yes.

7 Q. And do you report those amounts in your
8 annual reports each year?

9 A. Yes, we do.

10 MS. THOMPSON: If we could pull up New
11 Mexico 929, Page 16, please.

12 Q. (BY MS. THOMPSON) This is a page from the
13 2020 Water Master Annual Report, all of which have
14 been admitted. So referring to this chart,
15 Mr. Serrano, if you could just describe for us, what
16 are the primary water uses in the LRG Basin?

17 A. There are several water uses. Here in this
18 chart, we can attempt to kind of categorize those, and
19 what you see here is that we have at the very top
20 irrigation. That would be the primary use in the
21 Lower Rio Grande consistently makes up between 80 and
22 85 percent of the total water use. The next category
23 down you see is drinking water, and that consists of
24 municipal supply as well as mutual domestic, which are
25 regional water systems that supply local areas outside

1 of the larger municipalities, and then we also have
2 some estimates for unmetered domestic use within that
3 category, and then you also see we have New Mexico
4 State University, the State of Las Cruces, mutual
5 domestics as I mentioned there, and then broken out is
6 other drinking water type uses, and that might consist
7 of water rights that are identified for mobile home
8 type parks or subdivisions, something that doesn't
9 necessarily fall directly into the municipal category.
10 And then continuing on down, we have commercial,
11 industrial, and dairy uses. Those consist of entities
12 such as P&M, I believe you heard from -- P&M earlier
13 last week, and then we also have several dairies in
14 the area, NASA White Sands Test Facility, we have
15 Spaceport America within the Lower Rio Grande, and
16 other smaller commercial-type uses.

17 **Q. And as you mentioned, we heard from P&M on**
18 **commercial. I believe we also heard from City of Las**
19 **Cruces and then New Mexico State University, but do**
20 **you track these uses every single year and report them**
21 **in your annual report?**

22 **A. Yes, we do.**

23 **Q. And then like you said before, your order of**
24 **magnitude, the irrigation use is clearly at the top**
25 **here and the highest use. Just walk through and**

1 describe for us about how much acre-feet per year is
2 used for these different uses, please?

3 A. Well, if you're looking at in this chart, the
4 year 2020, you can see that 218,231 acre-feet of
5 groundwater was diverted for irrigation purposes, and
6 that consisted of 82 percent of the total use. The
7 drinking water municipal type, which makes -- consists
8 of all those subcategories there, you see the City of
9 Las Cruces, New Mexico State University, mutual
10 domestics and other drinking water, that, in 2020,
11 consisted of 40,164 acre-feet, and 15 percent of the
12 total water use. Commercial, industrial, and dairy,
13 you can see in 2020, we're reporting a usage there of
14 6,662 acre-feet on the order of 2.51 percent of total
15 water use in that year, and then all other uses, these
16 are just categories that don't necessarily fit into
17 the other three. You can see we have 738 acre-feet
18 diverted consisting of 0.28 percent of total use that
19 year.

20 Q. Thank you. Then as part of your water master
21 duties, do you measure or deliver the Rio Grande
22 Project surface water deliveries to EBID?

23 A. I do not.

24 Q. And whose responsibility is that?

25 A. It's my understanding that that's a statutory

1 responsibility of the Elephant Butte Irrigation
2 District.

3 Q. So just to be clear, as part of your duties,
4 you do not administer the Project surface water
5 released from the reservoir and delivered to EBID
6 farmers?

7 A. That's correct.

8 Q. Do you administer the groundwater throughout
9 the basin?

10 A. Yes.

11 Q. Do you administer the groundwater even within
12 EBID?

13 A. Yes. We do.

14 Q. Do you administer any non-EBID surface water
15 diversions in the basin?

16 A. Yes, we do. We have a few non-EBID surface
17 diversions.

18 Q. And what are those commonly referred to?

19 A. I think I've heard here in terms called river
20 pumpers.

21 Q. I mean, the -- excuse me. The non-EBID
22 surface water diversions that are the, I think we
23 referred to as the pre-project rights?

24 A. Or pre-project rights, that's correct.

25 Q. Okay. And how many pre-project rights exist

1 on the Rio Grande?

2 A. On the Rio Grande below Caballo Reservoir at
3 this point in time, there's approximately three.

4 Q. There was testimony on this I think from New
5 Mexico's counsel the other day in response to a
6 question from the Special Master, but would you please
7 go through and based on your administrative duties,
8 list those three pre-project rights?

9 A. So the first, starting at Caballo Reservoir,
10 we have the users of the Bonita Lateral, and I believe
11 the Special Master saw that on the basin tour.
12 There's -- there's a few -- there's several users on
13 the Bonita, but that's one diversion point. The next
14 one moving on down the river is the Holguin river
15 pump, and that serves the irrigation of approximately
16 90 acres, and then moving on down to the southern end
17 of the Rincon system, that's where the Horner river
18 pump is located, and that serves approximately 25
19 acres.

20 Q. Do you recall by chance how many total acres
21 and acre-feet per year those pre-project rights total
22 up to?

23 A. All total, it's a little more than 300 acres,
24 and the -- the amount of water on average is anywhere
25 between 1,200 to 1,500 acre-feet a year, and that

1 changes because this is all open ground. There's no
2 permanent crop so depending on the crop rotation, that
3 -- that amount of water use would fluctuate.

4 **Q. And then are there any EBID surface water**
5 **diversions besides the project canal diversions below**
6 **Caballo Reservoir?**

7 A. Yes, there are.

8 **Q. Are those alternate points of diversion to**
9 **the canal diversions?**

10 A. Alternate or additional.

11 **Q. And about how many of those surface**
12 **diversions exist?**

13 A. There's three or four.

14 **Q. And those are all approved by EBID?**

15 A. As I understand it, yes.

16 **Q. And to your recollection, have -- has -- on**
17 **those particular rights, are those metered?**

18 A. Yes. Those additional points of diversion,
19 they are all metered.

20 **Q. And who are those meter readings submitted**
21 **to?**

22 A. I believe they're reported to the Elephant
23 Butte Irrigation District, and they're accounted for
24 as part of those particular lands, project deliveries,
25 or allotment for that year.

1 **Q. Do you administer those surface water**
2 **diversions outside of the Project release time?**

3 A. Yes, we have.

4 **Q. Why is that?**

5 A. Basically those diversions can't be used
6 outside of an accepted time frame that the Elephant
7 Butte Irrigation District is taking delivery of
8 Project water. In addition to that, they have to be
9 current with their tax assessment, and they have to
10 have an approved order in with the irrigation
11 district. So when -- when Elephant Butte is not
12 taking delivery of Project surface water, we want to
13 make sure that those points of diversion are not
14 taking any delivery.

15 **Q. Let's discuss new water right appropriations**
16 **in the LRG. Are new surface water appropriations**
17 **allowed?**

18 A. No, ma'am. The state engineer took
19 jurisdiction over surface water at the onset of the
20 water code in 1907, and no new surface water
21 appropriations have been allowed in the entire state
22 after that date.

23 **Q. And then we've heard testimony about the**
24 **groundwater basin being declared in 1980 and extended**
25 **in 1982. Are you familiar with those declarations?**

1 A. Yes.

2 **Q. If we could turn to Demonstrative 59, slide**
3 **8, please. What's the document shown on this slide?**

4 A. This is the first basin declaration. This is
5 Special Order No. 126.

6 **Q. And what's the date of this first**
7 **declaration?**

8 A. This is September 11th, 1980.

9 **Q. And then flipping over to Slide 9, what's the**
10 **document shown on this slide?**

11 A. This is the basin extension. This was 1982,
12 and it extended the administrative basin up into --
13 from just Dona Ana County up into Sierra and Grant
14 Counties.

15 **Q. We'll take a closer look at these, but by**
16 **declaring a groundwater basin, does the state engineer**
17 **assume jurisdiction over the groundwater?**

18 A. Yes. It's my understanding that by declaring
19 a basin, the state engineer is asserting a statutory
20 authority and jurisdiction over groundwater within the
21 designated basin whereby any individual or entity
22 wishing to appropriate new waters or make changes to
23 existing water rights have to first apply to the state
24 engineer, and if upon review of those applications,
25 it's found that those proposed changes might impair

1 water rights over their ownership and/or cause
2 depletions to the river flows, the stream flow, then
3 those applications could be denied and/or they could
4 be conditions -- conditioned, excuse me, subject to
5 complete offset of those potential depletions or
6 impairments.

7 Q. Let's look at Joint Exhibit 467, which has
8 been admitted. This, just for the Court's record
9 here, I'm just calling out the first declaration that
10 we just saw on the demonstrative from 1980. This
11 first page is just a cover sheet is my understanding
12 so let's go to the second page, please. And,
13 Mr. Serrano, if you could just look at the caption on
14 this page, what area is this 1980 declaration
15 declaring as part of the underground basin, which
16 county?

17 A. This was specific to Dona Ana County.

18 Q. And then looking at the first page of the
19 declaration at Section 3, what is this section
20 concluding?

21 A. Here, it's concluding that there is known to
22 exist an underground water basin, the boundaries of
23 which are reasonably ascertainable in Dona Ana County,
24 within the State of New Mexico, in which new
25 appropriations of water might impair existing water

1 rights.

2 Q. And then at Section 4, what does that
3 statement provide about surface water and groundwater?

4 A. Here it states that the surface and
5 underground waters within the boundaries of the basin
6 are interrelated.

7 Q. And then the rest of the order appears to be
8 a legal description as you look down through the rest
9 of the page and then even over to the next page. What
10 does that legal description describing?

11 A. Here, it describes the area of the -- of the
12 1980 basin within Dona Ana County.

13 Q. Okay. If we flip to the last page, and then
14 there's a map. Have you seen this map before attached
15 to the declaration?

16 A. Yes, I have.

17 Q. And what is this map depicting?

18 A. This is a -- a spatial representation of the
19 legal description from the order that we just saw, and
20 it shows the -- the 1980 extent of the basin from
21 basically the northern extent at Leasburg, maybe a
22 little bit north of Leasburg, all the way down to the
23 state line.

24 Q. Which basin in the LRG is this encompassing?

25 A. This would be the -- the Mesilla portion.

1 Q. Okay. And then if we go over to Joint
2 Exhibit 468, please. This was also previously
3 admitted. Again, looking at the caption here on this
4 exhibit, how does the state engineer order here extend
5 the underground basin?

6 A. It extends the basin up into Grant and Sierra
7 Counties.

8 Q. And then, again, looking at Sections 3, 4,
9 and 5, similar to what we did before, does this order
10 have the same conclusions as the first order?

11 A. Yes. They're pretty much identical.

12 Q. So, now, we've reviewed then the 1980 order
13 and the 1982 extension for the declarations, and I
14 know you gave some testimony when we started this, but
15 would you just describe again with regard to
16 administration of water rights, what is the effect of
17 declaring this underground basin?

18 A. Again, it's -- it's my understanding that the
19 effect is that the state engineer at this time is
20 asserting his statutory authority and jurisdiction
21 over groundwater within the basin, whereby anybody
22 wishing to make any sort of change or apply for -- for
23 new water would have to first apply with the state
24 engineer before that can be allowed.

25 Q. And what would they have to show in order to

1 **get a groundwater right?**

2 A. A couple of different things. One, that
3 there's no -- that that new proposal doesn't impair
4 rights -- existing rights of other ownership; and two,
5 that that new proposal will not impair the flows of
6 the Rio Grande.

7 **Q. And if there is any impairment, what's**
8 **required after the declaration for the water right**
9 **owner to get an approval?**

10 A. It's my understanding that if there's
11 measured effects that are found, that those effects
12 would have to be offset at a rate of one to one.

13 **Q. What do you mean by an offset?**

14 A. That senior water rights within the basin
15 would have to be acquired and retired in order to
16 facilitate the offset of those measured effects.

17 **Q. For you, doing the day-to-day enforcement,**
18 **how does the declaration impact your work as the water**
19 **master?**

20 A. I would say it impacts our day-to-day work
21 tremendously. It kind of established a baseline from
22 which we operate, no new uses could occur without
23 approval from the state engineer after the -- either
24 the '80 or the '82 date, and if we find those types of
25 uses occurring, then we -- we enforce against them.

1 **Q. What about if there's a new use with offsets,**
2 **do you have any role there?**

3 A. Yes. A measurement role and an ultimate
4 compliance role. so any uses that -- or permits that
5 are issued with conditions requiring offsets, we would
6 have to track those, either the lands from which those
7 offsets are coming from, or the amount of water that's
8 being delivered for offset if it's in the form of a
9 discharge credit, you know, from a discharge facility.

10 **Q. So just to confirm then, can new groundwater**
11 **rights be approved in District 4 without an offset?**

12 A. It's my understanding that they cannot
13 without an offset.

14 **Q. And have you investigated whether or not**
15 **there have been any new groundwater rights approved**
16 **without an offset?**

17 A. Yes. We have taken a look at that.

18 **Q. And what would -- what did your investigation**
19 **conclude?**

20 A. We found that there's really only three
21 instances of permits that were issued post 1980 or
22 1982 that were approved without offset.

23 **Q. We're going to look at that search you did,**
24 **but just describe for me then what you did for the**
25 **steps for this search that you're going to testify to?**

1 A. Well, in working with our local water
2 abstracts and bureau, our database folks, we ran a
3 number of different database queries to identify any
4 sort of permit that may have been issued since the
5 establishment of the basin in '80 or '82, so we ran
6 those queries based on priority date to see if any
7 permit showed up, and from there, we had a list of
8 results that came up and then we were able to go and
9 look at each of those individually and the
10 circumstances surrounding the approval of those
11 permits to see if, in fact, they're truly post-basin
12 appropriations without offset.

13 **Q. And did you summarize those results in a**
14 **declaration that was previously filed in this case?**

15 A. Yes, I did.

16 **Q. Let's look at New Mexico 868, please. Is**
17 **this the table that was part of your declaration?**

18 A. Yes.

19 **Q. Did you prepare this table?**

20 A. I did.

21 **Q. Did you prepare it as part of your job**
22 **duties?**

23 A. Yes.

24 **Q. Does it summarize your research?**

25 A. It does.

1 **MS. THOMPSON:** Move to admit New Mexico
2 868, please.

3 **MR. GOLDSBERRY:** No objection.

4 **JUDGE MELLOY:** New Mexico 886 is
5 admitted.

6 **Q. (BY MS. THOMPSON) So, Mr. Serrano, describe**
7 **for us what this table is showing, what the**
8 **conclusions from your search?**

9 **A.** This table is summarizing our conclusions,
10 and here you see there's really three files that stood
11 out to us when we were looking at this issue. And
12 I'll just -- I'll just explain for the Court that
13 there's the column headings here, you can see there's
14 a file number, there's a use category, total diversion
15 in terms of acre-feet, the official priority date, as
16 was listed in the WATERS database, and then comments
17 that we made as we conducted our -- our research of
18 the file. Here, the first two, we found that the
19 dates listed in the database were in need of
20 correction, basically the -- as we researched the
21 file, it turned out that these two are actually
22 pre-basin water rights, and as the approval got
23 processed through the system, it ended up with a
24 post-basin priority date. And more specifically, the
25 second one listed under File No. 5406, that was one

1 that had gone through the Lower Rio Grande
2 Adjudication, and it identified a 1985 priority date,
3 but as we reviewed the file, there was clear evidence
4 that that water right had a pre-basin water right and
5 a declaration with claims of priorities going all the
6 way back to 1890 and then some additional well record
7 that showed drilling of wells, you know, right around
8 1975. So those first two are really not new
9 appropriations. They're -- they're -- they're
10 pre-basin water rights. And then the third one there
11 at the bottom, this is the only one that we could find
12 that -- that is an actual post-basin appropriation
13 without offsets, and as we review the recommendations
14 on this particular approval, there was -- there was
15 some modeling that was done and some recommendations
16 to suggest that this small amount of new
17 appropriation, 3.17 acre-feet, would not impact other
18 rights of an ownership for the flows of the river, and
19 -- and it's also -- I'll just add, that particular
20 water right is subject to conditions that require the
21 owner to provide proof of beneficial use, and we
22 expect that to come in very shortly, and it's very
23 likely that that use would be less than the approved
24 3.17.

25 Q. So to conclude then, is it correct to say

1 then that there's only been one water right permit
2 issued without offsets since 1980, and it's the 3.17
3 that you just testified to?

4 A. Based on our review of this issue, that's
5 what we found.

6 Q. And on that particular right, the reason it
7 was issued, as I understood your testimony, is that
8 because it was determined through modeling, there
9 wasn't impairment or impact to the stream?

10 A. Right. Through the review process, that
11 determination was made.

12 Q. Do you know how many permits have been issued
13 since the declaration of the basin with offsets?

14 A. With offsets, it's my recollection that
15 there's approximately 15 individual water rights or
16 permits that have been issued.

17 Q. Each one of those, though, are new
18 appropriations with offsets?

19 A. Actually, those would be permits that were
20 issued for continued development of pre-basin water
21 rights, and that amount of continued development,
22 subject to 100 percent offset.

23 Q. Okay. Do you know if those 15 water rights
24 with offsets, have those been exercised, have those
25 been put to beneficial use?

1 A. All of them have not at this point in time.

2 Q. Do you know why not?

3 A. I believe they haven't met the individual
4 threshold criteria where they would start dipping into
5 those accounts where they would require offset.

6 Q. So based on that testimony then, practically
7 speaking, would you agree that new groundwater rights
8 are essentially not allowed without offsets in the
9 Lower Rio Grande Basin?

10 A. As a practical matter, yes.

11 Q. Would you please describe for the Court then
12 what type of applications do you see in District 4?
13 What type of applications get filed with that water
14 rights group that you mentioned before?

15 A. We see a number of different types of
16 applications. The first one would be domestic type
17 applications. We get those almost on a daily basis,
18 and those are reviewed by our domestic technicians in
19 the office, and then we also have a number of
20 different, what we would refer to as change
21 applications, and that would be changes to existing
22 water rights, and those consist of replacement wells,
23 supplemental well applications, change place of use
24 applications, change purpose of use, and then also
25 some water leasing type applications.

1 Q. So the replacement wells, supplemental well,
2 change in place of use, purpose of use, and water
3 leasing, are those all under the umbrella of changes
4 of water rights?

5 A. That's correct.

6 Q. Then you mentioned the second category, the
7 domestic applications. What are those?

8 A. Those are applications for wells that fall
9 under what we refer to as the statutory reference
10 would be 7212.1 type applications, so single household
11 domestic use or -- and/or livestock type applications.

12 Q. Did that use show up on the chart we looked
13 at earlier when you were recording your total water
14 use?

15 A. It did, yes.

16 Q. And what is that total amount per year that
17 you estimate from the domestic use?

18 A. So in our annual report, we use a figure of
19 2,400 acre-feet per year of un-metered domestic, and
20 we generated that number working with our hydrology
21 bureau and specifically Dr. Barroll when she was
22 employed with the agency. That's a number that
23 reflects un-metered domestic use, a reasonable
24 reflection, based on the number of permits that were
25 out there.

1 **Q. Let's look at Exhibit 881, please. What type**
2 **of application is shown here on the screen?**

3 A. This would be one of those change
4 applications I was just referring to.

5 **Q. And looking at the top, what are the**
6 **different types of changes that can be requested with**
7 **this application?**

8 A. Well, you can see here at the top, I'll just
9 start by saying, this is our -- our standard form for
10 all change applications and this is a statewide form
11 and we referred to this as our WR-06 form. At the
12 top, you can see there's three boxes there. The first
13 box on the left-hand side, you can see there's two
14 options, one for change purpose of use, and one for
15 change place of use, and then there's also a
16 designation for whether or not this application
17 applies to groundwater rights or surface water rights.
18 And then in the middle box, you can see here there's
19 change point of diversion, and this would be commonly
20 referred to as a replacement well application, and you
21 can see, again, there's a designation on whether or
22 not if this application is specific to groundwater or
23 surface water in terms of move-from location and
24 move-to location. And then on the far right-hand
25 side, that third box, you can see here is where

1 somebody -- this would be a supplemental designation
2 here, somebody is trying to apply for a supplemental
3 well, and they would check the box, additional
4 groundwater point of diversion or additional surface
5 water point of diversion.

6 **Q. Just to be clear then, is this the**
7 **application for any change of water right?**

8 A. Yes, it is.

9 **Q. And then after a change of water right**
10 **application is submitted to District 4, does the water**
11 **rights group that we talked about earlier do any**
12 **evaluation of the application?**

13 A. Yes. Once these applications are received,
14 they'll generally go to the basin supervisor, in this
15 case the Lower Rio Grande Basin supervisor, and then
16 they'll assign that application to their staff for
17 review.

18 **Q. And on this example that we're looking at,**
19 **who's the applicant here?**

20 A. Here, the applicant is the City of Las
21 Cruces.

22 **Q. And if we turn to Page 18 of this permit file**
23 **that we're looking at, what is this document shown on**
24 **Page 18?**

25 A. This would be the recommendations memo from

1 the water rights specialist that was reviewing this
2 application, and it goes from the specialist back to
3 the basin supervisor for concurrence or approval.

4 **Q. And so is every single change application,**
5 **does it go through an evaluation and have a memorandum**
6 **like this in the permit file?**

7 A. As I understand it, every non-domestic change
8 application would go through the process.

9 **Q. And then on Page 24 of this memorandum, what**
10 **is the section under the header, "Local**
11 **Impairment/Surface Water Depletion Effect," would you**
12 **describe that analysis?**

13 A. Yes. Here you can see, third sentence, it
14 states that, "The investigation indicated the
15 impairment to other wells of other ownership in the
16 area and surface water depletion effects as a result
17 of the drilling of the replacement well would not be
18 greater than those effects incurred historically by
19 the original well."

20 **Q. And is this no greater than historical effect**
21 **evaluation done for all the changes of water rights?**

22 A. As I understand it, yes.

23 **Q. Was this change application published?**

24 A. That's a requirement of the application
25 process, yes.

1 **Q. Based on this memorandum, can you tell, were**
2 **there any protests to this particular change?**

3 A. Yes. I think if you note -- if you call out
4 at the bottom of Page 24 there under notice of
5 publication, you can see where the specialist is
6 making the statement that no protests of the
7 application were received.

8 **Q. And if we look then over on to the next page,**
9 **Page 25, at the top under, "Considerations," looking**
10 **at the first bullet, what does this first bullet**
11 **consideration conclude here?**

12 A. That the replacement well will not result in
13 the impairment to other wells of other ownership in
14 the area greater than those effects incurred
15 historically by the original well.

16 **Q. Then if you look down at the bottom of the**
17 **page, what's the conclusion here for this evaluation**
18 **from the water rights group?**

19 A. Here you can see the conclusion from the
20 specialist is that it is recommended the application
21 for permit to change location of well, and then it
22 gives the number of the well, be approved as outlined
23 in the attachment, which are conditions of approval to
24 the permit. And you can see the notation on the -- on
25 the left-hand side that the supervisor agrees and

1 concurs with that recommendation.

2 **Q. And then what is your responsibility after a**
3 **change of water right is approved by the water rights**
4 **group?**

5 A. So once these changes are approved, of course
6 they go over to our water rights abstracting bureau
7 when they enter these transactions, these final
8 transactions into the database, and they create a copy
9 that goes to archive and then they maintain a copy
10 here locally at our office, and those local copies,
11 they'll be routed through my office, and I review all
12 of these change type applications and their approved
13 permit conditions to see what conditions my staff and
14 I have to be keeping an eye out for when we're out in
15 the field as we carry this permit through in
16 perpetuity.

17 **Q. If a change application is requesting a**
18 **replacement well or supplemental well, do you do any**
19 **field investigations?**

20 A. We do. We inspect all replacement and
21 supplemental well applications.

22 **Q. Give me a sense of just how many change**
23 **applications you may see in a year in District 4.**

24 A. There's hundreds. You know, some years are
25 more than others, but, you know, on average, there's

1 several hundred.

2 Q. But each one of those would go through that
3 same evaluation you just testified to from the water
4 rights group with that memo and evaluation?

5 A. They do, yes.

6 Q. And then, again, all of those, if there is a
7 new well, then your group would do a field
8 investigation of that new well; is that right?

9 A. That's correct.

10 Q. Okay. So let's turn to well metering. Are
11 meters required on all groundwater wells in the LRG?

12 A. Yes. All wells, other than those used for
13 single household domestic and/or livestock purposes
14 are required to be metered in the Lower Rio Grande.

15 Q. And is there a metering order applicable to
16 the Lower Rio Grande?

17 A. Yes, there is.

18 Q. Let's look at Demonstrative 59, Page 10.
19 What is shown on this document here, if you can maybe
20 start on the list on the left-hand side and describe
21 the documents on the right?

22 A. Here, we're seeing that there's -- there's
23 three metering orders that are appurtenant to the
24 Lower Rio Grande. The first was issued in 2004. It
25 was quickly amended in 2005, and then it was

1 supplemented in 2007.

2 **Q. Do you know why there's three orders? Do you**
3 **know the history of why there's three orders?**

4 A. Well, the original order came out, and then
5 there was a need to amend it. There was some
6 clarifying language that had -- that had to take
7 place, they had to get in there and make a couple
8 small modifications. That's the amendment. And then
9 as I understand it, there was a challenge to the
10 amended metering order from the Elephant Butte
11 Irrigation District and the Salopek 6U Farms with
12 regard to the implementation of the order, how it
13 would take place. That issue was resolved, and I
14 understand there was -- there was some sort of
15 settlement in that matter, and that resulted in the
16 third and final order, which is the supplemental that
17 details our activities for enforcement of the order.

18 **Q. Let's look at the initial metering order. If**
19 **you could just flip to Demonstrative Page 11. So I've**
20 **just called out the first order here with just a**
21 **couple of the paragraphs called out and highlighted.**
22 **Looking at this slide, Mr. Serrano, would you describe**
23 **what are the three basic requirements that are**
24 **included in the initial metering order?**

25 A. That all wells, again other than those used

1 for single household domestic or livestock, be metered
2 by March 1st of 2006 and that there's some
3 installation, maintenance, and repair requirements, as
4 well as reporting requirements. After the meters are
5 installed, they're required to submit meter readings
6 on a quarterly basis.

7 Q. If we could pull up Exhibit 468, this initial
8 metering order. Excuse me. Sorry. 465. Sorry. I
9 misspoke. Thank you.

10 And on Page 2, the first -- let's see. The
11 first full paragraph here, again, who was the state
12 engineer at this time?

13 A. Mr. John D'Antonio.

14 Q. Okay. And then the third paragraph, the
15 metering paragraph, if we could go down to that. Is
16 this the paragraph you mentioned before that requires
17 the totalizing flow meters?

18 A. That's correct.

19 Q. Is this the paragraph that describes which
20 wells are required to have those meters?

21 A. Yes.

22 Q. And then the last sentence, is that
23 describing the effective date you just mentioned in
24 your testimony?

25 A. Yes. March 1st, 2006.

1 **Q. Was the metering order enforced in 2006?**

2 A. It's my understanding in the review of the
3 files at that time that it was -- we did begin to
4 start to enforce and we had some meter installation
5 compliance at that time.

6 **Q. Did you achieve complete compliance right
7 away in 2006?**

8 A. No, we did not.

9 **Q. Did it take a few years then to achieve
10 compliance?**

11 A. It did. It took some time, roughly three
12 years, before we had an acceptable rate of compliance.

13 **Q. And what compliance percentages are you
14 achieving now?**

15 A. We're upwards of 90 percent metering
16 compliance.

17 **Q. At this time was there a duty of water or a
18 specific limit on the quantity of pumping back in
19 2004?**

20 A. At that time, there was -- there was no
21 specific requirement for the quantity. What we did
22 have was designations through permit conditions of the
23 amount of acreage that could be irrigated, and we
24 would enforce to those limitations.

25 **Q. Then under the installation paragraph, the**

1 **fourth full paragraph down, what are the requirements**
2 **through the State Engineer's Office for installation**
3 **of a meter?**

4 A. The meters have to -- first they have to be
5 of a make, model, and operating condition that is
6 acceptable to the State Engineer. So we have a list
7 of meters that are acceptable. And then secondly,
8 they have to be maintained in a condition that they
9 can provide continuous and accurate meter data, and
10 then they have to be available for inspection and
11 testing, and if they -- if they're broken or they need
12 to be replaced or worked on, they have -- the owners
13 then have to advise the state engineer of that
14 activity, that way we can make some estimates during
15 the time that the meter is not installed.

16 **Q. And then if we go down to the reporting**
17 **paragraph, would you just summarize for us what's**
18 **required in the reporting paragraph?**

19 A. Yes. It just requires that when reporting
20 meter readings, they have -- the owner has to be
21 submitting that information, and there's some specific
22 information required. The meter make, model, serial
23 number, installation, the units of measure, the
24 multiplier associated with the meter, if any, the date
25 of the reading, as well as, of course, who owns it, an

1 address, contact information, and they have to be
2 submitted either electronically or in paper to the
3 State Engineer's Office.

4 **Q. On this callout, the very last sentence there**
5 **says, "All over diversions of water made in one**
6 **accounting year shall be made up during the accounting**
7 **year following the year in which the over diversion**
8 **occurred." Is that a current requirement through**
9 **District 4 for over diversions?**

10 A. Yes. We maintain that requirement to this
11 day.

12 **Q. If we could turn to Exhibit 432, please. Do**
13 **you recognize this exhibit?**

14 A. Yes. This is the amended metering order.

15 **Q. Just remind us, what's the date of this**
16 **second metering order?**

17 A. This was 2005, if I'm not mistaken.

18 **Q. And what additional requirements did this**
19 **first amended metering order include?**

20 A. Really not additional requirements. It just
21 -- again, it had some clarifying language, and
22 specifically under the Page 2 of the order
23 under, "Metering of all groundwater uses," that was --
24 in the previous order, it was all one section. So
25 here you see we've -- it got broken out, and there's

1 two subparagraphs here. The first one stating that,
2 "Multiple water right owners may install and maintain
3 individual measuring devices," and 2, in the
4 alternative, if they're not going to install and
5 maintain individual measurement devices, then they
6 could continue to use one measurement device from the
7 well so long as it's reporting all the use that's
8 being diverted from that well in that the water right
9 owners maintain their own records of how much water
10 they each individually use so that in an issue or if
11 it were to come up that there was an over diversion or
12 an illegal diversion, we could reasonably ascertain
13 who was responsible for that activity.

14 **Q. Is there the same effective date for this**
15 **first amended order?**

16 A. Yes. That did not change. It was still
17 March of 2006.

18 **Q. And during this time, when these metering**
19 **orders were coming out, did the State Engineer's**
20 **Office notify well owners of the well metering**
21 **requirements?**

22 A. In my review of the files at this time, I
23 understand that they did. There were several mailings
24 that went out, fliers. There was a couple of public
25 meetings, as I understand it, and also some radio ads

1 that were aired at that time.

2 Q. Let's skip over then to New Mexico Exhibit
3 433, please. This is the final metering order. 433.
4 Thank you. If you could go to the last page, we'll
5 just check the date of this final order. Do you see
6 the date and the signature here?

7 A. Yes.

8 Q. And what is it? What's the date?

9 A. The date is March 28th of 2007.

10 Q. And, again, who signed this order?

11 A. This was, again, State Engineer John
12 D'Antonio.

13 Q. And then what requirements did the
14 supplemental order add to the prior two metering
15 orders?

16 A. Well, as I mentioned previously, it's my
17 understanding that the supplemental order was in
18 response to the challenge to the initial metering
19 order, and the settlement of those -- of that
20 challenge was incorporated here, and it details the
21 process for enforcement of the metering order, and we
22 follow this process to the T to this day.

23 Q. If we could look at New Mexico Demonstrative
24 Page 12, please -- Demonstrative 59, Page 12. What's
25 shown here on this slide, Mr. Serrano?

1 A. This is the supplemental metering order, No.
2 180.

3 **Q. Are these all three pages of it?**

4 A. It appears to be, yes.

5 **Q. And do these lay out the steps required for**
6 **metering compliance enforcement?**

7 A. Yes, it does.

8 **Q. Did you develop a demonstrative flowchart**
9 **showing these steps for the Court?**

10 A. I did, yes.

11 **Q. Okay. If we could go to the next slide then.**
12 **Would you describe the procedures for enforcement**
13 **starting with the Step 1 on this slide?**

14 A. The procedures for enforcement, as identified
15 in the supplemental metering order, Step 1 here starts
16 with the field inspection. The water master staff
17 will go out in the field, inspect a particular point
18 of diversion, and determine if they're in compliance
19 with the metering order, meaning that they have a
20 meter installed, and it's an acceptable meter, or
21 they're not, and if it's not, then we'll affix a red
22 tag to the well or the point of diversion. That's an
23 initial notice to the water right owner or the well
24 owner that they're not in compliance.

25 **Q. If you could go on to Step 2.**

1 A. Then moving on, so you can see as you go
2 across through that arrow, there's a notation that no
3 more than five days, so within five days of that red
4 tag, we generate a field inspection report, and then
5 we also generate a certified notice of noncompliance
6 that's mailed to the -- to the owner, notifying them
7 of the violation and then what the requirements are
8 for coming into compliance.

9 **Q. And then Step 3?**

10 A. Step 3, the owner has 30 days from the date
11 they receive that certified notice in which to contact
12 the water master or assistant water masters and come
13 up with a way for them to come into compliance.

14 **Q. And then on to Step 4 if they're not in**
15 **compliance?**

16 A. Yes. So you see here, there's two different
17 tracks. If they're not in compliance, after that
18 30-day period has elapsed, we can work with our
19 administrative litigation unit and do what's called a
20 request for a compliance order. That's an
21 administrative compliance order that would be issued
22 by our administrative litigation unit to the owner
23 that's not in compliance.

24 **Q. And then the last step here, the owner**
25 **response to the compliance order?**

1 A. And then you see Step 5, the owner response.
2 They either come into compliance after the compliance
3 order is issued and they install a meter that's
4 acceptable or they can request a hearing, at which
5 point that would be set aside with our hearing unit,
6 and we would go to hearing on the issue, or the
7 compliance order -- if compliance isn't achieved, they
8 still go and install a meter, the compliance order can
9 become final, and we can petition our local district
10 court for enforcement of that order.

11 **Q. Thank you. We can take that down now. How**
12 **many wells are metered in the LRG?**

13 A. Currently, we're tracking approximately 2,650
14 actively-metered irrigation wells, and then there's an
15 additional 350 municipal commercial and industrial
16 type wells. So a total of 3,000 -- approximately
17 3,000 wells that are actively metered, and that
18 number, it changes from year to year, as you might
19 imagine, because we have wells that are going offline
20 and coming online so it fluctuates a little bit.

21 **Q. And then remind us again which of the wells**
22 **in the LRG are not metered?**

23 A. Not metered, that would be single household
24 domestic and/or wells that are used for livestock
25 purposes.

1 **Q.** And how much water are those wells allowed to
2 **pump total?**

3 A. Under -- under the current domestic rules and
4 regulations, 1 acre-foot for domestic use and then if
5 livestock is included, that can be bumped up to 2
6 acre-feet.

7 **Q.** I think you testified before that there was
8 **an estimated total amount since we don't have meter**
9 **readings for these domestic wells. Will you just**
10 **remind me what that total amount is again?**

11 A. We've estimated that, again, working with our
12 hydrology bureau and Dr. Barroll, 2,400 acre-feet.

13 **Q.** And what's your understanding of whether
14 **these domestic wells have any measurable impact on the**
15 **stream flows in the basin?**

16 A. It's my understanding that it's negligible,
17 if any.

18 **Q.** **Why is that?**

19 A. Because that -- that amount, 2,400, is, you
20 know, less than 1 percent of the total amount of
21 groundwater diverted within the basin.

22 **Q.** **What about return flows from those types of**
23 **wells?**

24 A. Well, there's a couple of different
25 circumstances. If those wells are being used and the

1 water -- the wastewater generated are being returned
2 to a septic-type system or if those individual supply
3 wells are being diverted to a treatment facility, that
4 roughly 80 percent of that water consume -- 80 percent
5 of that water diverted would be returned in some
6 fashion or another.

7 **Q. Let's get back then to the metering**
8 **requirements and the metering orders. How often are**
9 **meter readings required to be reported?**

10 A. All irrigation wells are required to report
11 on a quarterly basis. That's January, April, July,
12 and October of each year, and all municipal,
13 commercial, and industrial wells are required to
14 report monthly.

15 **Q. Okay. So that's a little bit of a change**
16 **from the meter order, the municipal or monthly; is**
17 **that right?**

18 A. That's correct. And those are usually
19 subject to permit conditions, so those permit
20 conditions will have stricter requirements than the
21 metering order does.

22 **Q. Okay. Once the meter readings are received**
23 **at your office, what type of verification do you or**
24 **your assistant water masters do on those reports?**

25 A. Well, when the readings are received, they're

1 all date stamped so we know exactly when it came
2 through the door, and then it gets distributed to
3 myself and my staff. What we do is we try to confirm
4 that the reading is associated with a known point of
5 diversion and a water right and then we turn and enter
6 that data into our WATERS database, and we verify that
7 the reading that we're entering is in conformance --
8 conformance with the historical averages for that
9 well, for that time of the year, and then make sure
10 that it also, by entering that reading, it hasn't
11 caused an issue in terms of over diversion.

12 **Q. If we could pull up New Mexico Exhibit 789,**
13 **which has been admitted. Do you recognize this**
14 **document?**

15 A. Yes, I do.

16 **Q. Would you describe what it is?**

17 A. This is a multiple meter reading form that's
18 sent in by the City of Las Cruces.

19 **Q. So walk us through when you received this**
20 **form, what happens?**

21 A. Well, like I mentioned, when we receive this
22 form, it'll be date stamped. It'll be assigned to
23 myself or my staff for entry and then we'll go into
24 the system one by one on each of these rows and we'll
25 enter the meter reading that you see here notated

1 under totalizing readings, the end reading. So that's
2 the end reading for the month that they're submitting.

3 **Q. Do you know to your knowledge what the check**
4 **mark means?**

5 A. Yes. That's part of our standard process.
6 So as we're going along entering these meter readings
7 in the database, we usually check mark to indicate
8 that that reading has been entered.

9 **Q. Okay. And you've mentioned a few times the**
10 **WATERS database. We've mentioned it in prior**
11 **testimony. Would you just describe what the WATERS**
12 **database is and what it includes?**

13 A. So the WATERS database, it's our standardized
14 database for the entire state. This is where -- it's
15 a transactional database where we enter every single
16 transaction that's received and entertained by the
17 State Engineer's Office.

18 **Q. Again, there's public access to that database**
19 **online; is that right?**

20 A. Yes. So there's two components of the
21 database. You know, the first, we commonly refer to
22 as the WATERS database. That's the back end where we
23 enter data, and then there's the front end, which is
24 the public's user interface, and that's the New Mexico
25 water rights reporting system, so if you get out to

1 our Web site and you try to access the data, that
2 would be under the New Mexico water rights reporting
3 system. And, again, that user interface just pulls
4 from the back end data, which is housed in WATERS.

5 **Q. Let's look at one example of the water**
6 **summaries from the WATERS database. Let's look at New**
7 **Mexico Exhibit 59, Demonstrative Exhibit 59, Page 14,**
8 **please. Is this a water rights summary from the**
9 **WATERS database?**

10 A. It is.

11 **Q. And does this summary include meter readings**
12 **that we were just describing?**

13 A. It would. You wouldn't be able to see them
14 on this front page, but if you -- if you click on some
15 of these hyperlinks, not in this section that's listed
16 here, but if you can go back, that bottom section
17 where it says, "Current points of diversion," if you
18 were to go into our database and you click on these
19 hyperlinks for these identified points of diversion,
20 it would take you to a section that describes the
21 total -- the well construction for that particular
22 well, and then it would also have every single meter
23 reading that we've ever entered into the database, as
24 well as a annual total for that well.

25 **Q. And do each of these summaries describe the**

1 **location of the wells?**

2 A. They do, yes.

3 **Q. And where is that on here?**

4 A. There's two descriptions, again, under that
5 section, "Current points of diversion." There's a
6 legal description that we describe in terms of the
7 public land survey system, so a section township range
8 and quarter section, if we have that, and then you
9 also see there's a more precise X/Y coordinate that's
10 listed, and that's in the UTM coordinate system, and
11 then in addition to that, you can see there's a little
12 globe associated with each of those points of
13 diversion so if you clicked on that globe, it would
14 take you to a -- kind of a Google Maps version of
15 where this well is located.

16 **Q. Then if we could pull back out and see the**
17 **whole summary again, what water right is this that**
18 **we're looking at here?**

19 A. You can see there at the top, this water
20 right is for the El Paso Electric Company.

21 **Q. And does this summary provide a total**
22 **diversion amount for the water right?**

23 A. It does. You can see there at the top, it
24 lists a few different types of information. It shows,
25 of course, the water right file number, the primary

1 purpose, in this case is industrial, the status of the
2 water right, and here you can see it's been
3 adjudicated. Acres, if there's an acreage associated
4 with it, in this case, it's a hundred percent
5 consumptive use water right so there's no acreage
6 associated here, and then the total diversion amount
7 associated with that water right, and here you can see
8 that's 2,824 acre-feet.

9 **Q. And where is this water right located?**

10 A. This particular water right is on the very
11 southern end of the water master district.

12 **Q. How close is it to the El Paso gage?**

13 A. It's very close. Within a mile.

14 **Q. Just upstream of the gage?**

15 A. Upstream, yes, ma'am.

16 **Q. How do you use the database in your job**
17 **duties?**

18 A. Well, there's several different functions.
19 It's very useful to our day-to-day activities. Of
20 course, one we just described how we enter data. The
21 second is we can get in, and we can look at each of
22 these transactions, so all of the applications that
23 are filed are entered and imaged as transactions, and
24 you can click on the hyperlinks and you can access the
25 applications, the reviews, the well logs, the permit

1 conditions, all that information is going to be here,
2 and it also has the history of the water rights so you
3 can access the entire history from this location. And
4 then we also use it for accounting purposes, more
5 specifically for irrigation-type uses. The summaries
6 are a little different for irrigation in that it kind
7 of breaks out how much water is available to them,
8 what the surface water allotment is, groundwater used
9 to date, percentage of total diverted and how much
10 water they have remaining.

11 **Q. Okay. And we're going to get to that on**
12 **another example to show exactly how you calculate the**
13 **total water use for irrigation use, but before we get**
14 **there, do you and your water masters input any data**
15 **into the WATERS database?**

16 A. We do. And it's restricted, so there is
17 security access that's required for the database, and
18 me and my staff are only allowed to access what's
19 referred to as the meter module portion of the
20 database. That's one table within this relational
21 database, and that's where we input our meter readings
22 and do our accounting.

23 **Q. And do you use a manual to standardize your**
24 **procedures for inputting data?**

25 A. We do have a manual, yes.

1 Q. If we could pull up New Mexico Exhibit 939,
2 please, which also has been admitted. Do you
3 recognize this document?

4 A. Yes. This is the most recent updated version
5 of our meter module, step-by-step guide.

6 Q. Okay. And if we could turn to Page 12 of the
7 document. This section here, "Entering Meter
8 Readings," is this one of the sections you refer to
9 when you were inputting your data?

10 A. Yes. And it's important to state that the
11 database, it's -- it's a little different in that it's
12 an old DOS-based program, so all the entry has to be
13 done by key control. So this -- this manual kind of
14 really lays out each step, and the key commands for
15 entry of data.

16 Q. Do all of the assistant water masters also
17 use the same procedures laid out in this manual?

18 A. We do. We generally refer to them, but I
19 found over the years that it's a lot easier just
20 because of the nature of the database and the way it's
21 -- it's all by key command, it's not really intuitive
22 anymore because all of the other operating systems
23 that we're familiar with are all kind of mouse
24 controlled, so I found that it's better just to have
25 them get in and enter data and start using the

1 database and then refer back to this manual as -- as
2 issues arise.

3 Q. And then just if we could flip to the next
4 page of the manual just very briefly, you mentioned
5 the old DOS system, and then there's a subsequent
6 reading below there. Is this what you were referring
7 to as the old DOS system?

8 A. Right. You can see here, it's a pretty --
9 it's a pretty dated system -- operating system, but it
10 is functional, and it is -- it's effective at our
11 accounting. And this would be a screen that within
12 the WATERS database that we would use to enter
13 database -- enter meter readings, excuse me.

14 Q. Okay. We can take that down. And then we're
15 going to move on to field inspections related to
16 meters and meter readings. What type of regular field
17 inspections do you and your assistant water masters
18 perform on the meters?

19 A. There's -- there's a couple of different
20 types of inspections. First, there would be the --
21 the initial installation inspection. So when the
22 meter is first installed, we'll go out and document
23 all the information associated with the meter, serial
24 number, make, model, initial reading and multiplier
25 and also make sure that it adheres to the installation

1 standards called out for in the metering order. So
2 we'll make some measurements to make sure that it's in
3 conformance with that. From there, we'll also do
4 follow-up checks, you know, if we receive a reading
5 that doesn't necessarily fall in line with the
6 previous readings that were entered, we'll go out and
7 verify what -- what may have caused that or if it
8 might have been a transposed number that was
9 submitted, and then the third type of inspection we'll
10 do is meter tests. So we try to get out as frequently
11 as we can and inspect all these meters and test them
12 to ensure that they're reading within plus or minus 10
13 percent of actual flow under operating conditions, and
14 we conduct those tests pretty regularly.

15 **Q. Other than the metering orders that we looked**
16 **at before, is there any other guidance that you use on**
17 **well metering specifications?**

18 A. We have a set of statewide groundwater
19 measurement specifications, and we do use those.

20 **Q. Okay. Let's pull up New Mexico Exhibit 162A.**
21 **And this has also been admitted. Would you identify**
22 **this document, please?**

23 A. Yes. This is our statewide groundwater
24 measurement standards and specifications.

25 **Q. Do you use this in conjunction with the prior**

1 **metering order -- orders?**

2 A. Yes. We use them in conjunction with each
3 other. They don't stand alone. They blend together,
4 and we make sure that all the requirements of both are
5 being followed.

6 **Q. And looking at the bottom of Page 1, there's**
7 **a reference to acceptable meters. Does the state**
8 **engineer keep a list of acceptable meters that are**
9 **allowed?**

10 A. Yes, we do. And we update that periodically,
11 and our -- our statewide group located in Santa Fe,
12 they -- they generally take on that task of updating
13 the acceptable meters list.

14 **Q. And then over on Page 2, the top of the page,**
15 **Paragraph C, you mentioned before an installed**
16 **accuracy of the meters. Is that what this paragraph**
17 **is referring to?**

18 A. It is. You can see here where it references
19 that the equipment must be maintained plus or minus 10
20 percent, and then in addition to that, the design
21 accuracy coming from the factory has to be plus or
22 minus two.

23 **Q. Then at the bottom of the page, Paragraph K**
24 **please, it states that the staff may periodically**
25 **conduct an accuracy test. Is this the testing you**

1 were referring to earlier on your field
2 investigations?

3 A. That's correct.

4 Q. Okay. Then over on Page 3 at the top of the
5 page, Paragraph L, how quickly does a water user have
6 to replace their meter if it becomes damaged or needs
7 repair?

8 A. Well, if we find something that's damaged or
9 in need of repair, they can reach out and notify us,
10 and they'll be allowed 30 days. If there's any issues
11 that might cause them not to be in compliance within
12 30 days, then we'll work in good faith with those
13 water right owners to give them a reasonable amount of
14 time, and if we have to, we'll -- we'll do some
15 estimates of water use based on our established flow
16 rate for those particular wells. If a -- if it's a
17 situation where we discover that it's not recording
18 accurately, then they would have 30 days from the date
19 that they received the notice that we talked about
20 earlier in which to comply. And, again, at that
21 point, they can reach out to us, and we'll work with
22 them on trying to get the meter repaired, reinstalled,
23 and get them back in compliance.

24 Q. Did you, by chance, hear Mr. Sloan's
25 testimony a few weeks back about being red tagged?

1 A. I did, yes.

2 **Q. And do you recall him being red tagged for**
3 **his meters?**

4 A. Yes, I do.

5 **Q. Is that just one example of your meter**
6 **enforcement based on field investigations?**

7 A. Yes. That -- those were examples of
8 situations where we tested his meters, and we found
9 that they were operating in a manner that they were
10 over recording the amount of water that was being used
11 so above 10 percent.

12 **Q. And then what happens after you red tag a**
13 **well?**

14 A. So in accordance with our -- the supplemental
15 order in our process for enforcement, we red tag a
16 well. Within five days, we issue a certified notice
17 of compliance. The owner has 30 days in which to
18 respond, and that is to either correct the issue or
19 come up with a plan for correction.

20 **Q. And then, Mr. Serrano, is there a written**
21 **guidance for surface water diversion metering**
22 **requirements?**

23 A. Yes, there are. Similar to the groundwater
24 measurement -- statewide groundwater measurement specs
25 we were just looking at, there's also a set of

1 statewide surface water measurement specifications.

2 Q. If we could pull up New Mexico Exhibit 163,
3 please, which has also been admitted. What is this
4 document?

5 A. This is our statewide surface water
6 measurement specifications.

7 Q. And is this the current version of those
8 requirements for surface water metering?

9 A. It's my understanding that it is. I did
10 participate in an effort to update this, but I don't
11 think it's been finalized yet.

12 Q. How do you use this guidance as part of your
13 job duties?

14 A. We use this as a guide when we're doing
15 construction of surface water measurement locations so
16 we follow these standards pretty closely, and we work
17 with our designated contractors that are building
18 those facilities to make sure that these standards are
19 being met.

20 Q. Okay. We're going to turn then to metering
21 compliance. If we could look back at New Mexico
22 Demonstrative 59, Page 15, please. Mr. Serrano, what
23 does your office do to encourage meter reading
24 compliance or, you know, what do you do proactively to
25 encourage that compliance?

1 A. Over the last several years, we've taken a
2 few proactive steps to make sure we're getting a -- a
3 complete and accurate record of the meter readings.
4 The first step in that process is we send out a
5 postcard every year. It's just a -- a general
6 friendly reminder postcard. That goes out in the
7 middle of December to remind water right owners that
8 they have an obligation to submit a meter reading for
9 January that next month.

10 **Q. And if we could pull up New Mexico Exhibit**
11 **752, please. Do you recognize this document?**

12 A. Yes, I do.

13 **Q. And what is it?**

14 A. This was the postcard or a version of the
15 postcard that we were just talking about.

16 **Q. And do you use this as part of your job**
17 **duties?**

18 A. Yes, I do.

19 **Q. Do you send this out to water users in the**
20 **LRG?**

21 A. We send this out to all water users who have
22 an actively-metered well.

23 **MS. THOMPSON:** Move to admit New Mexico
24 Exhibit 752, please.

25 **MR. GOLDSBERRY:** No objection.

1 **JUDGE MELLOY:** 752 is admitted.

2 **MS. THOMPSON:** Thank you.

3 **Q. (BY MS. THOMPSON) And if you could --**

4 **MR. DUBOIS:** Your Honor, I'm sorry. I
5 was actually muted. We actually have an objection to
6 752. This and a number of others really go to the
7 remedy phase of the case. This is -- you know, this
8 is really more of the -- of the equities stuff that I
9 believe you discussed with Ms. Coleman yesterday
10 morning, so this and -- and some of the other exhibits
11 are similarly situated that they're really premature
12 and belong to the next phase of the case.

13 **MS. THOMPSON:** May I respond?

14 **JUDGE MELLOY:** You may.

15 **MS. THOMPSON:** Your Honor, this is just
16 additional evidence and information about the
17 administration in New Mexico, particularly in the LRG,
18 we, of course, have the Project, which is incorporated
19 into the Compact, and the Project operates in the LRG.
20 The administration of water is, of course, relevant at
21 this phase. It's not only relevant to the course of
22 performance for New Mexico over time; it's relevant to
23 also respond to the lack of administration. We heard
24 from some of the Texas individuals earlier last week,
25 and so I'm not sure why this document in particular

1 would be any different than what we've heard so far on
2 administration from a number of different witnesses.

3 **JUDGE MELLOY:** Well, I'll let it in. I
4 mean, it seems like we're getting kind of far afield
5 here, but I'll let it in. Why don't we take our
6 afternoon break at this point. We'll break until
7 1:15.

8 **MS. THOMPSON:** Okay.

9 **JUDGE MELLOY:** Thank you.

10 (Recess.)

11 **JUDGE MELLOY:** All right. Are we ready
12 to resume? Looks like everybody is here. You may
13 proceed, Ms. Thompson.

14 **MS. THOMPSON:** Thank you, Your Honor.

15 **Q. (BY MS. THOMPSON)** Mr. Serrano, I think we
16 were looking at New Mexico Exhibit 752, which is on
17 the screen, the meter reading postcard reminder that
18 you send out each year. In looking at Page 2, the top
19 five bullets, just to start there, what are you
20 reminding the water users each year with this
21 postcard?

22 **A.** We're reminding that meter readings shall be
23 reported, again, on or before the 10th day of January,
24 April, July, and October. The second bullet, the
25 water right owner is responsible for installing and

1 maintaining and repairing the meter. Broken or
2 non-functioning meters must be repaired or replaced
3 within 30 days of the malfunction. If a meter is
4 replaced, they must inform the office of the date of
5 replacement, and that all meters shall be accessible
6 for inspection and testing by a representative of the
7 State Engineer's Office.

8 **Q. And then at the bottom part of this postcard,**
9 **you're referring to the notice to state engineer of**
10 **farms under the same ownership or management or OWMAN**
11 **are due. Do you see that section?**

12 A. Yes, ma'am.

13 **Q. And what notice is this referring to here?**

14 A. This would be the acceptable form or notice
15 that the water right owners are required to submit to
16 the state engineer, if they're proposing to enroll
17 farms in a same ownership management plan.

18 **Q. So notice of an OWMAN request is required to**
19 **be submitted to the State Engineer's Office?**

20 A. Yes.

21 **Q. And then if a groundwater owner does not**
22 **timely submit their meter readings in response to this**
23 **postcard, what's the next step? What do you do in**
24 **order to obtain compliance?**

25 A. So after this step, you know, we'll compile

1 all the readings that we receive. We'll enter them
2 into the database, and then we'll run some additional
3 queries to determine which meter reading, which wells
4 with meters are still outstanding, and at that point,
5 we'll send a delinquency letter to those well owners
6 notifying them that they have 10 to 15 days to submit
7 a meter reading.

8 Q. And if we look at New Mexico Exhibit 743,
9 please, is this an example of the letter you just
10 described?

11 A. Yes, it is.

12 Q. So it's a letter failure to report meter
13 reading notice to the water users?

14 A. Yes.

15 Q. And who prepares the letter?

16 A. I prepare all of these letters.

17 Q. And then do you sign the letters?

18 A. I do. If it's -- if it's a large quantity,
19 I'll do an electronic signature.

20 Q. And this is an official record of the State
21 Engineer's Office; is that right?

22 A. That's correct.

23 MS. THOMPSON: And I'll move to admit
24 New Mexico Exhibit 743, please.

25 MR. GOLDSBERRY: No objection.

1 **MR. DUBOIS:** I'll just lodge the same
2 objection, Your Honor, that this goes to the remedy
3 phase.

4 **JUDGE MELLOY:** Well, I'll admit 743, but
5 can we move on a little bit from all these meter
6 reading -- I mean, I think we know they require
7 meters. Seems like we're getting into a lot of
8 minutia here, but you may proceed.

9 **MS. THOMPSON:** Sure, Your Honor. And I
10 should just be clear. We're just laying the
11 foundation for the accuracy and the extensive and
12 robust nature of the collection of these meter
13 readings.

14 **JUDGE MELLOY:** I understand. This is
15 probably about the fifth witness that's talked about
16 it, though, so let's move on.

17 **MS. THOMPSON:** Okay.

18 **Q. (BY MS. THOMPSON) Then on New Mexico**
19 **Demonstrative Exhibit Page -- 59, page 16, please.**
20 **The third step, the final step on this compliance,**
21 **what do you mean here by meter blitz?**

22 **A.** So, again, after the notice goes out to those
23 owners, we'll compile the data that we receive, run
24 some more database queries, and determine if there's
25 still any meter readings that are outstanding, and at

1 that point, we'll coordinate an effort to actually
2 send out our water master staff and other district
3 staff into the field to physically acquire those meter
4 readings with the intent of facilitating a complete
5 and accurate data set at the end of each year that we
6 can base our end of the year accounting on.

7 Q. And then in order to obtain compliance, do
8 the water masters, in conjunction with the ALU unit,
9 do you have to sometimes litigate these enforcement
10 actions?

11 A. On occasion, we do, but generally we have
12 really good compliance after we send out these
13 letters.

14 Q. Okay. I'm going to look at one example of
15 the enforcement through litigation, and then we will
16 move onto a separate topic of over diversions here.
17 So let's go to New Mexico Exhibit 677, please. And do
18 you recognize this exhibit?

19 A. Yes, I do.

20 Q. And did you work on this particular
21 enforcement action that went through litigation?

22 A. I did. It was myself and my senior assistant
23 that worked on this enforcement.

24 Q. And then is this also part of the state
25 engineer records?

1 A. Yes, it is.

2 **MS. THOMPSON:** I'll move to admit New
3 Mexico 677, please.

4 **MR. GOLDSBERRY:** No objection.

5 **MR. DUBOIS:** Same objection, Your Honor,
6 as far as the -- it goes to the remedy. You're on
7 mute, Your Honor.

8 **JUDGE MELLOY:** The exhibit is admitted.

9 **Q. (BY MS. THOMPSON) Mr. Serrano, if we look at**
10 **the first page -- excuse me -- sorry. If we move over**
11 **to Page 3, Paragraphs 15, this section right here, 15,**
12 **16, 17, is giving a chronology of what happened in**
13 **this enforcement action. Just to your recollection,**
14 **would you describe what you recall happened here?**

15 A. Here, the -- the defendant was required to
16 install a meter per his permit conditions for
17 replacement well. He did not do that, and we pursued
18 an enforcement action. We issued a compliance order
19 through our administrative litigation unit and then he
20 still did not comply with that order and we petitioned
21 district court for enforcement asking for injunctive
22 relief and enforcement of the final compliance order.

23 **Q. And Exhibit 4 on Page 18, is that your letter**
24 **seeking compliance? Is this from your group?**

25 A. Yeah. So this letter was from my senior

1 assistant water master, and I'll note that I just -- I
2 review every single one of these before they go out.

3 Q. And then Exhibit 2 on Page 12, is that the
4 compliance order that's sent out by the ALU unit that
5 you mentioned earlier?

6 A. Yes, it is.

7 Q. And is this a typical compliance order? If
8 we could pull up both pages of this Exhibit 2 here.
9 Does this look like a typical compliance order that
10 you've seen before for enforcement actions?

11 A. I would agree with that. I think it's -- the
12 language is usually pretty consistent, with the
13 exceptions of the particulars of the individual water
14 right we're trying to address.

15 Q. And then on the second page towards the
16 bottom, what are the possible penalties that the state
17 engineer office can enforce for noncompliance?

18 A. In this section, you see that the potential
19 penalties are up to a hundred dollars a day civil
20 penalty may be assessed and/or up to double the amount
21 of water that's diverted during the time that the
22 owner is in a state of noncompliance.

23 Q. Then back on Page 4, bottom of the page,
24 please, and then over to 5, just again here under
25 the "wherefore" section, what's the relief sought

1 here? Is that similar to what we saw in the
2 compliance order?

3 A. Yes. We're requesting that the compliance
4 order become final and that we receive injunctive
5 relief preventing any further illegal diversions.

6 Q. And what else under 3 and 4, what is it the
7 state engineer is -- has available to it for penalties
8 for noncompliance?

9 A. Again, double the amount of water diverted
10 during the period of noncompliance, and we can request
11 a civil penalty up to a hundred dollars a day from
12 every day after the compliance order is final -- or
13 actually, from the date the compliant order is issued.

14 Q. Okay. Roughly how many enforcement actions
15 are resolved locally versus having to go through this
16 enforcement action proceeding?

17 A. The vast majority are resolved at the local
18 level.

19 Q. Okay. So we've gone through quite a bit of
20 testimony on metering requirements and metering
21 enforcement, and I want to now turn to when a well
22 owner over diverts. What happens to an over
23 diversion, what type of enforcement is available?

24 A. We have a similar but different process for
25 over diversions. We refer to it as our expedited

1 hearing procedure for over diversions.

2 **Q. Just to start for laying a little bit of**
3 **background here, how much water is allowed to be**
4 **diverted from a particular well?**

5 A. There's a few different scenarios. In the
6 instance of consumptive use rights -- rights,
7 municipal, industrial, commercial, it would be an
8 amount that's designated, the historic beneficial use
9 amount that's identified either in the permits or
10 their adjudicated sub-file orders. The second would
11 be in terms of a groundwater-only irrigation right.
12 They would be allowed to divert up to 4-and-a-half
13 acre-feet per acre of groundwater, and then in a
14 situation of what we refer to as a combined right,
15 meaning that they're -- they have surface water and
16 supplemental groundwater, that amount of available
17 groundwater each year changes depending on whatever
18 the surface water allotment is for that particular
19 year.

20 **Q. And so those are the amounts that you**
21 **administer to; is that right?**

22 A. Yes.

23 **Q. And where do these amounts come from for**
24 **irrigation withdrawals?**

25 A. The -- I'm sorry. Can you restate the

1 question?

2 Q. Sure. The source -- what's the source for
3 those limitations on irrigation withdrawals? I think
4 we heard testimony from John Longworth yesterday. I
5 just wanted to connect the dots here.

6 A. The source -- oh, the figures would be from
7 the Stream System Issue 101?

8 Q. Okay.

9 A. Final order, final judgment, and incorporated
10 settlement agreement.

11 Q. Okay. And we heard questions and testimony
12 about this 101 order and its allowance for water users
13 to prove up to 5.5 acre-feet per acre. Are you aware
14 of this provision of the 101 order?

15 A. Yes, I am.

16 Q. And what is the process in District 4 for
17 allowing a water user to try to claim up to the 5.5
18 acre-feet per acre?

19 A. That's a process that's handled through our
20 local legal adjudication program, but basically what
21 was required per the order was that water right owners
22 intending to prove that higher beneficial use amount
23 above 4.5 had to have provided notice to the state
24 engineer by a designated date and then after that
25 date, they then had to provide evidence to

1 substantiate that claim of a higher FDR amount, and
2 there was a specified date within the 101 order also
3 for submission of that evidence.

4 **Q. Do you know how many notices of intent have**
5 **been filed for District -- in District 4?**

6 A. It's my understanding in talking with our
7 legal adjudication program that there are
8 approximately 1,017 notices that were received. And
9 I'll just note that that's comprised of two different
10 figures. So there's the first, which is just a basic
11 notice of intent, and then there's a second, which is
12 a notice of intent immature pecan trees. There were
13 separate provisions in the 101 agreement that allowed
14 for notice of intent with different dates for immature
15 pecan trees. So the cumulative total between those
16 two categories is 1,017.

17 **Q. And how many of those notices of intent have**
18 **been approved to date?**

19 A. Well, there were approximately 430 that were
20 -- that did not meet the evidence burden. They did
21 not provide evidence so those were immediately denied,
22 so those water rights would be subject to the 4.5
23 acre-feet per acre limit. There were 580 --
24 approximately 580 that did provide evidence, so that's
25 kind of the baseline that we're working with. From

1 there, it's my understanding that there's been
2 analysis, at least fully or partially, on 69 of those
3 files that -- those notices that did submit evidence,
4 and then there's some acreage determinations that came
5 out of that analysis. So approximately 1,500 acres
6 has received -- been approved based on that analysis
7 an FDR greater than 4.5 acre-feet per acre, and then
8 there's another 1,400 acres that was analyzed where
9 that evidence burden was not met so they subsequently
10 received the 4.5 acre-feet per acre.

11 **Q. Okay. And then so since there's 69 reviewed,**
12 **there's quite a few left to review; is that right?**

13 A. That's correct.

14 **Q. And that process, does that go through the**
15 **adjudication attorneys for review?**

16 A. The attorneys as well as the -- the technical
17 folks on the ground that are making those
18 recommendations.

19 **Q. Okay. But just because someone files a**
20 **notice of intent with support, that does not mean that**
21 **those are going to be approved, per se, correct?**

22 A. That's my understanding.

23 **Q. In recognizing that until the review and**
24 **evaluation occurs, what are those water users allowed**
25 **to pump acre-feet per acre currently?**

1 A. So those water users that did provide notice
2 of intent and then followed up with evidence, you
3 know, it's been directed to allow for those to divert
4 up to the 5.5 acre-feet per acre until we hear
5 otherwise from the adjudicating court.

6 **Q. Okay. Walk us through how in District 4, you**
7 **determine the total amount of groundwater that can be**
8 **drawn -- withdrawn each year from a particular well,**
9 **whether it's the 4.5 or the 5.5. Just walk us through**
10 **those steps that you take each year.**

11 A. Are you referring to the combined water
12 rights scenario?

13 **Q. Yes. Thank you.**

14 A. Okay. So in a combined water rights
15 scenario, you know, we have two components of the
16 water right, the first being the surface water
17 component. So we take information that we get from
18 the Elephant Butte Irrigation District that quantifies
19 the allotment for that year, and we take that off the
20 top essentially and assume that all that water would
21 be diverted delivered by EBID and then used by the
22 water right owner. And then the remainder, whatever
23 is left, up to the limit, whether that be 4.5, 5.5, or
24 something in between, is the amount that can be pumped
25 from groundwater.

1 **Q. And do you track that combined use through**
2 **your database?**

3 A. Yes, we do. So when we receive those
4 allotments every year, we've developed a process where
5 we can enter that allotment into the WATERS database,
6 and it automatically adjusts all of the accounts,
7 irrigation accounts, to reflect how much groundwater
8 they can then pump for the year.

9 **Q. If we could pull up New Mexico Demonstrative**
10 **58, please, which has been admitted. This is just**
11 **another example from the WATERS database, and we're**
12 **going to be using this example later on when we talk**
13 **about the OWMAN program, but for purposes of**
14 **describing right now this combined water use, will you**
15 **show where it's reflected on here how you account for**
16 **surface water plus the groundwater for a particular**
17 **water right?**

18 A. If you can call out that section
19 under "metered amounts" towards the top. So here is
20 where we do that accounting, and, again, this is --
21 this is a front-end reflection of public --
22 publicly-available reflection of what the back end of
23 the database is doing. So here you can see under
24 metered amounts, we have the year. We always
25 designate the year. Metered groundwater diversion,

1 this would be the amount of groundwater diverted based
2 on the meter readings that were submitted to us. You
3 have an EBID surface water allotment. Here is where
4 we input that allotment for the year, multiply it by
5 the water right acres to get a volume of surface water
6 that should be delivered and used, and then when you
7 add up the meter groundwater and the EBID surface
8 water amount, it gives you a total. That's a
9 year-to-date total based on those entries. And we
10 also have, just below that, a percent total used, and
11 then at the very bottom, the amount of groundwater
12 remaining for -- for whichever water right we're
13 looking at.

14 **Q. And you track this for every single combined**
15 **water right user, surface water/groundwater combined**
16 **right?**

17 A. That's correct.

18 **Q. And here on this example, we do see a**
19 **notation of percent of total diverted, and it says**
20 **over 75 percent diverted called out in red. Could you**
21 **explain this notification on here?**

22 A. Yes. So we built in some of these flags in
23 the system just to kind of help people understand or
24 identify when they're getting close to their limit.
25 So when somebody approaches -- gets to 75 percent or

1 exceeds it, that flag will pop up, and you can see
2 here how this percent of total diverted at this point
3 in time is 100.16 percent.

4 **Q. And so then just to make sure it's clear**
5 **then, the allowable groundwater diversion, how much on**
6 **an acre-foot per basis have they over diverted for**
7 **this water right?**

8 A. Here, they've exceeded their total by 2.70
9 acre-feet.

10 **Q. And then what do you do, whether it's 2**
11 **acre-feet or more, what do you do for over diversions?**

12 A. So we generally look at this data, we pull it
13 out of the database, and we'll put it into spreadsheet
14 form, and then we'll look at each of these and
15 determine if -- if the accounting is -- is an accurate
16 reflection of everything that we have in the file, and
17 -- and what's of particular concern, especially with
18 this water right owner, is if they've applied for and
19 provided the evidence for notice of intent, then we
20 will have to go in and adjust the numbers to reflect
21 that 5.5 acre-feet per acre allowance because what you
22 see here on the summary, this is all -- these
23 calculations are based all on 4.5, until we get a
24 final order from the Court, then those numbers will be
25 adjusted. So if there's notices of intent on file for

1 the participating water rights, then we have to adjust
2 for that provided they had evidence.

3 **Q. If, in fact, though, there is an over**
4 **diversion and you confirm there's an over diversion,**
5 **what do you do next?**

6 A. Then we'll notify the owner that they've
7 exceeded their allowable limit, and it requires that
8 they come in and meet with a member of my staff or
9 myself to discuss the options for repayment of that
10 water.

11 **Q. Are there written enforcement procedures for**
12 **over diversions?**

13 A. Yes. We have an expedited enforcement
14 procedure.

15 **Q. If we could pull up New Mexico Demonstrative**
16 **Exhibit 59, Page 17, please. And are those procedures**
17 **shown here on this demonstrative exhibit?**

18 A. Yes.

19 **Q. If we could pull up the separate exhibit, New**
20 **Mexico 2084, please. So are these the expedited**
21 **hearing procedures that you use for over diversions?**

22 A. Yes, they are.

23 **Q. And this is an official record for the State**
24 **Engineer's Office?**

25 A. It is.

1 **Q.** And do you implement these enforcement
2 **procedures as part of your job duties?**

3 A. Yes.

4 **MS. THOMPSON:** I'll move to admit New
5 Mexico Exhibit 2084, please.

6 **MR. GOLDSBERRY:** No objection.

7 **MR. DUBOIS:** Same objection, but I'm
8 assuming you're going to allow that so...

9 **JUDGE MELLOY:** I'll admit 2084.

10 **Q.** **(BY MS. THOMPSON)** **Mr. Serrano, why are these**
11 **expedited procedures?**

12 A. These are expedited so that way we can try to
13 address all of these over diversions within a timely
14 fashion.

15 **Q.** And what is it -- what do you mean by -- how
16 **do you expedite it?**

17 A. We expedite it through our -- our hearing
18 unit, the State Engineer's hearing unit. So we have a
19 system in place where we can create a very fast docket
20 where all of these issues can be heard in front of a
21 hearing examiner if they reach that point.

22 **Q.** **If we can flip back then to New Mexico**
23 **Demonstrative Exhibit 59, Slide 18, please. And did**
24 **you create this demonstrative?**

25 A. I did, yes.

1 Q. And these are enforcement steps similar to
2 what we saw before for the metering enforcement?

3 A. Yes, they are.

4 Q. But they're not the exact same; is that
5 right?

6 A. They're not the exact same. They're similar.

7 Q. Okay. Would you just briefly walk us through
8 the steps then for enforcement that occurs for the LRG
9 if that's an over diversion?

10 A. So as you can see here in the demonstrative,
11 Step 1, of course, is notice to the -- notice of
12 violation, and that notice always includes a detailed
13 report. Excuse me. There's some sirens going on
14 here. The notice always includes a detailed report of
15 the diversions for the years specifying that data that
16 we're looking at, and it has a 30-day requirement in
17 which to meet with a member of the water master staff
18 to go over the -- the options for repayment. We
19 generally have a good amount of compliance. People
20 will comply at that point. If not, then we move onto
21 Step 2, which is a notice of violation from the
22 administrative litigation unit. That's a more
23 detailed notice, and it -- it also has an accompanying
24 summary of all the diversions for that particular
25 year. They're given an additional 30 days in which to

1 comply. At this step, again, we generally have pretty
2 good response when that -- the administrative
3 litigation unit notice goes out. At that point, a
4 repayment plan could be renegotiated. That fully
5 resolves that over diversion, and then we'll track
6 that plan throughout the year. If notice is not
7 achieved, we'll move onto Step 3, which is, you know,
8 consistent with the other enforcement process, we'll
9 issue a compliance order, but along with that
10 compliance order, it'll have an expedited hearing
11 packet with a date for hearing and a request if the
12 water right owner so chooses to pursue that. And then
13 after that, I'd combine Steps 4, 5, 6, and 7 here.
14 You can see an owner could choose to request a
15 hearing. We'll prepare for that hearing. We'll have
16 the hearing, and then we'll have some recommendations
17 from the hearing examiner as to what the appropriate
18 remedy should be and then if compliance is still not
19 achieved moving on, the State Engineer can petition a
20 local district court -- state district court for
21 enforcement of the compliance order and adherence to
22 the hearing examiner's recommendation.

23 **Q. Thank you. And on the Step 1 that you**
24 **mention here, notice of violation by water master,**
25 **those are letters sent out by you; is that right?**

1 A. Yes.

2 Q. Okay. If we could look at New Mexico Exhibit
3 485, please. And I think this exhibit has many pages.
4 Have you seen this exhibit before?

5 MS. THOMPSON: If you flip through, Ms.
6 Ferguson, just a couple pages, you can see Mr. Serrano
7 that it appears to be the same letter, just different
8 people from 2017.

9 Q. (BY MS. THOMPSON) Does this exhibit -- is it
10 familiar to you, Mr. Serrano?

11 A. Yes, it is. So it's the same form letter and
12 then we run a mail merge, and it incorporates all the
13 addresses for the different owners.

14 Q. But this is an example of that Step 1, the
15 notice to the water users from the water master; is
16 that correct?

17 A. Yes, ma'am.

18 Q. And then do you prepare these letters?

19 A. I do.

20 Q. And then are they part of your official
21 record?

22 A. Yes.

23 MS. THOMPSON: I'm going to move to
24 admit New Mexico Exhibit 485, please.

25 MR. GOLDSBERRY: No objection.

1 **MR. DUBOIS:** Objection on relevance,
2 goes to the remedies.

3 **JUDGE MELLOY:** Can we just -- I'll
4 admit, but can we move along? I don't think we need
5 this level of minutia on this issue, but -- I mean,
6 it's your case, but can we move along a little bit?

7 **MS. THOMPSON:** Sure. Can I respond,
8 though?

9 **JUDGE MELLOY:** Go ahead.

10 **MS. THOMPSON:** We're just wanting to
11 make sure because original actions have historically
12 always addressed administration and how much
13 groundwater is being pumped in the LRG, where it's
14 going, how it gets limited and then of course --

15 **JUDGE MELLOY:** This has nothing to do
16 with water that's pumped or where it's going. This
17 has to do with the reporting. All the reporting in
18 the world doesn't do any good if you're pumping too
19 much water.

20 **MS. THOMPSON:** So, Mr. Serrano, is just
21 explaining through his testimony just the
22 administration in the LRG following up from
23 Mr. Longworth from yesterday of exactly what occurs.

24 **JUDGE MELLOY:** Okay. Go ahead.

25 **MS. THOMPSON:** But we certainly will

1 move along.

2 Q. (BY MS. THOMPSON) So then onto New Mexico
3 Exhibit 883. Do you track over diversions in the LRG?

4 A. Yes, we do.

5 Q. All right. Is this a table from your
6 declaration that you summarized your tracking of over
7 diversions?

8 A. Yes, it is.

9 Q. And you prepared this table?

10 A. Yes.

11 Q. And then this is an official record from the
12 New Mexico State Engineer's Office?

13 A. Yes, it is.

14 MS. THOMPSON: I'll move to admit New
15 Mexico 883, please.

16 MR. GOLDSBERRY: No objection.

17 JUDGE MELLOY: Mr. Dubois, do you have
18 an objection?

19 MR. GOLDSBERRY: You're on mute.

20 MR. DUBOIS: Sorry about that. The same
21 objection, Your Honor, but I understand where we are.

22 JUDGE MELLOY: 883 is admitted.

23 Q. (BY MS. THOMPSON) Mr. Serrano, will you just
24 explain for us then what this table is showing as far
25 as the number of over diversions you're recording here

1 **and then what you do about those over diversions?**

2 A. What this table is showing is number of over
3 diversion in terms of files that are over diverted and
4 the -- the associated year and then an accompanying
5 amount of acre-feet for all of those water right files
6 combined. And what we do is at the end of the year
7 when we do our accounting, we identify, of course, the
8 over diversions. We send out those notices and then
9 we -- we work with the water right owners to come up
10 with an acceptable plan for repayment.

11 **Q. And you refer in your annual report to**
12 **reconciliation process. What's that process?**

13 A. Well, we try to reconcile the accounts to
14 make sure that all of that over diverted water is --
15 is completely repaid in the year immediately following
16 in which the over diversion occurred.

17 **Q. And then if we could look at New Mexico**
18 **Demonstrative Exhibit 59, Slide 20, please. Do you**
19 **recognize this slide?**

20 A. Yes.

21 **Q. And is this an example of one of your**
22 **reconciliation processes?**

23 A. This is a summary of our -- our
24 reconciliation process, and we incorporate this into
25 our annual report every year.

1 **Q. Would you describe what this graph is**
2 **showing?**

3 A. Yes. Just briefly, this graph is -- is a
4 graphical representation of the data we just saw from
5 the previous table, but here it's for a particular
6 year, 2017. We have number of water right files
7 identified in the red plot line -- excuse me -- in the
8 blue plot line and the amount of water identified
9 associated with those over diversions in red, and you
10 can see as we progress through the year, there's a
11 callout there for when we send out the initial notice
12 that was done in April, it looks like there that year,
13 and then as we move through time, we're achieving
14 compliance, and those numbers are continually being
15 reduced all the way to the point here in 2017 where we
16 had every account reconciled.

17 **Q. And one of your reconciliation options you**
18 **mentioned is a repayment plan. Would you describe**
19 **what that is?**

20 A. The repayment plan, it's a one-page form that
21 we developed. We tried to keep it as simple as
22 possible for water right owners who are in a situation
23 of over diversion and they're required to fill out
24 that plan and identify the option for repayment and it
25 must fully satisfy the over diversion.

1 Q. If we could just flip to the next slide, just
2 one other example from 2020. The same reconciliation
3 process is occurring in 2020, correct?

4 A. That's correct.

5 Q. And you're showing here that you -- you
6 didn't get to zero here, but what do you get down to
7 for the reconciliation on this year?

8 A. For 2020, we got down to 56 files remaining
9 and the amount of water of 715 acre-feet. This was a
10 pretty difficult year given the restrictions we had
11 with regards to meeting with people and trying to get
12 things done, and then also working from -- remotely
13 for a good portion of the year, so you can see here
14 the progress isn't what I would have liked to have
15 seen for that year, but we're working on it.

16 Q. Okay. So you strictly enforce those over
17 diversions and then you mention the repayment plan.
18 Let's look at New Mexico Exhibit 786, please, which
19 has been admitted. Would you describe what this form
20 is?

21 A. This is an example of our one-page repayment
22 plan.

23 Q. Then what are the options for repayment there
24 under supply of groundwater for repayment? You see
25 the four listed items there with the callout boxes.

1 A. Yes. These are primary options for
2 repayment.

3 **Q. Sorry. Go down to the middle part. Yeah,**
4 **there you go. Thank you.**

5 A. So the first -- the first option is a
6 reduction in diversion of administrable water right or
7 another groundwater water right belonging to that same
8 owner in a subsequent year. So if they over divert
9 one acre-foot, they need to under divert one acre-feet
10 in the following year. A change place of use or point
11 of diversion application that's similar to the water
12 right change application we referred to earlier, an
13 application of that type might be sufficient to
14 resolve the over diversion. A water use lease
15 authorized by the state engineer, again, that's via
16 the application process where they could -- an owner
17 could go out and lease land with an associated
18 groundwater right and use that water as a repayment
19 option. Number four here is the same ownership
20 management plan agreement. If a farmer that over
21 diverted was only exercising his water rights in
22 accordance with the ownership management plan, then
23 we'll allow him to go ahead and file that, and we'll
24 adjust the accounting to reflect the OWMAN, and then
25 there's an option here for other just to allow for,

1 you know, if a water right owner has some other sort
2 of repayment option or combination thereof, then we'll
3 identify it here.

4 Q. And do you investigate every over diversion?

5 A. Yes.

6 MS. THOMPSON: You can take that down.

7 Q. (BY MS. THOMPSON) We're going to switch gears
8 to the OWMAN program that you may have heard testimony
9 about before. Mr. Longworth testified about this
10 program as originating from the 101 order. Are you
11 familiar with the OWMAN program?

12 A. Yes, I am.

13 Q. And do you administer parts of the OWMAN
14 program?

15 A. Yes, I do.

16 Q. Would you describe in your own words what the
17 OWMAN program is?

18 A. In my mind, the OWMAN program is a current
19 administrative reflection of historical irrigation
20 practices whereby an owner that either owns water
21 rights or manages water rights in and amongst farms
22 that -- that they own or manage, it gives them the
23 flexibility to use that water as they see fit. In
24 essence, they can use a little bit more water on one
25 parcel if they use a little bit less on the other, and

1 then we average out that use across the total amount
2 of water-righted acres.

3 Q. If we could look at New Mexico Exhibit 486,
4 please. Are you familiar with this summary document
5 for OWMAN?

6 A. Yes, I am.

7 Q. And did you help prepare this document?

8 A. I did.

9 Q. Okay. This has been admitted, but looking at
10 the second paragraph, does this describe the OWMAN
11 program and the benefit or flexibility to the farmers?

12 A. It does.

13 Q. And you mentioned earlier, there's -- you
14 know, reflects the historical use or operation of the
15 water. What did you mean by that?

16 A. Well, it's my understanding that -- that
17 sharing the water, you know, in this -- in this
18 fashion has been occurring in the Lower Rio Grande for
19 quite some time, and it's just -- it was memorialized
20 in the 101 agreement and then we were required to
21 create an administrative process to track that.

22 Q. And if we look at the second page of this
23 document at the top, there's been some discussion
24 about notice and what notice has to be submitted to
25 the State Engineer's Office. Would you describe what

1 **this paragraph is listing out here?**

2 A. Yes. So as part of the 101 settlement
3 agreement and final order, there's some language in
4 there that required that these agreements could be
5 implemented provided that there's agreed-upon notice
6 to the state engineer. So we had to come up with an
7 appropriate form that would identify all the necessary
8 elements to satisfy that notice requirement. So these
9 are those elements. Number one, they have to submit
10 their OSE file numbers for each farm that they're
11 proposing. They have to identify an amount of acreage
12 they're proposing to enroll. They have to identify
13 whether or not they filed their notice of intent in
14 evidence to prove that higher FDR, again, per the 101
15 order. They have to name and date each water right,
16 and then they have to provide some general maps
17 indicating where this land was located.

18 **Q. If there's common management, do they also**
19 **have to submit written agreements?**

20 A. They do. Generally we'll get landowner
21 agreements, rental agreements, or any other type of
22 agreement they might have.

23 **Q. Is there a deadline to provide notice to**
24 **District 4?**

25 A. No. We try to get these all entered, get

1 them all submitted and entered before April 30th, and
2 that's just simply so that way we have all this
3 accounting in place in the WATERS database before the
4 start of the irrigation season.

5 Q. And then who reviews the OWMAN notices when
6 it gets submitted to District 4?

7 A. When they get submitted, they go through my
8 office, and I review all of them.

9 Q. Okay. And under the OWMAN program, are water
10 rights changed in any way?

11 A. They're not changed, no. It's simply
12 accounting.

13 Q. And have you investigated at all whether the
14 OWMAN program has actually increased total irrigation
15 water use in the basin?

16 A. I have not, no.

17 Q. Do you understand that that overall use of
18 water versus historical use will be addressed by the
19 New Mexico experts in the spring?

20 A. That's my understanding, yes.

21 Q. If we could look at New Mexico Demonstrative
22 Exhibit 59 again, Page 22, please. On this
23 demonstrative, would you explain what's shown there on
24 the right-hand side related to the OWMAN program?

25 A. So in -- in the demonstrative, the slide that

1 we have up here on the right-hand side, this is the
2 form, this is that agreed-upon notice. This is our
3 standard form, so any water right owner who wants to
4 invoke these provisions of the settlement will use
5 this form, and they'll provide all that information,
6 that necessary information, that we discussed.

7 **Q. And you said that they also -- do they have**
8 **to submit maps identifying the specific parcels that**
9 **they're using in the OWMAN?**

10 A. They do. And, you know, they don't always
11 have access to those maps so they can come in and work
12 with either my staff or the district staff to pull
13 together some maps.

14 **Q. And then on the left-hand side is the water**
15 **rights summary. It's the same one we looked at**
16 **earlier when you were describing the combined surface**
17 **water/groundwater, the Calhoun summary here. A little**
18 **bit blurry so I'm going to ask Ms. Ferguson to pull up**
19 **New Mexico Demonstrative 58 separately. Would you**
20 **just describe how this is reflecting these particular**
21 **water rights as combined in the OWMAN program?**

22 A. So as one of the processes with -- with this
23 OWMAN procedure is we entered all these into the
24 WATERS database as an independent transaction so
25 that's the only way that we can facilitate appropriate

1 accounting is we had to use the database. So all the
2 water rights that are being proposed will be moved
3 from their original accounts into this OWMAN farm
4 account, which you see here and any time there's a
5 change to an OWMAN account, those transactions will be
6 updated accordingly. You can see here in this callout
7 starting at the bottom that this first OWMAN was put
8 into place in 2016. It was amended in July of '16,
9 and then, again, in September, and those -- those
10 appear to be adding acreage as -- as the season goes
11 on, and then it was amended again in 2019 and then
12 amended again in February of 2020. So we tracked this
13 -- these changes in this transaction over time in
14 order to effectuate the accounting.

15 **Q. So do you update the OWMAN program**
16 **information on the database every year?**

17 A. Every year and as we receive it, yes.

18 **Q. Do you ever review an OWMAN request and have**
19 **to deny it?**

20 A. Yes, we do.

21 **Q. And why would you have to deny one?**

22 A. Well, there's a couple of different reasons.
23 First and foremost, the water rights that are being
24 proposed, they have to be valid existing water rights
25 and then they have to be in good standing, meaning

1 that they're in compliance with all of their necessary
2 permit conditions. Second, they have -- it has to be
3 a water right for the ownership this property
4 reflected so the water right has to match the land
5 ownership, and if that isn't the case, then we'll deny
6 participation for that reason and then we've also had
7 instances where someone will come in and they'll try
8 to include a surface water only parcel to be included
9 as part of OWMAN. In those instances, we'll also deny
10 that?

11 **Q. Okay. So we're going to move on from OWMAN**
12 **then onto what I think you referred to earlier as the**
13 **river pumpers, and on this topic, are you aware that**
14 **Texas alleged in this case in its complaint that New**
15 **Mexico has increasingly allowed the diversion of**
16 **surface water and repeatedly referred to those surface**
17 **water diversions as illegal surface water diversions?**

18 **A. Yes. I'm aware of that fact.**

19 **Q. Is that because you reviewed the complaint?**

20 **A. If memory serves me correct, it was in the**
21 **original complaint and also the -- I believe I saw it**
22 **in the motion for summary judgment.**

23 **Q. And to your knowledge as the water master,**
24 **has Texas or Reclamation ever notified your office or**
25 **New Mexico of any illegal surface water diversions?**

1 A. Yes, they have.

2 Q. And when was that?

3 A. That would have been back in 2012, when I
4 first started as water master.

5 Q. And we'll go through some details of that,
6 but is that the only time since you've been water
7 master that you know of?

8 A. Yes.

9 Q. And did you investigate the allegations of
10 illegal surface water diversions?

11 A. I -- I did in my capacity as the water master
12 and then the office did kind of as a collective -- the
13 Lower Rio Grande adjudication also did some research
14 to address that issue.

15 Q. Let's look at U.S. Exhibit 229, please. This
16 is an e-mail from Mr. Bert Cortez to Mr. Rolf
17 Schmidt-Petersen. Have you seen this e-mail, even
18 though you weren't copied on it? Did you see this
19 e-mail?

20 A. I have seen it, yes.

21 Q. Did you discuss the e-mail with other state
22 engineer staff?

23 A. Yes.

24 Q. And what's your recollection about what
25 Mr. Cortez was alerting Mr. Schmidt-Petersen to in

1 **this e-mail?**

2 A. That there were several sites identified by
3 -- by Reclamation as sites of concern and that
4 potentially would be diverting -- illegally diverting
5 Project water.

6 **Q. And did you -- were you involved in the**
7 **specific investigation raised by Bureau of Reclamation**
8 **in this e-mail?**

9 A. Yes. As I mentioned, that was one component
10 of a larger effort.

11 **Q. To your knowledge, was there anything more**
12 **formal sent from Bureau of Reclamation on this issue**
13 **that you know about?**

14 A. I can't recall more formal.

15 **Q. But to your knowledge, this is the only**
16 **notification the Bureau of Reclamation provided on**
17 **this issue?**

18 A. Yes, that's correct.

19 **MS. THOMPSON:** I'm going to move to
20 admit U.S. Exhibit 229, please.

21 **MR. GOLDSBERRY:** Objection --

22 **MR. DUBOIS:** Objection that it goes to
23 the remedies issues, but otherwise --

24 **JUDGE MELLOY:** I'll admit 229.

25 **Q. (BY MS. THOMPSON) If we could also look at**

1 New Mexico Exhibit 720, please. Excuse me. Sorry.
2 Let's skip past that. New Mexico 223, please. Oops.
3 2223. Sorry. I missed a 2 there. Thank you.

4 Mr. Serrano, have you seen this letter from
5 Mr. Gordon, Texas commissioner, to the New Mexico
6 Compact commissioner.

7 A. I have seen this, yes.

8 Q. How did you happen to review this letter; do
9 you recall?

10 A. After this letter was sent to New Mexico
11 Compact Commissioner, it was very shortly thereafter
12 forwarded down to the district office, and it was
13 brought to my attention.

14 Q. Did you discuss it with other state engineer
15 officials?

16 A. Yes.

17 Q. And then were you also involved in the
18 investigation of the illegal diversions raised in this
19 letter?

20 A. Yes.

21 Q. To your understanding, is it the same surface
22 water diversions that are complained about in this
23 letter that were also complained about on the e-mail
24 from Mr. Cortez?

25 A. That was my understanding. It's not two

1 distinct events. It was one and the same.

2 **Q. And then what's your recollection about what**
3 **this letter is raising as a possible illegal**
4 **diversion?**

5 A. That there was -- there was river pumpers or
6 surface diversions intercepting Project water.

7 **MS. THOMPSON:** I'll move to admit New
8 Mexico 2223, please.

9 **MR. GOLDSBERRY:** No objection.

10 **JUDGE MELLOY:** 2223 is admitted.

11 **Q. (BY MS. THOMPSON) Mr. Serrano, will you then**
12 **please describe what investigations you did related to**
13 **these allegations?**

14 A. So from my perspective, what I worked on is
15 we went out and conducted field investigation of each
16 of the sites identified by the BOR from Mr. Cortez's
17 e-mail. We looked at those specific locations and
18 then we also kind of expanded our -- our view and
19 looked at the entire stretch of the river to identify
20 potential illegal diversions from Caballo Dam all the
21 way to the New Mexico/Texas state line.

22 **Q. And did you document your investigation?**

23 A. Yes, I did.

24 **MS. THOMPSON:** If we could pull up New
25 Mexico Exhibit 788, please.

1 **Q. (BY MS. THOMPSON) Do you recognize this**
2 **memorandum?**

3 A. Yes.

4 **Q. And what is it?**

5 A. This is my memo summarizing our activities
6 with regard to that investigation, the river pump
7 investigation.

8 **Q. And so you prepared this memorandum?**

9 A. I did.

10 **Q. And is this also an official record of the**
11 **State Engineer's Office?**

12 A. It is.

13 **MS. THOMPSON:** I'll move to admit New
14 Mexico Exhibit 788, please.

15 **MR. GOLDSBERRY:** No objection.

16 **JUDGE MELLOY:** 788 is admitted.

17 **Q. (BY MS. THOMPSON) And what's the date of this**
18 **memorandum?**

19 A. That's June 26th of 2013.

20 **Q. What does it state on the cover page as the**
21 **reason for, excuse me, the field investigation?**

22 A. To document all active and inactive river
23 pumps slash diversions within the Lower Rio Grande
24 Water Master District and to follow up on the 2012
25 field investigation conducted by the Office of the

1 State Engineer in response to complaints received by
2 the Bureau of Reclamation and the International
3 Boundary and Water Commission.

4 Q. How many sites did you end up investigating
5 as possible surface water diversions? And if you need
6 us to flip to the end to show you the total numbers,
7 we can do that.

8 A. If you could, if my memory serves me correct,
9 it was 24.

10 Q. Turn to Page 103, please. This is the last
11 file in this memorandum. Does that refresh your
12 recollection?

13 A. It is. 26 sites in total.

14 Q. Okay. And you had mentioned earlier that you
15 expanded your scope and looked up and down the river.
16 Is there anything else that you'd like to describe as
17 far as your methodology of what you did for your
18 investigation?

19 A. Just -- just that we tried to be as
20 comprehensive as possible. We tried to collect GPS
21 data and several pictures associated with each site
22 and then identify whether or not they were legally
23 entitled to divert water from the river or if it was,
24 in fact, an illegal point of diversion and then
25 actions we took if they were, in fact, illegal.

1 Q. Okay. We're not going to hit on every single
2 of the 26 sites, but I just want to look at a couple
3 as an example to understand what you did and what your
4 investigation was so if we could look at Page 3 to
5 start, I just wanted to note here that some of these
6 sites, the basin is not listed as the LRG basin. This
7 one, for instance, is the Hot Springs Basin. Do you
8 see that?

9 A. Yes.

10 Q. Okay. And so you investigated beyond just
11 the LRG, including the Hot Springs, but does this
12 relate to in any way your LRG illegal surface water
13 diversions?

14 A. It does not. You know, if we identify
15 illegal diversions in this basin, it would be under
16 that category, the Hot Springs Basin.

17 Q. Okay. I just wanted to mention, there's a
18 couple of those, and we won't go over to those, but
19 we'll go on to Page 7 then. Here's one in the Lower
20 Rio Grande LRG Basin. Do you remember this site?

21 A. Yes.

22 Q. And what was the irrigated acreage for this
23 site listed here?

24 A. You can see here, it's 0.54 acres.

25 Q. And through this documentation, was there

1 **evidence of any illegal use at all?**

2 A. No, not at this location. We have -- we had
3 a surface water declaration on file and the diversion
4 point was actually metered and they were submitting
5 meter records to us.

6 Q. Okay. If we go on to Page 15, this is called
7 the Faykus River Pump here. Do you remember this
8 site?

9 A. Yes, I do.

10 Q. This is listed here as irrigated acreage of
11 14.14. What do you recall about this particular site?

12 A. At this particular site, I do recall that we
13 had some records on file, but it wasn't clear that
14 this was a valid point of diversion, so we -- we took
15 actions to get this activity stopped.

16 Q. We'll go into a little bit of detail about
17 the particular actions you took, but just for now, can
18 you summarize what you mean by you took actions?

19 A. We -- we initiated our enforcement process
20 that we described earlier.

21 Q. Okay. And then on to Page 35, another site
22 that you investigated, this is the Bonita Lateral
23 site. This also has an irrigated acreage listed here
24 of 200 acre-feet. What did your -- excuse me --
25 acres. Excuse me. What did your investigation

1 **conclude on the Bonita Lateral site?**

2 A. That the Bonita Lateral site is a recognized
3 pre-project water right, and they can divert water to
4 irrigate approximately 200 acres.

5 **Q. So was it you-all's conclusion then that this**
6 **one was not an illegal surface water diversion?**

7 A. That's correct.

8 **Q. And then on to Page 39, is another example.**
9 **This is the Duran Pumping Site. Do you remember this**
10 **site?**

11 A. Yes, I do.

12 **Q. And what do you recall about this site?**

13 A. This location is an additional or alternative
14 point of diversion of EBID Project water. So these
15 lands cannot be served through their traditional
16 infrastructure so there's a river pump or lift station
17 where they can pull their EBID allotment directly out
18 of the river.

19 **Q. And that's with the authorization of EBID?**

20 A. Yes. They have to be current on their
21 assessments, and they have to have an active order in
22 before they can utilize this facility.

23 **Q. And was it your determination -- your**
24 **office's determination this was not an illegal surface**
25 **water diversion then?**

1 A. That's correct.

2 Q. And if we look at two more examples here,
3 Page 43, please. The Holguin River Pump, do you
4 remember this site?

5 A. Yes, I do.

6 Q. Could you explain your investigation of this
7 site?

8 A. At this location, our records indicated that
9 it's a valid pre-project water right authorized to
10 irrigate up to 90 acres with surface water diverted
11 directly out of the Rio Grande.

12 Q. So as another pre-project right, did you
13 determine this was not an illegal surface water
14 diversion?

15 A. That's correct.

16 Q. And then on to the last page, Page 51, the
17 last example, I should clarify, this is the Dulin
18 river Pump. Do you remember this site?

19 A. I do, yes.

20 Q. What do you remember about this site?

21 A. Similar to the Duran location, this is a
22 additional or alternative point of diversion for EBID
23 project surface water. These lands can't be served by
24 any of the canals in the system -- in the area so
25 they're -- they're allowed to pump water or lift it

1 out of the river to irrigate these lands.

2 Q. Then if we flip over then -- excuse me. One
3 more example. I apologize. Page 59. The Thurston
4 Rio Grande River Pump. Again, do you remember this
5 site?

6 A. Yes, I do.

7 Q. What did you determine through your
8 investigation?

9 A. Similar to Duran and Dulin, this is also a
10 location for delivery of EBID Project water.

11 Q. I should mention that after each of these
12 summary pages, if you just scroll to the next page,
13 your investigation included pictures documenting your
14 investigation, correct, and then on the next page,
15 maps for each site; is that correct?

16 A. That's correct. And the maps include an X/Y
17 coordinate for each diversion point.

18 Q. Did you do that for every one of the 26
19 different sites you investigated?

20 A. Yes, we did.

21 Q. And then on the very end here, Page 103, that
22 No. 26 site, this one is listed here as the current
23 property owner of the IBWC. What do you recall about
24 this site?

25 A. This is the location that's a little

1 different. It's kind of migratory, and it's a
2 location that -- it's a pump that the International
3 Boundary and Water Commission will dip into the river
4 at different locations throughout their canalization
5 project to facilitate operation and maintenance
6 activities.

7 **Q. And did you determine whether or not this was**
8 **an illegal surface water diversion?**

9 A. It -- it's my understanding that it -- it is
10 not because there's some agreements in place between
11 the IBWC and the districts to allow for that mutually
12 beneficial maintenance.

13 **Q. Okay. And looking back at our Demonstrative**
14 **Exhibit 59, Page 23, did you prepare the summary of**
15 **the categories of the different river pumpers you**
16 **investigated?**

17 A. I did, yes.

18 **Q. Would you just explain then on the left side**
19 **those three categories you put them into?**

20 A. So there's -- there's three basic categories.
21 We have recognized pre-Project points of diversion.
22 Those are rights on file and recognized by the State
23 Engineer's Office. The second is points of diversion
24 for EBID Project water. You know, we discussed those
25 three examples. And then the third is illegal uses.

1 **Q. And what did you end up determining then for**
2 **the group of the pre-Project rights?**

3 A. That they have valid existing water rights on
4 file with the state engineer, and we would -- and we
5 require that those locations be metered and they
6 report their usage to local office.

7 **Q. And then the group that fell in the second**
8 **category, the points of diversion for EBID water**
9 **users?**

10 A. We found that those fall under the
11 jurisdiction of the Elephant Butte Irrigation
12 District, and they're valid points of diversion for
13 delivery of Project water.

14 **Q. And then on the last category then, what did**
15 **you end up doing with that final subcategory that you**
16 **determined were illegal surface water diverters?**

17 A. That final subcategory, we -- we followed our
18 traditional enforcement process. We issued notice and
19 pursued all of those until we had a satisfactory
20 result.

21 **Q. And then did you continue to document your**
22 **investigations?**

23 A. Yes.

24 **Q. Do you recall about how many fell into that**
25 **third category?**

1 A. I can't recall the exact amount, but, you
2 know, five, somewhere on the order of five.

3 **Q. And if we look at New Mexico Exhibit 626,**
4 **please. Did you prepare this memorandum?**

5 A. Yes, I did.

6 **Q. And what is this memorandum summarizing?**
7 **Excuse me. Let me back up here.**

8 **Would you state the date of this memorandum?**

9 A. This was December 18th of 2019.

10 **Q. What was the purpose for this memorandum?**

11 A. As a follow-up to the previous report and
12 memorandum, we just wanted to show the current status
13 as of 2019 of each of these locations.

14 **Q. And is this also an official record of the**
15 **State Engineer's Office?**

16 A. Yes, it is.

17 **MS. THOMPSON:** Move to admit New Mexico
18 626, please.

19 **MR. GOLDSBERRY:** No objection.

20 **MR. DUBOIS:** I'll raise the same
21 objection as far as the relevance, and it's also
22 cumulative.

23 **JUDGE MELLOY:** I'll admit 626.

24 **Q. (BY MS. THOMPSON) Mr. Serrano, can you**
25 **summarize for us what you understand the current**

1 **status is of the 26 sites that you looked at?**

2 A. At -- as of the date of this memorandum, they
3 were -- they were all in compliance.

4 **Q. And did District 4 have to take any of those**
5 **particular water owners through litigation to enforce**
6 **against the diversion of the water?**

7 A. There was one that -- that we had to take
8 through the entire process, and that would have been
9 the Faykus example.

10 **Q. If we could pull up New Mexico Exhibit 608,**
11 **please. Do you recognize this document?**

12 A. Yes, I do.

13 **Q. And what is it?**

14 A. This is a notice from the administrative
15 litigation unit to Mr. Faykus advising him of his
16 violation and notifying him that if he did not comply,
17 the compliance order would become final, and we -- we
18 could pursue district court enforcement.

19 **Q. And so is this just one example of District 4**
20 **enforcing -- investigating and enforcing against these**
21 **alleged illegal surface water diverters?**

22 A. Yes, it is.

23 **Q. And on Page 2, the compliance order, have you**
24 **seen this compliance order before?**

25 A. Yes, I have.

1 **Q.** And so you're familiar with this letter in
2 **this compliance order, correct?**

3 A. Correct.

4 **Q.** And these are also official records of the
5 **State Engineer's Office?**

6 A. Yes.

7 **MS. THOMPSON:** Move to admit New Mexico
8 0608, please.

9 **MR. GOLDSBERRY:** Objection; relevance;
10 cumulative.

11 **JUDGE MELLOY:** I'll admit 608. Go
12 ahead.

13 **Q.** **(BY MS. THOMPSON)** What ultimately happened on
14 **this last enforcement action for the Faykus case?**

15 A. Ultimately, we had a determination, actually
16 out of the adjudication court, as to the extent of the
17 water right, and basically that said that there was no
18 surface water right at that location. We took that
19 and we petitioned district court for enforcement. We
20 received an injunction from local district court.
21 Mr. Faykus did not comply with that injunction, and
22 then we turned around, and we petitioned the court for
23 -- to hold Mr. Faykus in contempt. They -- the court
24 agreed, and they held him in contempt and required
25 that all of that equipment be removed from the banks

1 of the river and they give him a specific timeline in
2 which to do that, after which we could go on site and
3 remove the equipment ourselves.

4 **Q. Then did you do a final inspection yourself**
5 **at the site?**

6 A. Yes, we did. We went out, you know, within
7 that designated time frame from the district court
8 order, accompanied by New Mexico State Police, to make
9 sure that, you know, that all of the equipment had
10 been removed.

11 **Q. If we could pull up New Mexico 0876, please.**
12 **Do you recognize this inspection report?**

13 A. Yes, I do.

14 **Q. And did you prepare it?**

15 A. Yes, I did.

16 **Q. Is this the final inspection report you just**
17 **mentioned as for the Faykus River Pump?**

18 A. That's correct.

19 **Q. Is this also an official record of the State**
20 **Engineer's Office?**

21 A. Yes, it is.

22 **Q. If we turn to the second page, is this**
23 **document your investigation, and then over to the**
24 **third page, and removal of this particular surface**
25 **water diverter?**

1 A. That's correct. Here, we're documenting
2 through the report and then these pictures that the
3 equipment had been removed and taken off the site.

4 **MS. THOMPSON:** Move to admit New Mexico
5 0876, please.

6 **MR. GOLDSBERRY:** No objection.

7 **JUDGE MELLOY:** 0876 is admitted.

8 **Q. (BY MS. THOMPSON) So, Mr. Serrano, to your**
9 **knowledge, have all the surface water diverter**
10 **concerns raised in 2012 by Bureau of Reclamation and**
11 **Texas been addressed and resolved now after Faykus?**

12 A. We've certainly made efforts to address and
13 resolve all those issues, and I think from -- from our
14 perspective, we have. I'm not sure if the other
15 parties would agree.

16 **Q. Have they raised any additional concerns**
17 **since 2012?**

18 A. Not that I'm aware of.

19 **Q. Have they raised any other -- provided any**
20 **other notice of any other illegal use in the LRG?**

21 A. Not that I'm aware of.

22 **Q. One last topic I just want to go over with**
23 **you are your annual reports, and I believe these are**
24 **all been admitted. As part of your duties, would you**
25 **just describe what you have to do for preparing your**

1 **annual report?**

2 A. Well, that's -- that's a culmination of all
3 the activities that we've discussed here today. We
4 have to do the accounting, the end of the year
5 accounting, we have to reconcile accounts, categorize
6 all the water use and quantify it and then put it into
7 a format that it's easily representable in the form of
8 a report.

9 **Q. And what was the first report that you**
10 **prepared?**

11 A. I did a summary in 2012 and then a full
12 report in 2013.

13 **Q. Okay. So for 2013 to present, I'll just note**
14 **for the record that those are New Mexico Exhibits 757,**
15 **428, 793, 429, 785, 807, 927, and 929. When do you**
16 **prepare these annual reports?**

17 A. We prepare them in the late winter and early
18 spring immediately following irrigation season.

19 **Q. And then who do you submit the reports to?**

20 A. I submit those directly to the State
21 Engineer.

22 **Q. Are they also provided on the State**
23 **Engineer's Website?**

24 A. Yes. After they're reviewed and approved by
25 the State Engineer, they'll be added to the Website.

1 Q. Just as one example, we're going to pull up
2 New Mexico 757, the first one from 2013, please.
3 Mr. Serrano, if you have a hard copy there in front of
4 you, it's not particularly long, but I'd ask you if
5 you could, just since it's not very long, flip through
6 and state the page number at the bottom and just give
7 us a high-level overview of what you include every
8 single year in your annual reports. Just the
9 categories is what I'm asking for.

10 A. It looks like the exhibit book is missing
11 757.

12 Q. It's probably in the second, the separate
13 book. There's two there in front of you.

14 A. Okay. Here it is.

15 Q. Great.

16 A. So generally, you know, the content is the
17 same within all of our reports. We do try to, as we
18 move -- progress through the years, we try to get
19 better and better and include more information that's
20 relevant, but generally, there's a table of contents.
21 On Page 3, there's an introduction, a description of
22 our duties on Page 4. We'll like to include that
23 version of the map that we talked about earlier today
24 on Page 5. On Page 6, you know, we'll include some
25 general information about the duties and -- and the

1 work that we conduct, then we'll describe some of the
2 meetings that were had. On Page 7, we'll detail our
3 enforcement and compliance activities, as well as
4 other objectives to include proactive steps for
5 achieving meter readings that we described earlier
6 today. Moving on to Page 8, there's a description of
7 implementation of settlement terms, and this is
8 specifically talking to how we go about accounting for
9 the 4.5 versus 5.5, as well as some of the ownership
10 management provisions, and then on Page 9, we'll have
11 a detailed report of the different water uses within
12 the district, and we try to do at least a three-year
13 comparison to show the change over a three-year
14 period.

15 Q. And so in this report, you list out the
16 orders and -- excuse me -- administrative orders and
17 your duties, and we covered all of that in your
18 testimony today, correct?

19 A. That's correct.

20 Q. And then you also include the water district
21 map that we covered in your testimony today, correct?

22 A. Yes.

23 Q. And your enforcement actions each year, while
24 they're specific to your January report, but we
25 covered that in your testimony today, as well, right?

1 A. Yes, we did.

2 Q. And then the metering requirements that you
3 cover in your annual report, we covered that in your
4 testimony?

5 A. Yes.

6 Q. And then the Settlement Order 101 that you
7 mentioned, that's covered in your annual report, and
8 we covered that in your testimony today, correct?

9 A. That's correct.

10 Q. And then same with the OWMAN provisions, you
11 give a summary of that every year in your annual
12 report; is that correct?

13 A. That's correct.

14 Q. And then lastly, in your annual report, I
15 think you also, in every single annual report, you
16 include a water use summary that we detailed earlier
17 in your testimony; is that right?

18 A. That's right. We try to break out those uses
19 and describe the amount of water in each of those
20 categories.

21 Q. And then in your annual report, do you also
22 look at groundwater levels each year?

23 A. We started looking at groundwater-level
24 observations, if memory serves me correctly, in 2016.

25 Q. Okay. Let's look at just a couple of these

1 categories in the Demonstrative Exhibit 59, please,
2 Page 25. In your demonstrative exhibit here you
3 pulled out this slide from your annual report from
4 2020. Would you just describe what you're showing
5 there in your annual report on the right-hand side?

6 A. So this is a graphic that we've been
7 incorporating from some time, just to -- just to
8 graphically represent how much irrigation groundwater
9 withdrawals are occurring within the district as
10 compared to surface water allotment available every
11 year. So you can see on the black line, that's
12 groundwater withdrawals that we derive from meter
13 data, and then in the blue line, you see that's EBID's
14 surface water allotment, and the way I calculate that
15 number is whatever the final allotment is for the
16 irrigation season every year, you multiply that by
17 90,640 acres, which I understand is the authorized
18 acres for EBID at this point in time of the assessed
19 acres to get a number of total acre-feet available for
20 delivery and use within the system. And you can just
21 see how the -- those plots trend over time as the
22 years go on, and then there's a red number in between
23 each of those years, and that's just the difference
24 between groundwater withdrawal and surface water
25 available.

1 **Q. Okay. Is there a correlation then between**
2 **groundwater and surface water use? I mean, as one**
3 **goes up, what happens to the other?**

4 **A. Absolutely. I think, you know, we've heard**
5 **that through testimony in this trial that as more**
6 **surface water becomes available, less groundwater --**
7 **the need for supplemental groundwater pumping**
8 **diminishes.**

9 **Q. And if we could go on to the next slide then.**
10 **And what is this slide showing that you pulled out for**
11 **your demonstrative here for groundwater-level data?**

12 **A. Again, in 2016, we started looking at**
13 **groundwater-level data that's available within the**
14 **district. That -- that data comes from the -- the**
15 **network of groundwater monitoring wells that -- that**
16 **EBID operates, as I understand it, but they were**
17 **drilled as part of a cooperative agreement with the**
18 **Interstate Stream Commission. So we pull that data**
19 **from EBID's Website, and we do just some real basic**
20 **analysis to show the -- the change over a one-year**
21 **period of, you know, what the groundwater level did as**
22 **compared to the previous irrigation season.**

23 **Q. You're looking at snapshots year to year, but**
24 **you haven't done any long-term trend analysis, have**
25 **you?**

1 A. No, I have not.

2 **Q. Is it your understanding that that trend**
3 **analysis will be testified to by New Mexico's experts**
4 **at the spring?**

5 A. That's my understanding. All we're trying to
6 show here is provide information as to what the -- the
7 groundwater level did the previous year.

8 **Q. Okay. And then if we go to the next slide,**
9 **in this demonstrative that -- that you prepared from**
10 **your 2019 annual report, is this information that you**
11 **provide in each one of your annual reports?**

12 A. We've started to incorporate it as part of
13 our more recent reports, yes.

14 **Q. Just very briefly, what is this that you're**
15 **summarizing here?**

16 A. So what I do is I reference the New Mexico
17 Department of Agriculture statistics bulletin. They
18 put that out every year, and it reflects production
19 numbers from the previous year. And I just include
20 it, again, as information. For us, it kind of just
21 ties the loop back, you know, what was the result of
22 the amount of water beneficial used within the water
23 master district, plus the result of that, and here you
24 can see on the demonstrative, as it relates to pecans,
25 in 2018, New Mexico ranked number one with the

1 production of 91 million pounds produced valued at
2 over \$173 million. In Dona Ana and Sierra County
3 accounted for a large -- a good portion of that
4 production at 67 percent, and then in the middle
5 category, you see chile. Of course, chile is a pretty
6 big staple, particularly in the Hatch Valley. For the
7 first time in 2018, New Mexico surpassed California as
8 number one producing state for chile peppers. So
9 their national rank was number one with 71,000 tons
10 produced in 2018 valued at \$53.8 million. On the very
11 far right-hand side, one of our lesser-known valuable
12 crops, I think Mr. Shane Franzoy testified to some of
13 these figures, but in 2018, New Mexico ranked fifth in
14 the nation for production of onions with the crop
15 valued at \$68 million, and, of course, Sierra and Dona
16 Ana County account for a large portion of that, but
17 there are also onion-producing counties in southern
18 New Mexico that contribute. And, again, I'll just
19 mention that, you know, these aren't numbers that I
20 generated. I just pulled these straight out of the
21 Department of Agriculture's Statistics Bulletin.

22 **Q. You haven't done any long-term trend**
23 **analysis, though, on these statistics, have you?**

24 **A. I have not, no.**

25 **Q. Then on to the next slide, please. This is**

1 similar to what we looked at before so we won't spend
2 much time on this, but this is just, again, a summary
3 of the water use that you report on for it -- excuse
4 me -- in each of your annual reports?

5 A. That's correct.

6 Q. If we go to the next slide, the last one, is
7 this also a summary table that you report on in your
8 annual report?

9 A. It is. And it's essentially the same data
10 from the previous slide. What we do here is we try to
11 break it down further and describe the use per sub
12 basin and sub basin as identified by the Lower Rio
13 Grande Adjudication, just to show the different uses
14 within each particular sub basin within the water
15 master district.

16 Q. Okay. And you continue to prepare annual
17 reports and provide all of this information each year
18 in those annual reports; is that right?

19 A. That's correct.

20 Q. And then overall, just in conclusion, based
21 on your testimony today and your annual reports and
22 reporting and enforcements, how would you summarize
23 New Mexico's ability to administer water rights in the
24 Lower Rio Grande?

25 MR. GOLDSBERRY: Objection; calls for a

1 narrative.

2 JUDGE MELLOY: I'll sustain.

3 Q. (BY MS. THOMPSON) Mr. Serrano, do you believe
4 that your administration and enforcement is effective
5 administration in the Lower Rio Grande?

6 A. I do, yes.

7 Q. And why is that?

8 A. As a result of all the processes we have in
9 place, to actively administer the water, the metering
10 measure report that water usage, I would agree with
11 that statement.

12 MS. THOMPSON: I don't have any more
13 questions.

14 JUDGE MELLOY: Who's going to go first,
15 Mr. Goldsberry or Mr. Dubois?

16 MR. GOLDSBERRY: I'm going to go first,
17 Your Honor.

18 JUDGE MELLOY: All right. You may
19 start.

20 CROSS-EXAMINATION

21 BY MR. GOLDSBERRY:

22 Q. Mr. Serrano, with regard to the last opinion
23 that you shared with us about the administration
24 system that's been established in New Mexico in
25 District 4, I take it that only goes back ten years or

1 so, right?

2 A. My experience, of course, goes back ten
3 years, but I think there were processes in place prior
4 to that.

5 Q. There were processes, but not all of the
6 processes that you've described here today that are in
7 place in 2021, correct?

8 A. That's correct.

9 Q. Okay. Let's take a look at -- well, we can
10 do this a couple of ways. Let's look at New Mexico
11 Demo 59, Page 26. This is a map of your monitoring
12 wells that you talked about in terms of -- monitoring
13 wells for groundwater elevation. Am I correct in my
14 understanding that you are not involved in actually
15 pulling any of this data from the field, this is
16 simply information that you get from EBID?

17 A. That's correct. We pull it off of the
18 Website.

19 Q. While we're on the groundwater monitoring,
20 when did you start doing this in your annual reports?

21 A. Mr. Goldsberry, I think that would have been
22 in the 2014 to 2016 time frame.

23 Q. And why did you add that to your workload?

24 A. Well, just as we continued to evolve, I felt
25 like it was an important aspect of the information

1 available within the water master district to include,
2 and it shows in conjunction with amount of water that
3 we report as diverted, what the corresponding water
4 level would be within that year.

5 **Q. So this was your idea; it wasn't one of your**
6 **superiors' ideas?**

7 A. No. This was my idea.

8 **Q. All right. Let's look at Demo -- New Mexico**
9 **Demo 59, Page 25. This is your seven-year comparison**
10 **of irrigation groundwater withdrawals to the EBID**
11 **surface water allotment. When did you first begin**
12 **putting this information into your annual reports?**

13 A. I want to say it was around the same time as
14 the previous slide, 2014.

15 **Q. Okay. And why did you add this to your**
16 **annual report, this information?**

17 A. Again, this was -- this was a determination.
18 I felt like it was important information to have just
19 to show that correlation between either increased or
20 decreased surface water availability and the
21 corresponding amount of groundwater that gets pumped.

22 **Q. Why is this information important in your**
23 **estimation?**

24 A. Because the amount of groundwater that gets
25 diverted every year, at least supplementally for

1 irrigation, is heavily dependent upon the amount of
2 surface water that's available.

3 Q. As I understand this chart, in a given year,
4 the -- let's take 2020. The number in black, the
5 218,231 represents the total irrigation groundwater
6 withdrawals in the district, correct?

7 A. Correct.

8 Q. And that -- and that information comes from
9 your metering information; is that also accurate?

10 A. Yes, sir, that's accurate.

11 Q. Okay. That doesn't include any groundwater
12 withdrawals for irrigation that you haven't captured
13 in your metering information for that particular year,
14 correct?

15 A. You're referring to -- to water that -- that
16 we didn't account for that didn't get reported?

17 Q. That's what I'm referring to.

18 A. Then that's correct.

19 Q. Then the blue number, the 105,142 acre-feet
20 represents a surface water allotment from the Rio
21 Grande Project. It's an allotment that was granted
22 for irrigation purposes by EBID. Did I understand
23 that correctly as to the source?

24 A. Correct. The final allotment voted on and
25 approved by the Board and then multiplying that by the

1 acreage.

2 Q. And when you use the term, "Final allotment
3 approved by the Board," what does that refer to?

4 A. It's my understanding in attending those
5 meetings that there is, on occasion, an initial
6 allotment, and then there may be increases to the
7 allotment thereafter, and then at some point during
8 the irrigation season, there's a final number that's
9 -- that they put out there.

10 Q. Your description of this graph or chart, you
11 followed the same routine for each of the years
12 represented on the chart, correct?

13 A. That's correct. It's consistent.

14 Q. And -- and it's also consistent with regard
15 to the source of the data that's represented, correct?

16 A. Yes.

17 Q. All right. And if I wanted to determine how
18 much water was available for irrigation in your
19 district in a given year, what I would do is I would
20 add the blue number and the black number, correct?

21 A. The total combined amount, that's correct.

22 Q. Do you know what the full allotment to EBID
23 number is?

24 A. As I sit here today, I don't think I could
25 regurgitate that number without a calculator.

1 Q. Well, you used to -- at one point when you
2 were putting this chart in your annual reports, you
3 used to show that allotment number, did you not?

4 A. I did. That's correct.

5 Q. All right.

6 **JUDGE MELLOY:** Excuse me just a second,
7 Mr. Goldsberry, just so the record is clear, I think
8 we were talking about a demonstrative exhibit before.
9 This is New Mexico 929, Page 17, as I understand it,
10 that we're looking at; is that correct?

11 **MR. GOLDSBERRY:** That's correct, Your
12 Honor.

13 **JUDGE MELLOY:** Okay. All right.

14 **MR. GOLDSBERRY:** All of -- many of the
15 documents from the demonstrative -- and I guess I
16 should be using those to be more accurate, those
17 exhibit numbers.

18 Q. **(BY MR. GOLDSBERRY)** Let's take a look at New
19 Mexico 429 at Page 17. Okay. I believe that this was
20 -- 429 is your report for the year 2016, and does that
21 refresh your recollection as to what you believe the
22 full surface water allotment was for EBID?

23 A. That's correct.

24 Q. Okay. And what was the source for the number
25 that's represented by the red dotted line?

1 A. Again, that would be -- that would be a
2 simple calculation done on my part taking the final
3 allotment and multiplying it by the entire 90,640
4 acres.

5 **Q. Well, that's labeled -- the red line is**
6 **labeled as the full surface water allotment. That's**
7 **not a particular allotment for a given year, is it**
8 **not?**

9 A. Oh, excuse me. I'm sorry. If I could
10 correct -- you're correct, Mr. Goldsberry. That red
11 line would be 3.024, as I understand it, to be a full
12 surface water allotment to EBID multiplied by the
13 90,640 acres.

14 **Q. Okay. That number doesn't have anything to**
15 **do with how many acres are actually in irrigation in a**
16 **given year, does it?**

17 A. No, it does not.

18 **Q. Isn't that also true of your numbers for the**
19 **EBID allotment on a year-by-year basis?**

20 A. Correct. That's just a volume.

21 **Q. Now, you spent some time describing your**
22 **investigative activities involved in the complaint**
23 **from 2012 regarding illegal surface water withdrawals**
24 **from the Rio Grande, and as I understand it, based on**
25 **your testimony, you worked on that project for -- from**

1 2012 -- some time in 2012, up until this year,
2 correct?

3 A. Yes. Those are issues we continually
4 monitor.

5 Q. And during that period of time, had there
6 been any additional illegal pumpers, if I can use that
7 term, which you identified?

8 A. No, sir, I don't think there has. The ones
9 we identified in that initial investigation, it's my
10 recollection that we resolved those issues, and there
11 hasn't been any additional that have arose -- arisen,
12 excuse me.

13 Q. As part of your day-to-day activities as the
14 river master, do you include any activities to try to
15 identify illegal pumpers from the Rio Grande?

16 A. Yes.

17 Q. And what -- what are those activities?

18 A. Well, through the course of either my or my
19 staff's field work activities as we're doing our work
20 within the valley and different portions of the
21 valley, we'll frequently make sure that we're keeping
22 an eye on the river to make sure that there's no
23 illegal activity occurring.

24 Q. Okay. Have you had any additional complaints
25 about illegal pumpers that you have investigated

1 during the time that you've been the water master for
2 the Lower Rio Grande?

3 A. We have received complaints from time to time
4 from constituents or other entities identifying
5 potential problems, and we go out and investigate, and
6 a lot of times, it might -- on many occasions, it's
7 that IBWC pump that's in the river for operation and
8 maintenance. People see that, and it sets off a red
9 flag, and we'll go out and double-check to make sure
10 it's all in accordance with their ability to do that.

11 Q. Let's talk for a few minutes about the OWMAN
12 program that you've described for us and that came out
13 of the Stream System 101 settlement. Are -- are there
14 any limitations on the total number of acres that can
15 be included in a particular OWMAN plan?

16 A. I'm not aware of that kind of limitation.

17 Q. Okay. Are there any limitations under the
18 OWMAN plan -- the OWMAN program if I can call it that
19 with regard to where combined properties are located?

20 A. They have to be located within the Lower Rio
21 Grande Administrative Basin.

22 Q. But I could -- for instance, I could combine,
23 if I owned property in the Rincon Valley and in the
24 Mesilla Valley, I could combine those into a single
25 OWMAN plan, correct?

1 A. That's correct. As I understand it, there
2 was no limitation in the 101 agreement that would
3 prohibit that.

4 **Q. Is the OWMAN program available anywhere in**
5 **any of the other districts in New Mexico?**

6 A. The version -- the version of the ownership
7 management program, as it exists in the Lower Rio
8 Grande, is not available in other parts of the state,
9 but I think the concept, you know, of flexibility in
10 managing water and shortage sharing is -- is used in
11 other parts of the state, particularly as it regards
12 community ditches and acequias. There's some specific
13 statutory allowances that allow them to group and use
14 water in and amongst lands that they have, and there's
15 also shortage sharing that occurs in different basins.

16 **Q. Well, wasn't there also a way that you could**
17 **accomplish the same thing as the OWMAN program in**
18 **District 4 prior to the Stream System 101 agreement?**

19 A. Yes, sir, I think there was, and we commonly
20 referred that as a combine and commingle application.

21 **Q. Right. And in this case, we've seen a -- an**
22 **application for a combine and commingle, I guess,**
23 **permit. Tell me the differences between the combine**
24 **and commingle program that existed before Stream**
25 **System 101 and the current OWMAN program?**

1 A. I would say that combine and commingle
2 process was -- it would fall under that category of
3 water right change that we described earlier today.
4 So it would follow our traditional application process
5 whereby water right owner would have to -- they apply
6 using designated form, has to go through publication,
7 review and analysis by our office, and then
8 recommendation and approval.

9 **Q. And am I correct in my understanding that**
10 **your current OWMAN program doesn't require any of**
11 **those steps?**

12 A. I wouldn't agree with that entirely. I think
13 it requires some -- some of those steps, right. They
14 do have to submit notification. We do review it to
15 make sure that the water rights being proposed meet
16 the conditions, that they're in good standing, and
17 then we'll implement it. But there are differences.

18 **Q. Well, the notification you're talking about**
19 **is notification to the Office of the State Engineer,**
20 **correct?**

21 A. That's correct.

22 **Q. There's no publication so that other water**
23 **right holders can learn of this particular OWMAN plan**
24 **that's being considered?**

25 A. That's correct. As I understand the 101, it

1 did not include any provisions for publication.

2 **Q. Is there a fee charged for the submission of**
3 **an OWMAN plan?**

4 A. There's not. Again, as I -- as directed
5 under the 101, there's no fee structure available.

6 **Q. Okay. And if I recall your testimony at the**
7 **time of your deposition, in fact, your staff will**
8 **actually fill out the OWMAN form for some of the water**
9 **right holders, correct?**

10 A. We will assist them in filling out those
11 forms because they don't always have all of the
12 information available to them.

13 **Q. What is the total acreage that is currently**
14 **covered by an OWMAN plan in District 4?**

15 A. As of last count, it's approximately 53,000
16 acres.

17 **Q. When was the last count?**

18 A. That would have been in our -- our 2020
19 annual report. Maybe we could go back and look at
20 that.

21 **Q. No, that's all right. That's close enough.**
22 **That's my recall of reading the report.**

23 A. Okay.

24 **JUDGE MELLOY:** Mr. Goldsberry, are you
25 switching gears at this point?

1 **MR. GOLDSBERRY:** I was about to, yes.

2 **JUDGE MELLOY:** Well, then maybe this
3 would be a good point to take our break then. Why
4 don't we break for 20 minutes. We'll break until 3:20
5 our time. Thank you, everyone.

6 (Recess.)

7 **JUDGE MELLOY:** Looks like we have
8 everyone back. You may proceed, Mr. Goldsberry.

9 **MR. GOLDSBERRY:** Thank you, Your Honor.

10 **Q. (BY MR. GOLDSBERRY)** Mr. Serrano, I believe
11 you testified that your current staff is -- you have
12 four assistant water masters, correct?

13 **A.** That's correct. Yes, sir.

14 **Q.** Okay. And if I recall your testimony from
15 your deposition, when you started in 2012 -- well, let
16 me just turn it into a question rather than a speech.
17 In 2012, how many assistant water masters did you
18 have?

19 **A.** When I started as the water master in 2012, I
20 had one assistant.

21 **Q.** Okay. And have there been -- and when did
22 you -- you get up to four assistant water masters,
23 what year?

24 **A.** It was shortly thereafter 2012. It would
25 have been -- we did the bulk of those hirings in '13

1 and '14 so probably by the end of 2014, if memory
2 serves me.

3 **Q. Since 2014, have there been periods of time**
4 **when you've had less than four assistant water masters**
5 **working under your direction?**

6 A. Yes. We've had -- we've had one position
7 that has gone in and out of agency.

8 **Q. Let's talk about your duties and the**
9 **activities that you perform -- you and your staff**
10 **perform to implement those duties. I'm interested in**
11 **whether there are additional activities that you're**
12 **responsible for that you haven't described here today.**
13 **Are there such activities?**

14 A. You know, not substantively. There's not any
15 worth mentioning. I think we have some minor office
16 work that -- that we would do, you know, in terms of
17 creating reports and filing those reports and filing
18 meter readings, but that's all in line with our
19 overall duties.

20 **Q. Are you still responsible for enforcement of**
21 **the New Mexico well drilling regulations and rules?**

22 A. Yes, sir. And that would go to what we
23 testified earlier. We would be looking at those
24 specifications when we do the inspections of those
25 wells after they're permitted.

1 **Q. Okay. What percentage of you and your**
2 **staff's time is spent in the field?**

3 A. On average, 60 percent of our time would be
4 in the field.

5 **Q. Okay. And I believe you testified at your**
6 **deposition that, on average, you and your staff worked**
7 **in excess of 40 hours a week. Is that still true?**

8 A. That's correct, Mr. Goldsberry. I may have
9 misspoken at the time of my deposition. There's days
10 where we will work well in excess of a standard work,
11 an eight-hour workday. So we'll have days where we do
12 10 or 12 hours, but what we do is we try to flex those
13 hours out at the end of the week or by the end of the
14 pay period so that way we don't exceed a total of 40
15 by the end of the week or 80 by the end of the period.

16 **Q. When did you first become aware of this**
17 **litigation?**

18 A. Around the time that I became the water
19 master, I believe I still would have been an
20 assistant, but it was in that transitional time frame.

21 **Q. Okay. That would have been in 2012 then,**
22 **correct?**

23 A. '11, '12, somewhere in there.

24 **Q. All right. When did you first begin working**
25 **on this case?**

1 A. Oh, gosh. You know, it would have been in
2 2012 when we first started having interactions with
3 counsel.

4 **Q. Okay. And what did you do to prepare for**
5 **your deposition today -- your testimony today?**

6 A. Of course, I met with counsel, Ms. Thompson,
7 and we -- we went over the various exhibits that I've
8 testified to here today.

9 **Q. Have you also been observing this trial?**

10 A. I have, yes, sir.

11 **Q. Okay. You -- you've -- have you observed all**
12 **of the trial so far?**

13 A. A good majority of it. I can't say I've seen
14 it all.

15 **Q. How many depositions did you participate in**
16 **or observe?**

17 A. Almost all of the depositions for the
18 Elephant Butte Irrigation District and then, of
19 course, my own. I can't recall any others beyond
20 that. Oh, excuse me. I apologize. I also observed
21 depositions of the City of Las Cruces officials.

22 **Q. I believe that you listed -- if you didn't**
23 **list today in your testimony, you've made reference to**
24 **it in your annual reports that you attend meetings,**
25 **and I -- I know, for instance, that you attend the**

1 **EBID board meetings. What organizations, in addition,**
2 **if any, to EBID do you attend their meetings?**

3 A. I've also attended Rio Grande Compact
4 Commission meetings, engineer advisors meetings, and
5 then I frequently attend local water users meetings,
6 and in addition to that, I also attend meetings of
7 ditch organizations or acequias from time to time if
8 they have specific questions for me or with regard to
9 the Lower Rio Grande.

10 **Q. Do you attend the meetings of the pecan**
11 **growers?**

12 A. As the pecan growers, no, I do not.

13 **Q. And you -- you testified that you are -- you**
14 **and your staff are responsible for entering all of the**
15 **well metering data that you receive into the WATERS**
16 **database, correct?**

17 A. That's correct.

18 **Q. And that's been true since you've been the**
19 **water master, has it not?**

20 A. That's correct, yes, sir.

21 **Q. Have they gotten you any additional help**
22 **since the time of your deposition with that activity?**

23 A. Yes. There's a meter clerk that has been
24 hired in the -- our abstracting bureau, and her
25 primary purpose is to enter and image meter readings,

1 but she's not directly supervised by me at this time.

2 **Q. Does that mean you're not currently**
3 **responsible for entering all that data into the WATERS**
4 **database?**

5 A. Well, I'm ultimately responsible for all that
6 meter data, so even -- even the data that she enters,
7 I'll review.

8 **Q. Okay. As I recall, the -- there's some**
9 **14,000 pieces of information that you have to enter on**
10 **an annual basis?**

11 A. That's correct. That number is in the
12 ballpark.

13 **Q. All right. Let's talk about over diversions.**
14 **First of all, how do you define what an over diversion**
15 **is?**

16 A. That would be an amount of water diverted
17 above and beyond that which is allowed under the water
18 right.

19 **Q. And the water right, what are the components**
20 **of the water right?**

21 A. Well, it depends on the type of water right.
22 Of course, if it's a groundwater-only water right,
23 then the only component there is groundwater, of
24 course, and a combined scenario where it's surface and
25 groundwater, then there's two components that we have

1 to consider.

2 **Q. And the -- where you have groundwater only,**
3 **what is the amount of that right? What is the FDR?**

4 A. As I understand it, it's 4.5 acre-feet per
5 acre unless otherwise determined by the adjudication
6 court.

7 **Q. Okay. How long is this expedited hearing**
8 **procedure that you told us about have been in effect?**

9 A. If I remember correctly working with counsel,
10 that would have been -- we developed those procedures
11 towards the tail end of 2014, going into 2015.

12 **Q. Okay. As part of that procedure, there is**
13 **the possibility of having a hearing, correct?**

14 A. Yes, sir.

15 **Q. And how many times have you testified in**
16 **those administrative hearings?**

17 A. I've not testified in those particular
18 hearings. We've been prepared to go on a number of
19 different cases but have been successful in resolving
20 those prior to hearing.

21 **Q. So the hearing process hasn't actually been**
22 **held to your knowledge?**

23 A. I don't know that I would necessarily agree
24 with that in terms of the hearing process. I think we
25 have had scheduling conferences with the hearing

1 examiner and gotten prepared and actually had
2 everything in order to have that hearing, so from a
3 process perspective, I think we've done that, but the
4 actual hearing from the examiner with testimony from
5 both sides has not occurred.

6 **Q. Are you currently tracking over diversions on**
7 **a realtime basis? Let me withdraw that question.**

8 **It's not as clear as I'd like it to be. Do you and**
9 **your staff follow the over diversion situation on a**
10 **day-to-day basis throughout the course of the year?**

11 A. On a day-to-day basis, I can't say that we
12 do.

13 **Q. Okay. Do you do more than once a year**
14 **calculating whether a person is over diverted?**

15 A. Well, I think if you're referring to our --
16 our end-of-the-year process, of course we do that once
17 a year, but as we're going through and entering meter
18 data, if an instance pops up where somebody's over
19 diverted and we can confirm that that over diversion
20 occurred, many times we'll reach out to that owner and
21 advise them of the status of that over diversion and
22 try to get that ball rolling sooner rather than later.

23 **Q. How many times a year has that occurred on**
24 **average?**

25 A. Oh, gosh. There's probably anywhere between

1 10 to 25 instances of that.

2 **Q. How many water users do you receive**
3 **information from or how many water users are you**
4 **monitoring currently?**

5 A. That figure is a little harder to identify
6 because we generally track, you know, our
7 actively-metered wells, and those wells might be
8 associated with a number of different water right
9 owners and potentially a number of different users, so
10 I -- I can only say at this time that -- that we track
11 3,000 actively-metered wells.

12 **Q. How do you keep track of whether a meter is**
13 **active?**

14 A. Well, if -- if the well is active and it's in
15 working condition, then there needs to be a property
16 functioning meter installed on that well. If -- if
17 the well is not in operation and it's not -- there's
18 no potential for it to be used and it does not have to
19 be metered and it could -- you know, there's no
20 necessity for them to report that usage because it's
21 not functioning.

22 **Q. I guess my question must not have been very**
23 **clear. In your -- in your annual reports, you always**
24 **report on what sort of compliance that you got in**
25 **terms of people submitting their meter readings to**

1 you, and if you go from year to year in those reports,
2 that number varies, actually in some years quite a
3 bit, but I -- my question was how do you know how many
4 wells are active in a given year?

5 A. That would be through inspection and then a
6 reporting meter usage.

7 Q. Are you inspecting every well every year?

8 A. No, sir.

9 Q. How many wells do you, on average, inspect
10 per month, you and your staff?

11 A. You know, there's some months -- I do track
12 these numbers on occasion. There's some months where
13 we do 80 inspections, and that's a combination of just
14 well inspections and meter tests.

15 Q. Let's talk now a little bit about, and I
16 believe the term that you use is reconciliation
17 process of dealing with folks who have diverted more
18 than they're entitled to, and what are the -- I
19 believe there's four -- four possible ways of
20 obtaining reconciliation, correct?

21 A. There's four primary ways and then there's
22 that fifth option for an alternative or a combination.

23 Q. Okay. And one of those methods of
24 reconciliation is through the OWMAN program, correct?

25 A. That's correct.

1 **Q. And tell me how that works in -- in a -- on**
2 **an example situation?**

3 A. Generally it would be a situation where an
4 owner/operator has multiple tracts that they might own
5 or operate, and they haven't provided notice to the
6 state engineer of that activity. Sometimes it's a
7 situation where they came to acquire that, you know,
8 at the early part of the year, midway through the
9 year, but then started to manage those lands
10 conjunctively within -- within the means of the OWMAN.
11 So at the end of the year when we do the accounting,
12 we're looking at individual water rights, not -- not
13 the combined amount, and it would be flagged as an
14 over diversion. So we'll send out the notice. The
15 owner will come back, and they'll say, you know, look,
16 I was -- I own these lands, here are the records,
17 that's a valid existing water right, I was irrigating
18 this, and then at that point, we'll allow them to use
19 the ownership management program, so that way we can
20 accurately reflect the accounting associated with
21 their activities.

22 **Q. So you allow owner -- owners of water rights**
23 **to create OWMAN plans after the fact?**

24 A. In some occasions, yes, sir.

25 **Q. Let's -- let's talk about, I think the term**

1 that you used was meter blitz, and as I understand
2 that term, it refers to the situation where you have
3 inadequate meter reporting, and you actually go out
4 and you and your staff go out and read the meters so
5 that you can establish what you consider to be an
6 adequate amount of -- of data for the year, correct?

7 A. I'd agree with that, yes, sir.

8 Q. All right. How many years have you had to do
9 a meter blitz?

10 A. We do that every year.

11 Q. Oh, you do it every year. And what is your
12 ultimate goal or what -- what level of compliance are
13 -- are you satisfied with? Is there -- is there a
14 threshold?

15 A. So what we're trying to do at the end of the
16 year with the meter blitz is, again, we're trying to
17 facilitate a complete and accurate data set, and a lot
18 of times, when we identify those wells or meters that
19 are still outstanding, they may have submitted meter
20 readings for two or three of the reporting periods,
21 but they may have missed the last one. That's
22 typically the case because, you know, it is around the
23 holidays and people are busy with other things so it
24 might not be that we didn't have any data for the
25 year. It might just be that we didn't have that

1 ending reading. So what we'll do, again, is we'll go
2 out, and we'll acquire that information with the goal
3 of trying to get to somewhere around 95 percent total
4 meter data entered for the end of the accounting year,
5 and typically what I see is that amount that -- that
6 we can't acquire, it's generally associated with wells
7 that we have metered that are small in nature
8 generally fall into that used category as domestic or
9 multiple domestic, and they're just physically hard to
10 acquire. They're in somebody's backyard and they're
11 locked up and we can't get a reading off of them so
12 that's why there's always a little bit, you know,
13 we're always sub 100, and in some instances, we're sub
14 95 percent.

15 **Q. How many of the ten years that you've been**
16 **the water master have you been under 95 percent?**

17 A. There's several years. I think we've only
18 been able to get above 95 in a couple of different
19 occasions, but, again, that amount outstanding is
20 generally associated with small diversion amounts,
21 small uses.

22 **Q. What's the -- what's the largest, in terms of**
23 **acreage, OWMAN plan that you've got going currently?**

24 A. We have a few that are over 3,000 acres.

25 **Q. What does your office do to implement the**

1 **terms of the Rio Grande Compact, if any?**

2 A. Mr. Goldsberry, as I understand it, the
3 Interstate Stream Commission has a dedicated staff for
4 that activity.

5 **Q. That isn't what I asked you. I want to know**
6 **what your staff -- you and your staff do to implement**
7 **the Rio Grande Compact?**

8 A. Well, I believe if you're referring to our
9 activities, you know as we've discussed here today,
10 we're conducting those activities to ensure compliance
11 with all applicable statutes, rules, regulations, and
12 orders, and as I understand it, the Rio Grande Compact
13 is incorporated as a statute?

14 **MR. GOLDSBERRY:** Your Honor, I'd like to
15 read into the record at this time Mr. Serrano's answer
16 to that question at the time of his deposition and
17 this question and answer can be found at Page 268 of
18 the deposition. The question asked at the time was
19 the same, "What does your office do to implement the
20 terms of the Rio Grande Compact, if any?" The answer
21 was, "My office does not do anything locally to
22 effectuate the Compact ."

23 Thank you, Your Honor. That's all I
24 have.

25 **JUDGE MELLOY:** Thank you. Mr. Dubois?

CROSS-EXAMINATION

1
2 BY MR. DUBOIS:

3 Q. Mr. Serrano, it's good to see you again. I'm
4 Jim Dubois. I'm representing the United States in
5 this matter. I'd like to follow up on a few things
6 that you've covered either with Ms. Thompson or
7 Mr. Goldsberry.

8 MR. DUBOIS: Can you pull up New Mexico
9 431? I'm screwing up my paralegal by skipping over
10 things that have already been covered previously, Your
11 Honor.

12 Q. (BY MR. DUBOIS) All right. Mr. Serrano, I've
13 got up on the screen New Mexico 431, which you
14 discussed, I believe, with Ms. Thompson, and as water
15 master for the Lower Rio Grande Water District, you're
16 appointed to administer the groundwater to the
17 district; is that right?

18 A. That's correct.

19 Q. Okay. And looking at Page 2 in the
20 conclusions of law -- oh, wait. I'm sorry. I'm
21 missing that. Paragraph 2, you are required to
22 regulate and control the groundwater of the district
23 to prevent impairment of senior water rights owners,
24 right?

25 A. Correct.

1 Q. In Paragraph 5 down below, it states that,
2 "The water master is to apportion the waters of the
3 District in, quote, accordance with the Active Water
4 Resource Administration regulations for the Lower Rio
5 Grande Water District." Is that right?

6 A. That's correct.

7 Q. Okay. Now, in that -- in that statement, it
8 says "apportion the water." When you're using -- when
9 this document uses the word apportion the water,
10 you're not talking about apportionment in a Compact
11 sense; you're meaning division within the district; is
12 that correct?

13 A. As I understand it, yes, sir, that's correct.

14 Q. Okay. That's all I'm asking is what you
15 understand. And are you aware that adaptive water
16 resource management framework regulations were at one
17 time proposed?

18 A. I'm aware that the statewide framework rules
19 are in place.

20 Q. Are there district-specific regulations that
21 were adapted?

22 A. Currently, there are not, no.

23 Q. Okay. Now, looking at Paragraph 6 of Order
24 169. I believe that's on Page 3. Thank you.
25 Paragraph 6. You talked about that with Ms. Thompson,

1 I believe, right?

2 A. Yes, sir.

3 Q. Okay. And Paragraph 6 states that it's your
4 duty to -- in Sub C, "To curtail out-of-priority
5 diversions determined by the State Engineer to be
6 causing injury to senior priority water rights." Do
7 you see that?

8 A. That's correct. I see that, yes.

9 Q. Okay. What does it mean that a diversion is
10 out of priority?

11 A. I understand that to mean that in the
12 environment of a priority call, that whoever is
13 determined to be junior to that call date would be out
14 of priority.

15 Q. So it means that a water right with a junior
16 priority is depleting water that would otherwise be
17 diverted and placed a beneficial use by a water right
18 that was appropriated at an earlier date; is that
19 correct?

20 A. I don't know that's correct. I think there
21 would be some determination that would have to be
22 made, you know, to validate that.

23 Q. That wasn't the question. The question is
24 that what it means to be out of priority is that a
25 water right with a junior priority is depleting the

1 water that would otherwise be depleted -- or diverted
2 and placed to a beneficial use by a water right that
3 was appropriated at an earlier date; isn't that
4 correct?

5 A. Yes, sir, that's correct.

6 Q. Okay. What does curtail mean here?

7 A. Reduce or stop.

8 Q. Okay. And what does it mean to be senior in
9 priority?

10 A. To have a more senior water right that
11 predates some junior right.

12 Q. Okay. And as I understand it under New
13 Mexico law, out-of-priority diversions or depletions
14 by a junior right can be allowed if the junior
15 appropriator offsets the depletions to the river to
16 the senior right in a manner that prevents injury to
17 the senior priority water right; is that right?

18 A. If I could ask, what -- what law or statute
19 are you quoting, sir?

20 Q. I'm asking you as someone who administers
21 water rights under New Mexico law to your knowledge?

22 A. Would you mind restating the question?

23 Q. No, not at all. As I understand it, under
24 New Mexico law, out-of-priority diversions or
25 depletions by a junior water right can be allowed if

1 the junior appropriator offsets the depletions to the
2 river in a manner that prevents injury to the senior
3 priority water right; is that correct?

4 A. I understand that to be true in the context
5 of a priority call. I don't know that that's true
6 under general administration terms.

7 Q. Okay. And we can agree, can't we, that most
8 of the wells in the Lower Rio Grande Basin were
9 drilled or appropriated between 1950 and 1980, can't
10 we?

11 A. A good majority of them, yes, sir.

12 Q. For those wells that are primary groundwater
13 rights, do you know what primary groundwater rights
14 are?

15 A. Groundwater only.

16 Q. Okay. Priority date for primary groundwater
17 rights is the date of the drilling of the well, right?

18 A. That's correct.

19 Q. And we can agree that the Lower Rio Grande
20 adjudication court has currently determined that the
21 priority of the Rio Grande Project is 1903, correct?

22 A. That's my understanding, yes, sir.

23 Q. Okay. So as currently decreed, the priority
24 for the Rio Grande Project is senior to most of the
25 wells in the Lower Rio Grande Basin, right?

1 A. That's correct.

2 Q. Okay. As water master, you do not track or
3 report on the impacts of groundwater withdrawals on
4 the surface flows of the Rio Grande or on the Rio
5 Grande Project water supply, do you?

6 A. I do not.

7 Q. Okay. As water master for the Lower Rio
8 Grande, you do not attempt to calculate the
9 interception of surface water by the groundwater
10 rights that were appropriated prior to the basin
11 declaration in 1980; is that right?

12 A. I do not.

13 Q. You do not administer the groundwater
14 withdrawals by pre-basin declaration wells to prevent
15 interception of the surface water appropriated by the
16 senior surface water rights of the Rio Grande Project,
17 correct?

18 A. Mr. Dubois, I believe we, as stated here
19 today, we only administer to the permit condition and
20 the water right and amounts and limits. I don't think
21 -- at least I don't specifically look at, quote
22 unquote, interception.

23 Q. Okay. So it's correct to state that you did
24 not administer the groundwater withdrawals by
25 pre-basin, pre-1980, if you will, wells to prevent

1 interception of the surface water appropriated by the
2 senior surface water rights of the Rio Grande Project?

3 A. Correct. We administer to the conditions of
4 approval of the permits.

5 Q. All right. And you have no information
6 available to you that would define the impact from
7 each individual well on surface flows in the Rio
8 Grande or on surface flows available to the Rio Grande
9 Project, correct?

10 A. There may be some information in the file in
11 the context of a review or recommendation that were
12 done in some specific instances that would provide
13 information that would show potential impacts, but on
14 a basin wide scale, I don't have that information.

15 Q. And in what files are you talking about? You
16 said that there might be --

17 A. The water --

18 Q. The water right file? So there are some
19 files that have information on the impact of those
20 wells on the flows in the Rio Grande?

21 A. If that, in fact, was included as part of the
22 review of those permits, then it would be included in
23 the file.

24 Q. Are you aware of any files that had that
25 information?

1 A. It's my understanding that there should be.

2 Q. I understand. My -- what I asked you was are
3 you aware of any files that have that information?

4 A. I think generally, yes, sir. I am trying to
5 think of a specific example to give you, but I can't
6 at this moment. But generally, I think there are.

7 Q. Okay. And do you administer -- strike that.

8 I just want to be clear about something. So
9 no permits were required for pre-1980 wells when they
10 were drilled, right?

11 A. Prior to 1980, that's correct.

12 Q. Hopefully the pre-1980 wells were drilled
13 prior to 1980, so no permits were required when they
14 were originally drilled, right?

15 A. Correct.

16 Q. And permits were only required for new wells
17 after 1980, right?

18 A. Correct.

19 Q. And no permits were required for those
20 pre-1980 wells until at some point they required a new
21 well either as a replacement well or as a change; is
22 that right?

23 A. I think just getting a little lost in the
24 language a little bit.

25 Q. Okay. That's all right. Let me try -- let

1 me try and be clearer then. That's on me. For
2 pre-1980 wells or pre-basin declaration wells, to roll
3 in both the Rincon and Mesilla, no permits were
4 required unless and until there was a -- a new well,
5 either a replacement well or a change in point of
6 diversion or a change in type of use, things like
7 that, until there was a new well drilled, there was no
8 need for a permit?

9 A. I think that's right. Until such time that
10 the state engineer's jurisdiction was invoked through
11 one of those changes.

12 Q. Are there still -- are there still wells that
13 were drilled prior to 1980 that are in use?

14 A. Absolutely, yes, sir.

15 Q. Yeah. So those wells never have had
16 requirement for a permit?

17 A. You know, I can't say that. I think there's
18 probably quite a few of them that have had to come in
19 and be replaced at some point or another.

20 Q. But then -- but then you've got a new well,
21 correct?

22 A. A replacement well, a supplemental well.

23 Q. Right. But are there -- but my -- my
24 original question, are there wells that were drilled
25 originally prior to 1980 that are still being used and

1 have not had to have a new well permit?

2 A. I think, yeah, there's instances of that,
3 yes, sir.

4 Q. Okay. And so those wells are still
5 un-permitted, yes?

6 A. That might not be the case. You know, they
7 may be subject to some other element or process,
8 right, so if the adjudication has made a determination
9 or they've come in and filed for some other type of
10 permit, not necessarily a replacement, then we might
11 have conditions on file.

12 Q. All right. But you might not?

13 A. But we might not.

14 Q. Okay. Are those wells still required to be
15 metered?

16 A. Yes, they are.

17 Q. Okay. And if someone was using, say, a
18 thousand acre-feet -- that's probably a big well. 500
19 acre-feet prior to 1980, and they did not need to
20 replace that well, and I'm just using hypothetical
21 numbers here, until 2000, but between 1980 and 2000,
22 they doubled or tripled the amount of water that was
23 being taken out of that well. With me so far?

24 A. Yes, sir.

25 Q. Okay. So they would not have needed a new

1 permit to increase their diversions, correct?

2 A. They -- they wouldn't have invoked our
3 jurisdiction so --

4 Q. Right.

5 A. -- correct.

6 Q. By the time they invoked your jurisdiction in
7 2000, the larger -- the larger volume of water
8 diverted after 1980 would be the standard that the
9 state would apply, correct?

10 A. It's -- it's my understanding that we would
11 look at that historic beneficial use over time, and
12 that might include periods where they had more water
13 and other periods where they diverted less.

14 Q. Okay. What are the limitations you enforce
15 in permits for an individual well?

16 A. Each permit has limitations such as place of
17 use, purpose of use, and quantity of water.

18 Q. Okay. Place of use. Irrigated acreage?

19 A. Irrigated acreage, that would be place of
20 use, yes, sir.

21 Q. Okay. Place of use. And volume of the
22 pumping, that would be a limitation on the permit?

23 A. Yes, sir.

24 Q. Okay and the -- not only the number of acres
25 are specified, but the location of that acreage, the

1 place of use is -- is really two components of a
2 acreage limitation and a geographic location, correct?

3 A. That's correct.

4 Q. Okay.

5 A. There would be a --

6 Q. And you -- and you enforce those on all of
7 the permits; is that right?

8 A. Yes, sir.

9 Q. Now, as water master for the Lower Rio
10 Grande, you're involved in analyzing -- are you
11 involved in analyzing the changes of points of
12 diversion or places of use when a water right
13 application change applications come in?

14 A. No, I'm not.

15 Q. Okay. I think in discussing New Mexico
16 Exhibit 881, you talked about the fact if there's a
17 determination of whether the proposed change or
18 replacement well increases the depletion on the
19 surface system; is that correct? And just as a
20 refresher, I've pulled up 881. Do you remember the
21 discussion with Ms. Thompson about this exhibit?

22 A. Yes.

23 Q. You said in the process of the determination
24 of whether the proposed change of the replacement well
25 increases the depletion on the stream system, correct?

1 A. If I recall my testimony, I mentioned
2 increased above and beyond that to which it has
3 occurred historically.

4 **Q. Okay. And as part of that analysis, there's**
5 **no determination of the impacts of the well pumping on**
6 **surface flows or senior rights in the -- in the period**
7 **prior to the change; is that correct?**

8 A. It's my understanding of that language when
9 it says above and beyond that historical amount that
10 it would -- it would include time period before the
11 proposed change.

12 **Q. So a determination is done of the -- of the**
13 **impact of that well on the surface system prior to the**
14 **change and then after the change; is that correct?**

15 A. You know, it's my understanding that it's
16 cumulative. That would be --

17 **Q. And what do you mean by "cumulative"?**

18 A. That it's the entire amount of the water
19 right as it exists, and then with the potential
20 change, and in this case, it's a replacement well so
21 there's really no change, other than you're replacing
22 the point of diversion.

23 **Q. Do you know what kind of assumptions they use**
24 **for -- for determining the amount of pumping prior to**
25 **the change and after the change?**

1 A. No, sir, I'm not too familiar with that
2 process.

3 Q. Okay. How does the state determine whether
4 there will be an increase in impacts on the river
5 system; do you know?

6 A. Through evaluation of these proposed changes,
7 these applications.

8 Q. What do they use to -- what do they use to
9 evaluate the proposed change, what tool?

10 A. Oh, gosh. There's a model they use, but,
11 again, I'm not familiar with that process.

12 Q. Okay. That -- that's -- that's why I needed
13 to know. But there's a groundwater model that's used
14 to make the determination of the impact -- the change
15 -- the impact of the change; is that correct?

16 A. Some calculations based on a model.

17 Q. But you're not familiar with the model?

18 A. No, sir.

19 Q. And you're not familiar with the pumping
20 assumptions that go into the model; is that correct?

21 A. That's correct.

22 Q. And you don't know whether the model is based
23 on actual historical pumping records, correct?

24 A. That's correct.

25 Q. Okay. You talked some about supplemental

1 wells, I believe. Can you explain what a supplemental
2 well is?

3 A. Supplemental well is -- is an additional well
4 to supplement lost capacity from an original well, so
5 if -- if the original well is getting old and if
6 equipment is failing, then a water right owner could
7 apply the state engineer to -- to supplement that loss
8 of supply and try to regain that capacity so that way
9 they could efficiently irrigate their land.

10 Q. So is supplemental well -- if it's a
11 supplemental groundwater right, do you have to have a
12 surface water right that it supplements?

13 A. Not necessarily. You can have a supplemental
14 well on a groundwater-only right.

15 Q. If this is a supplemental well for a surface
16 water right, do you have to have -- are you familiar
17 with Templeton rights, what's referred to as a
18 Templeton right?

19 A. I've heard the term. I can't say that I'm
20 thoroughly familiar with the concept.

21 Q. Okay. Are you familiar with the concepts --
22 you know, if you're not familiar with it, I'm not
23 going to bother with that.

24 All right. Let's talk about OWMAN for a
25 minute. Okay? Can you pull up 486, please? You

1 talked about this document, I believe, with both Ms.
2 Thompson and Mr. Goldsberry, right?

3 A. Yes.

4 Q. Okay. And I believe you said that -- that
5 there is no geographic limitation on the land that can
6 be pooled in an OWMAN plan; is that right?

7 A. With the exception of the Lower Rio Grande
8 District boundary. That's -- that's a geographic
9 limitation.

10 Q. You're correct. Okay. Within the -- let me
11 rephrase that. Within the Lower Rio Grande District,
12 there's no limitation on what lands can be grouped or
13 pooled, right?

14 A. That's correct.

15 Q. Okay. And the OWMAN acres within the Lower
16 Rio Grande District totals to be about 53,000 acres
17 that are within the district; is that correct?

18 A. Approximately.

19 Q. About how many actually irrigated acres are
20 there in the district; do you know?

21 A. Actual irrigate -- that number fluctuates. I
22 don't have a real accurate number as I sit here today.

23 Q. Okay. Approximately how many?

24 A. Gosh, Mr. Dubois. You know, somewhere --
25 somewhere between 75,000 and 85,000 roughly.

1 Q. Okay.

2 A. That's -- that's actively irrigated on a
3 year-to-year basis.

4 Q. Right. So the OWMAN pooling or averaging of
5 total pumping is within basically that 75 or 85,000
6 acres; is that right?

7 A. Correct.

8 Q. Excuse me. And you set up an OWMAN plan by
9 filing a form with the Office of the State Engineer,
10 correct?

11 A. Yes, sir.

12 Q. And that's filed with your office?

13 A. It is.

14 Q. All right. And I believe you confirmed that
15 there was no public process or public notice involved
16 in the review and approval of an OWMAN plan, right?

17 A. That's correct. There's no public notice.

18 Q. Okay. The review of the plan is just done by
19 you or your office. Is it -- are the plans reviewed
20 by you personally or by someone in your office?

21 A. The majority, if not all, are reviewed by me
22 personally.

23 Q. Okay.

24 A. They're also subsequently reviewed as they're
25 getting into the WATERS database by our abstract

1 bureau.

2 Q. Okay. There's no hydrological evaluation of
3 impacts associated with the OWMAN plan, right?

4 A. That's correct.

5 Q. All right. So long as a farmer submits their
6 owner management form, their water rights are pooled,
7 correct?

8 A. No, sir. Again, it'd go under review, and
9 I'd make sure the water rights are in good standing.
10 There are instances where we determined that they're
11 not, and it would not allow to be pooled so simply
12 submitting a form doesn't necessarily reflect
13 automatic approval.

14 Q. Okay. So the only basis that you've
15 identified for the OSE or for you to reject an OWMAN
16 plan is essentially three reasons, one, a well -- some
17 or all of the wells are not in good standing; two, the
18 ownership or lease is not properly reflected; or,
19 three, they're trying to extend it to surface
20 water-only acreage; is that right?

21 A. I think that's accurate, yes, sir.

22 Q. All right. So those are the only three
23 reasons for rejecting a plan, right?

24 A. That's correct. I don't want to eliminate
25 some future reason, but there might be something that

1 comes up.

2 **Q. Understand. Understand. As things stand**
3 **today. So is there a procedure for rejection of a**
4 **plan?**

5 A. There's no formal procedure. Usually what
6 I'll try to do is reach out to the landowner, let them
7 know what the situation is, that it won't be included,
8 and return that form to them or, you know, if a
9 portion of the water rights were approvable, then
10 we'll process those and eliminate the one that was
11 denied.

12 **Q. And so that would be the -- the well that's**
13 **not in good standing?**

14 A. Correct. The water right.

15 **Q. The water right. And what does it mean for**
16 **the water right to not be in good standing?**

17 A. That there's some sort of issue with regards
18 to the permitted conditions of approval. They may
19 have had, you know, some conditions that have specific
20 requirements that they have not met yet.

21 **Q. Okay. Or if they have over diverted and**
22 **haven't rectified it yet, would that be a reason?**

23 A. Absolutely.

24 **Q. Okay. Once a farmer puts land in an OWMAN**
25 **plan, that plan is good until cancelled by the farmer,**

1 correct?

2 A. By the farmer or if it's in a management
3 situation, the water right owner chooses to opt out,
4 so if their agreement -- if the rental agreement isn't
5 continued for year to year, the manager may not come
6 to us and try to pull the plan, but the water right
7 owner might.

8 Q. Okay. But the OWMAN plan is automatically
9 renewed unless it's pulled, correct?

10 A. I think that's correct, yes, sir.

11 Q. Okay. So long as the farmers' average volume
12 across all lands doesn't exceed the cumulative volume
13 of the rights included in the OWMAN plan, the amount
14 that they can apply to particular acres within their
15 plan doesn't really matter, correct?

16 A. Generally, that's correct. There's some
17 other specific conditions that we would adhere to
18 statutory requirements to prevent wasteful application
19 or -- or application that would be contrary to the
20 conservation of public welfare.

21 Q. All right. But otherwise once submitted, the
22 only other requirement on the OWMAN plan is a
23 quarterly pumping reporting, correct?

24 A. Well, I wouldn't say that's it because they
25 still have to comply with the commission of the

1 permits for the water rights which are being combined.
2 So there's a whole host of different requirements that
3 are still in place.

4 Q. We're going to talk about that. But as long
5 as -- but they are required to do quarterly pumping by
6 the plan, correct?

7 A. The plan does not require that.

8 Q. Okay.

9 A. Their permit --

10 Q. That's just a general condition. Okay. Once
11 the OWMAN plan is filed, the permit limitation on
12 place of use for any individual well is expanded to
13 all the lands under the plan, correct?

14 A. Those lands as identified as water-righted
15 acreage, yes.

16 Q. So for Well A that was permitted originally
17 for a hundred acres and they have put it into an OWMAN
18 plan for, let's say, 400 acres, that well can be used
19 on essentially -- or the water from that well can be
20 used anywhere on that 400 acres, correct?

21 A. On that identified 400, yes.

22 Q. Yeah. So once the OWMAN plan is filed and
23 accepted, the individual permit limitations on place
24 of use for any individual well is expanded to all the
25 lands under the plan, correct?

1 A. All the lands under the plan, and we would
2 not allow for any expansion of that right. We still
3 want to make sure we hold them to that original
4 acreage identified in each of those water right files.

5 **Q. But if the water is usable on any of the land**
6 **within the plan, that's an expansion from the**
7 **originally permitted acreage, isn't it?**

8 A. I don't necessarily agree with that. I don't
9 -- it -- you know, they're not expanding by creating
10 an additional acre not recognized under the water
11 right.

12 **Q. Okay. And once an OWMAN plan is filed, the**
13 **permit limitation on the volume of water that can be**
14 **withdrawn from an individual well is irrelevant, as**
15 **all the wells become alternate points for each other;**
16 **isn't that right?**

17 A. Essentially, that's correct. Of course, as I
18 mentioned, subject to a non-wasteful application and
19 not being contrary to conservation of public welfare.

20 **Q. But the basic -- but the basic statement I**
21 **made was correct, right?**

22 A. I believe so, yes, sir.

23 **Q. Okay. And once an OWMAN plan is filed, the**
24 **permit limitation on the point of diversion for a**
25 **specific groundwater right also loses its importance**

1 as the water attributable to a particular well can be
2 taken from a number of different wells grouped in the
3 plan; isn't that right?

4 A. I think that is; however, I would kind of --
5 I wouldn't say that it loses its importance, as you
6 stated. I think each of those wells still maintain,
7 you know, high degree of importance as it relates to
8 being part of an element of water rights. So if
9 somebody came in and their water right was included as
10 part of an ownership management plan and they filed an
11 application, we would still review that application,
12 not in the context of the OWMAN but in the context of
13 a water right. So in that essence, you know, I agree
14 that it needs to maintain its importance.

15 Q. So the only -- within an OWMAN plan, for
16 purposes of your administration, the only
17 consistently-applied permit term is the metering;
18 isn't that right?

19 A. No, sir. I think it's the metering, the
20 permitted place of use for all the lands that are
21 combined.

22 Q. But the individual permits -- I'm talking
23 about the individual permits. The individual permits,
24 the only condition that is consistently applied in an
25 OWMAN plan is the metering; isn't that right?

1 **MS. THOMPSON:** Objection. He's
2 mischaracterizing his testimony.

3 **JUDGE MELLOY:** I'll let the witness
4 clarify if he thinks it's not a correct
5 characterization of his testimony.

6 **MR. DUBOIS:** Okay.

7 A. Again, I don't necessarily agree with that
8 statement. I think the permitted place of use still
9 applies in each of those water right files.

10 **Q. (BY MR. DUBOIS) But the water from those**
11 **wells can be used on land in addition to or other than**
12 **the land specifically defined in the permit, correct?**

13 A. Correct. Under the approved OWMAN plan.

14 **Q. So as in administering the OWMAN plans, the**
15 **primary thing the water master -- that you as water**
16 **master have to track is the permitted cumulative**
17 **volume of all the wells pooled under the plan and the**
18 **cumulative acreage that's included within the plan; is**
19 **that accurate?**

20 A. I think that is accurate. The volume is a
21 function of acreage so they --

22 **Q. Well, the volume is also provided in the**
23 **permits, correct?**

24 A. Most of them, yes, sir.

25 **Q. Yeah. I -- I suppose that is subject to --**

1 subject to if they're within EBID, subject to the use
2 of the surface water, which is a separate limitation.

3 So -- and that volume that is divertible by
4 the water rights is based on the -- the negotiated
5 maximums that were determined in the adjudication to
6 provide for farmer demands at the full CIR agreed to
7 in the 101 -- in the Stream System. Excuse me. I
8 just blanked on stream system -- Stream System 101
9 settlement, right?

10 A. The FDR allowance.

11 Q. Yes, I'm sorry. And the -- the 4.5 acre-feet
12 per acre FDR amounts, that applies to basically all
13 wells, correct?

14 A. To all water-righted acreage, correct.

15 Q. All water-righted acreage. And there's no
16 proof required under the 101 settlement to be awarded
17 that 4.5 acre-feet per acre, correct?

18 A. I'm not aware of a proof requirement for 4.5.

19 Q. Okay. And on the 5.5 acre-foot per acre,
20 that is a separate process for establishment, correct?

21 A. That is, yes, sir.

22 Q. Okay. And that was not tied to -- the 5.5 is
23 not tied to historical use prior to the declaration of
24 the basin, right?

25 A. I'm not sure that's true. They were

1 available to provide any number of evidence that they
2 thought was necessary to prove that amount so there
3 may or may not have been pre -- pre-basin evidence
4 submitted. I'm not sure.

5 Q. But pre-basin -- and let's -- when you
6 say "pre-basin," just so that the record is clear,
7 what you and I are both talking about is
8 pre-declaration of the basin in 1980 or 1982, right?

9 A. That's correct.

10 Q. Okay. So it -- the -- the -- to be -- to be
11 awarded 5.5, there's no requirement that that use be
12 established before or pre-basin, before 1980 or '82,
13 correct?

14 MS. THOMPSON: Objection. The witness
15 already testified that he didn't know the answer to
16 that.

17 JUDGE MELLOY: I didn't understand that
18 to be his testimony. If he can answer, go ahead.

19 MR. DUBOIS: I'll rephrase the question,
20 Your Honor, to make it clearer.

21 Q. (BY MR. DUBOIS) The evidence of 5.5 acre-feet
22 per acre could be evidence from any year up through
23 December 31st of 2011; isn't that correct?

24 A. That's my general understanding, yes, sir.

25 Q. Okay. And it can be based on evidence from

1 any one year; isn't that also correct?

2 A. I believe so, yes, sir.

3 Q. And I believe you testified that there were
4 1,017 claims for 5.5 acres in the -- in the LRG; is
5 that correct, in your basin?

6 A. Notice of the -- notice of intent that were
7 filed for, yes.

8 Q. Thank you. Different states, different
9 nomenclature. It always is confusing.

10 And you've -- and approximately 580 of those
11 were sufficient that they are being processed as part
12 of the adjudication; is that correct?

13 A. That's my understanding. They provided
14 evidence, and they're being processed, yes, sir.

15 Q. And how many total acres does that represent?

16 A. It's my understanding that that's right
17 around, you know, 50,000 acres, somewhere right in
18 there.

19 Q. Pretty close to the -- pretty close to the
20 OWMAN acreage then?

21 A. It's similar.

22 Q. Okay. Is it your staff that is checking the
23 proof on those 580 notices?

24 A. It is not, no. The Lower Rio Grande
25 adjudication staff are analyzing those.

1 Q. Okay. And to the extent that those acres
2 that are claiming 5.5 acre-feet per acre are in OWMAN
3 plans then we can agree that those are pooled volumes
4 that are averaged over portions or all of that OWMAN
5 acreage; is that correct?

6 A. I'm sorry. I didn't catch that first part.
7 Can you restate, Mr. Dubois?

8 Q. I'm going to try. I'm confusing myself with
9 my own question. Let me back up one step first,
10 though. The 50,000 acres is something on the order of
11 two-thirds of all of the irrigated acreage, maybe a
12 little less than two-thirds, of all the irrigated
13 acreage in the LRG; is that right?

14 A. I think that's approximately true.

15 Q. And that -- and I -- I used it as an
16 approximation.

17 So OWMAN -- the OWMAN program allows a
18 pooling or averaging of -- of total pumping over some
19 53,000 acres within the Lower Rio Grande; is that
20 correct?

21 A. That's accurate.

22 Q. Okay. If there's an over diversion by OWMAN
23 participant, they cannot only average their diversions
24 over a geographic area but can also average those
25 maximum volumes over at least a two-year period; isn't

1 **that correct?**

2 A. Well, we try -- we try to have those over
3 diversions repaid within one year after the over
4 diversion occurred. So if that's the time frame
5 you're referring to, then yes.

6 **Q. Okay.**

7 A. So an over diversion in year one, repayment
8 in year two.

9 **Q. Okay. So they're averaging not only across**
10 **geography but across a two-year time period, as well?**

11 A. Well, the averaging would occur in one year,
12 and the repayment would occur in another year.

13 **Q. Well, the two -- the average of those two**
14 **years then is -- is a two-year average. If you're**
15 **over diverting by a hundred -- let's say you've got a**
16 **thousand acre-feet to play with. In year one, you**
17 **divert 1,100. As I understand what you're saying, in**
18 **year two, they would only be able to divert 900?**

19 A. Correct.

20 **Q. So the total diversion for the two years is**
21 **the maximum 2,000, so you're averaging it over two**
22 **years, correct?**

23 A. Generally, I don't -- we don't look at it
24 that way when we're doing over diversions because I
25 don't say 2,000 over two years.

1 Q. All right.

2 A. When we're doing the accounting.

3 Q. Now, in addition to -- in addition to
4 reducing their diversions in the following year,
5 farmers can also go out and -- and lease someone
6 else's unused permitted groundwater to cover their
7 over diversion; isn't that also true?

8 A. That's correct.

9 Q. And how does that work?

10 A. It would initiate -- go out and find a water
11 right that's -- that's eligible, you know, a valid
12 existing water right. They'll execute a lease
13 agreement between them. They'll come into us and file
14 an application in which to do that temporary lease and
15 change place of use for a period of, it could be --
16 there's different time frames for leases, right. It
17 could be a year. It could be five. It could be ten,
18 20. It just depends on the arrangement between those
19 two water right owners.

20 Q. Okay. And can you -- can you -- if someone
21 is over diverting in 2021, can they get that lease for
22 2021 or does that necessarily apply only to a lease
23 for the following year's water?

24 A. They -- they can secure it for 2021 so long
25 as they can prove and we can verify that that water

1 went unused.

2 Q. Okay. So that effectively allows yet a
3 further expansion of geographic averaging to add
4 additional farms sort of on the fly?

5 A. To account for water that was unused in a
6 particular file.

7 Q. Correct. So it's expanding the -- this
8 expanding the geographical extent of the -- the land
9 over which the water is averaged, correct?

10 A. Correct.

11 Q. Okay. Let's talk about administration of
12 over diversions of groundwater within the LRG. Can
13 you pull up 485, please? So you talked with Ms.
14 Thompson briefly about this. Do you recall that?

15 A. Yes.

16 Q. And these are the notices of over pumping for
17 2017, right?

18 A. Yes.

19 Q. Okay. And they were all sent out in February
20 of 2018; is that correct?

21 A. Yes. This would have been the first notice.

22 Q. So to the extent that these were resolved,
23 they were resolved in March of 2018 or later, correct?

24 A. That's accurate, yes, sir.

25 Q. Okay.

1 **MR. DUBOIS:** Seth, can you pull up New
2 Mexico 786?

3 **Q.** (BY MR. DUBOIS) I believe you also talked to
4 **Ms. Thompson** about this one. This is the -- the
5 **repayment plan** for Mr. Sing?

6 **A.** Uh-huh. Yes, sir.

7 **Q.** And it's the over diversion repayment plan.
8 **Excuse me.** And the resolution was that he changed the
9 **place of use** -- or a change of place of use was
10 **approved** for one of his other wells, and that was
11 **approved** in October of 2018, correct? Do you need to
12 **see more pages** of this to know?

13 **A.** That would be helpful, yes. I don't think
14 **it's** --

15 **Q.** Certainly. Absolutely.

16 **MR. DUBOIS:** Is this a one-page
17 **document?** Oh, okay. All right. It may have been my
18 **own investigation**, and I may have failed to bring that
19 **into the case** so my apologies.

20 **Q.** (BY MR. DUBOIS) But he reconciled it by doing
21 **a change of one of his other water rights?**

22 **A.** That's correct. He filed an application.

23 **Q.** Okay. And that was resolved later in 2018;
24 **is that correct?**

25 **A.** The issuance of the permit would have been at

1 a later date, but I can't recall off the top of my
2 head what that date was.

3 Q. Okay. So in this situation, you're, again,
4 simply managing to the permit cap over a two-year
5 period, right?

6 A. Correct. So we accounted for the over
7 diversion at the end of 2017, and -- and had this plan
8 filed in the beginning of 2018.

9 Q. All right. So similarly, let's look at Las
10 Cruces for a second. The New Mexico 875. This one
11 was not admitted so we're just going to leave this one
12 alone, I guess.

13 MR. DUBOIS: I believe this has not been
14 admitted, Your Honor.

15 JUDGE MELLOY: Let me look here. You're
16 correct.

17 MR. DUBOIS: Okay.

18 JUDGE MELLOY: Unless -- unless it was
19 admitted during Ms. Thompson's direct examination, but
20 it wasn't admitted at the start.

21 MS. THOMPSON: It was not. We just
22 double-checked. It was not.

23 MR. DUBOIS: Okay. Thank you.

24 MS. THOMPSON: Sure.

25 MR. DUBOIS: Thank you, Ms. Thompson.

1 You know, this falls under the beating
2 the dead horse.

3 Q. (BY MR. DUBOIS) Let's talk about potential
4 administration of -- of a call. We discussed earlier
5 that under the -- the authority that you've been
6 granted under 431, 6C on Page 3 of New Mexico 431.
7 And under this, under 6C, as the water master for the
8 Lower Rio Grande, you don't have the authority to
9 determine whether groundwater users causing injury to
10 senior water rights; is that right?

11 A. Outside of a priority call, no.

12 Q. Okay. But the power -- the power to issue
13 that priority call is limited to the state engineer;
14 is that right?

15 A. The state engineer and then, you know,
16 somebody could request, of course. A senior could
17 request.

18 Q. A senior could request, but simply a request
19 from the senior doesn't trigger priority
20 administration, does it?

21 A. It does not.

22 Q. So the power to determine whether there will
23 be a call is limited to the state engineer; is that
24 right?

25 A. I think that's correct, yes.

1 Q. And to your knowledge, the state engineer has
2 never determined whether any groundwater user is
3 causing injury to senior water rights in the Lower Rio
4 Grande, right?

5 A. That's correct, as far as I know.

6 Q. And he makes that determination strictly
7 under state law without regard to delivery to Texas;
8 is that right?

9 A. I don't know the answer to that question.

10 Q. Okay. And the state engineer also made the
11 determination of when to declare a basin -- to declare
12 a basin, correct?

13 A. Correct.

14 Q. So the state engineer defines when he is --
15 has the -- he -- the declaration defines when he takes
16 jurisdiction over the management of the basin, right?

17 A. That's consistent with what I testified, yes.

18 Q. Okay. Yeah, it is. And it's the state
19 engineer who determines -- it's the policies of the
20 state engineer to decide whether or not the
21 groundwater rights developed before basin closure will
22 be administered in priority, right?

23 A. So your -- your question was it's the policy
24 of the state engineer?

25 Q. It's the policies of the state engineer that

1 decide whether or not the groundwater rights developed
2 before the basin declaration will be administered in
3 priority, right?

4 A. I think so, subject to a call.

5 Q. And to your knowledge, it's the policies of
6 the state engineer that define the degree of impact on
7 the surface flow that will not be administered for
8 purposes of the Compact; is that correct?

9 A. Again, Mr. Dubois, can you restate that one?

10 Q. Sure.

11 A. Got away from me.

12 Q. To your knowledge, it's the policies of the
13 state engineer that define the degree of impact on the
14 surface flows that will or will not be administered
15 for purposes of the Compact; is that correct?

16 A. Subject to a priority call or request, I
17 think generally that's my understanding.

18 Q. Okay. So the answer is yes. Okay. If
19 there's --

20 MS. THOMPSON: I did object because he
21 then said the answer is yes, and I just wanted to have
22 that stricken since it mischaracterizes testimony.

23 JUDGE MELLOY: The witness's answer will
24 stand. Strike the comment. Go ahead.

25 MR. DUBOIS: That's fine, Your Honor.

1 Thank you.

2 Q. (BY MR. DUBOIS) If there's a priority
3 administration of groundwater in the Lower Rio Grande
4 sub basin in District 4, if you will, the water master
5 for the Lower Rio Grande will be responsible for that
6 administration, correct?

7 A. That's correct.

8 Q. So you would be responsible for enforcement
9 of my curtailment; is that right?

10 A. That's correct.

11 Q. And there's not a priority administration
12 system in place to deal with intermingling of the
13 ground and surface waters of New Mexico, is there?

14 A. Well, I think we would -- we would base that
15 determination or that process off of our -- our
16 framework rules. So, I mean, the framework rules
17 provides some guidance, which could be characterized
18 as a process.

19 Q. You don't have a policy or manual for dealing
20 with the enforcement of -- of a priority
21 administration in the intermingled ground and surface
22 waters in New Mexico, do you?

23 A. Not that I've seen.

24 Q. And you have no experience in dealing with
25 the priority call in the Lower Rio Grande, do you?

1 A. I've not had that experience, no, sir.

2 **Q. Okay. Do you know of any water masters in**
3 **New Mexico who have had experience with a priority**
4 **call where it was both groundwater and surface water**
5 **involved?**

6 A. It's my understanding that there's been some
7 basins where priority calls were, you know, getting
8 close, and they're -- they're ground water surface
9 water basins, but I think ultimately there was some
10 cooperation amongst the water users in some shortage
11 sharing agreements that headed that off. So if it's
12 -- it's not strict priority, but I think there was
13 some cooperation there.

14 **Q. But that's a voluntary program; that's not**
15 **something by the State, correct?**

16 A. Under -- well, in those specific instances,
17 I'm not sure, but under the framework rules, we could
18 incorporate some sort of voluntary measure in terms of
19 alternative administration, if it's agreed upon by all
20 the parties.

21 **Q. So going back to my original question, do you**
22 **know of any water masters in New Mexico who have**
23 **experience with administering a priority call where**
24 **both groundwater and surface water are involved?**

25 A. Again, not a strict priority, but I think

1 there's some instances where there were --

2 **Q. Where there was a voluntary agreement?**

3 A. There was -- they were preparing for that,
4 and they negotiated, yeah, voluntary agreement.

5 **Q. All right. But that's not the same thing as**
6 **administering priority call, is it?**

7 A. Well, I'm not sure I necessarily agree with
8 that. I think within the framework rules, there's
9 provisions for alternative administration. So through
10 the call made, there's the potential for alternative
11 administration, and those could be incorporated, those
12 agreements. So is that a priority administration? I
13 think that's -- it's a little difficult to say.

14 **Q. I think you've answered my question.**

15 **MR. DUBOIS:** And, yes, Your Honor, I'm
16 going to try and finish by 4:00.

17 **JUDGE MELLOY:** That's 5:00 our time.

18 **Q. (BY MR. DUBOIS) A few random questions about**
19 **administration, Mr. Serrano. Coming from off screen,**
20 **so to speak. You're familiar with offsets and how**
21 **that works for groundwater -- for new groundwater**
22 **permits; is that correct?**

23 A. Generally, yes, sir.

24 **Q. Okay. Does New Mexico allow the use of**
25 **groundwater to -- to effectuate an offset?**

1 A. Let me think. I think there's discharge
2 credits, you know, for instance, through wastewater
3 treatment facilities, which are derived from
4 groundwater. I think in that context, the answer is
5 yes.

6 **Q. Can pre-basin declaration groundwater rights
7 be used as offsets?**

8 A. I'm not sure. And it's been my experience, I
9 haven't seen that, but I'm not sure.

10 **Q. Okay. Fair enough. That's why I'm asking.
11 I'm not sure either. I'm looking for the answer.**

12 **Are you familiar with the pending
13 applications for new groundwater appropriations in the
14 Palomas area?**

15 A. I've -- I've seen a few of them, yes, sir.

16 **Q. And is your office involved in processing
17 those applications?**

18 A. Yes. The water rights specialist in that
19 Lower Rio Grande group are reviewing those.

20 **Q. And does the Palomas sub basin affect the
21 flow of the Rio Grande?**

22 A. It's a tributary. You know, it hardly ever
23 runs. I'm not sure that it effectuates the flow.

24 **Q. If the Palomas is running, does that
25 contribute to the Rio Grande?**

1 A. It doesn't always get there in my experience.

2 **Q. Is the Palomas a tributary of the Rio Grande?**

3 A. It is, yes, sir.

4 **Q. Does it get there sometimes?**

5 A. On -- you know, on very rare occasions and
6 flood events, you know, flash flooding.

7 **Q. Does the underflow of the Palomas reach the**
8 **Rio Grande?**

9 A. You know --

10 **MS. THOMPSON:** Objection, Your Honor,
11 this calls for a technical evaluation.

12 **MR. DUBOIS:** Fair enough.

13 **JUDGE MELLOY:** I'll sustain that.

14 **MR. DUBOIS:** Seth, can you pull up New
15 Mexico 758? Page 2. And can you pull out the
16 second-to-last paragraph, please? Thank you.

17 **Q. (BY MR. DUBOIS) Do you remember discussing**
18 **this exhibit with Ms. Thompson? Do we need to go back**
19 **a page? I'm sorry. I went faster than I should have.**

20 A. Yes, sir, please.

21 **MR. DUBOIS:** Yeah. Could you go back to
22 Page 1? I'm sorry.

23 **Q. (BY MR. DUBOIS) Do you recognize this**
24 **memorandum?**

25 A. I'm not sure this is the one that we were

1 discussing.

2 Q. That's okay. It wasn't, but do you recognize
3 this memorandum?

4 A. Yes, I do.

5 Q. Okay. And what is it?

6 A. This is a memorandum from me to the district
7 manager summarizing the current status of the Faykus
8 River Pump issue.

9 Q. Okay. The date of this is December 18th of
10 '19?

11 A. That's correct.

12 Q. All right. And this is a memo from you,
13 right?

14 A. Yes, it is.

15 Q. Okay. Now, can we go to Page 2, please.

16 JUDGE MELLOY: What's the exhibit
17 number?

18 MR. DUBOIS: Oh, I'm sorry. It's 758.

19 JUDGE MELLOY: Okay.

20 MR. DUBOIS: Down at the bottom, Your
21 Honor, it's NM-0758, and we're --

22 JUDGE MELLOY: My screen always cuts off
23 about the bottom.

24 MR. DUBOIS: Oh, I'm sorry. All right.
25 So it's 758, and we're going to go to Page 2.

1 **JUDGE MELLOY:** Just for whatever it's
2 worth, that's not in evidence. I don't know if you
3 want it.

4 **MR. DUBOIS:** No, I know. I know. I
5 think we're probably going to put it in evidence, but
6 that's okay.

7 Bring out the second-to-the-last
8 paragraph.

9 **Q.** (BY MR. DUBOIS) And second-to-last paragraph,
10 you state that, "The illegal diversion of Rio Grande
11 surface water at this location are particularly
12 alarming due to the fact that the release from
13 Elephant Butte reservoir are earmarked for Rio Grande
14 Project beneficiaries and a few post-project users
15 that have a legal right and entitlement to these
16 waters." Then you say, "Any interception of these
17 released surface waters directly and immediately
18 impairs senior users and that in and of itself is
19 contrary to state law." Do you see that?

20 **A.** I see that, yes, sir.

21 **Q.** Is it your opinion -- is it still your
22 opinion that any interception of the released surface
23 waters from the Rio Grande Project immediately impairs
24 senior users and is, in fact, contrary to state law?

25 **A.** When -- when a situation like this occurs and

1 somebody is pulling water directly out of the river,
2 yes, sir.

3 Q. Okay. So anything that pulls water directly
4 out of the river would be an immediate impairment to
5 senior water users?

6 A. With the exception of those that I identified
7 here, correct.

8 Q. Okay.

9 MR. DUBOIS: Your Honor, I'd move to
10 admit New Mexico 758.

11 JUDGE MELLOY: Any objection?

12 MS. THOMPSON: No objection.

13 JUDGE MELLOY: 758 is admitted.

14 MR. DUBOIS: Give me a second to flip
15 through my notes, Your Honor. I'm sorry. I have no
16 further questions, Your Honor, and I made it before
17 4:00.

18 JUDGE MELLOY: All right. Very good.
19 Ms. Thompson, what do you have?

20 MS. THOMPSON: Just a couple of
21 questions, Your Honor.

22 JUDGE MELLOY: Go ahead.

23 REDIRECT EXAMINATION

24 BY MS. THOMPSON:

25 Q. Mr. Serrano, the term out of priority you

1 were asked about, that's defined in New Mexico
2 Administrative Code; isn't that right?

3 A. I believe that's the case, yes, ma'am.

4 Q. And a water right can only be considered out
5 of priority when a priority call has been made; isn't
6 that right?

7 A. I believe that's what I testified, yes,
8 ma'am.

9 Q. Water masters administer the water rights to
10 enforce the permit conditions; isn't that right?

11 A. Yes. That's one of the aspects, yes, ma'am.

12 Q. And who does the evaluations of impacts on
13 surface water flows when applications are filed? Is
14 that the water master group?

15 A. It is not.

16 Q. Which group is that?

17 A. The water rights division of the Lower Rio
18 Grande.

19 Q. And those water evaluations that look at
20 impacts on surface water flows happen for every
21 application that gets filed; isn't that right?

22 A. It's my understanding that some sort of
23 determination is made with regard to those aspects.

24 Q. Has there ever been a priority call for the
25 Project water right in the Lower Rio Grande?

1 A. Not that I'm aware of.

2 Q. You were asked earlier tried to -- I think
3 you were attempted to be impeached on a question. You
4 were asked at your deposition of what do you do to
5 implement the terms of the Compact. That question,
6 when it's referring to implementing the terms of the
7 Compact, did you understand that to mean something
8 specific to accounting or implementation specific to
9 Compact terms?

10 MR. GOLDSBERRY: Objection; leading.

11 JUDGE MELLOY: I'll sustain that.

12 Q. (BY MS. THOMPSON) What did you understand
13 that question to mean?

14 A. To refer back to specific duties of our
15 personnel that work on Compact issues in the
16 Interstate Stream Commission.

17 Q. And that's not part of the water master's
18 role or responsibilities; is that right?

19 A. That's correct.

20 Q. And let me just check my notes here.

21 MS. THOMPSON: I have no further
22 questions, Your Honor.

23 MR. DUBOIS: Well done, Ms. Thompson.
24 5:00 exactly.

25 JUDGE MELLOY: Mr. Goldsberry, anything

1 further?

2 RE CROSS EXAMINATION

3 BY MR. GOLDSBERRY:

4 Q. You had an opportunity to read your
5 deposition in this case, didn't you?

6 A. Yes.

7 Q. Did you make any changes to the answer that
8 you gave to the question I wrote -- that I read?

9 A. I made a few changes to that -- those texts,
10 but I don't think it was specific to the context of
11 your question.

12 MR. GOLDSBERRY: Thank you. Nothing
13 further, Your Honor.

14 JUDGE MELLOY: Mr. Dubois?

15 MR. DUBOIS: Nothing further, Your
16 Honor. Thank you.

17 JUDGE MELLOY: I didn't give you a
18 chance, Mr. Hartman. Do you have anything?

19 MR. HARTMAN: No, Your Honor, I don't.
20 Thank you.

21 JUDGE MELLOY: Thank you. Well, very
22 good, everyone. Mr. Serrano, you're, I think, done.
23 You're excused. We appreciate your testimony, and
24 you're free to go. Thank you very much.

25 THE WITNESS: Thank you.

1 **JUDGE MELLOY:** All right, everyone. Is
2 there anything we need to talk about before we adjourn
3 for the evening?

4 **MS. THOMPSON:** Not from New Mexico.

5 **JUDGE MELLOY:** If not, I would ask
6 Ms. Klahn to be available. I assume she'll be
7 available in the morning, and we'll talk first thing
8 in the morning about that offer of the deposition
9 excerpt, and I'll take a look at it over the evening,
10 and we'll talk about that first thing. All right?

11 **MS. THOMPSON:** Your Honor?

12 **JUDGE MELLOY:** Yes.

13 **MS. THOMPSON:** I apologize. I just
14 wanted to make one statement just about -- just to
15 refer you because that issue did come up in the
16 pretrial conference statement for New Mexico filed
17 August 25th, Appendix D, Sections C and D. I just
18 wanted to refer you that that's where our objections
19 had been stated. Again, that's August 25th, 2021,
20 pretrial conference statement, Appendix D, Sections C
21 and D.

22 **JUDGE MELLOY:** Appendix D, Sections C
23 and D?

24 **MS. THOMPSON:** That's correct, Your
25 Honor.

1 **JUDGE MELLOY:** All right. I'll take a
2 look at that.

3 **MS. THOMPSON:** Thank you.

4 **JUDGE MELLOY:** All right. Thank you.
5 Anything else?

6 **MR. DUBOIS:** No, Your Honor.

7 **JUDGE MELLOY:** If not, we'll see
8 everybody in the morning. Thank you.

9 (The proceedings adjourned at 5:02 p.m.)

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