

SOAH DOCKET NO. 952-13-5210

LOST PINES GROUNDWATER CONSERVATION DISTRICT

APPLICATIONS OF END OP, L.P.)	STATE OFFICE OF
FOR WELL REGISTRATION,)	
OPERATING PERMITS AND)	
TRANSPORT PERMITS FOR 14)	
WELLS IN BASTROP AND)	
LEE COUNTIES, TEXAS)	ADMINISTRATIVE HEARINGS

HEARING ON THE MERITS

TUESDAY, FEBRUARY 11, 2014

BE IT REMEMBERED THAT at 9:00 a.m., on Tuesday, the 11th day of February 2014, the above-entitled matter came on for hearing at the Bastrop Convention Center, 1408 Chestnut Street, Bastrop, Texas 78602, before MICHAEL O'MALLEY, Administrative Law Judge, and the following proceedings were reported by Kim Pence and Lou Ray, Certified Shorthand Reporters.

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1 P R O C E E D I N G S

2 TUESDAY, FEBRUARY 11, 2014

3 (9:00 a.m.)

4 (Exhibit Applicant Nos. 1 through 46
5 marked)

6 (Exhibit Aqua WSC Nos. 1 through 7 marked)

7 (Exhibit GM Nos. 1 through 5 marked)

8 JUDGE O'MALLEY: Let's go ahead and go on
9 the record then. Good morning. Today is Tuesday,
10 February 11, 2014. It is nine o'clock in the morning.
11 We're in Bastrop, Texas for the hearing on the merits in
12 Docket No. 952-13-5210, Application of End Op, LP, For
13 Well Registration, Operating Permits and Transfer
14 Permits.

15 My name is Michael O'Malley. I'll be the
16 Administrative Law Judge presiding. I'll take
17 appearances of the parties. I'll begin with the General
18 Manager, and then we'll just move down the tables.

19 MR. LEIN: Your Honor, David Lein and
20 Robin Melvin with Graves Dougherty Hearon & Moody on
21 behalf of the Lost Pines Groundwater Conservation
22 District's General Manager.

23 JUDGE O'MALLEY: Thank you.

24 MR. JOHNSON: Your Honor, Russell Johnson
25 with McGinnis Lochridge & Kilgore, and my Co-Counsel,

1 Stacey Reese with Stacey Reese Law Firm, representing
2 the Applicant, End Op.

3 JUDGE O'MALLEY: Thank you.

4 MR. GERSHON: Mike Gershon on behalf of
5 Aqua Water Supply Corporation. I'm with Lloyd Gosselink
6 Rochelle & Townsend. And with me today are our Board
7 President, Cliff Kessler; our General Manager, David
8 Murray; our Manager of Engineering, David Fleming.

9 PUBLIC COMMENT

10 JUDGE O'MALLEY: Thank you. Okay. Before
11 we went on the record, I asked if anyone wanted to make
12 public comment. No one indicated that they did. So
13 unless someone wants to make public comment, we'll move
14 past that and move into preliminary matters.

15 PRELIMINARY MATTERS

16 JUDGE O'MALLEY: Mr. Lein, you talked
17 about a preliminary matter you had with regard to
18 jurisdiction. Why don't you state that for the record
19 since that's the first time I've been made aware of that
20 and we'll proceed.

21 MR. LEIN: Okay. Your Honor, may I
22 approach briefly?

23 JUDGE O'MALLEY: Yes.

24 MR. LEIN: Your Honor, you'll recall that
25 we had a preliminary hearing a few weeks ago in January

1 and you asked what I thought was a good question, which
2 was whether or not in view of End Op's and Aqua's
3 settlement agreement there were any contested issues of
4 law or fact, and you asked that we be ready to discuss
5 that in view of the stipulations.

6 We received the stipulations of End Op and
7 Aqua last week, and I've provided the Court with -- a
8 copy with a couple of highlighted areas that I believe
9 make clear that as between Aqua and End Op there are no
10 longer any contested issues of fact or law.

11 An important fact to understand in this
12 situation is that only one of the three parties here
13 today requested a contested case hearing, and that was
14 Aqua. Aqua requested a contested case hearing on a
15 number of bases, all of which they have now settled by
16 private agreement with End Op.

17 If you turn to Page 4 of End Op's and
18 Aqua's agreed stipulations and continuing on to Page 5,
19 End Op and Aqua stipulate that the standard permit and
20 special conditions that they can -- that they propose to
21 use for a proposal for decision, that they should be
22 included in any permits issued to End Op.

23 And then on Page 6 of the stipulations in
24 Stipulation No. 21 they agreed that the proposed permit
25 conditions that they filed last week address any

1 potential impacts on Aqua's wells.

2 There's no longer a disagreement, there's
3 no longer a dispute about whether Aqua -- whether and
4 how Aqua will be made whole for any impacts upon its
5 wells. And the way that they have agreed to do it is to
6 propose special conditions, or at least agree between
7 themselves, that would provide for a number of things.
8 First, a reduction in End Op's pumping from 56,000
9 acre-feet per year to 46,000 acre-feet per year; and as
10 to Aqua, a mitigation fund that End Op is to pay into
11 over the years and from which Aqua may draw.

12 The third green tab makes clear what I
13 think is really at stake here. On Page 5 of the
14 parties' settlement agreement, Aqua agrees not to
15 withdraw its request for a contested case hearing, and
16 this, Your Honor, is how you know that nothing any
17 longer is actually in contest.

18 Your Honor, what's happening is that
19 End Op, with Aqua's cooperation, is asking this Court to
20 hold an uncontested case hearing, and there is no
21 provision either in the statute or in the District's
22 rules for an uncontested case hearing. I imagine that
23 what End Op, with Aqua's cooperation, is hoping for is a
24 proposal for decision from you that will purport to
25 bind -- that they will then purport binds the District

1 in its decision later on, and that's simply not
2 permissible. What we have here is a nonjusticiable
3 question of policy. The parties may and have agreed by
4 private agreement to address their dispute, but they
5 cannot purport to bind and partner in whole the District
6 to that decision to that agreement.

7 Mitigation funds are not questions of
8 either law or fact. Mitigation funds are questions of
9 policy. These are questions for the Board of Directors'
10 sole discretion.

11 And, Your Honor, I would submit to you
12 that the hearing we are about to conduct, if it is
13 indeed conducted, would be a waste of resources, and so
14 we ask that it be dismissed. Thank you, Your Honor.

15 JUDGE O'MALLEY: And I'll get responses.
16 I had one question for Mr. Lein.

17 MR. LEIN: Yes, Your Honor.

18 JUDGE O'MALLEY: Even if there was a
19 proposal for decision issued in this case, how would
20 that bind the District?

21 MR. LEIN: My expectation is that
22 Mr. Johnson is going to argue at a later date that the
23 Board is somehow to some degree -- although I contend to
24 contest this vigorously at a later date -- to some
25 degree argue that the Board is bound to any findings of

1 fact that you may make.

2 JUDGE O'MALLEY: Okay.

3 MS. MELVIN: In this -- Your Honor, in
4 this case, the statute applies and it applies to SOAH
5 hearings where they cannot overturn your findings of
6 fact without an explanation or anything that you decide
7 as the law or policy without explaining why they were
8 different than yours, which, of course, allows End Op
9 and others to have another point of appeal if the Board
10 should make a different policy decision than you make on
11 these issues.

12 JUDGE O'MALLEY: Okay. Let's go ahead and
13 take responses, and I'll begin with End Op, Mr. Johnson.

14 MR. JOHNSON: Thank you, Your Honor. Let
15 me say, first of all, that it's true that we have
16 entered into an agreement with the protestant that
17 specifically, in essence, allows us to agree to disagree
18 about the factual issues that you will be presented with
19 today. So we resolved the question of impact to this
20 particular protestant, but not the question and the
21 issue that is before the ALJ and ultimately the District
22 as to whether or not to grant or deny this permit.

23 I point out also that the GM has been
24 given the opportunity to agree to these stipulations as
25 conditions to the proposed permit and refused to do so.

1 It should be evident from the argument
2 that this is still a disputed issue, that the District
3 in particular may have a different view of this
4 particular application and the proposed permit than the
5 party, End Op, or the agreement with Aqua would reflect.
6 Therefore, and particularly because there is a need to
7 develop a record upon which if the District does make a
8 decision different than a proposal for decision, the
9 Court will have a record to review. So it is still a
10 contested case hearing.

11 Aqua did not withdraw its protest. They
12 still want the record to reflect their view of the
13 evidence of potential impacts to their facilities and
14 operations. These are real issues before the ALJ.
15 We're going to spend a day developing a record upon
16 which you can decide whether or not to issue -- at least
17 a recommendation to decide whether you should issue or
18 the District should issue the permit as requested and as
19 modified by this agreement.

20 So we are in a fully contested case
21 hearing. We have the right as an applicant to a
22 contested case hearing. And if it takes asserting our
23 right to a contested case hearing, we're here to do
24 that, but we have a contested case hearing. There are
25 issues before the ALJ.

1 JUDGE O'MALLEY: Thank you.

2 Mr. Gershon.

3 MR. GERSHON: It's true that Aqua has not
4 withdrawn its request for a contested case hearing, and
5 I'd like to underscore what Mr. Johnson just said about
6 the issue that Aqua brings to you, Your Honor, for
7 resolution. It's addressed comprehensively in the
8 prefiled testimony. It's the permitting criteria that
9 is defined by Texas Water Code Section 36.113(d)(2).
10 36.113(d)(2) affords Aqua an opportunity to bring to
11 Your Honor's attention adverse impacts to Aqua and other
12 existing users. The settlement agreement limits Aqua to
13 addressing only that permitting criteria. Aqua may have
14 had other arguments to make before Your Honor. The
15 settlement agreement certainly circumscribes Aqua from
16 doing so. That said, 36.113(d)(2) and the impacts to
17 Aqua are still germane to the contested case hearing.

18 Procedurally the way the settlement
19 agreement and the parties, at least End Op and Aqua,
20 have approached resolving that issue, I don't disagree
21 with either Mr. Lein or Mr. Johnson about how we intend
22 to pursue that through a contested case hearing. And so
23 we stand ready with witnesses to set forth what those
24 impacts are to Aqua. Yes, there is a contractual
25 mitigation agreement in place that is part and parcel

1 with that settlement agreement. Yes, End Op and Aqua
2 have proposed to Your Honor special permit conditions
3 that address that mitigation that you may or may not
4 accept.

5 It is conceivable that the impacts that
6 Aqua brings to you, the testimony that we'll put on
7 which does absolutely contradict what the experts for
8 the applicant have, you may agree with our factual
9 information and agree that the application should be
10 granted at an amount less than what the applicant is
11 proposing. That's a potential outcome.

12 Aqua's position has been made clear.
13 Aqua's position is set forth in our prefiled testimony.
14 And to the extent our settlement agreement helps to
15 define what that position is, Aqua is comfortable with
16 the mitigation approach as long as the mitigation
17 approach sticks. And so whether or not there's a
18 contested case hearing obviously is your decision to
19 make, but we do stand ready with information to bring to
20 Your Honor that is disputed. And that's -- that's where
21 Aqua is on that.

22 JUDGE O'MALLEY: Any further comments?

23 MR. LEIN: Yes, Your Honor, just a few
24 brief comments. First of all, it's not quite correct
25 for Mr. Johnson to say that End Op has a right to a

1 contested case hearing. It would be more correct to say
2 that End Op had a right to a contested case hearing.
3 End Op waived that right by not requesting one on its
4 own. Aqua requested a contested case hearing in a
5 timely manner under the Board's rules. End Op never
6 did.

7 Second of all, what happens if this
8 proceeding is dismissed is what would have happened had
9 this proceeding never begun. End Op would still have a
10 right to a hearing, it's just that that hearing would be
11 before the Board as with all uncontested cases.

12 Third of all, Mr. Gershon says that they
13 vigorously dispute -- they dispute the evidence on
14 impacts. It's immaterial whether they dispute the
15 evidence on impacts because they've resolved the remedy
16 for those impacts. And in any other Court, this would
17 have become already a nonjusticiable question or would
18 lack jurisdiction, and that's our argument here today.

19 And finally just to reiterate, if what
20 we're talking about are permit conditions, those are
21 conditions of policy. Those are questions of policy.
22 They are not questions of fact or law, and they are for
23 the Board's sole discretion. Thank you.

24 JUDGE O'MALLEY: What about -- let me ask
25 you one more question, Mr. Lein.

1 MR. LEIN: Yes, Your Honor.

2 JUDGE O'MALLEY: The issue that came up
3 early on in the proceeding with regard to party
4 status --

5 MR. LEIN: Yes, Your Honor.

6 JUDGE O'MALLEY: -- that would have to be
7 incorporated into a proposal for decision for those
8 parties to be able to exhaust their remedies if they
9 wanted to take that on appeal. Because I was -- that
10 all came up when -- after I issued that sort of lengthy
11 order, the parties then asked -- the parties that were
12 denied party status asked me to incorporate that into
13 sort of a PFD, and I declined that because procedurally
14 that was just not the way we do things, and it wouldn't
15 have worked as far as exhausting remedies.

16 Anyway, I explained all that. We got
17 that. I said I would incorporate that into the final
18 proposal for decision so that if that did, in fact, get
19 appealed, they would have something to take to later
20 courts.

21 MR. LEIN: Your Honor, I believe the
22 answer to that question is in the absence of a viable
23 contested case, those -- those complications for party
24 status are moot, whether before you or before -- on any
25 appeal.

1 JUDGE O'MALLEY: Okay.

2 MR. LEIN: And I believe what you have
3 here is no longer a viable contested case; and
4 therefore, no longer any viable applicants for party
5 status.

6 JUDGE O'MALLEY: Okay.

7 MR. LEIN: Thank you, Your Honor.

8 JUDGE O'MALLEY: Okay. Any --

9 MR. JOHNSON: Briefly, Your Honor.

10 JUDGE O'MALLEY: Okay. Mr. Thompson.

11 MR. JOHNSON: Obviously there's still a
12 contested issue with regard to their party status, which
13 would be potentially an issue on appeal, whether it was
14 considered by the Board or not. But let me go back and
15 just say End Op didn't need to file a request for a
16 contested case hearing. Aqua did long before our
17 deadline to request a contested case hearing. Had they
18 not, we probably would have. So the point is, we're
19 here before you with disputed issues that you need to
20 consider and decide, to recommend to the Board what to
21 do with regard to this application in light of the
22 criteria in Chapter 36. These are real issues.

23 JUDGE O'MALLEY: Anything further?

24 MR. GERSHON: Nothing further, Your Honor.

25 JUDGE O'MALLEY: Okay. I'm going to deny

1 the request to dismiss the proceeding. I believe that
2 there are some issues that need to be addressed. And I
3 think for purposes of appeals and -- I will issue the
4 proposal for decision laying out the issues, and I will
5 also incorporate the contested issues with regard to
6 party status, and any of the other permitting issues
7 that need to be addressed. I think these are
8 appropriate.

9 I will agree with you that we obviously
10 narrowed the issues considerably and it's going to be --
11 instead of a week-long hearing, we're going to be, you
12 know, as short as possibly a day. So I think that is
13 true, but I think there are some contested issues and
14 some issues that need to be addressed. And I think for
15 purposes of clarity and for administrative appeal
16 purposes we need to hold a hearing, address it in the
17 PFD or something that needs to be approved by the entire
18 Board. So I'm going to deny the request to dismiss. So
19 that takes care of that issue.

20 Are there any other issues we need to
21 address before we move to the General Manager's motion
22 to supplement testimony?

23 MR. JOHNSON: No, Your Honor.

24 JUDGE O'MALLEY: Is that the only other
25 contested issue?

1 (Nodding)

2 JUDGE O'MALLEY: Okay. And I have
3 received End Op's response to that motion. Is there
4 anyone else who didn't -- since it was filed late, I'll
5 give -- does Aqua have -- you agreed. You didn't object
6 to it. Correct? From the certificate of conference --

7 MR. GERSHON: Correct.

8 JUDGE O'MALLEY: -- you indicated that you
9 don't oppose it.

10 MR. GERSHON: That was accurate.

11 JUDGE O'MALLEY: So I don't think I need
12 any additional oral argument on that. I'm going to
13 grant the general motions -- the General Manager's
14 motion to supplement testimony of Matt Uliana, and
15 that's U-L-I-A-N-A. And if End Op wants to supplement
16 or add additional testimony, I will allow that as well.

17 Anything else before we move to opening
18 statements?

19 (No response)

20 JUDGE O'MALLEY: No?

21 Okay. Who is going to be making the
22 opening statement for End Op, Mr. Johnson? Then if you
23 would please begin.

24 OPENING STATEMENT ON BEHALF OF THE APPLICANT

25 MR. JOHNSON: Thank you, Your Honor.

1 Again, Russ Johnson with Stacey Reese on behalf of the
2 applicant. And bear with me, Your Honor, because I want
3 to try to set the context and the framework and the
4 history of this application for your benefit and outline
5 some of the important issues and facts that you're going
6 to hear about today. And I recognize in doing this that
7 you have not had the benefit -- no offense -- of
8 spending years working with groundwater conservation
9 districts and the planning process and Chapter 36. This
10 is new largely because most of the powers of groundwater
11 conservation districts are largely new by virtue of
12 changes in their legislation in the '90s. So a lot has
13 happened in the world of groundwater management through
14 groundwater conservation districts, and I want to kind
15 of set a framework for the issues in this case in that
16 context.

17 But first, let me introduce End Op.
18 End Op is a group of investors who are familiar with the
19 critical water needs of the I-35 corridor and, frankly,
20 were familiar with the abundant and massive supply of
21 water in the Simsboro Aquifer of the Carrizo-Wilcox --
22 Simsboro member of the Carrizo-Wilcox aquifer. My
23 apologies.

24 Coming together they have agreed to invest
25 and have invested nearly \$4 million in consulting,

1 testing, drilling, preparing and applying for the
2 permits that are before you today. They have arranged
3 an option to lease over 13,000 acres of land in Lee and
4 Bastrop County to produce the groundwater for which they
5 seek authorization in this proceeding. And just so you
6 know, they have -- they filed their application -- and
7 by the way, backing up.

8 They selected the locations for their well
9 fields with the specific intent to minimize the impact
10 of the proposed production in their application. So
11 there are two separate well fields, one in Lee County
12 and one in Bastrop County. And they were chosen to meet
13 all of the Lost Pines District rules, requirements for
14 well locations, spacing, distance from other wells,
15 et cetera.

16 So in order to support its applications --
17 and by the way, they applied and did this work largely
18 because they were encouraged to do so by the District --
19 they drilled three wells, test wells, one large
20 production capacity well that's still in existence and
21 performed extensive pumping tests on that well. The
22 other two wells were set up as monitoring wells to gauge
23 the impact of the long-term production of the large
24 production well. We're talking about an expenditure of
25 well over a million dollars to just perform these

1 hydrogeologic tests to confirm what we thought we knew
2 before we conducted those tests and confirmed with the
3 tests that our application was supported by the fact
4 that this resource had the sustainable capacity to
5 produce this quantity of water for decades and even
6 centuries.

7 So let me step back and say that in
8 connection with these groundwater conservation
9 districts, the legislature mandated -- in connection
10 with the setting of their goals and their management
11 plan and their rules for authorization of production,
12 the legislature mandated a planning process in 2005 that
13 basically -- and I'm just going to give you a brief
14 summary on it and talk about it a little bit more -- but
15 for now the legislature directed that all of the
16 districts in selected groundwater management areas, and
17 in this case it's Groundwater Management Area 12, are
18 required to meet and establish for the aquifers they
19 manage what are called desired future conditions.

20 Now, you're going to hear a lot about
21 desired future conditions today and the desired future
22 condition in this area, but let me just skip to the
23 point. Once those desired -- and by the way, that's a
24 50-year desired future condition. So they are to select
25 how they would like the aquifer to look 50 years from

1 the date they make the decision.

2 So once they select this desired future
3 condition -- this is the theory -- the Texas Water
4 Development Board, the planning agency of the state,
5 uses their groundwater availability models to model how
6 much water can be produced from the aquifer each year to
7 meet that -- or to achieve that goal that has been set
8 for 50 years from today. So the measure is how much
9 water can be produced. And in order to measure that,
10 they assume production in the models.

11 So just to kind of give you a sense of how
12 that works, the key is how much water is produced each
13 year. And because the way the models work,
14 traditionally the model is given an input of a constant
15 amount over that entire period of time even though the
16 reality is that production is never constant. It
17 depends on rainfall, circumstance. There are a lot of
18 factors. Agricultural use diminishes when it's wet
19 because there's less need. Obviously municipal use
20 declines if it's extremely wet because of discretionary
21 use, outdoor uses.

22 So the legislature required this process
23 be completed by 2010. So the desired future condition
24 that's relevant here was selected by the GMA 12 in 2010.

25 So in the meantime while this is going on,

1 End Op negotiates an agreement with the Guadalupe-Blanco
2 River Authority, a letter of intent, under which GBRA is
3 going to investigate and perhaps enter into an agreement
4 with End Op to purchase the water that would be produced
5 from these facilities.

6 The day after the Guadalupe-Blanco River
7 Authority Board approves the letter of intent, the Lost
8 Pines District holds an emergency meeting and grants a
9 moratorium on the processing of any permit applications,
10 including Aqua's, which the moratorium lasted for well
11 over three years. They imposed this moratorium to allow
12 the District to have the benefit of the desired future
13 conditions that would be selected in 2010, the
14 calculated modeled available groundwater from the
15 running of these groundwater availability models so they
16 could amend their management plan and then amend their
17 rules to be consistent with their management plan to be
18 consistent with this planning process.

19 And the reason I'm telling you all this is
20 I want you to understand how an application filed in
21 July of 2007 could just now be before a decision-maker
22 or potential decision-maker for a decision. So that's
23 been the kind of history.

24 So here we are today because the Board
25 lifted the moratorium, they did all the things they said

1 they needed to do before they would lift the moratorium,
2 and that brings us to today, sort of. On March 18th of
3 2013, last year, the Lost Pines General Manager notified
4 End Op that its applications were administratively
5 complete; in other words, we had filed sufficient
6 information to meet the requirements of their rules.

7 But more importantly on March 20, 2013,
8 the General Manager made his recommendation to the
9 Board, and at that time he recommended -- and it's still
10 his recommendation -- he recommended approval of the
11 application to produce 56,000 acre-feet of water from
12 these two well fields and the issuance of operating and
13 transfer permits to End Op with recommended conditions
14 on the permits, obligating End Op to take certain
15 actions within a defined period of time and conditions
16 authorizing the District to adjust the amount of the
17 permit based upon compliance with those requirements, or
18 I believe even more importantly adjustment in the future
19 to address the need to protect the resource in order to
20 achieve their selected desired future condition, and
21 that the permit be for a five-year term so that those
22 adjustments could be reexamined each and every five-year
23 period during the renewal term.

24 You'll find that March 20th recommendation
25 is Exhibit 18 in End Op's list of exhibits. Now, as you

1 heard, Aqua Water Supply Corporation filed a protest and
2 a request for a contested case hearing. That's why we
3 ended up at the State Office of Administrative Hearings.
4 The legislature in its wisdom felt that given that there
5 might be contested case hearings on these permit
6 applications in groundwater conservation districts --
7 and I'm not trying to butter you up -- but they felt it
8 would be appropriate to have experienced administrative
9 judges consider, at the request of any party, the
10 contested issues that would then be ultimately forwarded
11 to the Board for decision. So that's how we are here.

12 Now, let's talk a little bit about the
13 settlement agreement with Aqua and the permit conditions
14 that we've agreed to with Aqua. But I want to step back
15 a little bit and give you kind of a vision of
16 groundwater regulation under Chapter 36 in light of the
17 rule of capture. So you probably heard about the Day
18 case cited by the Supreme Court in February of 2012,
19 established definitively that landowners have an
20 ownership interest in place in the groundwater beneath
21 their property.

22 I'm sure you're also aware of the Bragg
23 decision out of the 4th Court of Appeals where the 4th
24 Court of Appeals affirmed the decision, finding that the
25 decision by the Edwards Aquifer Authority to grant a

1 very limited permit to the Braggs represented a taking
2 of their property rights and that the regulation by the
3 EAA had obliterated their reasonable investment to back
4 expectations and that was a taking.

5 Now, this doesn't mean in any way, shape
6 or form that districts can't regulate or manage and even
7 limit groundwater production. It does mean that the
8 regulation and limitations have to be reasonable in
9 light of the ownership interest of the landowner.

10 So I talked about the planning process,
11 the DFCs. It's kind of an alphabet soup, so bear with
12 me. In the water world with regard to groundwater, we
13 talk about DFCs. It's an acronym for desired future
14 condition, we talk about GMAs as the groundwater
15 management area designations within which districts set
16 desired future conditions, and we talk about groundwater
17 available modelings, or GAMs, as the tools that are used
18 by both the District, these models created by the Water
19 Development Board, and folks like our consultants to
20 assess how the aquifer behaves assuming certain
21 production.

22 And then you have, of course, what's
23 called now the modeled available groundwater, which is
24 the result of running the groundwater availability model
25 to determine how much water can be produced annually and

1 still achieve the selected desired future condition. So
2 that's kind of the process. You know, the idea is that
3 this selected goal should be used to model how much
4 production can be -- can occur, I guess, and still
5 achieve that desired future condition.

6 So GMA 12 set a DFC of 237 feet of average
7 drawdown throughout the district, but they divided that
8 into the two counties. So the average drawdown
9 authorized in Bastrop County is 145 feet, and the
10 average in Lee County is 345 feet. And by the way, just
11 a reminder that that is drawdown 50 years from today.
12 So we're not talking about something happening today.
13 This is what would be authorized over a 50-year period.

14 Okay. So then we, you know, use the
15 groundwater availability model to calculate the modeled
16 available groundwater. But here are the important
17 things to remember about desired future conditions.
18 When they were set in 2010, Your Honor, the groundwater
19 districts were given no guidance on how to set these
20 desired future conditions except a description of what a
21 desired future condition was. There was no criteria.
22 And recognizing the uncertainty in the process, the
23 legislature mandated that it be repeated every five
24 years. So a desired future condition set in 2010 has to
25 be reconsidered by law in 2015 and in 2020 and in 2025

1 because the legislature recognized that this was a
2 planning process, not some kind of definitive
3 determination of available water or authorized
4 production but rather a tool for assessing the impact of
5 long-term production.

6 And finally, the legislature in 2011, as a
7 result of the -- frankly, the confusion and the
8 uncertainty that groundwater districts had in dealing
9 with desired future conditions revised the process
10 applicable to this next round of planning. So the
11 legislature in 2011 literally changed the planning
12 process, and you'll see this in Chapter 36. We have an
13 example or an enrolled bill that shows the changes. But
14 in essence for the first time, the legislature
15 established criteria that have to be considered by the
16 District when they set a desired future condition. And
17 what you're going to learn today is that these criteria
18 were not considered by GMA 12 or the Lost Pines District
19 in setting the desired future condition in 2012.

20 First, the legislature now requires that
21 the districts consider, as they set the DFC, the total
22 estimated recoverable storage in the aquifer. Clearly
23 the legislature felt that in order to measure the
24 reasonableness of regulation you need to know how much
25 water is in the resource and can be recovered, and that

1 needs to be a part of their consideration in this next
2 planning process, which was not a part of it in 2010.

3 The legislature also said the groundwater
4 conservation district setting these DFCs had to consider
5 the impact of their DFC on the property rights of
6 landowners that would be subject to regulation by the
7 District.

8 And, finally, they required the districts
9 consider in setting these DFCs the socioeconomic impacts
10 of their selected desired future condition and, of
11 course, that's a broad range of socioeconomic impacts,
12 but it includes, of course, a consideration of putting
13 water, for instance, off limits and the resulting
14 socioeconomic impact that lack of available water supply
15 might have for a region of the state.

16 But here is probably the most important
17 change they made, and this one is going to have a
18 profound effect on the planning process, and that is,
19 they said what they wanted the districts to achieve --
20 and it's right in 36.108. The legislature said the DFC
21 must provide a balance between the highest practicable
22 level of groundwater production with the conservation
23 and protection of the resource. So the legislature is
24 telling groundwater conservation districts, "We want you
25 to strike a balance between the highest practical level

1 of production and preservation and conservation of the
2 resource.

3 So I've talked about the groundwater
4 availability models, but, Your Honor, there are a couple
5 of things you need to know about groundwater
6 availability models that aren't readily apparent that I
7 want you to be conversant with. The first is even
8 though it's named a groundwater availability model,
9 unlike water availability models for surface water,
10 groundwater availabilities do not and were not designed
11 to answer the question of how much water is available
12 for production. I know that's ironic, but it's a fact,
13 and you're going to hear it from the experts today.

14 Instead, it's a model intended to model
15 the possible impacts of assumed production. More
16 importantly the model is meant to be used on a grand
17 scale, not -- and you'll hear this from all the experts
18 as well, I believe -- to model the impacts on or by
19 specific wells. It wasn't intended for that and the
20 modelers themselves acknowledge it shouldn't be used to
21 measure the impact on or by specific wells.

22 And, of course, you'll hear this as well.
23 The outcome -- and you know this implicitly -- the
24 outcome of any model depends on the assumptions that you
25 make at the start of the running of the model, and many

1 of the assumptions in the model have to be made without
2 the benefit of substantial scientific information. So
3 they are the best guess assumptions that can be made as
4 the model is created.

5 So, Your Honor, this proceeding today is
6 largely about the criteria in Chapter 36 that the
7 District must consider before granting or denying or
8 taking any action on a permit application to produce
9 groundwater. Specifically -- and there are other
10 criteria which we'll talk about, but the one at issue
11 today really is whether the proposed use of water
12 unreasonably affects either the aquifer or existing
13 permit holders. And I emphasize unreasonably affects
14 because what you're going to hear from the experts --
15 and it's no mystery -- is that groundwater production
16 causes impacts. It's inherent in the process.

17 So the question is not whether there will
18 be impacts, and perhaps it's not even, you know, the
19 precise measurement of those impacts, but rather an
20 analysis of whether those impacts are unreasonable in
21 terms of their effect on existing permit holders.

22 And I want you to kind of contrast that
23 with the rule of capture because it's a change. The
24 rule of capture provides no protection for existing
25 users, none whatsoever. There's a hundred years of case

1 law that says basically there is no protection for an
2 existing users in connection with new production by a
3 new user. So the legislature has said we're going to
4 change that. We're going to change that to now ask the
5 groundwater to -- groundwater district to consider does
6 the proposed new production unreasonably affect an
7 existing user. So that's the issue here.

8 So we applied for 56,000 acre-feet. The
9 GM of the District under Chapter 36 reviews the
10 applications to determine if they comply with the
11 District's rules in Chapter 36. As I pointed out, the
12 district manager did that, made a recommendation. His
13 recommendation, I think, is very important for Your
14 Honor to review because the General Manager carefully
15 considered each of the ten criteria that are outlined in
16 the District's rules in Chapter 36 for consideration of
17 the permit and after considering each of those criteria
18 made the recommendation to approve the permit
19 applications for 56,000 acre-feet. But specifically he
20 found that the applications complied with Chapter 36 and
21 the District's rules, which, by the way, have spacing
22 requirements for distances that must be maintained
23 between proposed new wells and existing wells.

24 The GM looked at the question of
25 unreasonable impacts either on the aquifer or on

1 existing users, compiled the information available to
2 him, relied on the groundwater availability model
3 calculations showing the projected drawdowns. He
4 discussed the location of existing wells in relation to
5 the End Op proposed wells, including Aqua's wells and
6 others, and he most importantly correctly noted that
7 most of the drawdown impacts occur in the vicinity of
8 the well field itself.

9 So when you hear about these drastic
10 drawdowns, these 500-foot drawdowns in over a 50-year
11 period I might add at a well site, understand that that
12 drawdown will be felt most directly by End Op in its
13 well field. So what's important about that is that
14 drawdown doesn't diminish either the capacity or the
15 ability of the resource to produce water on a
16 sustainable basis for another 50 years after that
17 drawdown has occurred. In other words, that drawdown
18 will not render this well field unusable or unproductive
19 in the future by any stretch.

20 So the GM also found that the water would
21 be dedicated to a beneficial use subject to a special
22 condition that required End Op to file with the District
23 binding contracts for the purchase of this water within
24 a 12-month period. And you're going to hear -- it
25 should be no surprise, Your Honor, that given the

1 obvious uncertainty and time period it has taken for
2 End Op and others to attain a decision on these
3 applications, that it's hard to sell something you don't
4 have. Before we can strike a deal with the consumer of
5 these resources, we have to be able to demonstrate we
6 can produce and deliver those resources.

7 Okay. Just so you know, he also
8 recommended special conditions that dealt with this
9 long-term management issue, and I briefly talked about
10 those, but the special conditions are specifically the
11 term of the permit is only five years, and that the
12 District reserves the right to adjust the authorization
13 each and every time the permit is renewed to address the
14 issue of long-term impacts. So from the GM's
15 perspective, the amount requested to be authorized,
16 because the GM felt with this condition, the District
17 could reexamine the question of total authorization
18 every five years.

19 So we know that Aqua protested the
20 recommendation and requested a contested case hearing.
21 We've talked about the settlement. And as I've
22 characterized it, it's an agreement to agree to disagree
23 on the extent of the impacts that will be or could be
24 caused by the proposed pumping, but it resulted in
25 recommended permit conditions and amendments to the

1 requested authorization that are sufficient, as you will
2 hear, to address the potential financial impact to Aqua
3 assuming Aqua's analysis of the potential impact, and
4 that's important. So the mitigation was based upon
5 Aqua's calculation of the potential impacts. So that's
6 in return -- our agreement to this mitigation fund --
7 and we'll talk about the specifics -- as in return for
8 Aqua's agreement not to contest the issuance of
9 permit -- of the permits if they contain these
10 conditions.

11 But let's talk about the terms, big
12 important terms of that settlement agreement. By virtue
13 of the settlement agreement, End Op has agreed to and
14 represents to you that we have amended our application
15 to reduce it to 46,000 acre-feet total, a substantial
16 reduction from the initial 56,000, nearly 17 percent.
17 Obviously that results in a similar reduction in
18 impacts.

19 But more importantly, we agreed, given
20 that Aqua's wells are the wells nearest the proposed End
21 Op well field in Bastrop County, to further limit
22 production under this aggregate permit in Bastrop County
23 to no more than 35 percent of the total authorized
24 production, whatever that ultimately is. If it's 46,000
25 acre-feet, that would mean that no more than 16,100

1 acre-feet could be produced in Bastrop County.

2 And by the way, six of the eight Simsboro
3 wells identified by the General Manager are located in
4 Bastrop County. Only two of the wells that are in the
5 Simsboro are located in Lee County. So that provision,
6 again, substantially reduces potential impacts to
7 existing users in Bastrop County.

8 And then there's the mitigation fund,
9 first, a mitigation fund for the potential financial
10 impacts to Aqua, which is the largest water utility in
11 the area, supplies a great deal of the geographic area
12 with water supply, but the most important thing about
13 that is it's based upon Aqua's calculation of long-term
14 financial impact. And what I would say is that it
15 fulfills End Op's consistent commitment to the community
16 to ensure that its production, its sustainable
17 production from this resource, does not adversely affect
18 the water users and ratepayers in the region.

19 And in essence what we have agreed to do
20 is absorb the cost, increased cost, of potentially
21 producing water in the future that might be incurred by
22 Aqua if their calculation of impacts is correct. That
23 is huge, and it's not required by Chapter 36, it's not
24 required by district rules, it hasn't been included in
25 any permit issued by the groundwater conservation

1 district to any other new applicant, and it represents a
2 true commitment to address the impacts of the proposed
3 production.

4 But we didn't stop there, nor did Aqua
5 stop there because Aqua's concern is not just for, you
6 know, their ratepayers but for the resource that they
7 depend upon and the other users. So we have agreed to
8 establish a second mitigation fund for all other
9 existing water users in the region. And, again, we're
10 going to be donating, if you will, or contributing \$5
11 per acre-foot produced to a mitigation fund subject to
12 criteria that are included in the proposed stipulations
13 and material before you that is available to any
14 existing well owner whose operations are adversely
15 affected by the long-term production from the End Op
16 well field.

17 So this includes not only Simsboro wells
18 but any well near the well field that is completed in a
19 different formation if that owner can show that the
20 production from the Simsboro member has adversely
21 affected their ability to produce water from the other
22 geologic formation. So it's a very broad mitigation
23 process.

24 We also agreed to reimburse Aqua its
25 professional fees, its consulting fees, its experts

1 fees, again, in an effort to demonstrate to the
2 community that we want this process to be revenue
3 neutral to the ratepayers of the Aqua system. And, of
4 course, we streamlined the process for the hearing,
5 which I think we're all thankful for and hope we can
6 complete today. But both parties are here to present
7 their evidence of impacts as well as the General
8 Manager's evidence on impacts of other factors.

9 So today you'll hear that the evidence,
10 the GM's presentation, the GM's expert, also testifying
11 about impacts, and at the end of the day you're going to
12 find that all parties agree on the following things:
13 First, all groundwater production affects the aquifer
14 and affects existing permit holders. So Aqua's
15 production or any other Simsboro well's production
16 causes -- or impacts to both the aquifer and other
17 users.

18 The largest drawdown impacts occur at the
19 location of pumping. So when you hear numbers of
20 hundreds of feet of drawdown, know for a fact that
21 that's an average number and that the well producing the
22 water is experiencing a drawdown of many hundreds of
23 feet, perhaps more, than an average drawdown calculated
24 by the model.

25 You're going to hear that the Simsboro is

1 a massive resource with literally millions of acre-feet
2 of recoverable water in storage, which should be
3 available to this region as a water supply. You're
4 going to find, again, at the end of the day, virtually,
5 I believe, undisputed, that assuming full End Op
6 production under their request, the Simsboro Aquifer
7 will be capable of supplying all existing users' needs
8 long after the 50-year planning period included in the
9 Chapter 36 requirements. Drawdown does not equal loss
10 of supply or access. It's a question of economics only.

11 Also undisputed is the DFCs will be
12 revisited in 2015 with new criteria requiring
13 consideration of total recoverable storage.

14 I want to point out that while -- that's
15 my list of undisputed facts, but let me go into some of
16 the things that I think you're going to hear about
17 today. You know, while the General Manager has not
18 agreed to the conditions contained in the Aqua
19 settlement we recommend be included in the final permit,
20 it should be clear at the end of the day that they
21 provide more assurance that the impacts will not be
22 unreasonable on existing users. So -- that's so because
23 the total production has been reduced pursuant to that
24 agreement, it provides for limits on pumping in Bastrop
25 County, and obviously there's a mitigation fund for all

1 potentially affected.

2 So at the end of the hearing, Your Honor,
3 we would ask that you include in your proposal for
4 decision a recommendation granting End Op's permit
5 application as amended, with the conditions outlined by
6 the General Manager in his recommendation and those
7 conditions that we have agreed will be or should be part
8 of the permit pursuant to our agreement with Aqua.
9 Thank you very much.

10 JUDGE O'MALLEY: Thank you.

11 Mr. Gershon.

12 OPENING STATEMENT ON BEHALF OF
13 AQUA WATER SUPPLY CORPORATION

14 MR. GERSHON: Aqua is the sole protestant.
15 I think it's important to take a look at what Aqua
16 represents and the nature of Aqua's governing authority,
17 the type of entity it is. Aqua is a nonprofit water
18 supply corporation, the largest water supply corporation
19 in the state of Texas. Aqua has a state -- a recognized
20 state-issued service area, a certificate of convenience
21 and necessity, that is nearly a thousand square miles.
22 It includes Bastrop County and five -- and parts of five
23 surrounding counties; 18,000 connections in the area,
24 over 50,000 people, businesses that depend upon the
25 public water supply provided by Aqua.

1 The statutes are clear that Aqua should be
2 here protesting. Aqua has a statutory mandate to
3 protect its water supply and protect its infrastructure.
4 Chapter 13 of the water code, the TCEQ, Texas Commission
5 on Environmental Quality's rules, are clear that Aqua
6 has to ensure continuous and adequate supply of water.
7 TCEQ's rules are very strict about Aqua's
8 infrastructure, that that infrastructure be in place and
9 that a sufficient water supply inventory be readily
10 available for Aqua to meet its customer demands.

11 It's worth pointing out that the utilities
12 code also addresses that statutory mandate. The
13 utilities code is relevant in a contested case.
14 Section 186.002 of the utilities code provides that
15 continuous service by a water utility is essential to
16 the life, health and safety of the public, and a
17 person's willful interruption of that service is a
18 public calamity that cannot be endured. It's
19 interesting the legislature selected the word "person."
20 We looked to the Government Code and that tells us that
21 that includes a corporate entity, an individual, another
22 governmental entity.

23 That same section states that each court
24 and administrative agency of this state shall recognize
25 the policies stated in this section, that the primary

1 duty of a public utility, including its management and
2 employees, is to maintain continuous and adequate
3 service at all times to protect the safety and health of
4 the public against the danger inherent in the
5 interruption of water utility service.

6 So, again, Aqua is a nonprofit water
7 supply corporation. As a water supply corporation, it
8 is essentially owned by its customers, its members.
9 It's governed by an elected board, a board that's
10 elected by those same member customers.

11 Back when End Op's applications were filed
12 multiple years ago, Aqua got to work immediately. Back
13 in the 2010 time frame, multiple consulting firms were
14 engaged to study potential impacts. It seemed obvious
15 to management at the time that there would be some
16 impacts, and the question was to what extent and what to
17 do about it.

18 Judge, what you've seen in the prefiled
19 testimony and what you'll hear more today about from
20 Aqua's senior management and from its consultants is
21 there are significant impacts. Aqua has over a dozen
22 wells. Aqua has permits for nearly 30,000 acre-feet,
23 the largest permit holder in the Lost Pines Groundwater
24 Conservation District's jurisdiction.

25 We do dispute the impacts with End Op.

1 Yes, we agreed to an outcome, and the settlement
2 agreement addresses that outcome, but we dispute the
3 impacts. We recognize that the outcome that we agreed
4 to with the applicant may not necessarily be the only
5 outcome. It is our understanding that the General
6 Manager may have another proposed outcome. Clearly,
7 Judge, you have an opportunity to develop which you
8 believe is the proper outcome after weighing all of the
9 relevant permit criteria, but we dispute the impacts.

10 End Op characterizes our impacts as
11 worst-case scenario. Whether or not it's worst-case
12 scenario, it's a scenario we believe that our experts
13 will establish to be a realistic scenario. Under the
14 guidance of the statutes that I referred to, it's
15 critical that a retail public utility such as Aqua get
16 it right, that when we're considering the facts and the
17 potential scenarios, we believe realistic scenarios,
18 that we not have a situation where Aqua Water Supply
19 Corporation's infrastructure is incapable of providing
20 water because its pumps are pumping dry or its wells
21 have run dry. It's unacceptable for the source of
22 supply to not be available.

23 The status quo is that Aqua has the
24 infrastructure in place to clearly provide continuous
25 and adequate service to its customers. The status quo

1 is such that Aqua has the water supply available as
2 recognized by the permits already issued by the
3 groundwater conservation district.

4 Mr. Johnson is correct that the Texas
5 Supreme Court, in a flagship case back in February
6 of 2012, addressed ownership rights of groundwater, the
7 Edwards Aquifer Authority v. Day case. Mr. Johnson
8 emphasized the absolute ownership of landowners and
9 their groundwater. What Mr. Johnson didn't recognize is
10 in that case, yes, the Supreme Court recognized that
11 landowners own groundwater in place under their property
12 with two qualifications: That ownership interest is
13 subject to rule of capture, and ownership interest is
14 subject to reasonable regulation by a groundwater
15 conservation district.

16 What does it mean for an ownership
17 interest to be subject to the rule of capture? Well, in
18 this case, it means that End Op's alleged ownership
19 interest in groundwater are subject to Aqua's ability to
20 produce water from its property. That interest that
21 End Op is trying to exercise is subject to Aqua being
22 able to produce its water.

23 Now, all of these rights, both Aqua's
24 admittedly as well as End Op's, are subject also to
25 reasonable regulation by a groundwater conservation

1 district. Although Aqua has a statutory mandate to
2 protect its infrastructure and its ability -- and its
3 source of water supply and its ability to provide
4 service, Aqua depends upon the jurisdiction of the
5 groundwater conservation district to get it right in how
6 they manage that source of supply. That reasonable
7 regulation of the groundwater district is a critical
8 component of the Supreme Court's decision two years ago,
9 and Aqua appreciates that that protection is in place to
10 also protect Aqua.

11 End Op, Mr. Johnson, spent some time
12 talking about this desired future condition regulatory
13 framework that we have in place that the legislature
14 established for us, and Mr. Johnson is correct that the
15 statute -- the legislature was clear, that it requires
16 developing these desired future conditions and the
17 regulatory standards for how a groundwater conservation
18 district manages the supply. It requires a balance, a
19 balance of private property rights with a need to impose
20 some reasonable regulation to protect existing users.
21 The same statute that Mr. Johnson read from requires a
22 consideration of existing aquifer uses. It requires a
23 look at what the water supply needs are in the state
24 water plan.

25 Aqua takes its job very seriously. Aqua

1 over the years has responsibly planned, responsibly
2 developed the infrastructure. Aqua has, I believe, over
3 a hundred million dollars in water utility
4 infrastructure in place. Aqua's plan, Aqua's commitment
5 to provide that service is in the state water plan. We
6 believe that Aqua is doing things right in the way that
7 its planned in the past and the decisions made to invest
8 in its wells to locate the wells where they are
9 logistically. Those were responsible decisions.

10 Aqua has reached a settlement with End Op,
11 and what does that mean? Mr. Johnson did get it -- he
12 got it right in how both End Op, the applicant, as well
13 as Aqua, framed up those impacts. We disagree on the
14 extent of the impacts, but in Aqua's opinion neither
15 End Op or Aqua disagree that those impacts are
16 significant. End Op came to Aqua and urged Aqua to look
17 at -- and define those impacts in an economic manner.
18 What Aqua did disagree about is that by looking at those
19 impacts in an economic manner Aqua could still meet its
20 statutory mandate.

21 The good thing about where we're at in
22 this hearing is that we've agreed to disagree about what
23 the nature of the impacts are, but we've agreed to agree
24 on a remedy for addressing what Aqua believes those
25 impacts realistically are. You'll hear End Op described

1 those impacts as a worst-case scenario. We believe they
2 are realistic; they are realistic impacts.

3 We're hopeful, Judge, that you agree with
4 Aqua in that our impacts are substantiated by the
5 testimony and evidence you'll hear. And we're hopeful,
6 Your Honor, that you -- that you get and you can
7 appreciate why the parties have come together, why
8 End Op and Aqua have come together to agree on a
9 resolution and how to address those impacts.

10 Mr. Johnson is correct that the statutes
11 don't provide for mitigation, which is why we've
12 structured mitigation contractually separate and apart
13 from the regulatory program at the groundwater
14 conservation district. Certainly there is an
15 opportunity through SOAH, there's an opportunity through
16 the groundwater conservation district, to embrace the
17 special permit conditions that End Op and Aqua have
18 proposed. That provides an additional insurance policy
19 for Aqua. It provides more certainty that there are
20 multiple legal remedies for Aqua to exercise and hold
21 the applicant's feet to the fire on if permits are
22 issued.

23 We appreciate your time today. We're
24 prepared to efficiently get the evidence in front of you
25 today, and we look forward to that opportunity here in

1 the next few hours. Thank you, Judge.

2 JUDGE O'MALLEY: Thank you.

3 Mr. Lein.

4 OPENING STATEMENT ON BEHALF OF LPGCD GENERAL MANAGER

5 MR. LEIN: Thank you, Your Honor. I will
6 probably be the first nor the last person to say I have
7 little left to say in the wake of the presentations of
8 Mr. Johnson and Mr. Gershon.

9 The General Manager is not a protestant
10 here today. He's not an applicant. Our goal is to
11 provide additional information and to protect and add to
12 the record in a way that will allow you and ultimately
13 the Board to make a sound decision upon what I'm pretty
14 confident is the largest application ever submitted to
15 the Lost Pines Groundwater Conservation District by
16 several orders of magnitude. So the business that we do
17 here today, potentially tomorrow, is important.

18 One thing that is actually not in dispute
19 here today despite what Mr. Johnson has told you is the
20 desired future conditions as established by GMA 12.
21 Those were established in 2010. They were challenged in
22 the appropriate forum under Chapter 36 by End Op, the
23 applicant, and that challenge was rejected by the Texas
24 Water Development Board, which specifically held that
25 these desired future conditions are reasonable.

1 It is not appropriate nor within yours or
2 the Board's jurisdiction to apply the desired future
3 condition that End Op wishes had been promulgated. What
4 we have are district-wide average drawdowns, and those
5 are the DFCs to which the groundwater conservation
6 district must manage.

7 Very briefly about special conditions. I
8 am happy to note that all of the parties have agreed to
9 the special conditions contained in the General
10 Manager's recommendation. The General Manager does not
11 and cannot agree to the special conditions that Aqua and
12 End Op have proposed via their settlement and
13 stipulations. The major reason for that is that those
14 are matters of policy, those mitigation funds, that the
15 General Manager does not believe that the District
16 should insert itself into. The District cannot be in
17 the business of adjudicating or enforcing remedies to
18 which private parties have agreed and certainly can't be
19 in the business of adjudicating or enforcing remedies to
20 which private parties have agreed on behalf of a number
21 of unrepresented parties.

22 That said, I'm going to keep this brief as
23 I promised, and I'm going to sit down now, and we
24 appreciate the opportunity to protect and add to the
25 record over the next day or two. Thank you.

1 JUDGE O'MALLEY: Thank you.

2 Before we begin with evidence, why don't
3 we take about a ten-minute break, allow everyone to
4 stretch, get a drink of water, and we'll come back at
5 10:20. Thank you.

6 (Recess: 10:12 a.m. to 10:27 a.m.)

7 JUDGE O'MALLEY: Let's go ahead and get
8 seated and go back on the record. I think at this time
9 we're ready to begin with the evidentiary portion of the
10 hearing. We'll begin with End Op.

11 Ms. Reese, are you going to be doing that?
12 I see you with the microphone.

13 MS. REESE: Yes, Your Honor, I am.

14 JUDGE O'MALLEY: Okay.

15 MS. REESE: I'll be questioning both of
16 End Op's witnesses.

17 JUDGE O'MALLEY: Okay.

18 MS. REESE: And before we get started, I
19 want to offer all of our prefiled exhibits into the
20 record. We prefiled Exhibits 1 through 41, and we also
21 reached an agreement with the parties to also admit
22 Exhibits 42 through 46 with no objection. So what's in
23 front of the court reporter and in the -- what we
24 propose to submit in the record is Exhibits 1 through
25 46, and the witness has a complete set and the court

1 reporter does as well. And we have no objection to
2 admitting any of the prefiled exhibits by the other
3 parties as well.

4 JUDGE O'MALLEY: Okay. So --

5 MS. MELVIN: Your Honor, I'd just like to
6 clarify that although we are not objecting to the
7 admission of the proposed stipulations and the agreed
8 stipulations that they and Aqua have entered or are
9 entering as evidence, the General Manager does not
10 agree -- is not a party to the agreed stipulations, nor
11 does the General Manager agree to the proposed permit
12 conditions, but we have no objection to those coming
13 into the record.

14 JUDGE O'MALLEY: Okay. So with that, it
15 appears that there are no objections to End Op's
16 Exhibits 1 through 46. Is that correct?

17 MR. LEIN: That's correct.

18 MR. GERSHON: Correct.

19 JUDGE O'MALLEY: Okay. With that then,
20 End Op's Exhibits 1 through 46 are admitted.

21 (Exhibit Applicant Nos. 1 through 46
22 admitted)

23 MS. REESE: And, Your Honor, I call our
24 first witness, Tim Haynie.

25 JUDGE O'MALLEY: I'm sorry. This is

1 Mr. Haynie?

2 MS. REESE: Mr. Timothy E. Haynie, yes.

3 Correct, Your Honor.

4 PRESENTATION ON BEHALF OF APPLICANT

5 TIMOTHY E. HAYNIE,

6 having been first duly sworn, testified as follows:

7 DIRECT EXAMINATION

8 BY MS. REESE:

9 Q Please state your full name for the record.

10 A Timothy E. Haynie.

11 Q Is Exhibit No. 40 a true and correct copy of
12 your prefiled testimony in this case?

13 A Yes, it is.

14 Q Are there any updates or clarifications that
15 you'd like to make to your testimony?

16 A I think there was a misspelling in there,
17 "Georgetown" instead of "George." Also I think there
18 was a statement made that there was no outline or
19 mitigation fund which we had termed "general mitigation
20 fund." We have since come up with a general mitigation
21 fund.

22 Q So you're referring to your testimony on
23 Page 8, Line 1, where the testimony reads "The City of
24 George," and it should read "The City of Georgetown."
25 Is that correct?

1 A I believe that's right.

2 Q And then on Page 4 at Line 31, through Page 5
3 in your prefiled, you state that End Op had outlined
4 terms for a mitigation plan but did not have a formal
5 mitigation plan in place. Is that correct?

6 A Yes.

7 Q And today you're updating that testimony to say
8 that there has now been a formal mitigation plan put in
9 place?

10 A Yes, we put together a process and guidelines
11 on how to be administered and to work, yes.

12 Q Mr. Haynie, could you please describe your
13 background generally in your role with End Op?

14 A I am an investor in the End Op water project.
15 I've been involved in it for about five years, maybe
16 longer than that, since '08 or '09. Anyway, I've
17 volunteered to be an administer of the project to help
18 out with day-to-day work to try to make things move
19 forward on it.

20 Q So you're a manager in --

21 A Yes.

22 Q -- the investment --

23 A Yes.

24 Q -- group?

25 What is your occupation?

1 A I'm a civil engineer and a land surveyor, and I
2 have a business in Round Rock, Texas.

3 Q And what types of services does your business
4 provide?

5 A Civil engineers do water, sewer, street and
6 drainage, and the surveying operation that I have
7 compliments our civil work.

8 Q Have you performed any engineering work related
9 to the feasibility and development of a groundwater
10 project or for groundwater modeling?

11 A No.

12 Q Are you testifying as a technical expert in
13 this case?

14 A No, I'm not an expert in this case.

15 Q You said that you were an investor and a
16 limited partner in the End Op project and that you've
17 been involved with the project since -- for about the
18 last five years. Describe your role as a manager.

19 A You get volunteered to come speak before public
20 hearings. You look after the investments that are made,
21 work with the consultants to know what they are doing.

22 Q Would you describe yourself as being an active
23 manager on the project?

24 A Yes.

25 Q And although you're not an expert in this case,

1 have you gained any knowledge in your trade or
2 occupation that is relevant to the End Op project?

3 A Yes, basically everything that End Op will be
4 doing to develop this well field is work that I do as a
5 civil engineer.

6 Q And have you gained any experience through your
7 occupation in terms of demands for water?

8 A Definitely. With my office located in
9 Williamson County, which is where just about all of my
10 work is, the development activity there is
11 unprecedented. Williamson County was recently
12 designated as the fastest growing county in the nation.

13 Q Have you learned that there are any factors --
14 or that water supply is necessary in terms for there to
15 be growth and development?

16 A Yes, I've experienced that over the last 30
17 years, went through it with the City of Round Rock when
18 they ran out of water back about 1979, and so it's very
19 evident that no water, no growth.

20 Q Could you please describe the End Op's -- the
21 project generally and then End Op's commitment and
22 investment in the project?

23 A Generally we've been working with landowners to
24 secure options to lease their land. There's about
25 13,000 acres of land involved, and I think there's some

1 50 or 60 landowners that make up that 13,000 acres.
2 With that the consulting firm of Thornhill Group was
3 employed to do an extensive investigation, a
4 hydrological investigation, to study the groundwater and
5 verify what we thought was here in the -- Bastrop and
6 Lee County.

7 Q And what were the conclusions of End Op's
8 hydrogeologists?

9 A That there is water here and there's a lot of
10 water here to justify making application and going
11 forward with the project.

12 Q In terms of a financial investment, what has
13 End Op financially committed or invested in the project?

14 A Nearly \$4 million to this date.

15 Q Is there an existing and projected need for the
16 water in the proposed locations of use?

17 A Yes. We visited with quite a few folks from
18 cities, water supply districts and as recently the Lone
19 Star Regional Water Authority. There are water needs
20 everywhere. And now with the situation with Lake Travis
21 being so low, the LCRA, I think, is looking at
22 alternative water supplies. So they may even be a
23 possible customer.

24 Q And for the record, please identify the
25 proposed use of location. In which counties is the

1 water proposed to be used?

2 A Oh, yeah. The two primary counties that we
3 have talked with possible delivering water to are Travis
4 County and Williamson County.

5 Q And those are identified in End Op's
6 applications with the District. Correct?

7 A Yes, they are.

8 Q You mentioned that you've talked to several
9 different entities, municipalities, et cetera, who would
10 be interested in using the water or have a need for it
11 in Williamson and Travis County. Could you please
12 describe those discussions that you've had and with
13 whom?

14 A Typically we've gone in and talked to folks and
15 let them know that we're -- what our project is here and
16 where it is and how much water is -- what we're
17 requesting to use and trying to get a feel for their
18 interest. And once they realize that we don't already
19 have the water, the conversation tends to cool and
20 basically they are telling us "Come back and see us when
21 you have water in hand. We can talk seriously about
22 going to a contract."

23 Q And talking and having these active
24 discussions, did the entities inform you that they had a
25 need in the future for water?

1 A Definitely, yes.

2 Q Did they give you a projected time frame in
3 which they had a need for this water generally?

4 A It varies. Most of the water was projected out
5 anywhere from five to 20 years.

6 Q Based upon the active discussions that you've
7 had with these potential buyers, who do you think is
8 most likely to purchase the water if End Op were granted
9 permits?

10 A The Lone Star Regional Water Authority, I
11 think, is the one that's recently shown the most
12 interest up in Williamson County.

13 Q Did End Op have a contract to supply water?
14 Did they have a water supply agreement with a buyer?

15 A They do. They've got a water contract with
16 Williamson County WCID No. 2.

17 Q Has End Op ever had a contract with any other
18 buyer for a water supply agreement?

19 A Yes. Several years ago, I want to say about
20 three or four years ago, we were in negotiations and
21 reached a letter of intent with the Guadalupe-Blanco
22 River Authority. We spent a lot of time and a lot of
23 money in that process. And once our letter of intent
24 was finalized, the water district decided to instill a
25 moratorium and basically that killed our deal with the

1 BRA -- or BGRA.

2 Q The GBRA. Is that --

3 A Yes.

4 Q And the GBRA terminated the contract?

5 A Yes.

6 Q Do you recognize Exhibit 17?

7 A Yes. It's an email from Mike Robinson, who I
8 believe is the Chairman of the Lone Star Regional Water
9 Authority.

10 Q And what's the date on the email?

11 A December 13, 2013.

12 Q Does this email confirm the active discussions
13 that End Op has been having with Lone Star Regional
14 Water Authority and their need for the water?

15 A Yes.

16 Q When was the last time End Op had a meeting
17 with Lone Star Regional Water Authority?

18 A I was told through one of my partners that they
19 had met with them last week.

20 Q Are the discussions still active with Lone Star
21 Regional Water Authority?

22 A Yes.

23 Q What is your understanding of the General
24 Manager's position on End Op's applications, and how did
25 you come to that understanding?

1 A My understanding is that he has recommended it
2 to go forward; and, therefore, he's approved it, and
3 he's recommended it to go forward to hearing for the
4 Board.

5 Q Do you recognize Exhibit No. 11?

6 A Yes.

7 Q And tell us -- tell us for the record what that
8 is.

9 A It's a letter to Frankie Limmer, Manager,
10 basically recommending to the Board to grant the
11 application for the terms and conditions of the draft
12 permit.

13 Q And who is the letter from?

14 A Signed by Joe Cooper, General Manager.

15 Q And in that letter does Joe -- Mr. Cooper state
16 that End Op's applications are administratively
17 complete?

18 A Yes.

19 Q Could you take a look at Exhibit 18 and tell me
20 if that's the exhibit that you're referring to about the
21 General Manager's recommendation --

22 A Yes.

23 Q -- on the permits?

24 A Yeah, the memorandum is -- I'm familiar with
25 that.

1 Q And contained within that, are there proposed
2 permits with the conditions included?

3 A Yeah, the conditions are in the memorandum.

4 Q Does the General Manager's recommendation
5 include anything other than a recommendation to grant
6 the permits in full provided certain conditions are
7 included?

8 A I believe that's true. He's recommending the
9 56,000 acre-feet.

10 Q And End Op, as we know, has since amended its
11 applications to reduce the total authorization to 46,000
12 acre-feet?

13 MS. MELVIN: Objection, Your Honor.
14 End Op, the applicant, has never amended their
15 application. They may have stipulated that they are
16 asking for 46,000 instead of 56,000, but they have not
17 filed an amended application with the District, and I
18 object that that's a mischaracterization of what they've
19 done.

20 JUDGE O'MALLEY: Okay.

21 MS. REESE: Your Honor, we're making a
22 note on the record that we seek to reduce our
23 authorization to 46,000 acre-feet.

24 JUDGE O'MALLEY: Okay.

25 MS. MELVIN: That's fine.

1 Q (BY MS. REESE) Does the General Manager
2 conclude that End Op's application satisfies the
3 criteria in Chapter 36?

4 A I believe it does, yeah.

5 Q And the District's rules as well?

6 A Yes.

7 Q Are you familiar with the special conditions
8 that the General Manager has suggested be included in
9 the permits?

10 A Yes. They are in the permit.

11 Q And so you're aware that the General Manager is
12 requiring End Op to submit a binding contract to supply
13 the authorized water -- the authorized amount within a
14 year of obtaining the permits?

15 A Yes. There's four basic time-sensitive issues
16 that are in the permit: One is the completion of the
17 lease agreements within 30 days; the second one is the
18 completion of contracts for sale of the water within
19 160 -- 365 days; there is the stipulation that the wells
20 have to be drilled within the first 180 days; and also a
21 stipulation that water has to be deliverable within 24
22 months of completion of those wells. And also it goes
23 on to say that the water applications have to include a
24 water conservation plan and also a drought contingency
25 plan, and that the applications are renewable every five

1 years. That's -- that's kind of the short version of
2 it.

3 Q Does the proposed permit by the General Manager
4 include a proposed condition that the District can limit
5 production during the term of the permit?

6 A I believe it does, yes.

7 Q So the proposed -- as proposed by the General
8 Manager, the permit is for a term of five years, and
9 within that five years the District has the authority to
10 limit production?

11 A Yeah, I believe it goes on to say with
12 justification.

13 Q And the permit -- is the permit automatically
14 renewed, or is there a renewal process?

15 A There's a renewal process.

16 Q Does End Op have any objection to those
17 conditions?

18 A No.

19 Q And why is -- why is the General Manager
20 concerned about End Op providing an executed groundwater
21 lease within 30 days of obtaining its permits?

22 A I guess he -- I'm sure he wants to know where
23 the water is going to be obtained from as far as the
24 specifics. Beyond that, I don't know.

25 Q Does End Op own all of the land within its

1 project?

2 A End Op owns a two-acre site where the
3 production well was drilled and tested in Lee County.

4 Q And then with regard to the other acreage
5 involved in the project, what rights does End Op have?

6 A End Op has an option to lease with all the
7 property owners, and that's -- that's basically their
8 rights to follow through and be able to deliver a lease
9 to the District.

10 Q And so under the -- are the options all
11 current?

12 A Yes, they are.

13 Q Under the option to lease, is -- once permits
14 are obtained, is there an obligation to execute a
15 groundwater lease?

16 A Within 30 days, yes.

17 Q Could you take a look at -- are you sure it's
18 30 days, or is it ten days?

19 A I thought it was --

20 Q If you want -- if you can't --

21 A Yeah; no.

22 Q If you want to look at the exhibit, you can.

23 A I can't remember. It may be ten.

24 Q Okay. Within a period of time, it will comply
25 with the District's condition.

1 A Yes, yeah.

2 MR. LEIN: Your Honor?

3 JUDGE O'MALLEY: Yes.

4 MR. LEIN: If I can just briefly interpose
5 for just a moment? I didn't mind giving Ms. Reese just
6 a little bit of leeway to do a brief direct examination,
7 but I believe there was a reason that we prefiled direct
8 testimony. And it feels like either she's
9 recapitulating what was prefiled or if she believes
10 she's doing something different, then I would object
11 that she's going outside the record.

12 JUDGE O'MALLEY: Okay.

13 MS. REESE: Your Honor, I'm trying to
14 reiterate the key points of the criteria that we need
15 to. I realize that some of this was prefiled. We're
16 about to get into some expansion on the mitigation plan
17 that is not necessarily in the record or explained in
18 the record.

19 JUDGE O'MALLEY: Okay. I'll allow it. If
20 there's a specific objection later or if she continues
21 or whatever, I'll allow you to state that. But for
22 right now, we'll move along. And if you can limit the
23 stuff that's in the prefiled, that's -- that goes for
24 everybody. We don't need to necessarily reiterate every
25 question that was in the prefiled. If you want to

1 highlight some issues, that's fine for the record. Of
2 course, if there's additional stuff like the mitigation
3 and so forth, that's appropriate. But to move things
4 along given that there's no objection, then we don't
5 need to reiterate everything that's been prefiled.

6 MS. REESE: Yes, Your Honor.

7 Q (BY MS. REESE) Mr. Haynie, could you please
8 describe the terms of the settlement agreement with Aqua
9 that End Op reached?

10 A Yes, there's four basic pieces to it. The
11 first one is to reduce the production rate from 56,000
12 acre-feet a year down to 46. The other one was to limit
13 production in Bastrop County to a maximum of 20,000
14 acre-feet or 35 percent of the obtained permit amount.
15 And I think as Mr. Johnson mentioned earlier, that
16 35 percent of the 46,000-acre feet is only about 16,100
17 acre-feet per year.

18 The other settlement was the mitigation
19 fund set up for Aqua to be administered by Aqua, and
20 it's basically to be funded at \$15 per acre-foot of
21 water produced. The \$15 number came from calculations
22 supplied by Aqua, and it seemed to be very reasonable.
23 Also in that Aqua settlement would be a payment of funds
24 for 20 years with a maximum amount of \$15 million.

25 The other item that was discussed or

1 included is the -- what I call the general mitigation
2 fund to cover all other possible users of the Simsboro
3 and within one mile of all -- all the End Op wells that
4 they plan on drilling. Those are the four pieces.

5 Q And the conditions -- the proposed conditions
6 that you just described, are they included in
7 Exhibits 45 and 46 that are in the record?

8 A I believe so, yeah. I better look.

9 Q Why did End Op agree to these conditions?

10 A It was more of a matter of satisfying people's
11 fears of the unknown, and I think it's reasonable what
12 we did.

13 Q Were you advised by anyone to take these -- to
14 consider these conditions?

15 A It's been discussed widely between our partners
16 and legal staff and as well as the technical experts to
17 get some other input and it all came out to be the same,
18 that it's reasonable.

19 Q Can you describe the mechanics of how the
20 landowner fund will be administered as laid out in
21 Exhibit 46?

22 A Yeah, the general fund will be administered --
23 well, let me start over.

24 Once the permits are issued, End Op was to
25 hire an administrator, one to look over this mitigation

1 fund. Along with that, once an administrator was hired,
2 End Op would supply them with names and contact
3 information of all Simsboro wells within the district
4 other than Aqua and all potential wells within a
5 one-mile radius of the proposed End Op wells.

6 Once this information is acquired, the
7 administrator will contact these people as well as run a
8 public notice in the local newspapers or try to get
9 information out that End Op is interested in putting
10 measurement and recording devices in anybody's wells
11 that they can get to cooperate with them for the intent
12 and purpose of looking after any impacts that End Op may
13 cause.

14 Once that is initiated, if there are any
15 impacts, the administrator will have some method of
16 evaluating those impacts. Also, once End Op has
17 completed their wells, that same measurement and
18 recording information will be supplied to the
19 administrator for End Op's wells so that he has a
20 composite picture of what's going on with new wells and
21 existing wells.

22 If there is an impact felt by a user, they
23 can bring it to the attention of the administrator.
24 They can hopefully have the information already measured
25 and recorded as a document to justify their complaint.

1 Once that complaint is issued, the administrator will
2 evaluate whether there is an impact. And one of the
3 basic criteria is if it has impacted the production of
4 that well by 10 percent or more is justification for
5 mitigation of funding. And the mitigation process will
6 include lowering pumps, deepening wells or completely
7 replacing a well of equal capacity.

8 And if you have someone that did not agree
9 to the measurement and recording, they will -- they can
10 bring their information and justify their case, and the
11 administrator will make that judgment call whether there
12 is an issue there. And if the administrator finds that
13 there was damage, the administrator has the right to
14 mitigate or provide mitigation funds for that
15 individual.

16 Q And what happens if someone disagrees with the
17 recommendation by the administrator?

18 A There can be a three-board panel set up. The
19 well owner will select a person, End Op will select a
20 person and then they'll jointly select a person, and a
21 three-board panel will make a final decision on the
22 contested.

23 Q Why did End Op agree to the two mitigation
24 funds as proposed permit conditions?

25 A End Op realizes that there's a lack of

1 information in the aquifer. And until there's more
2 pumping going on, they really won't have the confidence
3 of the people here in Bastrop and Lee County to know
4 what the capacity of the aquifer is. So to cover that
5 fear, the mitigation fund was an obvious option and a
6 reasonable option.

7 Q How will you know that End Op is only providing
8 mitigation for the potential impacts caused by End Op
9 and not other users?

10 A There won't be any way to determine that. The
11 general fund will be open to just about anybody that can
12 show damage.

13 Q As outlined in the -- in the mitigation fund?

14 A Yes.

15 Q How do you know there will be enough money in
16 the fund to provide the mitigation if necessary?

17 A We relied upon Aqua's calculations of the
18 \$15 million estimate that could be their worst case to
19 mitigate damage that they could project. And from that
20 \$15 million estimate, we evaluated what other wells may
21 be out there and concluded that it's probably about --
22 maybe about a third at the worst case. So instead of
23 \$15 per acre-foot into the fund, it's going to be \$5 per
24 acre-foot to fund the general mitigation fund.

25 Q Did the standard that you mentioned about

1 10 percent or less in production as being the standard
2 that the administrator will apply, did you come up with
3 that?

4 A We relied upon our technical experts to help us
5 on coming up actually with the overall program.

6 MS. REESE: Your Honor, I have no further
7 questions, and I pass the witness.

8 JUDGE O'MALLEY: My understanding was --
9 from the prehearing the parties have waived cross. Is
10 there -- I'm not sure about the General Manager.

11 MR. LEIN: We have not waived cross, Your
12 Honor.

13 JUDGE O'MALLEY: Okay. Mr. Gershon, did
14 you --

15 MR. GERSHON: We have no cross.

16 JUDGE O'MALLEY: You have no
17 cross? Mr. Lein, do you have cross?

18 MR. LEIN: Yes, Your Honor.

19 JUDGE O'MALLEY: Please go ahead.

20 CROSS-EXAMINATION

21 BY MR. LEIN:

22 Q Good morning, Mr. Haynie.

23 A Good morning.

24 Q You are a civil engineer?

25 A Yes, sir.

1 Q And it's your hope to provide civil engineering
2 services in the event that End Op's permit application
3 is granted. Is that correct?

4 A I may be too old by the time we get to our
5 permits, but yeah.

6 Q Maybe not.

7 A It's a possibility, yes.

8 Q But not a contract?

9 A Not a contract or a guarantee, no, sir.

10 Q Okay. I'd like to talk with you briefly about
11 what End Op is calling a water supply agreement with
12 WCID No. 2 in Williamson County. Are you familiar
13 with that agreement?

14 A Yes.

15 Q It's Exhibit 10, Applicant's Exhibit 10. You
16 would agree with me that Exhibit 10 doesn't contain a
17 specific price provision, does it?

18 A Yes, sir, that's true.

19 Q You agree. It also doesn't require -- that is
20 Exhibit 10 doesn't require that End Op deliver a
21 particular volume to WCID No. 2?

22 A That's correct.

23 Q Right now Exhibit 10 contemplates that End Op
24 will make available 100 acre-feet of water per year on a
25 take or pay basis. Correct?

1 A Yes.

2 Q Take or pay means at WCID No. 2's option it can
3 either take delivery of the water or simply pay you for
4 the water it's not taking delivery of. Correct?

5 A That's take or pay, yes, sir.

6 Q And the volume that WCID may or may not
7 ultimately decide to take is entirely in the WCID's
8 discretion. Is that fair?

9 A End Op has a consideration in that, too. Until
10 we get our permits, we don't know how much water we can
11 make available to them.

12 Q Exhibit No. 10 does not specify a particular
13 point of delivery within WCID No. 2, does it?

14 A That's correct.

15 Q That is the place to which you would deliver
16 any water. Right?

17 A Yes.

18 Q Exhibit No. 10 doesn't define a particular
19 service area for that water, does it?

20 A I thought it was the boundary of the District
21 plus whatever pass-through that they may have, yes.

22 Q And that's information, point of delivery,
23 applicable service area, that you would need to have in
24 order to project the WCID's actual need for water. Is
25 that fair?

1 A For their specific use, yes.

2 Q End Op has not yet negotiated an agreement with
3 the WCID to use the WCID's right-of-way. Is that right?

4 A I believe that's correct.

5 Q Under Exhibit No. 10, one of the things that
6 has to happen before the WCID purchases any water is
7 that it has to give End Op a notice to proceed. Is that
8 right?

9 A I believe so, yes.

10 Q The notice to proceed is what then obligates
11 End Op to construct necessary facilities for drawing
12 water out of the ground and delivering it to the WCID.
13 Is that right?

14 A Okay.

15 Q That's true?

16 A Yeah, I believe that's right.

17 Q And once having received the notice to proceed,
18 End Op anticipates it will take three years to construct
19 those facilities. Is that right?

20 A I believe so, yes.

21 Q And right now End Op has no formal engineering
22 plans for constructing any of those facilities?

23 A That's true, yes.

24 Q You named in your testimony earlier today a
25 number of parties with whom End Op has had

1 discussions -- I want to step away from WCID No. 2 --
2 about providing water. Right?

3 A Yes.

4 Q End Op doesn't have contracts with any of those
5 parties that you named earlier. Right?

6 A No, they -- correct, they do not.

7 Q Whether it's Lone Star Regional Water
8 Authority. Right?

9 A Right.

10 Q LCRA?

11 A Right.

12 Q And you haven't submitted any evidence, that is
13 End Op has not, to let any of us know how much water
14 End Op is actually going to need in 2015. Is that
15 right?

16 A That's right.

17 Q Or how much water End Op is going to need in
18 2016. Correct?

19 A Correct.

20 Q 2017?

21 A Yes.

22 Q 2018?

23 A Yes.

24 Q 2019?

25 A Yes. It's a chicken or an egg. I mean, until

1 we get a permit, we can't sell what we don't have.

2 Q And yet right now the answer -- if the question
3 is, how much do you know you're going to use, the answer
4 right now would have to be zero?

5 A Correct.

6 Q You'd agree with me that End Op did not request
7 a contested case hearing here today?

8 A I believe that's correct, yes.

9 MR. LEIN: Pass the witness, Your Honor.

10 JUDGE O'MALLEY: Redirect, Ms. Reese.

11 MS. REESE: Just very brief, Your Honor.

12 REDIRECT EXAMINATION

13 BY MS. REESE:

14 Q Why does End Op not have formal engineering
15 plans for the storage and transmission of the
16 groundwater as of this moment?

17 A Primarily because we don't know where it's
18 going to go. For instance, when the GBRA was in
19 negotiation, they spent over -- nearly a hundred
20 thousand dollars on an engineering plan to take water
21 from the District and deliver it to San Marcos. So I
22 mean, we could spend a hundred thousand dollars in
23 whatever direction you want to draw a line to a
24 potential customer. And until we get that customer,
25 it's not a good use of money.

1 Q And, likewise, why can't End Op not
2 specifically identify its projected needs now, next year
3 or in the short-term?

4 A As I stated earlier, it's a chicken and egg.
5 Until you get a permit, you really don't have the
6 sincere interest of a buyer. They don't take you
7 seriously without having control of the water.

8 Q Do you have any doubt that you'll be able to
9 obtain water supply agreements once permits are granted?

10 A I believe we will, yes.

11 Q So you have no doubt --

12 A I have no doubt.

13 MS. REESE: No further questions, Your
14 Honor.

15 JUDGE O'MALLEY: Anything else from this
16 witness?

17 MR. LEIN: Very briefly, Your Honor.

18 JUDGE O'MALLEY: Okay.

19 RECROSS-EXAMINATION

20 BY MR. LEIN:

21 Q Mr. Haynie, you mentioned the GBRA. You said
22 you had -- that End Op had a letter of intent with GBRA?

23 A Yes.

24 Q That was a nonbinding letter of intent?

25 A I believe that's right.

1 Q It was terminated according to its terms?

2 A Yes.

3 Q And End Op has not submitted that letter of
4 intent for the Court's consideration, has it?

5 A No.

6 MR. LEIN: Pass the witness, Your Honor.

7 JUDGE O'MALLEY: Any final redirect?

8 MS. REESE: Final.

9 FURTHER REDIRECT EXAMINATION

10 BY MS. REESE:

11 Q Mr. Haynie, why did the GBRA terminate the LOI?

12 MR. LEIN: Your Honor, I'm going to
13 object. It calls for speculation.

14 JUDGE O'MALLEY: Overruled.

15 A It was because of the moratorium instigated by
16 the District.

17 MS. REESE: No further questions.

18 JUDGE O'MALLEY: Okay. Mr. Haynie, you
19 may be excused. Thank you.

20 WITNESS HAYNIE: Thank you.

21 JUDGE O'MALLEY: Ms. Reese, next witness.

22 MS. REESE: We call Mike Keester, Your
23 Honor.

24 (Witness Keester sworn)

25 JUDGE O'MALLEY: Please be seated.

1 Ms. Reese.

2 MICHAEL RILEY KEESTER,
3 having been first duly sworn, testified as follows:

4 DIRECT EXAMINATION

5 BY MS. REESE:

6 Q Please state your full name for the record.

7 A Michael Riley Keester.

8 MS. REESE: Your Honor, just before I
9 begin the questioning, we're going to offer Mr. Keester
10 as an expert. I assume that there are no objections, if
11 I need to go through the prove-up of him being an
12 expert, to address potential impacts and the criteria
13 that the District reviews in terms of granting or
14 denying a permit.

15 JUDGE O'MALLEY: Okay. I didn't receive
16 any objections to him testifying as an expert. So I
17 don't -- if everyone agrees that he can testify as an
18 expert, I don't think -- we'll agree to that.

19 Mr. Lein, is that --

20 MR. LEIN: Consistent with his prefiled
21 testimony, yes, Your Honor, we have no objection.

22 JUDGE O'MALLEY: Then you don't need to
23 prove him up as an expert. You can go straight into
24 questioning.

25 Q (BY MS. REESE) Before we get started,

1 Mr. Keester, do you have any changes to your testimony
2 that's in Exhibit 41?

3 A There are some typographical errors. On
4 Page 5, Line 11, it should be "41,000,000" instead of
5 "50,000,000."

6 JUDGE O'MALLEY: Should be what, I'm
7 sorry?

8 A "41,000,000."

9 JUDGE O'MALLEY: On what line?

10 A I believe it's Page 5, Line 11.

11 JUDGE O'MALLEY: Page 5, Line 11.

12 MS. MELVIN: Your Honor, let me -- let me
13 help you with this if I can.

14 JUDGE O'MALLEY: Oh, okay. I'm sorry.
15 I'm sorry.

16 Q (BY MS. REESE) So, Mr. Keester, you're saying
17 that the total -- the record should read the total
18 production rate for the well field should be 41,000
19 gallons, not -- 41 million --

20 A 41 million.

21 Q -- gallons, not 50 million gallons?

22 A That's correct.

23 Q Any other changes or clarifications?

24 A Yes. On Page 10, Line 15, after the word
25 "productivity," it should read "productivity of the

1 aquifer."

2 Q So you're saying you should insert the words
3 "of the aquifer" --

4 A Correct.

5 Q -- after "productivity."
6 Any others?

7 A On Page 13, Line 12 -- let me make sure here --
8 should be -- after the word "will," the word "not"
9 should be inserted.

10 Q So that the record reads "water level declines
11 in the outcrop will not be nearly as significant as the
12 GAM calculates"?

13 A Correct.

14 And then on Page 14, Line 7, the first
15 word "calibrated" should be stricken or removed. So it
16 reads "leakage is a calibrated value."

17 MS. MELVIN: I'm sorry. Would you --
18 would y'all tell again where that is?

19 A That last one was on Page 14, Line 7.

20 MS. MELVIN: Gotcha. Thank you.

21 Q (BY MS. REESE) And you're -- the word
22 "calibrated" is included twice. Correct?

23 A Correct, yeah.

24 Q So you need to delete one of the words
25 "calibrated"?

1 A The first one.

2 Q Are the proposed locations of End Op's wells
3 illustrated in Exhibit 24?

4 A Yes, they are.

5 Q And those reflect that the wells will be in the
6 Simsboro formation. Correct?

7 A That's correct.

8 Q And why did End Op choose the Simsboro?

9 A They chose the Simsboro because at those well
10 locations it's a -- it's deep and it's not being used
11 by -- it's not being used extensively by any other -- by
12 entities for domestic or irrigation purposes, and with
13 its depth and being downdip you minimize as much as
14 practicable the impact on other users.

15 Q And did End Op do anything in connection with
16 planning this groundwater project?

17 A They undertook a -- basically an unprecedented
18 field study of the aquifer itself by drilling and
19 testing. They drilled a total of three -- at three
20 sites, completed two five-inch test wells, one in
21 Bastrop County, one in Lee County. And then they also
22 completed in Lee County a large capacity test well where
23 they ran a 23-day aquifer test to see how the aquifer
24 would respond to long-term pumping.

25 Q And prior to End Op undertaking this study,

1 were there any other studies conducted in the Simsboro
2 to this extent?

3 A Not necessarily this extent. There have been
4 other reports and studies, but not to that extent.

5 Q And what was unique about the study that End Op
6 conducted?

7 A Unique was the amount of testing that was
8 performed, the state of the geophysical logging, just
9 the duration of the testing in order to confirm --
10 confirm or evaluate what was underground there.

11 Q And what -- and the Thornhill Group, the group
12 that you're employed with, conducted the study.
13 Correct?

14 A That's correct.

15 Q And what were the conclusions?

16 A The conclusions were that it did confirm that
17 the Simsboro within the End Op well fields was a very
18 prolific aquifer, it's thick, it's very transmissive.
19 They would be able to -- water levels were well above
20 the top of the aquifer in artesian conditions, and that
21 the faulting was not nearly as restrictive as it is
22 input into the GAM.

23 Q What do you mean by the prolific nature of the
24 aquifer?

25 A I just mean that it's a very large aquifer

1 capable of yielding large quantities of water in the
2 wells.

3 Q The test wells that you mentioned that were
4 drilled in conclusion with the study, are any of them
5 currently being used by the District as monitoring
6 wells?

7 A Yes. The one in Bastrop County, it's currently
8 a -- set up by the District as a -- for monitoring water
9 levels, continually monitoring water levels.

10 Q And what does a monitoring well allow the
11 District to do?

12 A It does allow them to monitor the water levels
13 very nearly in real time. They have water level
14 monitoring equipment installed in the well that they can
15 access at any time to see how water levels are changing
16 at that location of the aquifer.

17 Q At the time that End Op conducted the study,
18 how many monitoring wells were in place at the District?

19 A As the monitoring network is now, there were
20 zero. There was one that I'm aware of in the outcrop
21 area that's monitored by the Texas Water Development
22 Board and -- but as the -- as the monitoring network is
23 now, there were -- there were zero.

24 Q How many monitoring wells were in place at the
25 time the District established its DFCs in 2010?

1 A Well, they established the DFCs -- or they were
2 adopted in August 2010, and the first water level
3 measurements we have from the SCADA system anyway or the
4 real-time system were in September of 2010.

5 Q And the SCADA system is at the Water
6 Development Board?

7 A I'm sorry. The SCADA is the -- kind of the
8 real-time monitoring system that the District has.

9 Q What does "groundwater availability" mean?

10 A It means the availability of water from an
11 aquifer to wells for a specified period of time.

12 Q What does "potential impacts on existing use"
13 mean?

14 A How the projected -- it means what is the
15 projected effect on other users from proposed pumping.

16 Q And how do you remember whether groundwater is
17 available from an aquifer for a particular project?

18 A For a particular project, we'll look at items
19 such as the type of rock or sand, the geometry of the
20 aquifer, the structure of it. We'll look at the
21 hydraulic properties of the aquifer, how water moves
22 through it, how much is stored in it, how much inflows,
23 how much naturally outflows. You look at the timing and
24 location of other pumping that may affect the well field
25 as well as the quality of water in the aquifer.

1 Q How do you determine potential impacts from a
2 proposed groundwater project on existing use?

3 A The potential impacts can be -- they can be
4 assessed using -- using the aquifer properties -- as I
5 understood, the hydraulic properties which defines how
6 water moves through the aquifer, and you can use --
7 input those into either an analytical model for
8 relatively short-term impacts or a refined and numerical
9 model that has a very -- is discretized or the model
10 cells are set up in such a way that you can use them to
11 look at more specific points.

12 The GAM, for example, is set up at very --
13 at a very course grid or discretization whereas a
14 refined model that might be used to look at
15 project-specific impacts would need to be discretized or
16 refined to a very small grid.

17 Q What is the significance of the way that the
18 factors in the GAM, the way that it is set up?

19 A Just the way that the calculations are done
20 within -- within the model itself. It's at a large or a
21 coarse discretization. There's more acceptable error in
22 it.

23 Q Meaning what?

24 A Meaning that it's not going to be -- give you
25 the accuracy that you necessarily need to really assess

1 impact at specific points.

2 Q And explain the difference between groundwater
3 availability versus impacts on existing use?

4 A Groundwater availability is going to look at
5 questions such as how will -- how will the aquifer react
6 during production of the well field? Will the water
7 still be -- will the wells be able to continue to
8 produce for the specified time period that you're
9 looking at operating this well field or perhaps even
10 longer? What is the -- is the water quality of an
11 acceptable -- is the water quality acceptable for the
12 proposed use? Whereas with impacts you are looking at
13 questions of how is -- how is that proposed production
14 going to affect other wells in the area, and is it an
15 acceptable impact on -- on other users?

16 Q When you say "impact" -- and you're describing
17 impacts. Does that mean if a well is impacted that
18 there's no water in the aquifer?

19 A Could you repeat that?

20 Q When you're talking about impacts --

21 A Uh-huh.

22 Q -- in referring to impacts on a particular
23 well, if there are impacts on a well, does that mean
24 that there's no water in the aquifer?

25 A No, it does not. It means the -- it means

1 drawdown or the water -- a water level change within the
2 well, but it does not mean that the aquifer itself can
3 no longer provide the water. It's going to be an
4 indication of how does that water level change and how
5 may a well either need to be modified or a pump lowered.
6 It's more of an infrastructure question.

7 Q How do the GAM, the MAG and DFCs relate to one
8 another?

9 A The GAM is -- it's a calculator. It's just a
10 complicated calculator. The DFCs are a number that
11 was -- that is selected by a planning group or by the
12 groundwater management areas that's approved by them and
13 submitted to the Texas Water Development Board. The
14 Water Development Board then uses the GAM to calculate
15 the managed available groundwater from -- or I'm
16 sorry -- the modeled available groundwater, or the MAG,
17 based on those DFCs.

18 In the case of GAM 12, the -- they
19 actually prepared a pumping file or a well file that was
20 the input that the Water Development Board then simply
21 kind of returned those pumping numbers back as the
22 modeled available groundwater.

23 Q When you testified earlier about -- that the
24 GAM is a calculator --

25 A Uh-huh.

1 Q -- are the calculations outputted from the GAM
2 an absolute?

3 A No. There's a known amount of error within the
4 calibration and verification periods based on a specific
5 number of points that were used to calibrate the model.
6 Within the verification period, it's a little over
7 40 feet based on 32 points covering a 25,000 square-mile
8 modeled aquifer.

9 Q And what is the GAM calculating, demand today
10 or the drawdown today or the drawdown in the future?

11 A Well, it's -- actually it's calculating a water
12 level, a predicted water level, based on the different
13 inputs, parameter inputs, both in the past and in the
14 future. The calibration of verification periods, those
15 are the ones in the past that are used to match as close
16 as possible, and then from that it moves forward into
17 the future to predict.

18 Q Are you familiar with Section 36.108 of the
19 Texas Water Code?

20 A I can't quote it.

21 Q You're familiar with it?

22 A Yeah.

23 Q Well, I've got some --

24 MS. REESE: May I approach the witness,
25 Your Honor?

1 JUDGE O'MALLEY: Yes.

2 (Exhibit Applicant Nos. 47 and 48 marked)

3 MS. REESE: Your Honor, I represent that
4 this is Chapter 36.108 of the Texas Water Code, and we
5 seek to admit that as Exhibit No. 47. And I also
6 represent that there's a red-lined version of 36.108
7 that's considered to be the enrolled bill version that
8 was pulled off the Texas Legislature's website that we
9 seek to admit as Exhibit 48. So, again, 47 would be the
10 unred-lined version and 48 would be the enrolled bill
11 version.

12 JUDGE O'MALLEY: Are there any objections?

13 MR. LEIN: No objection, Your Honor.

14 JUDGE O'MALLEY: Okay. With that then,
15 End Op Exhibits 47 and 48 are admitted.

16 (Exhibit Applicant Nos. 47 and 48
17 admitted)

18 Q (BY MS. REESE) 36.108 discusses joint planning
19 in the management area. What are some of the main
20 responsibilities of the districts in conducting joint
21 planning with the GMA -- within a GAM?

22 A Some of the -- I'm sorry. What was that?

23 Q Some of the main responsibilities of the
24 District within a GAM when they are conducting joint
25 planning.

1 A Some of the main responsibilities are they have
2 to cooperate with other districts to establish --

3 Q What are they trying to identify or establish
4 in joint planning?

5 A They are working to establish the desired
6 future conditions.

7 Q And 36.108 that's in the red-lined version, is
8 this -- was this in place at the time that the District
9 adopted its DFCs in 2010, the changes?

10 A No, I don't believe it was.

11 Q This was enacted after the -- after they
12 established the DFCs of 2010?

13 A Yes.

14 Q And what is the District required to consider
15 now when they establish their DFCs in 2015? What
16 additional criteria are in place?

17 A That they should consider aquifer uses or
18 conditions within the management area, the water supply
19 needs and water management strategies included in the
20 state water plan, hydrological conditions including for
21 each aquifer in the management area the total estimated
22 recoverable storage, average annual recharge, inflows
23 and discharges, other environmental impacts including
24 impacts on spring flow, interactions between groundwater
25 and surface water, the impact on subsidence,

1 socioeconomic impacts and the impacts on the interest
2 and rights on private property.

3 Q What about looking at Subsection (d)(2), what
4 must the desired future -- the proposed desired future
5 conditions provide under Subsection (d)(2)? If you're
6 looking on the red-lined version, it's Page 12 of 19.
7 It begins on the bottom of Page 12 of 19.

8 A There it is. The desired future conditions
9 proposed under this subsection must provide a balance
10 between the highest practicable level of groundwater
11 production and the conservation, preservation,
12 protection, recharging, and prevention of waste of
13 groundwater control subsidence in the management area.

14 Q And in your opinion, what is the highest
15 practicable level of groundwater production balanced
16 with the conservation and preservation of the Simsboro?

17 A We haven't necessarily run those -- run and
18 developed exact numbers for that or a calculation. We
19 have looked at what production and amounts greater
20 than -- greater than a hundred thousand acre-feet from
21 the aquifer are capable of being supplied and
22 available -- available to -- available for production
23 within -- from various water use strategies in Lost
24 Pines.

25 Q For how long?

1 A Greater than the planning period, over -- for
2 centuries based on --

3 Q And on what do you base that opinion?

4 A Based on an understanding of the hydrogeologic
5 conditions of the Simsboro, looking at the water
6 balance, the amount of water in storage, how water is
7 moving through the aquifer, how it's flowing, how it's
8 inflowing into the aquifer.

9 Q Is it fair to say that you arrived at that
10 opinion based upon looking at the factors in
11 Chapter 36.108?

12 A Yeah, yes.

13 MS. MELVIN: Your Honor, could I ask a
14 clarifying question? Is this in his prefiled testimony,
15 the analysis or whatever you're talking about that you
16 just questioned him about?

17 MS. REESE: The Chapter 36.108, the law?

18 MS. MELVIN: Well, no. When you were
19 asking him that he had done an analysis of a balance
20 between the highest practicable level and the
21 conservation, preservation and protection, and he said,
22 yes, he had done some analysis including something over
23 a hundred thousand acre-feet out past 2060. Is that
24 analysis in his prefiled testimony?

25 MS. REESE: Not specifically.

1 MS. MELVIN: Is it inspecifically in his
2 prefiled testimony?

3 MS. REESE: I don't believe so.

4 MS. MELVIN: Your Honor, we're trying not
5 to object so that this can all go forward and so forth,
6 but I do object to him testifying about something that
7 is not in his direct testimony and was not disclosed.

8 MS. REESE: We're happy to address it on
9 rebuttal if necessary, Your Honor.

10 MS. MELVIN: If they want to address it on
11 rebuttal, I'm happy to have them go ahead and do it here
12 so we don't have any other problems.

13 MS. REESE: I'm trying to be efficient.

14 JUDGE O'MALLEY: Okay.

15 MS. MELVIN: I'm not sure what it's
16 rebutting, however. Could we maybe understand what that
17 is?

18 JUDGE O'MALLEY: Is it more clarification
19 or more just --

20 MS. REESE: It's an elaboration of what he
21 has defined in his testimony to be the way the District
22 calculated its DFCs and the criteria that it considered.
23 It's an elaboration on that point. It doesn't
24 specifically talk about the highest practicable level of
25 groundwater production, but he does testify about how

1 the District calculated its DFCs and the criteria that
2 it did or did not consider.

3 MS. MELVIN: So, Your Honor, it's not
4 rebuttal. It's just something they've thought of since
5 they filed their prefiled testimony that they want to
6 tell us about. And, again, I don't want to object so
7 that this can just keep going forward, but I really do
8 object to this because this is going far out of what's
9 been disclosed, and it's clearly not rebuttal.

10 JUDGE O'MALLEY: Okay. Ms. Reese, do you
11 have a lot of this that goes outside the prefiled?

12 MS. REESE: I don't believe so. I don't
13 believe this necessarily goes outside the prefiled.

14 JUDGE O'MALLEY: Okay.

15 MS. REESE: 36.108 is not listed as a
16 statutory reference in his testimony, but it's certainly
17 within the scope.

18 JUDGE O'MALLEY: Okay.

19 MS. MELVIN: I don't think that the scope
20 of prefiled testimony -- Your Honor, it's not the scope.
21 It's what you actually say and don't say. But, again,
22 we're not going to -- I object if this is just going to
23 go on and on talking about stuff that's not rebuttal.

24 JUDGE O'MALLEY: Okay. I think Ms. Reese
25 has indicated it's not going to go on and on. So I'm

1 going to overrule the objection. I'll allow that
2 testimony to stand. Of course the parties will have the
3 opportunity to cross if they need to and address it as
4 well in their direct if they need to.

5 Go ahead, Ms. Reese.

6 Q (BY MS. REESE) Mr. Keester, does the GAM
7 overestimate impacts in its predictions?

8 A Yes.

9 Q How so?

10 A It's against measured water levels. It's been
11 shown that the GAM -- well, first of all, it does not
12 accurately predict what the measured water levels are --
13 what the measured water levels are during the
14 verification and calibration periods in the model.

15 For a regional assessment of availability,
16 it's an acceptable amount of error in there. However,
17 it's -- it does certainly over -- it's also shown to
18 overstate how much drawdown occurs based on measured
19 water levels, and that's -- that's shown in some of the
20 monitoring wells and measured water levels in the
21 district.

22 Q How do you know that?

23 A Well, we did present a hydrograph in one of our
24 exhibits.

25 Q Are you referring to Exhibit 28?

1 A Yes. Thank you.

2 Q So there's a Figure 2 in Exhibit 28 that you
3 believe demonstrates this point?

4 A Yes. I just want to look at it real quick to
5 make sure. But, yes, on that particular figure, it
6 shows in one of the outcrop wells specifically that
7 water levels have been measured to be relatively
8 constant since 1975, which is when the model -- the GAM
9 starts. And, however, GAM has predicted water levels to
10 be declining steadily throughout -- throughout the
11 calibration and verification periods. It's showing a
12 continued divergence or a miscalculation of how much
13 drawdown would actually be occurring.

14 Q What do you consider to be the most appropriate
15 method to use when considering the potential effects of
16 production on other users?

17 A That goes to kind of the discussion I mentioned
18 earlier using either an analytical model or a refined
19 numerical model. You have to -- an analytical model
20 gives an exact solution that's rapid. For example, the
21 TICE model has been used since 1935. It's been well
22 vetted whereas -- and been refined numerical model. It
23 can be used to also give you a ballpark of what type of
24 impact you might expect at various well locations.

25 Q If the GAM has inaccuracies in it and known

1 errors, is the GAM useful at all in the evaluation of
2 End Op's projects or other similar projects?

3 A It's useful to show that there's just a
4 tremendous amount of water available from the aquifer.
5 Even throughout this -- the GAM -- all of the GAM runs
6 that have been conducted by various consultants, the
7 various experts, the aquifer doesn't run out of water.
8 It still shows that there's millions, millions of
9 acre-feet of water available in storage. And it shows
10 that this water will continue to be available. Despite
11 its limitations, it still shows the water is available.

12 Q If End Op's permits were granted, will there be
13 effects or impacts?

14 A I assume by that you mean effects on water
15 level or drawdown?

16 Q Correct.

17 A Yes, there will be.

18 Q So denying End Op's permits will not prevent
19 them from being impacts because there are other users in
20 the aquifer. Correct?

21 A There will still be drawdown in the aquifer.
22 Drawdown is necessary for production.

23 Q If End Op's permits were granted for 46,000
24 acre-feet, would that, in your opinion, unreasonably
25 affect the existing use or the resource?

1 A I don't believe it would unreasonably affect
2 the resource.

3 Q And upon what do you base this opinion?

4 A The -- just using the GAM for its availability
5 purpose, it shows that water is available. Considering
6 the error in the GAM and how it deviates from measured
7 water levels, it shows that there's enough error in
8 there that while it gets you in the right -- you know,
9 in a ballpark of what water levels may be, it's
10 certainly not exact. It overestimates how much impact
11 is -- or how much drawdown is going to occur within the
12 areas outside of the well field.

13 Q Do the mitigation plans that End Op has
14 proposed factor into your decision on whether or not
15 there will be unreasonable impacts on the aquifer or
16 existing use?

17 A I believe the mitigation plans address any
18 drawdown or loss of production that may occur due to
19 drawdown.

20 Q You're aware that End Op and Aqua entered into
21 a settlement agreement. We all are. Were you asked to
22 do any analysis in connection with that agreement?

23 A Yes.

24 Q And please describe what you were asked to do.

25 A I was asked to provide a recommendation that

1 was -- that would -- for the amount of -- how to
2 establish an impacted party as part of the general
3 mitigation being that End Op -- with the understanding
4 End Op is still trying to be a good neighbor to the
5 other users. We went with a 10 percent reduction in
6 production based on a change in the nonpumping water
7 level in the well. We wanted to make sure it was tied
8 to an aquifer condition and not necessarily a well
9 condition.

10 Q Did you do any analysis associated with
11 identifying wells within the -- other wells excluding
12 Aqua's within the Simsboro or registered or permitted
13 wells within close proximity?

14 A We did look at how many -- how many Simsboro
15 wells or how many Simsboro wells we thought were
16 registered with the District. The District -- in the
17 files that we had, the District did not identify if a
18 registered well was necessarily a Simsboro well. So we
19 did look at structure information to try to determine if
20 a registered well was a -- most likely to be screened or
21 producing from the Simsboro. We also looked at
22 registered wells based -- that were within one mile of
23 any proposed End Op well.

24 Q And in looking at other wells in the Simsboro
25 and those within the one mile that are in a non-Simsboro

1 formation, do you think that that's casting a net broad
2 enough to catch anyone that could be potentially
3 impacted?

4 A I do believe so.

5 Q And upon which do you base your opinion?

6 A That based on the potential effects of
7 production from the Simsboro -- or by End Op, first of
8 all, we do -- there is the potential to affect another
9 well that's completed in the same aquifer. And any well
10 that's within one mile, we don't -- if it's completed,
11 say, in the Carizzo Aquifer well above the Simsboro, we
12 don't believe there's going to be an effect on that
13 well. However, they needed to be included in there.

14 Q And what are those characteristics of those
15 wells, excluding Aqua's that are in the Simsboro
16 formation, and then some of the other aquifers that are
17 within a mile of End Op's proposed fields?

18 A For the most part, they are going to be shallow
19 wells, small -- relatively small capacity.

20 Q And with regard to cost to complete or deepen
21 the well or lower pumps, what are the costs associated
22 with those as compared to deeper wells such as Aqua's?

23 A I spoke with a well driller to -- and as I
24 spoke about whenever the other hearing was -- but they
25 had given me a domestic well.

1 Q Of that nature?

2 A Of that nature, yes.

3 Q In your opinion, Mr. Keester, do End Op's
4 applications comply with the criteria in Chapter 36 and
5 the criteria that the District has in place that it
6 considers in granting or denying permits?

7 A It's my understanding, yes.

8 MS. REESE: Pass the witness, Your Honor.

9 JUDGE O'MALLEY: Mr. Gershon.

10 MR. GERSHON: No questions.

11 JUDGE O'MALLEY: Mr. Lein.

12 CROSS-EXAMINATION

13 BY MR. LEIN:

14 Q Mr. Keester, good morning.

15 A Hi.

16 Q You're aware -- you testified that you're aware
17 that the District has done projections in evaluating the
18 impact from End Op's applied-for wells. Correct?

19 A I'm aware of GAM runs that they've done.

20 Q Right. Fair enough.

21 And you believe that the District's GAM
22 runs do not account for End Op's intention to slowly
23 increase production over time. Correct?

24 A It's my understanding that they do not.

25 Q But it's your -- it is your understanding that

1 End Op intends to start small and get larger over time?

2 A We didn't -- we also did not do that
3 evaluation. We did the same assumption as the District,
4 that there could be a need for all of the water
5 relatively quickly.

6 Q Do you have your testimony in front of you?

7 A Yes, sir.

8 Q Can you turn to Page 18, please?

9 A Yes.

10 Q I'm going to start at Line 18 and I'm going to
11 read from your testimony. This is -- we are looking at
12 your testimony that's Applicant's Exhibit 3 -- I'm
13 sorry -- Applicant's Exhibit 41. Right?

14 A Yes, sir.

15 Q Okay. And you've turned to Page 18, Line 18.
16 Correct?

17 A Yes, sir.

18 Q I'm going to read Lines 18 to 20 out loud, and
19 I want you to tell me if I read anything incorrectly.
20 Okay?

21 A Uh-huh.

22 Q "Also, the production scenarios used by the
23 District to evaluate the modeled effects of production
24 do not account for the likelihood of slowly increasing
25 production over time."

1 A Correct.

2 Q Did I read that correctly?

3 A You did.

4 Q So you think it's wrong to assume 46,000

5 acre-feet per year from day one of the granting of End

6 Op's permits. Is that right?

7 A I don't know if I'd necessarily say it is

8 wrong. I'd say it's more likely that End Op would

9 produce -- would increase production as their

10 contracts -- whatever contracts they may get are

11 obtained.

12 Q I'm sorry. So you don't believe that it's

13 wrong to assume 46,000 acre-feet per year from day one?

14 A I don't -- can you repeat? I'm sorry.

15 Q I'm sorry. I'm not trying to confuse you.

16 Although I sometimes succeed despite my best efforts.

17 If I heard you correctly -- and I may have

18 heard you incorrectly -- but if I heard you correctly, I

19 thought you said you think it may be correct to assume

20 that End Op will pump 46,000 acre-feet per year from day

21 one after its applications are granted, if they are?

22 A I would say that is a possibility.

23 Q Okay. But you think it's more likely that

24 they'll pump something smaller and gradually ramp-up

25 production?

1 A To my understanding, that's how projects are
2 normally undertaken.

3 Q Right. You're aware that it will take several
4 years even for End Op to finish the necessary
5 construction in order to pump any water at all. Is that
6 right?

7 A From what I understand, the dealing -- I can
8 reference current experience in the -- within the
9 district in that once some permittees have been granted
10 a permit, because of the understanding of when they need
11 to construct wells, for example, that they can actually
12 move quite quickly to get these things done.

13 Q You're aware that End Op has represented to
14 WCID No. 2 in Williamson County that it will take
15 approximately three years to complete construction to
16 deliver water for that project?

17 A That's what I understand from the testimony
18 earlier, yes.

19 Q Thank you.

20 Regarding the DFCs, the desired future
21 conditions, you assisted End Op in its petition
22 challenging those DFCs. Is that correct?

23 A That's correct.

24 Q So you're aware that the Texas Water
25 Development Board rejected that petition, are you not?

1 A Yes, I am.

2 Q Your testimony -- pardon me. A different
3 question.

4 You said that you performed studies on the
5 likely availability of water from the Simsboro Aquifer
6 using scenarios as great or more than a hundred thousand
7 acre-feet per year. Is that right?

8 A That's correct.

9 Q You haven't submitted that study for the
10 Court's consideration, have you?

11 A We did not submit it as an exhibit. It was
12 submitted as part of our discovery documents. It's
13 information that I had prepared in representing End Op
14 toward -- to GAM 12 and some of our presentations to GAM
15 12 and to the District.

16 Q But it's not an exhibit that you are asking the
17 Court to review today?

18 A It is not.

19 Q You testified that you have done a study to
20 help determine the reasonable amount of compensation
21 that ought to go into the general mitigation fund, what
22 we've called the general mitigation fund. Is that
23 right?

24 A Yes.

25 Q Were there written results from that study?

1 A No; just -- I believe there were some
2 discussions and we looked at the information that was
3 presented. Well, for one, when we were looking at the
4 potential other parties and we discussed there, we
5 looked at what well costs would be for those individuals
6 to potentially complete a new well or a well in the
7 Simsboro and extrapolated that information out to what
8 it would be for all of the potential registered wells
9 that were -- that may be affected.

10 Q And you came to the conclusion that
11 \$3.75 million was a reasonable proxy for the likely
12 impact to non-Aqua well owners. Is that correct?

13 A That was a number we felt would be more than
14 sufficient.

15 MR. LEIN: Pass the witness, Your Honor.

16 JUDGE O'MALLEY: Ms. Reese, redirect.

17 MS. REESE: No, Your Honor.

18 JUDGE O'MALLEY: Mr. Keester, you may be
19 excused.

20 Okay. Ms. Reese --

21 MS. REESE: Yes, Your Honor.

22 JUDGE O'MALLEY: -- anything else?

23 MS. REESE: No, Your Honor. That

24 concludes our presentation of our direct case.

25 JUDGE O'MALLEY: Okay. Why don't we move

1 to Aqua. You have yours.

2 Let's go off the record for a minute.

3 (Discussion off the record)

4 (Recess: 11:50 a.m. to 1:15 p.m.)

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1 AFTERNOON SESSION

2 TUESDAY, FEBRUARY 11, 2014

3 (1:15 p.m.)

4 JUDGE O'MALLEY: Let's go ahead and go on
5 the record then.

6 Mr. Gershon?

7 MR. GERSHON: Yes, Aqua Water Supply
8 Corporation calls its general manager, Dave McMurry.

9 (Witness McMurry sworn)

10 JUDGE O'MALLEY: Please be seated.

11 Mr. Gershon?

12 MR. GERSHON: Thank you.

13 PRESENTATION ON BEHALF OF
14 AQUA WATER SUPPLY CORPORATION

15 ALLEN DAVID McMURRY,
16 having been first duly sworn, testified as follows:

17 DIRECT EXAMINATION

18 BY MR. GERSHON:

19 Q Mr. McMurry --

20 A Yes.

21 Q -- we have a court reporter here. Could you
22 please state and spell your full formal name?

23 A My full name is Allen David McMurry,
24 M-c-M-u-r-r-y.

25 Q And you are the general manager of Aqua Water

1 Supply Corporation. Correct?

2 A Yes, I am.

3 Q Have you prepared written prefiled testimony in
4 this case?

5 A Yes, I have.

6 Q Did you prepare it in your capacity as the
7 general manager of Aqua Water Supply Corporation?

8 A Yes, I did.

9 Q As of today, is that prefiled testimony still
10 current --

11 A Yes.

12 Q -- and accurate?

13 A Yes, it is.

14 Q I'm going to ask you some questions about that
15 testimony.

16 MR. GERSHON: If I may approach?

17 JUDGE O'MALLEY: Yes.

18 MR. GERSHON: I have a copy of your
19 prefiled testimony. I understand all the parties and
20 the court reporter and Your Honor have a copy of that.
21 It's Exhibit 1.

22 JUDGE O'MALLEY: Okay.

23 Q (BY MR. GERSHON) I'd like to hand to you,
24 Mr. McMurry -- do you recognize the document I just
25 handed you?

1 A Yes, I do.

2 Q Okay. And is it marked Exhibit 1 -- on the
3 second page I believe?

4 A Yes, it is.

5 Q Okay. Mr. McMurry, in a moment the lawyer for
6 the District's General Manager may cross-examine you and
7 may cross-examine the statements you made in your
8 prefiled testimony. For today's purposes let's focus on
9 and be clear about your conclusions and Aqua's position
10 on End Op's application.

11 Is the focus of Aqua's case on how End
12 Op's pumping impacts Aqua Water Supply Corporation?

13 A Yes. We were concerned -- you want me to
14 elaborate? We were concerned about the closeness of
15 some of the wells to our existing wells. We're also
16 concerned about the amount of gallons that they've --
17 the amount of water they've asked for in their permit
18 application and the effect on the Simsboro Aquifer and
19 what that would do to us and our ability to supply water
20 to our customers in the future.

21 JUDGE O'MALLEY: Mr. Gershon, before we go
22 on, did you want to get that in evidence first? Or do
23 you want to get all your exhibits in? You're asking
24 questions about something that's not -- we haven't
25 admitted it yet.

1 MR. GERSHON: Sure. And a good point. I
2 think at the outset of questioning End Op had suggested
3 that they offer and that we get into evidence all their
4 exhibits, and I like that approach if we could take the
5 same with Aqua. We have seven exhibits, and I would
6 propose admission of all seven exhibits, which includes
7 three sets of prefiled testimony, two bios for our
8 two -- one each for our experts, and then two exhibits
9 that Mr. Beach intends to discuss. And there were no
10 objections when we offered that up in our prefiled, and
11 I would propose to do that.

12 JUDGE O'MALLEY: And I'm assuming there's
13 still no objections.

14 (No response)

15 JUDGE O'MALLEY: Okay. With that, then
16 Aqua's Exhibits 1 through 7 are admitted.

17 (Exhibit Aqua Nos. 1 through 7 admitted)

18 MR. GERSHON: Thank you, Judge O'Malley.

19 JUDGE O'MALLEY: Thank you.

20 Q (BY MR. GERSHON) Mr. McMurry, you've sat
21 through what we've heard so far. You heard the opening
22 statements. Correct?

23 A Yes, I did.

24 Q You heard the testimony of the other witnesses?

25 A Yes.

1 Q So is it accurate that Aqua's evidence, your
2 testimony -- Aqua's evidence on End Op's impacts is one
3 of the permitting criteria -- relevant to one of the key
4 permitting criteria that the Lost Pines GCD board
5 ultimately has to consider?

6 A That's definitely so, I think -- I believe.

7 Q And it's your intent to address that with your
8 testimony. Correct?

9 A Yes.

10 Q Okay. And let's -- let's understand how the
11 decision was made and how Aqua vetted that issue. What
12 type of corporate entity is Aqua Water Supply
13 Corporation?

14 A Well, it's a nonprofit corporation that serves
15 water in Bastrop County and five other counties,
16 surrounding counties. I'm not sure I can name all of
17 them, but Travis, Williamson and so forth. We're
18 controlled by an eight-member board of directors. Each
19 director is nominated from a region of our service area.
20 And we service about a thousand square miles -- a little
21 bit less than a thousand square miles and about
22 1400 miles of pipeline.

23 Q Okay. And you report directly to the board of
24 directors?

25 A Yes, I report directly to the board of

1 directors, and they've delegated authority to me to run
2 the operations and affairs of Aqua. So I'm the senior
3 manager in the company, employees, consultants and
4 contractors that we may use.

5 Q And how did you engage with your board of
6 directors in evaluating this application? Did the board
7 and you put together a team of folks that did due
8 diligence and evaluated the applications?

9 A Yes, the actual -- End Op made its application
10 prior to me being with the company. But at some point
11 in the past, the board of directors made the decision
12 that this could have a serious impact on Aqua and its
13 operations, so they wanted then to further investigate
14 it.

15 Aqua hired two firms, one was James Beach
16 from LBG-Guyton, and from Steger Bizzell Perry Steger,
17 plus our own engineering staff, then began to evaluate
18 what we were seeing as conditions of the pumping and
19 what it would do to us in the future.

20 Q Well, we'll get to that in just a minute. And
21 to the extent your board participated, was there a team
22 that worked together that included other board members?

23 A Well, in the -- yes, since I started we had two
24 or three very active board members in this. And, of
25 course, the board members themselves -- the board itself

1 approves most of our actions and going forward. So we
2 have, for instance, Cliff Kessler and another board
3 member, David Glass, and maybe a few others over a
4 period of time working with engineers and the
5 consultants to come up with a plan of what we wanted to
6 do. That was brought to the entire board and then
7 approved -- approved action plans originating from that.

8 Q Is protecting Aqua WSC's ability to provide a
9 public water supply Aqua's top priority?

10 A Yes, it is. Plus it's statutorily mandated,
11 you could say, that we have to provide -- as a public
12 utility have to provide water to our customers.

13 Q Okay. And how important is it to Aqua to
14 provide that public water supply at an affordable cost
15 to your member customers?

16 A Well, it's very important. The members, in
17 fact, or customers, are actually members of the
18 corporation. It's a nonprofit corporation. So that's
19 always a number one mission that we have is to supply,
20 you know, good clean water to our customers.

21 Q So obviously Aqua protested End Op's
22 applications. And at the time that decision was made,
23 was it because Aqua had a concern that End Op's project
24 did threaten Aqua's ability to provide public water
25 supply?

1 A Well, starting our evaluations we saw that, you
2 know, some of the wells were close by. The amount of
3 water that they were -- was proposing to take from the
4 aquifer could have -- we felt it could have serious
5 effects on drawdowns. Not just the wells that were near
6 their wells, but also over a period of time a pulldown
7 in the aquifer could affect us.

8 So in order to protect our ability to
9 provide water in the future, we started taking action.

10 Q Okay. And will we hear more in just a few
11 minutes from your two experts?

12 A Yes --

13 (Simultaneous discussion)

14 A -- I should have said that earlier. Yes, they
15 will provide that detail that I do not have readily at
16 my command. But they will provide the detail about what
17 those effects are. And, of course, I'll talk later
18 about what we're going to do to mitigate those things.

19 Q Okay. So we will -- you are going to address
20 Aqua's position on mitigation and the settlement
21 agreement that you've heard more about earlier this
22 morning?

23 A Yes.

24 Q Okay. And about the settlement agreement, is
25 it Aqua's ultimate conclusion that End Op's proposed

1 pumping does adversely impact Aqua?

2 A Based on our analysis, the analysis of our
3 consultants, yes, it does adversely affect us.

4 Q Okay. That said, your board ultimately took
5 action to enter into a settlement agreement that
6 addresses those adverse impacts. Do I understand that
7 right?

8 A Yes, we -- originally the board decided to file
9 a contested case once we saw that there would be
10 effects. We wanted to contest End Op's permit
11 application, which led us to this point, of course.

12 And then we started talking to them as a
13 by-product of that about some kind of settlement to
14 offset those effects.

15 Q Okay. So let's talk a little bit about how the
16 settlement agreement is protective of your customers.

17 Well, let me start with the question:
18 Does your board believe that the settlement agreement is
19 protective of Aqua's customers and Aqua's ability to
20 serve those customers?

21 A Yes. After meeting with End Op and negotiating
22 with them, there was a couple of different ways we
23 thought advantageous to us. For one, they reduced the
24 request from 56,000 acre-feet a year to 46,000. That's
25 one way.

1 Second, they limited the amount of water
2 that they would take out of Bastrop County, and
3 particularly around our wells, to get this right --
4 let's see 20,000 acre-feet or 35 percent of whatever the
5 total pumping is for the year, the lesser of those two.
6 So that's a second way. So that's less water coming out
7 of the area where we're getting our water.

8 And then, of course, the agreement itself
9 to mitigate and offset the effects of their pumping.

10 Q Aqua has how many wells that they're
11 potentially impacting -- over a dozen? Do I have that
12 about right?

13 A About right, yes.

14 Q Okay.

15 A Generally so. I wouldn't be able to
16 effectively answer you on that.

17 Q And we'll hear from David Fleming and James
18 Beach about impacts to those wells and its associated
19 infrastructure. Correct?

20 A Yes.

21 Q Okay. Do the terms of the settlement agreement
22 require End Op to compensate Aqua for the adverse
23 impacts among that infrastructure and the water supply?

24 A Yeah, that was very important to us, because
25 what happens at Lost Pines is kind of an unknown. But

1 the mitigation settlement, what it does is for whatever
2 license or permit that End Op gets, the water that they
3 do pump they will be paying \$15 an acre-foot on a
4 monthly basis to a mitigation fund that is set up and
5 controlled by Aqua to pay for any damages or redrilling
6 or anything we have to do in the future, whenever that
7 may occur. That's -- that fund is -- they would be
8 paying into that for 20 years or \$15 million, whichever
9 comes first.

10 In addition, they also set up the
11 mitigation fund for non-Aqua customers, which I think is
12 very important.

13 Q Okay. So this morning End Op and the other
14 parties agreed to admit into the record the settlement
15 agreement itself and some proposed special permit
16 conditions that Aqua -- most of which Aqua joined.

17 Is it Aqua's position and are you
18 comfortable -- is Aqua comfortable that those agreed
19 stipulations -- that the agreed permit conditions are
20 both protective of Aqua and its customers?

21 A Yes, I think so. It offsets the effects of
22 anything that they might do. It's a good agreement.

23 Q Is there -- let's close this down. I think
24 you've got -- I appreciate your being clear about Aqua's
25 position. Is there any aspect of your prefiled

1 testimony or what you said today that you'd like to
2 clarify or something that you'd like to expand upon to
3 be clear about the position?

4 A No, I just would like to see that the -- that
5 one of the results of this hearing is the recommendation
6 that goes forth from the SOAH hearing is that the permit
7 conditions and any of those amendments would be part of
8 that recommendation to the Lost Pines Groundwater
9 Conservation board.

10 MR. GERSHON: Thank you. Pass the
11 witness.

12 JUDGE O'MALLEY: End Op has waived.
13 Correct?

14 MS. REESE: Correct, Your Honor.

15 JUDGE O'MALLEY: Mr. Lein?

16 MR. LEIN: No questions for this witness,
17 Your Honor.

18 JUDGE O'MALLEY: Okay. Mr. McMurry, you
19 may be excused. Thank you.

20 WITNESS McMURRY: Thank you.

21 MR. GERSHON: All right. Aqua Water
22 Supply Corporation would call its manager of
23 engineering, David Fleming.

24 (Witness Fleming sworn)

25 JUDGE O'MALLEY: Please be seated.

1 Mr. Gershon?

2 DAVID FLEMING,

3 having been first duly sworn, testified as follows:

4 DIRECT EXAMINATION

5 BY MR. GERSHON:

6 Q Mr. Fleming --

7 A Yes, sir.

8 Q -- would you please state your full formal name
9 for the court reporter for purposes of the record?

10 A Full name David Neal Fleming. That's N-e-a-l,
11 F-l-e-m-i-n-g.

12 Q Mr. Fleming, have you prepared written,
13 prefiled testimony in this case?

14 A Yes.

15 MR. GERSHON: Could I approach, Your
16 Honor?

17 JUDGE O'MALLEY: Yes.

18 Q (BY MR. GERSHON) Are you familiar with this
19 document that I'm handing you, which for the record and
20 other parties is Mr. Fleming's-- purports to be his
21 prefiled testimony. Does that look familiar to you,
22 Mr. Fleming?

23 A It does, yes.

24 Q Okay. I'm going to ask you some questions
25 relevant to that. You prepared that prefiled testimony

1 in your capacity as the manager of engineering. Is that
2 your title with Aqua Water Supply Corporation?

3 A Yes.

4 Q As of today, is your prefiled testimony still
5 accurate and correct or is there anything that you might
6 want to address, modify, that doesn't correctly reflect
7 your position?

8 A No, I believe it's accurate and correct.

9 MR. GERSHON: Okay. Your Honor, I'm
10 thinking back to this morning as to whether we have all
11 agreed that our -- that our experts can serve in the
12 capacity that's set forth in the prefiled testimony. In
13 the prefiled testimony I urged Your Honor to recognize
14 Mr. Fleming in his capacity as a licensed engineer as
15 such, and his expertise not only as a licensed engineer
16 to address groundwater permitting, but in his experience
17 working for through various groundwater permitting
18 matters to be an expert on those issues as well. And
19 I'd, for the record, just clarify that he is such an
20 expert for these purposes.

21 JUDGE O'MALLEY: Thank you. And we did
22 not -- I did not receive any objections to Mr. Fleming
23 being an expert, so he is so designated.

24 MR. GERSHON: Thank you, Judge.

25 Q (BY MR. GERSHON) In a moment, Mr. Fleming, you

1 may be cross-examined by the general manager's counsel,
2 and I'd like to be clear about what your conclusions are
3 and how they relate to supporting what we've just heard
4 from your general manager about the board's and the
5 general manager's position in the case.

6 Is the focus of Aqua's case in your
7 testimony on how End Op's pumping impacts Aqua?

8 A Yes.

9 Q Is that focus on impacts to existing users such
10 as Aqua one of the sets of issues that are relevant to
11 the Lost Pine's board when they're evaluating permit
12 applications?

13 A I believe it is, yes.

14 Q Okay. Can you briefly describe Aqua's primary
15 responsibility to the customers and how really that
16 relates to what you do as the head in-house engineer?

17 A Well, our primary responsibility is to provide
18 continuous and adequate service to our customers. In
19 order to do that, it's my job to make sure that our
20 system operates adequately, that we have plenty of
21 supply, that we're treating our water to the appropriate
22 levels, and that we have a good, safe, reliable source
23 for our customers.

24 Q Okay. In your opinion, as the manager of
25 engineering, does Aqua currently have the permits,

1 wells, and associated infrastructure in place to meet
2 that statutory duty to provide continuous and adequate
3 service as you've described it?

4 A Yes, we do.

5 Q What about for the foreseeable future?

6 A For the foreseeable future, we're in good shape
7 as far as supply goes, as far as infrastructure goes.

8 Q Will End Op's proposed pumping affect Aqua's
9 current infrastructure?

10 A We believe that it will, yes.

11 Q And Aqua's current source of supply, will End
12 Op's proposed pumping affect that source of supply?

13 A Again we believe that it could, yes.

14 Q Is it that End Op's proposed pumping will cause
15 aquifer levels to decline?

16 A Correct.

17 Q What is the nature of the impacts to Aqua's
18 infrastructure that's adverse? I mean, what is the
19 adverse effect?

20 A Well, if aquifer levels decline far enough,
21 then some of our wells, our existing wells, will become
22 inoperable until we go in and lower the well pumps down
23 to those levels. Some of our wells we won't be able to
24 lower the well pumps to those levels and those wells
25 will essentially become useless. So we'll have to drill

1 other wells that will replace that capacity.

2 If we have to drill other wells to replace
3 that capacity, then we'll have to construct
4 infrastructure to get the water from the new well
5 locations back into Aqua's existing treatment and
6 distribution system.

7 Q Okay. Have you worked with other consultants
8 to come to this conclusion?

9 A Yeah, we've -- we have worked with James Beach
10 of LBG-Guyton and also with Perry Steger with Steger
11 Bizzell Engineers.

12 Q Okay. And what was James Beach's role? How
13 did you use James?

14 What is the nature of his license and what
15 did James do for you -- and his team?

16 A Generally what James did for us was to analyze
17 the effects on the aquifer levels due to increased
18 pumping from several entities, one of them being End Op;
19 then to identify which of our wells would be impacted by
20 those drops in the aquifer levels and to what extent.

21 Q Okay. We'll hear more from Mr. Beach in a few
22 minutes. Right?

23 A I sure hope so, yes.

24 Q Okay. How about Mr. Steger? Perry Steger you
25 mentioned was helpful. What licensure does he have and

1 how did he help?

2 A Perry is a registered professional engineer in
3 the state of Texas just like I am. Actually, when James
4 came up with the conclusion of what wells would be
5 impacted by the drop in aquifer levels, we asked Perry
6 to actually do a cost analysis and what it would cost us
7 to lower the well pumps in the ones that would
8 accommodate lowering, and also the cost associated with
9 redrilling wells for the ones that were rendered
10 useless, and construction -- constructing the
11 infrastructure to get that water back into our system.
12 So Perry did a lot of cost estimates and a lot of
13 preliminary analysis for us of how we would mitigate
14 those impacts.

15 Q And you've relied on that and your management
16 has relied upon Perry's work product. Right?

17 A Yes.

18 Q And you understand the nature of his work and
19 directed that work. Correct?

20 A Generally, yes.

21 Q Okay. And -- let's be clear. So the focus of
22 Perry's work at your direction was to quantify the cost
23 of addressing these impacts. Tell me this: Is it
24 possible for Aqua to continue to meet its statutory duty
25 to its customers by making these adjustments that you

1 and Mr. Steger evaluated?

2 A Yes.

3 Q Okay. And to be clear, those adjustments
4 include what again, redrilling wells -- what other
5 adjustments are required?

6 A Possibly lowering well pumps, redrilling wells
7 and constructing the infrastructure to get the water
8 from the new wells back into our existing system.

9 Q Is it expensive to do those things?

10 A For me, yes. No, it's very expensive to do
11 that.

12 Q Okay. And are you familiar with Aqua's capital
13 improvements plan?

14 A Yes.

15 Q Okay. How familiar?

16 A Again, Perry and I work on it every five years
17 to update it, and we're in the process of an update
18 right now.

19 Q And are the types of economic -- well, are the
20 types of costs that you just described that would be
21 impacted by End Op's pumping be a relatively significant
22 percentage of that --

23 A Oh, yes.

24 Q -- capital improvement plan?

25 A Yes.

1 Q So is it your professional opinion that the
2 type of impacts that we're seeing from End Op's pumping
3 are adverse?

4 A Yes.

5 Q That said, if Aqua does carry out a plan of
6 making these adjustments, Aqua could -- I mean, is it
7 true that Aqua could overcome the problems and the
8 challenges of providing service if in fact those
9 adjustments were paid for and implemented?

10 A Yes.

11 Q Would there be any disruption in the day-to-day
12 service to your customers if Aqua were capable of making
13 those adjustments, funding those adjustments?

14 A No.

15 Q Are you generally aware that there has been a
16 settlement agreement?

17 A Yes.

18 Q Okay. Are you familiar with all the intimate
19 details of the settlement agreement?

20 A No, not really.

21 Q But you've heard Mr. McMurry testify that the
22 board and general manager vetted that and entered the
23 settlement agreement?

24 A Correct.

25 Q But it's your understanding and being the

1 implementation guy, the engineering manager responsible
2 for these infrastructure decisions, that this settlement
3 agreement provides the -- the financial backing to make
4 the adjustments that you and Mr. Steger and Mr. Beach
5 believe necessary to ensure Aqua can continue to provide
6 contiguous adequate public water supply?

7 A Yes.

8 Q Are you generally aware of the proposed special
9 permit conditions that mirror the restrictions on End Op
10 found in the settlement agreement?

11 A Generally, yes.

12 Q Okay. So let me -- let's wrap up now. Let's
13 make sure I understand your position as the in-house
14 engineer.

15 Is your position that there are adverse
16 impacts to Aqua based on End Op's proposed pumping?

17 A Yes.

18 Q Is it your position that the settlement
19 agreement and the proposed special permit conditions
20 would satisfy Aqua's concerns about those adverse
21 impacts?

22 A Yes.

23 Q Okay. And can you help me to outline very
24 briefly the very limited ways that we restrict End Op in
25 its project? Can you tell me to what extent End Op has

1 agreed to pump less than the 56,000 acre-feet that they
2 had initially requested?

3 A Without looking at the settlement agreement?

4 Q Yes.

5 A I don't have it -- I don't have it memorized.
6 I'm sorry.

7 Q But it's your understanding that End Op agreed
8 to back off its request by a certain amount?

9 A Yes. I believe 56,000 and they backed off to
10 46,000.

11 Q Okay. Good. And is it your understanding that
12 there was a stipulation by End Op that they would limit
13 the amount that they produced within Bastrop County?

14 A Yes, a certain percentage, 35 percent. Is that
15 correct?

16 Q Well, it is --

17 (Laughter)

18 A If I recall correctly, 35 percent.

19 Q (BY MR. GERSHON) But is it your understanding
20 that that agreement to limit production in Bastrop
21 County was intended to reduce, minimize, mitigate impact
22 to Aqua?

23 A Yes.

24 Q Is it your opinion that it is helpful to Aqua
25 that there's a limitation on the amount of pumping

1 within Bastrop County?

2 A Yes.

3 Q And why is that, just generally speaking?

4 A That's where our wells are located.

5 Q Thank you.

6 A So it's not going to be in the proximity of our
7 wells -- or not as much in the proximity of our wells.

8 Q Okay. You've testified about the mitigation,
9 the economic issues. I mean, is there any aspect of
10 your written prefiled or what you've testified to today
11 that you'd like to clarify or add on to the extent it's
12 necessary to be clear about your position?

13 A No, I think it's fine.

14 MR. GERSHON: Okay. Thank you. This
15 concludes Mr. Fleming's testimony and I pass the
16 witness.

17 JUDGE O'MALLEY: End Op has waived cross.
18 Mr. Lein?

19 MR. LEIN: No questions for this witness,
20 Your Honor.

21 JUDGE O'MALLEY: Okay. Mr. Fleming, you
22 may be excused.

23 WITNESS FLEMING: Thank you.

24 JUDGE O'MALLEY: Thank you.

25 MR. GERSHON: Aqua Water Supply

1 Corporation would call Mr. James Beach.

2 (Witness Beach sworn)

3 JUDGE O'MALLEY: Please be seated.

4 JAMES BEACH,

5 having been first duly sworn, testified as follows:

6 DIRECT EXAMINATION

7 BY MR. GERSHON:

8 Q Mr. Beach, could you give your formal name to
9 the -- and spell your name for the court reporter,
10 please?

11 A James Anthony Beach, B-e-a-c-h.

12 MR. GERSHON: And, Your Honor, I am going
13 to display my exhibit -- this is either Exhibit 6 or 7.
14 It is the map that we have in our 8-and-a-half by 11
15 format.

16 JUDGE O'MALLEY: I believe that's
17 Exhibit 6.

18 MR. GERSHON: It is? Okay. It's a well
19 location map.

20 May I approach, Your Honor?

21 JUDGE O'MALLEY: Yes.

22 Q (BY MR. GERSHON) Mr. Beach, do you recognize
23 this document? And it's intended to be the prefiled
24 testimony previously submitted in this matter.

25 A Yes.

1 Q Okay. Did you prepare that prefiled testimony?

2 A Yes.

3 Q Okay. Mr. Beach, is there anything in that
4 prefiled testimony that may not be current that requires
5 any clarification or correction at this time?

6 A No, its correct.

7 MR. GERSHON: Judge, we've admitted the
8 exhibits, and I would offer up Mr. Beach as an expert
9 for the scope that we described in his prefiled
10 testimony. Mr. Beach is a licensed professional
11 geoscientist in the state of Texas. He has experience
12 with groundwater permitting throughout the state. He is
13 qualified, as his bio reflects. The bio is one of the
14 exhibits. His bio reflects his extensive experience on
15 groundwater modeling and general groundwater
16 conservation district regulations and permitting, which
17 is, of course, most relevant today.

18 I would offer him up as a witness to
19 address those issues, and to -- as an expert on the
20 specific issue of impacts from the proposed groundwater
21 project on protestant Aqua Water Supply Corporation.

22 JUDGE O'MALLEY: Okay. I don't believe
23 anyone objected to Mr. Beach being an expert, so he will
24 be designated as such as described in his prefiled
25 testimony.

1 Q (BY MR. GERSHON) Mr. Beach, how long have you
2 been consulting with Aqua Water Supply Corporation?

3 A About 10 years.

4 Q Are you familiar with the wells that Aqua Water
5 Supply Corporation uses to supply water to its
6 customers?

7 A Yes, I am.

8 Q About how many wells does Aqua Water Supply
9 Corporation have?

10 A Well, in the Simsboro about 14, and then they
11 have other wells in the Carrizo and other aquifers.

12 Q Are the wells that are relevant to today's
13 proceeding reflected in the well location map we have
14 before us?

15 A They are, yes.

16 Q When did you first get involved with assisting
17 Aqua in evaluating End Op's application?

18 A I first became aware of it in 2009, 2010
19 probably, when End Op made their study available and I
20 think Aqua provided a copy of that study to me.

21 Q And what was the scope of engagement that Aqua
22 had for you at that time?

23 A It was to generally assess, you know, from a
24 preliminary standpoint the impacts of that on Aqua.

25 Q And that's the focus of your testimony today.

1 Correct?

2 A Correct.

3 Q Okay. Is it your understanding that that's an
4 issue that is relevant to SOAH and ultimately to the
5 Lost Pines Groundwater Conservation District Board in
6 acting on End Op's applications?

7 A Yes.

8 Q Let's start with your ultimate conclusion and
9 talk then about the reasons and the basis for that
10 conclusion. Is each and every one of Aqua's wells
11 completed in the Simsboro impacted in some degree by End
12 Op's proposed project?

13 A Yes.

14 Q Okay. Can you explain in general terms the
15 types of impacts Aqua's wells experience when we talk
16 about impacts?

17 What is the nature of the impacts?

18 A The impacts are basically water level declines
19 in the wells, and that can impact production from the
20 wells as Mr. Fleming already testified, you know, from
21 the standpoint of water level declines causing the
22 pumps' need to be lowered, column height needs to be
23 added, and in some particular wells it may require that
24 they need to be redrilled. And then in some cases the
25 overall production loss as the water level continues to

1 decline.

2 Q Would you characterize those types of impacts
3 as adverse impacts?

4 A Yes.

5 Q Okay. In your prefiled testimony you talk
6 about how you've been able to develop scientific
7 analytical planning and resource management expertise to
8 this specific type geology and groundwater management
9 within the Simsboro Aquifer. Can you explain how you
10 applied that background, that knowledge and that
11 experience to this case?

12 A Well, in 10 years working with Aqua, we've
13 become familiar with the aquifer itself, the Simsboro
14 Aquifer. We also understand -- and I understand the
15 general nature of the hydraulic properties of the
16 aquifer, how it responds to pumping, and familiar
17 generally with the management approaches used in GMA-12
18 and the districts in GMA-12.

19 Q What type of tool or tools and what type of
20 hydrogeologic analysis have you used to determine
21 whether or not there's an unreasonable impact on Aqua
22 caused by End Op's pumping?

23 A We used information from Aqua's own wells, the
24 engineering design documents and what we know about
25 their wells. We also used modeling. We used the Water

1 Development Board GAM to estimate regional impacts from
2 End Op's pumping on Aqua's wells. We used information
3 from pump tests on Aqua's wells to help us estimate what
4 the water level decline is in a particular well, each
5 one of the 14 wells. And then we also used an analytic
6 solution, the Theis equation, to estimate Aqua's impact
7 on their own wells.

8 So those three components, the regional
9 estimate from the GAM, the analytic solution to estimate
10 well field impacts, and then the pump test information
11 to estimate impacts from the well itself on itself.

12 Q In your professional opinion, is that a
13 comprehensive approach to vetting those types of
14 potential impacts?

15 A Yes.

16 Q Do you believe you had the resources available
17 and the scope of engagement required to develop a
18 professional opinion that you are very comfortable with?

19 A Yes.

20 Q Okay. And tell me a little bit more about the
21 models that were used to estimate water level decline on
22 a regional basis and your comfort level with the
23 accuracy of those models and how you used those models
24 as a tool.

25 A The Water Development Board Queen-City/Sparta

1 Central GAM was the model used to estimate the regional
2 impacts in the Simsboro Aquifer. It's the aquifer --
3 it's the model that was developed for planning and --
4 planning purposes and to estimate regional impacts from
5 pumping. It is a reasonable tool to look at regional
6 impacts, and that's how we used it.

7 Q Describe for us, you know, what you mean by
8 "regional." Is the area on this map -- would you
9 consider that to be, you know, generally, a regional
10 area? And just help us to better understand and
11 quantify what you mean when we're using a tool for a
12 regional purpose.

13 A The area on the map is basically a region, and
14 it's a regional area. GMA-12 would be a larger regional
15 area typically, and it extends to the north and probably
16 a little bit to the south of this map and that GAM was
17 designed to look at those regional impacts.

18 Q Okay. But -- well, no but. Your professional
19 conclusion is the model is one tool you used and it was
20 a useful tool.

21 A Yes.

22 Q Okay. You mentioned another tool. Tell me
23 what the quantitative hydrologic analysis indicated?

24 A Can you repeat the question, please?

25 Q Well, when we refer to your analytical

1 calculations --

2 A Uh-huh.

3 Q -- help me to understand that approach and the
4 tools you used, how they differ from the use of the
5 modeling and what your use of the analytical methods
6 indicated.

7 A Right. The regional model is used to assess
8 the impact from End Op's proposed wells that are, you
9 know, five, ten miles away. And so we take that as --
10 and we look at the impact that the water level declines
11 caused by their proposed pumping at each one of the
12 wells. But that's just a regional impact. It doesn't
13 speak to and it's not appropriate for assessing impact
14 in one of Aqua's wells. And so the other two components
15 of the calculation -- or the analytic solution, which I
16 mentioned -- and the analytic solution, the Theis
17 solution, is appropriate for looking at well field
18 impacts and Aqua's impacts on their own wells. Because
19 there's impact from their own wells on a particular well
20 that we might be interested in looking at.

21 And then there's also an impact from the
22 actual well itself being turned off. And there's --
23 what we did there was we took the pump test information,
24 generally a 36-hour pump test on each one of the wells.
25 We took that information, and that is a good indication

1 of what that well actually experiences in water level
2 decline when you -- when you turn the well on and you
3 pump it at a production rate. And so those three
4 components, the regional drawdown from End Op's wells on
5 the well field area is the first component.

6 The second component is -- just to be a
7 little more detailed with regard to the analytic
8 solution we would -- we basically took the well in
9 question, S-3, we would take all the other -- all of the
10 rest of Aqua's wells, we turn S-3 off in the analytic
11 solution, we turn on all the rest of Aqua's wells, and
12 we see what impact Aqua's wells have on S-3, that well
13 in particular.

14 And then we take the drawdown from the --
15 the actual drawdown from the 36-hour pump test in S-3
16 and we would -- that would be the actual drawdown at
17 that particular well, which we feel is the most
18 appropriate way to estimate the drawdown in that well is
19 to look at actual measured information because it takes
20 into account the heterogeneity of the aquifer and the
21 local conditions, which the GAM is not -- is not geared
22 to do.

23 So those three components -- and that's
24 the way we put those three components together to
25 estimate the total impact at a well.

1 Q So let's drill down on those well-by-well
2 impacts are. We're looking at a well location map here.
3 Does the well location map reflect all of Aqua's
4 Simsboro wells?

5 A I do believe it does. It at least includes
6 every one that we looked at, and there's 14 on there.

7 Q Does your prefiled testimony address each one
8 of Aqua's Simsboro wells?

9 A Correct.

10 Q And there's another exhibit before us, and I
11 believe that I handed it to you. And, if not, I can get
12 you a copy. It's Exhibit 7, which I understand to be an
13 Excel spreadsheet schedule or some other type of
14 schedule. I'm not sure what software package you used.
15 Do you have a copy of that in your --

16 A It's not here.

17 Q Would it be helpful for you to have a copy of
18 that to refer to?

19 A Yes.

20 Q Again, I'm referring to Exhibit 7. Do you
21 recognize the schedule?

22 A Yes.

23 Q How many pages is the document that you have
24 before you?

25 A Seven pages.

1 Q Okay. That concerns me. There should be
2 Pages 8 through 10 as well. Do you not have that in
3 yours --

4 A Oh, I'm sorry. Yeah. There are some
5 8-and-a-half by 11 pages in here I didn't see.

6 Q Okay. Tell me -- let's be confident, are you
7 familiar with Pages 8 through 10?

8 A Yes. They were the -- they were the -- some
9 other tables in the spreadsheet -- in the worksheet that
10 defined what the column headings meant and went into
11 more detail about the water levels that were simulated
12 from the GAM, which were then brought forward to the
13 calculation spreadsheets on Pages 1 through 7.

14 Q Can you readily, relatively quickly, define how
15 many or which wells would require that -- and it would
16 allow for a pump to be lowered because of the impact
17 from End Op's pumping?

18 A Of the 14 wells, 13 would require the pumps to
19 be lowered.

20 Q Okay.

21 A And two of those wells at some point, because
22 of their construction, their telescoping construction,
23 would not allow the pumps to be lowered to a -- to a
24 depth that would allow them to continue working and to
25 continue to be pumped.

1 Q Of the 14 wells, which well would not require
2 the pump be lowered?

3 A That would be S-8.

4 Q Okay. Which two wells were you referring to as
5 having some constraint in being able to lower the pump?

6 A I'm trying to make sure I get this right; S-2
7 and S-3.

8 Q Is it your opinion that S-2 and S-3 would be
9 adversely impacted by End Op's pumping?

10 A Yes.

11 Q So how would -- to your understanding, how
12 would Aqua address that compromise of those two wells?

13 Would they need to be redrilled or what is
14 your understanding of what Aqua would need to do to deal
15 with the incapacitating of these wells?

16 A My assumption is that they would need to
17 redrill them and construct them differently, or move
18 them further downdip potentially as well and reconstruct
19 them somewhere else further downdip.

20 Q And to be clear, you say that -- would neither
21 of those wells could the pumps be dropped? Would those
22 wells go dry?

23 Describe the incapacity of those wells to
24 be relied upon by Aqua for supply?

25 A Let me look here real close. This is very

1 small print at this level.

2 MS. MELVIN: I think that's an
3 understatement.

4 (Laughter)

5 MR. LEIN: We agree.

6 A The wells would not go dry. The water would be
7 inside the screen section of the lower part of those
8 wells, and our table shows that they are four and a half
9 inches -- one of them is four and a half inches in
10 diameter, the other one is five inches in diameter, and
11 we don't today have pumps that are going to go down
12 there to pump any significant --

13 Q The pump goes dry. The pump is out -- it's
14 above the water level?

15 A Yes. And you can't lower it into that small
16 casing -- or into that small screen section to pump any
17 significant amount of water. So that renders the well
18 unusable for Aqua's purposes.

19 Q Okay.

20 A But the wells are not dry.

21 Q Okay. Thank you for that clarification.

22 Do your schedules -- does your Exhibit 7
23 make up these schedules -- identify all of the wells
24 that would need to be redrilled clearly?

25 A We did a semi-quantitative analysis to look at

1 which -- where the water levels would drop and how much
2 the production would be impacted by that water level
3 decline. Based on that analysis, we have approximately
4 six wells -- well, we have six wells, by our definition,
5 of having less than a hundred foot of saturated
6 thickness above the lower part -- the lower screen that
7 are impacted and would -- would see serious production
8 declines because the saturated thickness is -- in the
9 screen section has been significantly decreased.

10 Then all but three of -- all but four of
11 the wells, excuse me, are going to see some impact and
12 reduced production from the water level declines. So
13 it's hard to summarize that very clearly and succinctly
14 because each one of the wells is a little different
15 depending on their construction, but that's a summary.

16 Q Now, as we sit here today, are you comfortable
17 that your prefiled testimony adequately describes your
18 position on each one of the 14 Aqua Simsboro wells?

19 A Yes.

20 Q Okay. Did you collaborate with Aqua's outside
21 consulting engineer, Perry Steger, to evaluate impacts?

22 A We did in general to discuss where these wells
23 might be redrilled, how far downdip. And we also -- I
24 communicated with him on general construction of the
25 wells.

1 Q Are you of the understanding that your
2 client -- that Aqua Water Supply Corporation's ultimate
3 goal was to ensure they could produce sufficient water
4 to meet their customer demands?

5 A Yes.

6 Q Did your role in achieving that goal include
7 looking at the economic impacts of these logistical
8 challenges?

9 A Not directly. We helped -- we helped
10 Mr. Steger to identify, you know, where the wells would
11 be located, and, you know, potentially some of the
12 construction details and what we might expect from the
13 production from those wells. But I was not directly
14 involved in the economic analysis.

15 Q Are you generally aware that Aqua has evaluated
16 where it could potentially redrill and whether it could
17 access the Simsboro Aquifer or other supplies if it had
18 to make these adjustments that you describe, if it had
19 to redrill? Have you --

20 A Yes.

21 Q And what is your opinion about whether Aqua can
22 achieve its goal of making those adjustments and
23 continuing to provide the supply to its customers?

24 A We believe they will be able to relocate in
25 their anticipated locations and produce sufficient water

1 to meet their needs.

2 Q And in your opinion will it require a
3 significant effort?

4 A Yes.

5 Q And would it require, in your opinion,
6 significant funding?

7 A In general, yes. Although I can't speak to the
8 specifics of the economic analysis, yes, it's going to
9 take quite a bit of money.

10 Q Okay. And in your opinion in the work you do
11 in this industry, do you believe that the types of
12 impacts caused are adverse to Aqua?

13 A Yes.

14 Q And do you believe in your opinion that those
15 impacts are unreasonable adverse impacts given the
16 extent of the impact?

17 A Yes.

18 Q Are there any other technical concerns that you
19 have regarding the proposed End Op permits that relate
20 to Aqua?

21 A Well, the general concern is that the Lost
22 Pines Board has indicated that they will potentially cut
23 back permits if the DFC condition is not met or if that
24 target is not met. And so in that regard the water
25 level declines caused by End Op or other -- you know, by

1 End Op is going to be a potential adverse impact on Aqua
2 if the District decides to across the board cut permits.

3 Q Are you generally aware of the proposed permit
4 conditions that both Aqua and End Op have proposed to
5 SOAH?

6 A Yes.

7 Q Do you believe that those conditions will
8 restrict End Op in various ways, just generally
9 speaking?

10 A Can you repeat that, please?

11 Q Is the intent of those conditions to restrict
12 End Op from doing exactly what it had requested in the
13 application that was initially filed?

14 A Yes.

15 Q Do you believe that those conditions are
16 helpful to Aqua inasmuch as those restrictions do limit
17 End Op?

18 A Yes, they are.

19 Q Are those conditions relevant to and do they
20 improve the set of circumstances that Aqua finds itself
21 in given End Op's proposed project?

22 A Can you repeat that again?

23 Q Well, I'll strike that question. I think you
24 answered it.

25 The conditions are helpful for Aqua.

1 Correct?

2 A Yes.

3 Q Is there any aspect of your prefiled testimony
4 that you reduced to writing or what you testified about
5 today that you'd like to clarify or add to to make sure
6 that your position and the reasons for your position are
7 clear?

8 A I can't think of anything right now.

9 MR. GERSHON: All right. This concludes
10 Mr. Beach's testimony. I pass the witness.

11 JUDGE O'MALLEY: Okay. End Op has waived
12 cross.

13 Mr. Lein?

14 MR. LEIN: No questions for this witness,
15 Your Honor.

16 JUDGE O'MALLEY: Okay. Mr. Beach, you may
17 be excused. Thank you.

18 Does that conclude your direct case,
19 Mr. Gershon?

20 MR. GERSHON: It does, yes.

21 JUDGE O'MALLEY: Let's go off the record.
22 (Recess: 2:10 p.m. to 2:24 p.m.).

23 JUDGE O'MALLEY: Let's go ahead and go
24 back on the record.

25 Mr. Gershon informed me off the record

1 that you have one clarification you'd like to make with
2 Mr. Beach. Is that correct?

3 MR. GERSHON: Yes, Your Honor, if you'll
4 indulge us. I've spoken with the other two parties, and
5 I have one issue to clarify. And I think I can get
6 there in two, maybe three, questions.

7 JUDGE O'MALLEY: Okay.

8 MR. GERSHON: Couple of minutes, if we
9 could.

10 JUDGE O'MALLEY: Right. If Mr. Beach just
11 wants to come back up and take the stand, I'll just
12 remind him he's still under oath.

13 Q (BY MR. GERSHON) Mr. Beach, you testified
14 about conditions that End Op has agreed to, and let me
15 ask you a question about that. Has End Op agreed to
16 contractual and permit conditions that will address Aqua
17 Water Supply Corporation's concerns about End Op's
18 applications?

19 A Yes.

20 Q Assuming those conditions are in place and
21 adhered to by End Op, are there any adverse,
22 unreasonable -- adverse, unreasonable impacts to Aqua
23 from End Op's proposed pumping?

24 A No.

25 MR. GERSHON: I have no further questions.

1 I pass the witness.

2 JUDGE O'MALLEY: Do you have anything
3 else?

4 MR. LEIN: No questions, Your Honor.

5 JUDGE O'MALLEY: Mr. Beach, thank you.
6 So at this point we will move to the
7 General Manager's direct case.

8 MR. LEIN: Thank you, Your Honor.

9 JUDGE O'MALLEY: Mr. Lein?

10 MR. LEIN: I'm a forgetful sort. Before I
11 do forget, I want to formally offer the General
12 Manager's Exhibits 1 through 5 and their associated
13 attachments.

14 JUDGE O'MALLEY: Okay. We've already
15 addressed the objections with regard to 5, and I'm
16 assuming, since there's nothing prefiled on 1 through 4
17 there are no objections.

18 MS. REESE: Correct, your Honor.

19 JUDGE O'MALLEY: General Manager's
20 Exhibits 1 through 5 are admitted.

21 (Exhibit GM Nos. 1 through 5 admitted)

22 MR. LEIN: Thank you. And to the extent
23 necessary -- we're going to call two witnesses, Your
24 Honor, Joe Cooper and Dr. Matthew Uliana. And before I
25 call them, I'd like to offer them as experts in the

1 matters set forth in their prefiled testimony. And
2 again, that's something else we have not received
3 objections to.

4 JUDGE O'MALLEY: Correct. Since there
5 have been no objections, Dr. Uliana and Mr. Cooper will
6 be designated as experts.

7 MR. LEIN: Thank you, Your Honor. General
8 Manager calls the general manager, Joe Cooper.

9 MS. REESE: He calls himself.

10 (Laughter)

11 JUDGE O'MALLEY: All right.

12 (Witness Cooper sworn)

13 PRESENTATION ON BEHALF OF
14 LOST PINES GROUNDWATER CONSERVATION DISTRICT

15 JOSEPH P. COOPER,
16 having been first duly sworn, testified as follows:

17 DIRECT EXAMINATION

18 BY MR. LEIN:

19 Q Mr. Cooper, good afternoon.

20 A Hi.

21 Q Mr. Cooper, could you tell the court what you
22 do for a living?

23 A I'm the general manager of Lost Pines
24 Groundwater Conservation District in Lee and Bastrop
25 County, Texas.

1 Q And generally speaking, what are your duties as
2 the general manager of the Lost Pines Groundwater
3 Conservation District?

4 A Overseeing the functions of the District,
5 carrying out the orders of the board, doing budget work,
6 a lot of reading and examining. I do field work out in
7 the field as far as wells, and oversee the other three
8 employees that we have on our staff.

9 Q How long have you been general manager for the
10 groundwater conservation district?

11 A Coming up on 14 years, about 13 and a half
12 years.

13 Q To your left, Mr. Cooper, is a binder that is
14 labeled General Manager Index of Testimony and Exhibits.
15 Do you see that?

16 A Yes, I do.

17 Q Could you turn to Tab 2 in that notebook?

18 A (The witness complied.)

19 Q That contains -- or behind Tab No. 2 is GM
20 Exhibit No. 2. Do you see that?

21 A Uh-huh.

22 Q Does GM Exhibit No. 2 accurately reflect your
23 testimony in this case?

24 A It does with one exception.

25 Q What is that exception?

1 A I didn't attend the University of Oklahoma. I
2 went to Oklahoma State.

3 Q Oh my goodness.

4 (Laughter)

5 A And the junior college part is correct, but the
6 other part is in error.

7 Q Other than this nearly tragic mistake in your
8 resume --

9 (Laughter)

10 Q -- are there any other corrections you'd like
11 to make to your testimony or exhibits?

12 A Not at this time, no sir.

13 Q All right.

14 MR. LEIN: Your Honor, we have no further
15 questions for this witness -- oh, no, I apologize. We
16 do have questions before I pass the witness.

17 Q (BY MR. LEIN) Mr. Cooper, you've heard
18 testimony today regarding two mitigation funds, what has
19 been called the Aqua mitigation fund and what has been
20 called the general mitigation fund. What is your
21 position with respect to the appropriateness of
22 including mitigation funds as special permit conditions?

23 A I don't feel like the District should be in the
24 business of demanding that mitigation be handled. If
25 that ends up in an agreement between Aqua or End Op or

1 any two parties other than the District, I'm fine with
2 that. But I don't think we should make it part of it
3 because that could put the District in the business of
4 handling mitigation funds, or having third parties
5 handle that for us.

6 I can't speak for the board, although we
7 do have a board member here today. It's -- I don't
8 think it would be acceptable to the board, if I was
9 going to speculate as to how they would react to
10 handling that.

11 Q Why -- assume with me that it becomes a
12 third-party rather than the District staff that
13 administers these mitigation funds. Why would you
14 nonetheless be opposed to them?

15 A Well, technically, as we produce more and more
16 water, it's going to be hard for a small board or
17 whatever to determine who's doing what damage to whom
18 throughout the course of using more water out of these
19 aquifers in the years to come. And it -- it could be a
20 lot of inequities in it.

21 Q If these mitigation funds were to become
22 special permit conditions, special conditions of the
23 permit, even though administered by third parties, what
24 would you expect -- what trouble, if any, do you think
25 that the District would run into?

1 A Well, if -- like in the agreement that I've
2 looked at or the mitigation fund part of the agreement,
3 I think it kind of cites to where if somebody is late on
4 making payments that the District would suspend the
5 operating permit or something. That's not one of the
6 conditions I think that the statutes would allow us to
7 do.

8 MR. LEIN: I have no further questions for
9 this witness, Your Honor. Pass the witness.

10 JUDGE O'MALLEY: Thank you. Does
11 Ms. Reese or Mr. Johnson -- Ms. Reese, do you have any
12 cross?

13 MS. REESE: I do, Your Honor.

14 JUDGE O'MALLEY: Okay.

15 CROSS-EXAMINATION

16 BY MS. REESE:

17 Q Mr. Cooper, you made a recommendation back in
18 March '13 -- March of 2013 to grant End Op's permits for
19 56,000 acre-feet. Correct?

20 A Yes.

21 Q And imposed conditions to be included in that
22 permit.

23 A Special conditions.

24 Q Have you changed that recommendation?

25 A No, I haven't.

1 Q You declared End Op's applications
2 administratively complete. Correct?

3 A Yes.

4 Q Did you impose any condition in connection with
5 the applications being deemed administratively complete?

6 A Yeah, there's several special conditions to
7 those permits on the ones that we've already looked at,
8 yeah.

9 Q And you feel that those conditions adequately
10 address any concerns that you would have about
11 administrative completeness or compliance with Chapter
12 36?

13 A Yes.

14 Q Or the --

15 A Yes.

16 THE REPORTER: Or the what?

17 MS. REESE: Or the District's rules.

18 THE REPORTER: Thank you.

19 (Discussion off the record)

20 Q (BY MS. REESE) With regard to the beneficial
21 use criteria under Chapter 36, is it fair to say that
22 the proposed use of the location, Williamson and Travis
23 counties, are identified in the applicable regional
24 water plans as projecting water supply shortages?

25 A Yes.

1 Q So you have no concern that there's a need for
2 this water in the identified areas, and if used to meet
3 that need, the water will be put to a beneficial use.
4 Correct?

5 A I have assumed it would be beneficial use.
6 It's going to at least WCID No. 2, but where the rest of
7 it goes is yet to be identified to us.

8 Q And that's a permit condition. Correct?

9 A Right.

10 Q Can you identify for us what information you
11 reviewed and based your recommendation on?

12 A Insofar as the amount?

13 Q Including the proposed condition, what
14 information did you review?

15 A Well, we looked again at our rules and the
16 statutes and, you know, conferred with our attorneys as
17 to what we could do to kind of place -- put some things
18 in place to make the board feel a little bit better
19 about the amount being requested. Because I can't
20 recall ever recommending on any permit any less than
21 what the applicant applied for. And with the amount --
22 one of the larger amounts being requested, we wanted to
23 make sure that some conditions were there that would add
24 to that.

25 Q So you reviewed the DFCs and MAGs. Correct?

1 A Yes.

2 Q You also considered the availability of
3 monitoring data. Correct?

4 A Yes.

5 Q And then you put conditions in place to
6 determine the permit term is five years. Correct?

7 A All of our permits are five-year permits.

8 Q And you proposed that in this case?

9 A Right.

10 Q And then you also put another condition in
11 place that during the term of the permit the District
12 would have the ability to reduce pumping if necessary --

13 A Yes.

14 Q You state on Page 17 and 18 of your
15 testimony --

16 A (The witness complied.)

17 Q You lay out these things that you considered
18 that we just covered on Pages 17 and 18 in your
19 testimony. What about -- is that correct?

20 A Yes.

21 Q What about the PowerPoints that are included in
22 the General Manager's evidence in this proceeding at
23 MMU-6 and 7? Did you review either of those in making
24 your recommendation?

25 A What did you say about 6 and --

1 Q -- 6 and 7, MMU-6 and 7.

2 A When you say 6 and 7, you're talking about
3 Lines 6 and 7 here or are you talking about Exhibit 6
4 and 7?

5 Q Fair question. I'm talking become Exhibit 6
6 and 7 to Dr. Uliana's testimony. So in your binder you
7 would look to the section where Dr. Uliana did and you
8 would look at --

9 A I've got it.

10 Q -- what's marked as MMU-6 and MMU-7. And there
11 are two PowerPoint presentations from Andrew Donnelly,
12 who is the District's hydrologist. Correct?

13 A Yes. Yes, he is.

14 Q MMU-6 is -- and I'm happy to wait until you
15 look at it.

16 MS. MELVIN: Your Honor, if I could be
17 helpful to move this along, perhaps I could come up and
18 show Mr. Cooper --

19 JUDGE O'MALLEY: Okay.

20 MS. MELVIN: -- what is MMU-6 and MMU-7.
21 This is attached to Uliana's testimony,
22 Mr. Cooper, and it's the January 16, 2013 and then May
23 '13 --

24 MS. REESE: Yes.

25 MS. MELVIN: -- 2013. It's right there.

1 MS. REESE: Thank you for helping him,
2 Robin.

3 A Okay.

4 Q (BY MS. REESE) Did you review the January 16th
5 presentation that Mr. Donnelly did and presented to the
6 District?

7 A Yes.

8 Q In connection with making your recommendation.
9 Correct?

10 A (No response)

11 Q What about the MMU-7, the May 2013. Did you
12 review that in connection with making a recommendation?

13 A Yes.

14 Q Well, that presentation is dated May 2013.
15 Correct? And wasn't your recommendation made in March
16 of 2013?

17 A Yes.

18 Q So was it possible for you to have reviewed
19 that when you -- before you issued your recommendation?

20 A Oh, no. No.

21 Q So you reviewed MMU-6, the January 2013
22 presentation. Correct?

23 A (No response)

24 Q And that presentation addressed reduced scale
25 pumping. Correct?

1 A Say again?

2 Q That presentation addressed the -- did runs
3 associated with reduced scale pumping. Correct?

4 A No.

5 Q Would you take a look at it, if you need to,
6 and see Mr. Donnelly did --

7 A Well, he ran several scenarios.

8 Q And this particular presentation includes
9 100 percent, 75 percent, 50 percent and 25 percent.
10 Correct?

11 A Right.

12 Q And you reviewed this prior to making your
13 recommendation. Correct?

14 A Yes.

15 Q And it doesn't change your recommendation. It
16 was a part of your recommendation.

17 A It was.

18 Q Correct?

19 A Yes.

20 Q Let's go back to your testimony that was
21 prefiled. And if you look on Page 18, this is where you
22 discuss the things that you considered in your -- you
23 discuss that you considered the runs -- the GAM runs
24 that are discussed in Dr. Uliana's recommendation on
25 pages -- or his testimony on Pages 24 and 25 of his

1 testimony.

2 At the top of Page 18, I'll refer you to
3 that, Mr. Cooper. You say you also considered the
4 results of two different runs in Dr. Matt Uliana's
5 prefiled testimony at Pages 24 to 25. Do you see that?

6 A Uh-huh.

7 Q Okay. So let's look at Dr. Uliana's testimony
8 on Pages 24 and 25 to make sure we're clear in the
9 record what it is that you actually reviewed.

10 A 24 and 25 of Matt Uliana's --

11 Q Correct. Prefiled.

12 A Okay.

13 MR. LEIN: It's behind Tab 1.

14 Our Honor, may I approach the witness to
15 help him find the testimony on which Ms. Reese is
16 examining him?

17 JUDGE O'MALLEY: Sure.

18 MR. LEIN: Thank you. Was that 24 to 25?

19 MS. REESE: Correct.

20 Q (BY MS. REESE) On Pages 24, beginning half way
21 through the page, Dr. Uliana has asked a question, "What
22 do Attachment MMU-2 and MMU-4, Tables 1 and 2 show?"
23 And then he goes on to talk about that, and it goes on
24 to Page 25.

25 And you testified that you reviewed the

1 GAM runs that Dr. Uliana is referring to right here on
2 Pages 24 and 25. So let's take a look at those
3 particular exhibits that he's -- that Dr. Uliana had
4 talked about. It's MMU-2 or Table 1 in MMU-4. So if
5 you keep flipping in your notebook to Tabs 2 and 4,
6 they're right there.

7 A (The witness complied.)

8 Q So behind Tab 2, which is MMU-2, Table 1, do
9 you see where you've got these GAM runs that result
10 assuming 100 percent End Op pumping. Do you see that?

11 And all of these are assumed 100 percent
12 End Op pumping at 56,000 acre-feet. Do you agree with
13 that?

14 A Uh-huh.

15 Q And you've reviewed this information in your
16 recommendation. Correct?

17 A Yes.

18 Q Let's look at MMU-4, which is Table 2.

19 A (The witness complied.)

20 Q This is GAM runs assuming what Dr. Uliana
21 refers to as reduced End Op pumping, which if you look
22 in the key to his table, he says that that means 46,000
23 acre-feet. So this is the new hundred-percent pumping.
24 Correct?

25 A Okay. When the actual amendment to the -- yes,

1 it's 46,000 feet when y'all amended the application.

2 Q Correct. But you didn't review the reduced
3 46,000 acre-feet runs in connection with making your
4 recommendation. Correct?

5 A No. They didn't exist.

6 Q Because he didn't know that information after
7 March. Okay.

8 A Correct.

9 Q So with regard to GAM runs and results that you
10 reviewed in connection with your recommendation issued
11 in March of 2013, you reviewed the January 13th --
12 January 2013 presentation by Andrew Donnelly --

13 A Uh-huh.

14 Q -- and then you reviewed the information in
15 Table 1, in MMU-2, with regard to the information that
16 Dr. Uliana has prepared.

17 A Correct.

18 Q In looking at those GAM runs, all of which
19 assumed 56,000 acre-feet, there was some projected
20 reduced scale in Andrew Donnelly. Looking at all of
21 that, you recommended 56,000 acre-feet. Correct?

22 A I did.

23 Q And assuming that there were future limitation
24 production. Correct?

25 A Rephrase that?

1 Q With the proposed condition that the District
2 could limit future production.

3 A Yes.

4 Q And the District has approved such a condition
5 in other applications. Correct?

6 A Yes.

7 Q And with regard to the criteria in Chapter 36
8 whether the proposed use unreasonably affects existing
9 use for the resource, you reviewed those GAM runs that
10 we just referenced and came to the same conclusion:

11 Grant in full and include the condition that gives the
12 District the ability to limit production. Correct?

13 A That was my recommendation, yes.

14 Q You state in your testimony that another
15 reasonable approach would be to limit the authorized
16 amount in a permit based on just the DFCs and GAMs. Is
17 that correct?

18 A Yes.

19 Q However, you didn't follow that approach and
20 just limit your review of the information to just the
21 DFCs and GAMs. Correct?

22 A I didn't what?

23 Q You didn't limit yourself to just the review --

24 A No, I didn't.

25 Q You looked at additional criteria or additional

1 information.

2 Let's go look at Page 19.

3 MR. LEIN: Move to strike the sidebar,
4 Your Honor.

5 JUDGE O'MALLEY: I'm sorry?

6 MR. LEIN: Move to strike the sidebar. It
7 wasn't a question.

8 JUDGE O'MALLEY: Oh, okay.

9 Q (BY MS. REESE) Correct? You looked at
10 additional information. Correct?

11 A Correct.

12 Q Let's look at your testimony on Page 19.

13 A (The witness complied.)

14 Q On Line 19 on Page 19 --

15 A Line what?

16 Q Line 19 on Page 19 of your testimony.

17 A Okay.

18 Q You're asked if you're familiar with the GAM
19 runs that Dr. Uliana discusses at Pages 16 to 24 in his
20 prefiled testimony, and you say "yes."

21 A Yes.

22 Q And then you were asked were those results of
23 those runs available to you when you completed your
24 recommendations. And on to Page 20 you say "no."

25 A Yes.

1 Q So let's go look at Dr. Uliana's testimony on
2 Pages 16 through 24 and identify specifically what you
3 didn't review and was not provided to you.

4 A Now, what pages on that?

5 Q 16 to 24. I think by looking at the chart it
6 will be helpful, the tables contained within that
7 testimony.

8 A Right.

9 Q Isn't the information on the GAM runs that
10 wasn't provided to you, didn't that just include a
11 modification of the baseline and a change to update the
12 location of End Op 12. Correct?

13 A Correct.

14 Q You said you were familiar with those GAM runs.
15 Have you since reviewed them since you made your
16 recommendation?

17 A I looked at them. Yes, I have.

18 Q Do they change your recommendation?

19 A No, they do not.

20 Q When did you decide to have Dr. Uliana do runs
21 for 10,000 acre-feet and 30,000 acre-feet as admitted
22 this morning in GM Exhibit 5?

23 A I guess about a week and a half ago.

24 Q And what prompted you to do this?

25 A Just for comparison.

1 Q Comparison in what regard?

2 A (No response)

3 Q Isn't it true that you already had a comparison
4 based upon Andrew Donnelly's presentation in January
5 2013? And it didn't change your recommendation.
6 Correct?

7 A No.

8 Q At the time that you made the recommendation,
9 did you feel you had all the necessary information to
10 make your decision?

11 A Pretty much. Yes.

12 Q Pretty much or yes?

13 A Yes. That was the last one I said, yes.

14 Q You recommended that the permits be granted for
15 50,000 (sic) acre-feet and End Op has since voluntarily
16 amended and reduced its permits to 46,000 acre-feet, and
17 limited its production in Bastrop to 35 percent of the
18 total authorized production. Don't you agree that that
19 reduction in limitation in Bastrop County will further
20 conserve and protect the aquifer and reduce potential
21 impacts?

22 A It will have less impact. Whatever that amount
23 fleshes out whenever it's pumped. I mean, we're talking
24 permits here. We're not talking pumping. The amount of
25 permits doesn't have anything to do with the drawdown

1 levels.

2 Q You testified on direct that the District is
3 not in the mitigation business. Is that correct?

4 A Not in -- no, we're not.

5 Q And from your direct testimony I glean that you
6 have looked at the proposed conditions agreed to by End
7 Op and Aqua, including the additional ones over and
8 beyond what you recommended. Correct?

9 A Yes.

10 Q Wouldn't you agree that, despite the District
11 not wanting to be in the mitigation business, that these
12 proposed conditions add additional protection to the
13 aquifer and existing use?

14 A When you look at the aquifer part of it and
15 the, I guess, general public part of it, it's an offer
16 in good faith to make things somewhat better, yes.

17 Q So you agree that they will add additional
18 protection to the resource and to existing users?

19 A Yes.

20 Q Aqua has agreed that the mitigation funding
21 provided for it in connection with the agreement and the
22 proposed agreements address all their impacts and deal
23 with the worst case scenario. Do you have any reason to
24 disagree with Aqua's position?

25 A No, I do not.

1 Q Isn't it true that other Simsboro wells
2 excluding Aqua's and non-Simsboro wells in close
3 proximity to End Op's proposed well field are
4 potentially much smaller and likely less expensive than
5 Aqua's wells?

6 A Yes.

7 Q Is End Op required by some law, rule or
8 otherwise required to create and fund mitigation?

9 A No, they're not.

10 Q You mentioned in your direct testimony that,
11 you know, why the District, from your perspective,
12 doesn't want to be in the mitigation business in terms
13 of trying to enforce this permit condition. Correct?

14 A Yes, I did.

15 Q Isn't the District under an obligation to --
16 how would that obligation be any different than any
17 other rule that it's obligated -- or permit condition
18 that it's obligated to enforce?

19 A Well, we're not, as far as mitigation funds,
20 obligated to --

21 Q How is that different than enforcing -- I
22 strike the question. Let me rephrase.

23 A Please.

24 Q What is it -- do you have any suggestion as to
25 how a mitigation fund could be structured such that the

1 District would feel comfortable with it?

2 A Not offhand. Not as this time. I really
3 don't.

4 Q Would you be open to considering modifications
5 to the proposed mitigation fund such that the District
6 could feel comfortable with it?

7 A Yes, we would participate.

8 Q But at this time you don't have any -- come
9 with any suggestion. Correct?

10 A No.

11 MS. REESE: Pass the witness, Your Honor.

12 JUDGE O'MALLEY: Mr. Gershon?

13 MR. GERSHON: No questions.

14 JUDGE O'MALLEY: Redirect?

15 MR. LEIN: Brief redirect, Your Honor.

16 REDIRECT EXAMINATION

17 BY MR. LEIN:

18 Q Mr. Cooper, speaking again of these two
19 mitigation funds, you testified that you agree that they
20 will provide additional protection. Right?

21 A (No response)

22 THE REPORTER: I'm sorry, I didn't -- you
23 need to answer --

24 A Yes. I shook my head, didn't I? Sorry.

25 JUDGE O'MALLEY: Please say yes or no.

1 Thank you, Mr. Cooper.

2 Q (BY MR. LEIN) Do you believe they would
3 provide less protection if they were simply the matter
4 of a private agreement between Aqua and End Op and not
5 the subject of special permit conditions?

6 A Yes.

7 Q That may have been a bad question.

8 A You didn't yet the answer -- okay.

9 Q You agree that they would be every bit as
10 protected as simply the matter of a private agreement?

11 A Yes.

12 MR. LEIN: Okay. No further questions,
13 Your Honor.

14 JUDGE O'MALLEY: Any recross on that
15 limited redirect?

16 MS. REESE: No, Your Honor.

17 JUDGE O'MALLEY: Okay. Mr. Cooper, you
18 are excused. Thank you.

19 Mr. Lein, your next witness?

20 MR. LEIN: General Manager calls
21 Dr. Matthew Uliana.

22 (Witness Uliana sworn)

23 JUDGE O'MALLEY: Please be seated.

24

25

1 MATTHEW M. ULIANA,
2 having been first duly sworn, testified as follows:

3 DIRECT EXAMINATION

4 BY MR. LEIN:

5 Q Dr. Uliana, good afternoon.

6 A Good afternoon.

7 Q Dr. Uliana, could you -- well, actually let me
8 step back.

9 Dr. Uliana, what do you do for a living?

10 A I'm a professional geologist.

11 Q What sort of geology do you practice?

12 A Primarily hydrogeology, water resources,
13 groundwater contamination, projects related to that.

14 Q How long have you been a practicing
15 hydrogeologist?

16 A Since about 1995, basically, so about 18 years.

17 Q And you have a doctorate?

18 A I do.

19 Q That's why I've been calling you Dr. Uliana?

20 A That's right.

21 (Laughter)

22 Q Where do you work?

23 A I'm employed by TRC Environmental located in
24 Austin, and I also have my own practice called Martin
25 Geologic Consulting, also located in Austin.

1 Q And once upon a time you taught hydrogeology,
2 did you not?

3 A Yes, I did.

4 Q Where did you do that?

5 A At Texas State University.

6 Q Dr. Uliana, to your left you'll see a notebook
7 that's labeled General Manager's Index of Testimony and
8 Exhibits. Do you see that?

9 A Yes, I do.

10 Q And if you would look behind Tab No. 1, you'll
11 see what's labeled as GM Exhibit No. 1 with a number of
12 attachments. Is this your prefiled testimony?

13 A Yes, it is.

14 Q And does Exhibit 1 -- actually also in the
15 pocket on the left-hand side of that notebook is what's
16 labeled as GM Exhibit No. 5. Do you see that?

17 A Yes, I do.

18 Q Is Exhibit 5 a supplement to your testimony?

19 A Yes, it is.

20 Q Are there any corrections you would like to
21 make to your prefiled testimony?

22 A There is one correction I'd like to make.

23 Q Where is that correction?

24 A That is on Page 17 -- starting at Line 8 on
25 Page 17. Should I just go ahead and explain it?

1 Q Go ahead and explain the correction, please.

2 A On Page 8 -- and I'll go ahead and quote from
3 my testimony. It says, "I further modified Wellfile run
4 72 by adding to the modified baseline pumpage. The
5 permitted amounts under three new Simsboro permits
6 granted by the Board in 2013, Heart of Texas (3,361
7 acre-feet/year); LCRA (5,000 acre-feet/year); and
8 Forestar (12,000 acre-feet/year."

9 The only correction I'd like to make is I
10 didn't add those permits to the Wellfile. The Wellfile
11 was modified by the District's hydrogeologist with DB
12 Stephens. They're the ones who made that modification.

13 I took that Wellfile and added the End Op
14 pumping and evaluated with it -- evaluated it.
15 Everything downdip is factually true. Those are the
16 permits that are in that Wellfile. The only correction
17 is that I'm not the one who put it in. DB Stephens put
18 it in.

19 Q Thank you, Dr. Uliana.

20 A You're welcome.

21 MR. LEIN: Your Honor, we'll pass the
22 witness.

23 JUDGE O'MALLEY: Okay. Cross,
24 Mr. Johnson?

25 MR. JOHNSON: Yes. Thank you, Your Honor.

1 CROSS-EXAMINATION

2 BY MR. JOHNSON:

3 Q Dr. Uliana, Russ Johnson. Have we met before?

4 A We have met once, yes.

5 Q Was that in connection with the Edwards Aquifer
6 work that you did ages ago or was it --7 A No, the only time we met was at one of the
8 conferences. I can't remember what it was. And it was
9 when I was teaching and I asked if you'd be interested
10 in coming down to speak. So that's it.11 Q Let me ask you real quickly just to kind of
12 clarify. You stated in your testimony that all of the
13 exhibits to your testimony were prepared under your
14 direct supervision or control. Correct?15 A All of the work that I did including the model
16 runs and the -- so I didn't do the PowerPoints, so that
17 wasn't prepared under my supervision, but the other
18 things were.19 Q So that would be a correction to your testimony
20 because you listed that as something that was prepared
21 under your supervision and control?22 A Oh, okay. That would be a correction, yes,
23 because I -- I wasn't -- at the time I prepared this, I
24 wasn't aware that the PowerPoints were going to be in
25 specifically as one of my exhibits. So that was a

1 mistake, yes, and I'll make that correction now.

2 Q So really only the other exhibits were prepared
3 under your direct supervision and control?

4 A That is correct, yes.

5 Q And in connection with the two that were -- the
6 two exhibits that reflect Mr. Donnelly's work, those
7 exhibits you used to obtain the modified Wellfiles. Is
8 that right, the baseline?

9 A Well, Andy Donnelly provided the Wellfiles to
10 me directly. They're a separate file, so they can't
11 be -- actually be included in a PowerPoint. And I used
12 the PowerPoints as guidance to understand what it was he
13 did to create those Wellfiles and to evaluate the End Op
14 pumping.

15 Q But you didn't rely on those PowerPoints in
16 your testimony. You actually ran your own runs of the
17 model. Correct?

18 A Yes. I attempted to recreate what Andy
19 Donnelly did in those PowerPoints. Not everything that
20 he did but just what was specifically related to End Op.

21 Q So you're not here to verify that work by
22 Mr. Donnelly. You're here to verify your work based
23 upon the work you actually did. Correct?

24 A Well, no. Part of what I was doing was
25 verifying what he did by rerunning his models and

1 comparing my results to what he did to demonstrate that
2 the drawdowns and drawdown contours that he was creating
3 are accurately -- were accurate representations of the
4 model output. So I did in a sense verify the actual
5 model runs that he did.

6 Q You ran the same model runs and compared the
7 results?

8 A Yes.

9 Q Were they different?

10 A No, they weren't different.

11 Q Now, in your testimony you state -- this is on
12 Page 7 -- that you serve as a hydrogeologist for the
13 Mid-East Texas Groundwater Conservation District. And
14 you go on to say that that's part of GMA-12, which would
15 be the GMA that includes Lost Pines District. Correct?

16 A That is correct.

17 Q How long have you served in that capacity?

18 A I started working for the Mid-East Texas in the
19 middle of 2008.

20 Q Your testimony says you participated in the
21 process of developing desired future conditions, or DRCs
22 for Mid-East Texas and for GMA-12 as a whole. Is that
23 right?

24 A That is correct.

25 Q Were you the designated representative from

1 Mid-East Texas?

2 A I believe the general manager is the designated
3 representative to the GMA. I represented them with all
4 of the consultants' meetings, but I'm not sure that I
5 would be classified as the designated representative.

6 Q I see. You point out you used the GAM models
7 to assess potential impact to the groundwater levels,
8 including in the Carrizo, from proposed projects in the
9 Mid-East Texas District. Correct?

10 A That's correct.

11 Q You also mention that you performed an
12 independent consulting project for the City of Bryan in
13 which you used this same GAM. Correct?

14 A Yes, that's correct.

15 Q Was that work commissioned by the City of
16 Bryan?

17 A That was by the City of Bryan, yes.

18 Q And they would have been the applicant?

19 A That's correct. If my memory -- that was
20 in 2007 or 2006 I believe, so that's what my memory
21 says.

22 Q And when you ran the Queen-City/Sparta GAM
23 model for the proposed well for the City of Bryan, did
24 that model show drawdown impacts?

25 A Yes, it did.

1 Q And did you take a position as to whether or
2 not those were reasonable drawdown impacts in support of
3 the application?

4 A No, I just presented them with the drawdowns
5 and let them make that determination.

6 Q I noticed in the material that when you ran the
7 model for the City of Bryan, your client, you ran it at
8 a hundred percent of the requested pumping amount and
9 67 percent.

10 A That's correct.

11 Q Why did you run it at 67 percent?

12 A If I recall correctly, they asked me to do
13 that.

14 Q Do you have any explanation for why that would
15 be an appropriate analysis?

16 A Well, I -- I suppose that would provide the
17 district who was evaluating that application an idea of
18 what sort of impact you would get from reduced pumping
19 rates.

20 Q Would it be reflective perhaps of the actual
21 use of a municipal well on an average basis in terms of
22 the amount of pumping?

23 A Yeah, I suppose that's appropriate. Yeah.

24 Q You didn't do a similar analyses on End Op's
25 proposed permits where you've reduced the pumping by

1 67 percent?

2 A Didn't reduce it by percentages, but I did do
3 two sets of runs with reduced pumping.

4 Q Those were the most recent?

5 A Yes.

6 Q We're going to talk about those in a minute.

7 A Okay.

8 Q But in all the other runs that you presented,
9 you didn't make an analysis of this proposed pumping
10 using anything less than a hundred percent.

11 A That's correct.

12 Q Okay. Well, let's talk about the DFC at the --
13 at GMA-12 for just a minute. You were directly involved
14 for Mid-East in the setting of that DFC by GMA-12.
15 RIGHT?

16 A That is correct.

17 Q How was that DFC selected?

18 A The DFC was selected by -- just once for
19 Mid-East Texas, if that's what you're asking.

20 Q No, I'm asking for GMA-12.

21 A For GMA-12?

22 Q Yes, sir.

23 A The DFCs were based on average drawdowns,
24 average for each district over the area of each
25 district, and for each specific aquifer within the

1 district.

2 Q Let me back up, Dr. Uliana. You worked for a
3 period of time for Dr. Kier. Correct?

4 A That's correct.

5 Q Dr. Kier was the Lost Pines District
6 geohydrologist. Correct?

7 A That's correct, yes.

8 Q What work did you do with him while you were
9 with him working for Lost Pines?

10 A I performed model runs, did some aquifer test
11 analysis for him, although I'm not sure that's directly
12 related to Lost Pines or other projects.

13 I helped him prepare a seminar of basic
14 hydrogeologic principles for members of the district.
15 And I helped him prepare PowerPoints for presentations,
16 that sort of thing.

17 Q I have one of those PowerPoints by Katie
18 Kaighin.

19 A Okay.

20 Q Maybe I should show it to you.

21 A Okay.

22 Q Let me just ask you to take a quick look,
23 because I have a couple of questions about it.

24 A All right.

25 Q Let me ask you if you're -- if this is one of

1 the ones you helped him prepare.

2 A This looks familiar to me, but I don't remember
3 being involved in the preparation of it.

4 Q Are you familiar with how the Lost Pines
5 District selected the DFCs for the Lost Pines District?

6 A I mean, in a general way.

7 Q Well, let me ask you to look at the section of
8 this that's headed Setting DFCs in LPGCD.

9 A Does this have page numbers on it or --

10 Q No, sadly, it didn't come with page numbers.
11 It's about two-thirds of the way through the document.

12 A And what was that title again?

13 Q It's titled Setting DFCs in LPGCD.

14 A Okay. I've got it. With "While the DFC as
15 suggested," is that the first line?

16 Q No, it's "Based on monitoring to date."

17 A Okay. I have it.

18 Q Read the first bullet point for the record,
19 please.

20 A "Based on monitoring to date, the model seems
21 to underestimate aquifer behavior; that is, overstates
22 the effects of pumpage and underestimates capability to
23 supply the needed groundwater."

24 Q Do you agree with that statement?

25 A I haven't seen the monitoring data that they're

1 talking about, so I can't really agree or disagree with
2 it.

3 Q Do you have any reason to disagree with that
4 statement?

5 A No reason to disagree with it. But, again, I
6 haven't seen the monitoring data that they're talking
7 about, so I can't really give an opinion one way or the
8 other.

9 Q Well, you used the model. Correct?

10 A That's correct.

11 Q Wouldn't you want to know whether the
12 monitoring data that's been available to the District
13 for all these years is supportive of that model?

14 A Certainly, yeah.

15 Q You didn't investigate that?

16 A Well, I haven't really had a chance to do that.
17 That's a pretty significant undertaking to go through
18 and compile the data, vett all the monitoring data,
19 establish how that monitoring data relates to what the
20 model results are. That's something that -- not really
21 to speak for the other consultants in the GMA, but
22 that's something that we're all trying to get a handle
23 on as the next step in the process is looking at what
24 actual data there is available and then using that to
25 verify the models.

1 So that is -- yeah, that is something that
2 you'd want to do, but we're just now getting to that
3 point.

4 Q And you certainly didn't do it in connection
5 with the model runs that you provided in this
6 proceeding.

7 A That's correct, I did not.

8 Q Now, if this statement is accurate, would you
9 agree that your runs overestimate the impact of pumping?

10 A If this statement is accurate, then, yes, our
11 model runs overestimate the impacts of pumping.

12 Q Is that possible based on your knowledge as a
13 professional hydrogeologist?

14 A Sure it's possible.

15 Q All right. Let me ask you to flip one page
16 back where it says "Setting DFCs in LPGCD."

17 A Okay.

18 Q The first bullet point would you read that?
19 You don't have to read aloud.

20 A Okay.

21 Q Actually, let me ask you to read that whole
22 page before I ask you a question?

23 A Just read the whole thing?

24 Q Yes, sir, please.

25 A So the title is "Setting DFCs in LPGCD."

1 Q You don't have to read it out loud, just read
2 it --

3 A Oh, read the whole thing.

4 Okay.

5 Q All right. The first bullet says that in the
6 Lost Pines Groundwater Conservation District the DFC was
7 set by using demand estimates as a basis for projecting
8 demand for groundwater within Bastrop and Lee counties.
9 Is that your understanding of how the DFC was set?

10 A Yeah, that sounds accurate. Yes.

11 Q So, in essence, the Lost Pines District
12 estimated both current demand and future demand and set
13 the DFCs to meet those?

14 A Yeah, that's correct.

15 Q So in essence they reverse engineered the
16 process by selecting an amount of production for their
17 DFCs and then getting the model run that comports with
18 that selected reduction?

19 A Well, I'll agree that they set demand numbers
20 and then used those demand numbers along with the GAMs
21 to determine -- to develop and establish desired future
22 conditions, yes.

23 Q So it wasn't a desired future condition set
24 based upon the capacity of the resource or the total
25 recoverable storage. It was set based upon the

1 projected demand just within the District?

2 A Well, indirectly it's based on the amounts of
3 water in the -- in the aquifers, et cetera, because what
4 they did was they set the demands and then used the
5 groundwater availability models to determine what
6 drawdowns would satisfy those demands. And so the
7 groundwater availability model has information built
8 into it about the processes of the aquifer and how much
9 water is in the aquifer and how the water will respond
10 to stresses in pumping.

11 So indirectly those DFCs are based on the
12 way the aquifer functions and how much water is
13 available in the aquifer and how much drawdown could be
14 expected from pumping.

15 Q All right. The very last bullet on that page
16 says, "No amount of demand was allocated for potential
17 water marketers beyond that," and it states demand
18 estimates. Is that an accurate statement of how they
19 selected their DFC?

20 A To the best of my understanding that's
21 accurate.

22 Q So in essence they deliberately excluded
23 potential pumping for export outside of the District?

24 A Well, I suppose on this round of DFCs, yes,
25 that's what they did.

1 Q I know it's difficult since we don't have page
2 numbers, but please look for the page titled "How
3 LPGCD's Vision of DFCs Will Work."

4 A Okay. I found it. It's two bullet points on
5 it?

6 Q Yes, sir.

7 A Okay.

8 Q Once again, this slide confirms that the
9 intention of the District in setting the DFC was to
10 exclude the demand which could be allocated to potential
11 water marketers like End Op. Correct? In fact, it's
12 underlined.

13 A Yeah, that's what the slide says, yes.

14 Q So is that your understanding of how LPGCD sets
15 its DFC -- pardon the initials --

16 A Based on what's in this PowerPoint, yes, that's
17 correct.

18 Q And you worked with Dr. Kier who assisted them
19 in doing this work. Correct?

20 A With this work for the DFCs process I didn't do
21 a whole lot with Dr. Kier, maybe a handful of model runs
22 here and there. But I was in some manner involved in
23 it, yes.

24 Q You were first retained, Dr. Uliana, on what
25 looks like October 31st of last year. Correct?

1 A Yes, sir, maybe a few days before that, yes.

2 Q Had you done any work on any of these
3 applications or any of the other permit applications
4 pending before the Lost Pines District prior to this
5 engagement?

6 A Not that I can recall, no.

7 Q Were you engaged by the board or by the law
8 firm?

9 A By the law firm.

10 Q Were they the ones that contacted you to engage
11 you?

12 A Yes, they did.

13 Q And where did you receive your instruction?

14 A Instruction on the case?

15 Q What to do.

16 A I met with the attorneys at their office and
17 that's where -- they instructed me directly on what to
18 do.

19 Q And that would be true, I presume, in
20 connection with the most recent work you did?

21 A That is correct.

22 Q So that was commissioned by the attorneys?

23 A They requested that I do that work, yes.

24 Q Mr. Cooper has never asked to you do that work?

25 A No, Mr. Cooper didn't ask me.

1 Q On Page 15 of your testimony, Dr. Uliana --
2 actually the question begins on Page 14 -- "What is the
3 GAM used for?"

4 A Excuse me -- yes.

5 Q Your answer is the second sentence, "The GAM is
6 intended as a tool to estimate groundwater availability
7 for various water use strategies, as well as a tool to
8 predict groundwater availability in the aquifer
9 conditions through a 50-year planning period based on
10 current projections of groundwater demands during
11 drought of record conditions." You don't mention
12 impacts in that statement. Is it -- is that -- was that
13 deliberate on your part?

14 A No, that wasn't deliberate.

15 Q Why did you not mention impacts?

16 A It was just an oversight on my part.

17 Q That's entirely what you used it for in
18 connection with this work. Correct?

19 A Yeah, that is correct.

20 Q But you didn't even mention it in your prefiled
21 testimony.

22 A No, and I -- I erroneously assumed that that
23 was implied by the work, and that was an oversight on my
24 part that should have been included in this part of the
25 testimony.

1 Q Now, you know, just so we're clear, let's take
2 a look at the material -- I guess it would be Table 1
3 that would be the various runs with what you call 1999
4 baseline pumping and hundred percent End Op pumping
5 added.

6 A All right.

7 Q Just so we're clear, what you did in those runs
8 was assume the -- I guess calculated or baseline pumping
9 from 1999. Right?

10 A That's right.

11 Q And added a hundred percent of the 56,000
12 acre-feet, which is Table 1, End Op pumping, starting
13 with the year 2014. Correct?

14 A Yeah, that's correct.

15 Q So that's a very -- I would say -- Would you
16 agree with me that that's unlikely to occur?

17 A Yes, I would agree.

18 Q So it's an overconservative estimate of
19 impacts. Correct?

20 A Yes, I'd agree with that.

21 Q So in a sense it overestimates impacts to some
22 extent. Correct?

23 A Yes, I would agree with that.

24 Q And you did the same thing in all of these runs
25 that you presented. Correct?

1 A With the exception of the set of runs that were
2 most recently submitted, yes.

3 Q We'll get to those in a minute. But in all of
4 the tables that you've presented; you assumed a hundred
5 percent of pumping by End Op of whatever amount is
6 reflected --

7 A Uh-huh.

8 Q -- starting immediately.

9 A Right. So just to clarify, what you're saying
10 is I assumed that whatever the maximum pumping amount
11 was that we were looking at in that run, I applied a
12 hundred percent of that in 2014 and carried that through
13 to the end of the predicted period. That's correct.

14 Q And then the second set of runs had to do with,
15 I guess, a change in the baseline pumping. Is that
16 correct?

17 A Are you referring to the second set of tables
18 or the second --

19 Q Yes.

20 A So we're dealing with MMU-4, Table 2?

21 Q Yes.

22 A Okay. So in this set of runs, this was
23 following the agreement with Aqua where we reduced the
24 pumping total to 46,000 acre-feet per year.

25 Q Right.

1 A Yes.

2 Q So you adjusted the baseline. Correct?

3 A The baseline pumpage in the model?

4 Q I'm sorry, my confusion.

5 A Okay.

6 Q Your various runs were of a 1999 baseline
7 pumping.

8 A Right.

9 Q Then a 2010 baseline pumping. Correct?

10 A That's correct.

11 Q And then you had a -- what you call a modified
12 baseline with, I guess, the 2010 pumping plus all of the
13 permits that had been issued by the District up to the
14 time you ran the model?

15 A Well, yeah. The second set, which we call Run
16 50, contains -- it's a modified baseline up to 2010, and
17 then it also includes additional permits from Manville
18 and Aqua and Elgin and additional permits by them that
19 were granted up through 2013 -- up to the beginning of
20 2013.

21 Then the final run, which is Run 72, is
22 all that same pumping with three additional permits
23 added that were granted in 2013, which was Forestar,
24 LCRA and Heart of Texas.

25 Q Okay. And in that modified baseline you

1 assumed increased in-district pumping over the 50-year
2 pumping. Correct?

3 A That's correct.

4 Q Where did you get those numbers?

5 A Those were provided me by the district
6 hydrogeologist.

7 Q So in essence you added into the model the
8 future, unpermitted as yet, projected pumping in the
9 district. Correct?

10 A Well, that's what the district hydrogeologist
11 did. I worked with the Wellfiles that he provided. And
12 the only modification I made to those were addition of
13 the End Op pumping.

14 Q Right. But the work the district hydrologist
15 did included all of this unpermitted potential future
16 pumping. Correct?

17 A No, I believe what the district's
18 hydrogeologist did was take -- took the permits that are
19 already in existence, added those to that baseline
20 Wellfile, and then there was some ramping in that where
21 I believe -- and I can't recall exactly which permits
22 they were -- but I believe some of the Aqua permits
23 which were operating -- where they were actually pumping
24 at considerably less than what their total permit was.
25 They ramped that up of the entire predictive period to

1 sort of simulate increases in demand from their
2 customers.

3 But those Wellfiles don't assume any
4 additional, unpermitted pumping, any other permits that
5 are coming on down the line. They just have what's
6 current, and then what I did was added Forestar on
7 top --

8 Q What about exempt pumping? Doesn't that
9 increase over time?

10 A Yes, that does --

11 Q And that's unpermitted. Correct?

12 A That's correct.

13 Q And that is all included?

14 A That's right. I was -- that's my mistake. I
15 was just thinking about nonexempt pumping. But the
16 exempt pumping was included in that, yes.

17 Q So in essence the run 72 throws the kitchen
18 sink at the amount of pumping that might be occurring in
19 the district, virtually adds everything that could
20 happen?

21 A I suppose additional could happen because if
22 the exempt pumping is -- well, there could be additional
23 permits that come online afterwards --

24 Q But based on our knowledge today, it included
25 everything you could conceivably think would be pumped

1 in the next 50 years. Correct?

2 A I'm not sure if I completely agree with that
3 because there could be additional pumping that comes
4 online that's not reflected in it. But I think the
5 District hydrogeologist made some reasonable estimates
6 about the exempt pumping, and I think that's pretty
7 complete about what the amount of exempt pumping is in
8 there. And then the estimates of what the current
9 demand from those current permits are, that's all built
10 into there.

11 Q All right. Let's turn our attention to impacts
12 of production from the Simsboro and other aquifers. Do
13 you have an opinion on whether or not production from
14 the Simsboro will affect access to water in other
15 formations?

16 A Well, it's my understanding that there's
17 limited connection between the Simsboro and the
18 overlying aquifers. I'm not sure if that's been
19 conclusively demonstrated one way or the other, but I
20 think the general consensus in the scientific community
21 is that they are not related and that development in the
22 Simsboro won't affect those. And that's something
23 that's going to have to come out in the future as
24 monitoring the aquifers occurs and these stresses to the
25 aquifers occur.

1 Q So bear with me. Current consensus is there
2 won't be an impact, but you won't know for certain until
3 there's additional data based on Simsboro pumping. Is
4 that right?

5 A Yes. I think that's correct, yes.

6 Q All right. On Page 34 of your testimony, you
7 discuss some of the -- you address some of, I guess, our
8 expert's statements concerning storage. Your answer to
9 the question End Op expert, et cetera, is, "First, it's
10 well accepted that there is a significant volume of
11 water in the storage in the Simsboro formation." Do you
12 have an estimate of how much water is stored in the
13 Simsboro?

14 A I recall one of the calculations I did for the
15 central part of the Simsboro, the part that's reflected
16 in the central queen-City/Sparta GAM. I think it was
17 about one and a half million acre-feet or something like
18 that just in that section of it.

19 Q One and a half million or one and a half
20 billion? It makes a big difference.

21 A Yeah, it does make a big difference, yeah. I'm
22 just going off memory. I know it's a large amount. I
23 don't really -- I don't feel comfortable throwing
24 numbers around right now unless I have a chance to
25 review that. But I know it's a large number.

1 Q Well, how large? We need a sense -- this is
2 important in the context of impact on this resource how
3 large it is.

4 Let me ask the question: Is it important
5 to know how much is in storage and is recoverable?

6 A Well, I -- I suppose that's all a part of the
7 equation, yeah.

8 Q It's important, isn't it?

9 A Yeah.

10 Q You'd want to know that, wouldn't you?

11 A I think what's more important is the overall
12 response of the aquifers and the impacts to
13 additional --

14 Q I didn't ask you what was more important. I
15 asked you total storage, total recoverable storage was
16 important in considering impacts to the aquifer of
17 proposed production?

18 A Well, I think it's an important component of
19 it, yeah.

20 Q And you didn't consider that?

21 A No. We didn't consider that because the amount
22 of pumping --

23 Q Wait, I'm sorry. All I asked was did you
24 consider that.

25 A In the work that I did for Lost Pines, I did

1 not consider that, no.

2 Q There's also a statement -- you know about the
3 water balance approach. Correct?

4 A The one that they specifically did or just in
5 general.

6 Q Just in general --

7 A Yes.

8 Q -- and the one they specifically did.

9 A I'm not really -- I'm not sure I understand
10 what specifically End Op did in their water balance
11 approach. But I understand what a water balance
12 approach is.

13 Q And is that something that should be used in
14 evaluating the potential productivity of an aquifer and
15 long-term production from that aquifer?

16 A I think it should be a component of that, yes.

17 Q Did you do that in this work?

18 A No, because I used the groundwater availability
19 model. And part of the construction of the groundwater
20 availability models involves the modelers looking at the
21 water balances in the aquifer, the recharge to the
22 aquifer, natural discharge to the aquifer, all the
23 projections of pumping, the way the aquifer responds.

24 So indirectly understanding the storage in
25 the water balance of the aquifer is built into the study

1 because we used the groundwater availability model. But
2 that's not something that I directly looked at in doing
3 these evaluations.

4 Q So it's not included in your evaluation?

5 A Not directly included in my evaluation, but
6 it's reflected in the GAM results.

7 Q You know, the reason I'm asking about -- I was
8 asking about total storage is that in your CV under
9 technical support for Lost Pines Groundwater
10 Conservation District, you said you used the Texas Water
11 Development Board Queen-City/Sparta GAM to determine
12 volumes of water stored in the aquifer under current and
13 future conditions.

14 A Uh-huh.

15 Q But you have no idea what that total --

16 A I don't remember what those numbers are, no.
17 That was something that I did probably in 2007, 2006.
18 So I don't remember what the numbers are.

19 Q And just so we're clear, you didn't go and
20 retrieve that information in performing your work for
21 the District in this case?

22 A No, I did not.

23 Q Now, you attached several figures that reflect
24 the drawdowns that are reflected in your tables.
25 Correct?

1 A That's correct.

2 Q And in each one there's a -- there's a series
3 of concentric -- more or less concentric bands of
4 drawdown. Right?

5 A That's correct.

6 Q And I assume that the colors are significant in
7 terms of reflecting the greatest drawdown impacts and
8 lesser as it goes further out. Correct?

9 A The colors reflect ranges of drawdown. That
10 should be reflected in the legend on the map.

11 Q Right. So the yellow is the largest drawdown.
12 Correct?

13 A Yes, that's correct.

14 Q And that -- and each of these, the yellow
15 largest drawdown would be in the well field proposed by
16 End Op. Correct?

17 A Yes.

18 Q Now, does that mean that End Op, assuming that
19 there's, say, 600 feet of drawdown at their well field,
20 does that mean End Op is out of water?

21 A No, it doesn't mean they're out of water.

22 Q There's will still be plenty of water for them
23 to produce?

24 A Well, they'll still have enough artesian head
25 to continue pumping from the aquifer, yes.

1 Q So even assuming that at the end of 50 years
2 there's a 600-foot drawdown at the End Op well field,
3 they'll still be in full production. Correct?

4 A Yeah, assuming that their pumps are deep enough
5 to pump out, yes.

6 JUDGE O'MALLEY: Mr. Johnson, how much
7 more do you think you have?

8 MR. JOHNSON: Probably 30 minutes.

9 JUDGE O'MALLEY: Okay. I think we might
10 want to take a break. I like to take a break like every
11 hour and a half so people are comfortable.

12 But we might, while we're on the break,
13 clear up the record on that 1.5 million unless you were
14 going to call a rebuttal witness, because that still
15 would -- you've been asking what the storage capacity of
16 the Simsboro is and he said 1.5 million, and that's --

17 MR. JOHNSON: That would be great if
18 Dr. Uliana could, during the break, retrieve or find or
19 obtain some information on that.

20 JUDGE O'MALLEY: Okay. Because there
21 seemed to be obviously a great discrepancy in what that
22 number is.

23 MR. JOHNSON: Yes. I mean, the
24 information I have -- and I'll find it; I'll try to
25 during the break -- is that it's been calculated to be

1 1.5 billion acre-feet.

2 MS. MELVIN: Is that in your
3 prefiled testimony?

4 MR. JOHNSON: No, it's in the TWDB.

5 MS. MELVIN: Oh, I gotcha. Yes, we can
6 clarify.

7 WITNESS ULIANA: I'll just state that I'm
8 not really sure I can retrieve anything here and now,
9 retrieve what I've done in the past related to those
10 calculations.

11 JUDGE O'MALLEY: Okay.

12 WITNESS ULIANA: But I'll try.

13 MR. JOHNSON: I will, too.

14 JUDGE O'MALLEY: We'll just need to clear
15 that up. If you can't give us an exact, we might want
16 to just make sure that that's not the number
17 representing the storage capacity.

18 MR. JOHNSON: We'll cover it in rebuttal
19 if we have to.

20 JUDGE O'MALLEY: Okay. Why don't we go
21 ahead then and go off the record and take a ten-minute
22 break.

23 (Recess: 3:32 p.m. to 3:43 p.m.)

24 (Exhibit Applicant Nos. 49 and 50 marked)

25 JUDGE O'MALLEY: Let's go ahead and get

1 seated and we'll go back on the record.

2 Mr. Johnson, why don't you go ahead and
3 continue your cross.

4 MR. JOHNSON: Thank you, Your Honor.

5 Q (BY MR. JOHNSON) Dr. Uliana, let me ask you
6 briefly about -- you heard the testimony about the Aqua
7 settlement and the mitigation fund conditions?

8 A Yes, I did.

9 Q And you heard the amounts and the nature of the
10 mitigation obligation that we committed to?

11 A Yes, I did.

12 Q Would you agree with me that that addresses at
13 least to some extent adverse impacts to existing permit
14 holders?

15 A Yes, it does.

16 Q Attached to your -- as an exhibit to your
17 testimony is, I guess, a portion of the groundwater
18 availability model for the Queen-City/Sparta aquifer,
19 which would be the GAM model that you used. Is that
20 right?

21 A That's correct.

22 Q In the abstract -- yeah, in the abstract
23 there's a statement at the very beginning about the size
24 of the aquifer -- I'm sorry, the storage in the aquifer.
25 I'm sorry, it's under the introduction.

1 A Okay.

2 Q It's in the first paragraph. Do you see that?

3 A Okay. I see the first paragraph. Which line
4 are you referring to?

5 Q Starting on the fourth line, "however."

6 A Okay.

7 Q The estimates of available water are for the
8 Queen City Aquifer and for the Sparta Aquifer. Correct?

9 A That's correct.

10 Q Those are not estimates of the available water
11 supply in the Simsboro member. Correct?

12 A That's correct.

13 Q Do you know why the introduction to the model
14 doesn't include an estimate of the storage in the
15 Simsboro Aquifer?

16 A I don't know specifically. I could speculate,
17 if you would like.

18 Q Fire away.

19 A The Queen-City/Sparta model was built on top of
20 the Carrizo-Wilcox groundwater availability model. So
21 what the modelers did was they took that model -- the
22 Carrizo-Wilcox groundwater availability model, used the
23 same grid, maybe made some minor modifications to the
24 layers, but I'm not aware of what those were, and then
25 built the Queen-City/Sparta layers on top of that.

1 So this model report is really
2 specifically focused on the development of the Queen
3 City and Sparta aquifers within the model.

4 Q So it really wasn't relevant to this
5 introduction to include the total storage of the
6 Simsboro member. Correct?

7 A Yeah, I think that's correct. Yes.

8 Q But that information is available. Right?

9 A Yes, I'm sure it's available. Yeah.

10 Q Well, let me ask it another way: You're still
11 involved with the Mid-East Texas Groundwater
12 Conservation District. Right?

13 A That's correct.

14 Q And I assume you're involved with them in the
15 second phase of DFC establishment. Right?

16 A That is correct.

17 Q And you're aware of the changes that have been
18 made in Chapter 36. Correct?

19 A Aware, yeah.

20 Q Okay. Let's take a look at them. Exhibit 48
21 should be up there.

22 A This one goes to 41 --

23 MS. REESE: It's actually not marked
24 specifically.

25 A Oh, okay. All right. Thank you.

1 I have 47 and 48.

2 Q 48 shows the changes --

3 A Okay.

4 Q -- if it will be easier for you.

5 A All right.

6 Q On the second page of the exhibit under
7 subsection D?

8 A Okay.

9 Q Do you see that the Legislature has laid out
10 the factors that shall be considered by groundwater
11 districts in groundwater management areas and setting
12 their DFCs?

13 A Yeah, that's the lines that are listed numbered
14 from 1 to 9. Is that correct?

15 Q Yes, sir.

16 A Yes.

17 Q Those did not exist when DFCs were set in 2010.
18 Correct?

19 A That's correct.

20 Q And as you're working on for the Mid-East Texas
21 Groundwater Conservation District, their DFCs efforts,
22 you're going to be required as their hydrologist to come
23 up with an estimate of the total estimated recoverable
24 storage for the Simsboro Aquifer. Correct?

25 A Well, I'm under the impression that the

1 groundwater management area has to come up with that for
2 the groundwater management area. So I will have some
3 role in that process, yes.

4 Q And is that important information in setting
5 the desired future conditions?

6 A It depends on what the desired future
7 conditions are based on.

8 Q Well, why do you suppose the Legislature felt
9 that it was important to direct groundwater conservation
10 districts to include that in their analysis?

11 A I don't know why they included it.

12 Q As a groundwater hydrologist, why would you
13 think it would be important?

14 A Well, it's important to understand as much as
15 you can about your aquifer. So that's one component of
16 it amongst all other components. It really should be --
17 we should understand going into the DFC process.

18 Q Now, apparently we didn't have that information
19 in 2010. Correct?

20 A That information wasn't considered in the DFC
21 process.

22 Q Thank you. In addition, you're required in
23 your process to consider the impact on the interests and
24 rights of private property. That's new also. Correct?

25 A Yeah, that's -- to my understanding that's new,

1 yes.

2 Q Have you had any involvement in assessing the
3 impact of your proposed DFC for Mid-East Texas on the
4 interests and rights of private property owners?

5 A No, I have not.

6 Q Now do you suppose you're going to do that?

7 A I don't know how we're going to do that. We're
8 just getting started with the process. So as a
9 groundwater management area and as a district, we
10 haven't discussed how we're going to address that.

11 Q But now you know that you have to address that
12 in setting the DFC. Correct?

13 A That's right.

14 Q And you didn't have to do that in 2010.
15 Correct?

16 A That's correct.

17 Q So is it safe to say that there's some
18 substantially new criteria that must be considered by
19 not just the Mid-East Texas Groundwater Conservation
20 District, but by the Lost Pines District in
21 reconsidering its desired future condition in 2015?

22 A I think that's correct. Yes.

23 Q In addition to that, once you've done all that,
24 you're supposed to meet a goal set by the Legislature
25 that starts at the bottom of Page 2 and carries over to

1 Page 3. It would be D-2 on Page 2 carrying over.

2 A Okay. I see it.

3 Q And you understand now, as the Mid-East Texas
4 groundwater hydrologist, that your DFC for that
5 district, and presumably for every district, has to
6 provide a balance between the highest practical level of
7 groundwater production and the conservation and
8 preservation of the resource. Correct?

9 A That's correct.

10 Q Do you know what the highest practical level of
11 groundwater production is in the Mid-East Texas
12 Groundwater District?

13 A No, I don't.

14 Q Do you know what it is in the Lost Pines
15 District?

16 A No, I don't.

17 Q So that information was not considered at all
18 in 2010, either by the Mid-East District or by the GMA
19 in setting their DFCs?

20 A No, that wasn't specifically considered.

21 Q Would you agree with me that that could change
22 the consideration of your desired future conditions?

23 A I suppose it could, yes.

24 Q Now, let me ask you to take a look at what's
25 been marked as Exhibit 49, End Op's Exhibit 49.

1 A Okay.

2 Q The Battle for Groundwater Supremacy?

3 A Yes, I've got it.

4 Q Is this a document that you prepared?

5 A Yes, it is.

6 Q Do you recognize it?

7 A Yes, I do.

8 Q Can you give us the circumstances under which
9 you prepared this document?

10 A This is a presentation I gave at the Austin
11 Geological Society's monthly meeting. They give a
12 technical seminar every month, mostly local speakers
13 come in to talk about geological-related subjects that
14 could be of interest to the group.

15 Q And again I'm sorry we don't have page numbers
16 on --

17 A And I'll apologize for that. I'm usually
18 pretty good about that.

19 Q But there's -- about two-thirds of the way
20 through there's a section called Strategy Used in
21 GMA-12. Do you see that?

22 A Yes.

23 Q The -- and these are your statements. Correct?

24 A That's correct.

25 Q So on that page there's an indication of the

1 strategy used in GMA-12 in setting the DFC. Is that
2 correct?

3 A That's correct.

4 Q And once again we find your statement that it
5 was based on existing groundwater demand plus additional
6 amounts as desired. What does that mean?

7 A Well, speaking from what we did in Mid-East
8 Texas, we looked at the estimates of existing demand
9 from the 2007 State Water Plan and added demand on to
10 that as an allowance for any future permits that were --
11 could potentially come in over this planning cycle.

12 Q So whose desire was it?

13 A Well, I suppose the board of the district.

14 Q So they decided really what the amount should
15 be?

16 A In the -- in the case of Mid-East Texas they
17 desired on an additional amount with the knowledge that
18 within five years these could be revisited and changed,
19 yes.

20 Q And that's my point. These are not written in
21 stone, are they?

22 A No, they're not.

23 Q They're intended to change, aren't they?

24 A Yeah, that's true. Yes.

25 Q The Legislature clearly contemplated that as

1 you gain more information, these should be reset.

2 Correct?

3 A That's true.

4 Q And now that we have additional criteria, there
5 are other factors that need to be considered in setting
6 these DFCs.

7 A That's correct.

8 Q You also acknowledge on the next page that
9 there are limits as to what your groundwater
10 availability models can do. Right?

11 A Yeah, that's correct.

12 Q And one of those limits I believe is that it is
13 not a good tool in predicting impacts on specific wells.

14 A Yeah. That's true, yes.

15 Q It's an average?

16 A Yes, it's more of a regional tool than one for
17 looking at specific points. That's correct.

18 Q And don't hear this in the wrong way, but you
19 could get an average by having two centers of pumping in
20 two widely different areas that is one number, and you
21 could get that same number if you had twice the pumping
22 in just one area and no pumping over here. Is that
23 right?

24 A Yeah, that's true.

25 Q So the average drawdown method doesn't really

1 relate to how much can be produced in an individual
2 area, does it?

3 A No, it specifically doesn't. It averages it
4 out over the entire district, yes.

5 Q So bear with me: If you had 50 high-production
6 wells in one location in Lee County, at least
7 conceivably you could meet the DFC because the average
8 of that drawdown over the entire district wouldn't
9 exceed the drawdown levels established. Right?

10 A That's true, yes.

11 Q So the drawdown levels don't really address
12 impacts in the local area?

13 A No, they don't.

14 Q On the second-to-last page, you kind of
15 summarize the water planning, and you describe it as an
16 ongoing process with soft numbers?

17 A That's correct, yes.

18 Q What did you mean by "soft"?

19 A Well, they're numbers that are revisited every
20 five years. So just like you said before, they're not
21 written in stone.

22 Q So they're not intended to be applied as some
23 kind of strict limit on permit amounts or production?

24 A I suppose they could be during each DFC's
25 cycle. I mean at the moment that's one thing that the

1 boards can consider. But over the long-term it's not
2 necessarily -- what the DFCs are now aren't necessarily
3 going to limit things throughout that 50-year planning
4 cycle.

5 Q And finally on the last page you quote
6 Dr. Kier, and I just want to see -- you included in your
7 presentation you agree with his quote?

8 A Yeah, I agree with it. At least not in my
9 lifetime.

10 Q I was going to say certainly not in mine,
11 Dr. Uliana. But the point is that these impacts that
12 we're talking about are decades away. Correct?

13 A That's true, yes.

14 Q So for the short-term, 10, 15, 20 years, these
15 impacts won't be felt?

16 A Which specifically?

17 Q The impacts you calculated over a 50-year time
18 frame.

19 A Well, the 50-year time -- yeah, the impacts at
20 the end of 50 years are at the end of 50 years. The
21 impacts I calculated at the end of five years are for
22 the end of five years, given the assumptions and the
23 inputs of the model.

24 Q And, you know, just to clarify, there will be
25 some drawdown effects on other well owners if End Op is

1 allowed to produce. Correct?

2 A I believe so. I really haven't evaluated the
3 other wells, but I believe that's true.

4 Q But those wells will suffer the greatest impact
5 in drawdown from their own production. Correct?

6 A Depends on how much that production is.

7 Q Assuming it's a municipal utility well, for
8 instance.

9 A Then that's probably an appropriate statement,
10 yes.

11 Q All right. Let me ask you to take a look at
12 what's been marked as Exhibit 50.

13 MR. JOHNSON: Oh, I move the admission of
14 Exhibit 49, Your Honor.

15 JUDGE O'MALLEY: Any objections?

16 MR. LEIN: No objection, Your Honor.

17 JUDGE O'MALLEY: End Op's Exhibit 49 is
18 admitted.

19 (Exhibit Applicant No. 49 admitted)

20 Q (BY MR. JOHNSON) Dr. Uliana, let me ask you to
21 turn to the portion of your -- well, let me back up --
22 the section titled Groundwater Availability.

23 A Okay.

24 Q So you, on this page, talk about how aquifers
25 are dynamic systems with recharge, discharge flow and

1 storage similar to watersheds. A big difference is time
2 scales. What do you mean by that?

3 A Well, watersheds respond -- your typical
4 watershed, typical river in Texas, for example, responds
5 to a few years of drought or a few years of lots of
6 rain; whereas, aquifers operate on much longer time
7 scales. So a few years of drought or a years of heavy
8 rains don't really affect the water levels over the
9 long-term.

10 Q And you point out another problem is
11 availability is not the same as volume or as recharge?

12 A Yeah, that's correct.

13 Q So it's not as simple as how much water is
14 there?

15 A That's -- yeah, that's my opinion, yeah.

16 Q And it's not as simple as how much water is
17 entering the aquifer as recharge?

18 A That's true, yes.

19 Q So there's no simple, as you say, scientific
20 value for availability. Right?

21 A Yeah, there's no single unique value. That's
22 my opinion, yes.

23 Q Okay. So two pages further --

24 A Okay.

25 Q -- using storage or recharge?

1 A Yes. Got it.

2 Q And by the way, this is a document you
3 prepared. Is that correct?

4 A That's correct.

5 Q What were the circumstances?

6 A This one was for our bimonthly seminar series
7 that we have at TRC. They try to get people to give
8 technical seminars just -- mainly as an excuse so they
9 can buy pizza for everyone for lunch. But also the --
10 so I got roped into giving a presentation.

11 Q To your peers at TRC?

12 A At TRC, yes.

13 Q And this particular slide deals with storage in
14 aquifers. Correct?

15 A That's correct.

16 Q The first bullet is -- and we'll clarify, Your
17 Honor, the question of storage here -- huge amount of
18 water in storage in a typical aquifer and you used the
19 central Simsboro, that's the aquifer at issue here.
20 Correct?

21 A That's correct.

22 Q And now we have an answer to the problem or the
23 question. Right?

24 A The total amount that I estimated in storage is
25 1.5 billion.

1 Q That's a lot of water, isn't it?

2 A That's a lot of water, yeah.

3 Q Let's try to compare that to, say, the lakes of
4 Texas. Do you know how much water is in all the lakes
5 of Texas?

6 A No, I don't.

7 Q Do you know how much water the state uses in a
8 year, the entire state?

9 A No, I don't. I don't know, not off the top of
10 my head.

11 Q Any idea?

12 A No, I have no idea.

13 Q Okay. Well, let's try it another way then.
14 How much water has been permitted in Mid-East Texas for
15 use?

16 A For all of the aquifers? I don't know for
17 all --

18 Q For all Mid-East Texas.

19 A Oh, for all Mid-East Texas. I believe we're at
20 somewhere around 15,000 acre-feet, 10 to 15,000,
21 somewhere in that range.

22 Q So just doing the math of that amount versus
23 this storage --

24 A Yeah.

25 Q -- you could produce that amount of water from

1 this storage for quite some time. Correct?

2 A Assuming it's all available, yes.

3 Q How much of that is available?

4 A I have no idea.

5 Q Half? Is that a good estimate?

6 A I don't have an estimate for how much is
7 available because I haven't really established a good
8 criteria for determining what's available and what's
9 not.

10 Q That will be something you'll have to do in
11 connection with this most-recent planning process.

12 A That's my understanding, yes.

13 Q Just hasn't been done yet.

14 A That's correct.

15 Q So on the next page you talk about ways of
16 determining availability, and you start with safe yield.

17 A Yes.

18 Q Is that an accurate definition of safe yield?

19 A Well, that's a definition that Lee gave in
20 1915.

21 Q Do you know what the safe yield of the Simsboro
22 is?

23 A No, I don't.

24 Q Did you consider this safe yield analysis in
25 any of your work for the district?

1 A No, I did not.

2 Q On the next page you talk about safe yield
3 revised, and then you list a current accepted
4 definition. Who's currently accepting that definition?

5 A Well, anybody who wants to cite what safe yield
6 means. This is the latest definition of it. Safe yield
7 isn't really a term that hydrogeologists like to use
8 because it's too -- far too nebulously designed. It's
9 not a scientific statement. It's more of a sort of
10 general policy statement about what's safe and what's
11 not.

12 Q Well, you say this is the currently accepted
13 definition. Right?

14 A Uh-huh.

15 Q You accept it.

16 A Of that term, but I don't really accept that as
17 a really good approach to -- the concept of safe yield
18 deals with how much you can get out of an aquifer
19 without causing some sort of problem in the aquifer.
20 But that's not -- it doesn't define what those problems
21 are. So determining yield needs to go beyond that.

22 Q All right. Well, you defined trouble on the
23 page?

24 A Those are examples of possible, yeah, trouble
25 that one could encounter.

1 Q Okay. Let's look at each of those potential
2 troubles in the context of this Simsboro Aquifer and
3 Lost Pines.

4 A Okay.

5 Q Would that trouble for the Simsboro include
6 running out of water?

7 A Not for the entire aquifer, but it could
8 potentially for someone whose well dries up.

9 Q But as far as the aquifer is concerned, it's
10 not running out of water?

11 A I don't see it running out of water, no.

12 Q Is there any chance of drawing in salt water?

13 A Not that I -- well, I don't know that. If you
14 get down near the -- near the bad water zones of it, you
15 could draw in some lower quality water. So it's a
16 possibility.

17 Q It's a possibility. Any evidence that that's
18 occurred?

19 A No.

20 Q You wouldn't consider that a potential sort of
21 trouble in connection with End Op's permit, would you?

22 A No, I wouldn't.

23 Q Nor would you consider running out of water to
24 be a potential problem with End Op's permit, would you?

25 A Not for End Op. Potentially if they dry up

1 somebody's well nearby --

2 Q Those are the next two bullet points, aren't
3 they?

4 A What's that?

5 Q Well, you describe as getting shot or shot at
6 by an irate, nearby well owner or landowner.

7 A That would be troublesome if it happened, yeah.

8 Q Drying up the well, right?

9 A What's that?

10 Q Drying up a well, affecting a well adversely?

11 A Yeah, I suppose. Yeah.

12 Q Would you agree that a mitigation contribution
13 would address some of those concerns?

14 A That could address it if that landowner was
15 willing to accept that; yes, uh-huh.

16 Q And then you say getting sued by a less irate
17 nearby neighbor. Sued for what?

18 A Well, taking away their livelihood by draining
19 their water.

20 Q You're aware of the rule of capture?

21 A Yeah, I am aware of it.

22 Q That's not really a likely scenario, is it?

23 A No, it's probably not.

24 Q So any other trouble that you can think of?

25 A Not off the top of my head, no.

1 Q You need some time?

2 A Okay. Well, subsidence, that's another example
3 of trouble that could be caused by development of the
4 groundwater resource.

5 Q Is that likely to occur in the Simsboro?

6 A No, it's not. Impact to the surface water
7 resources, that's another potential form of trouble.

8 Q Is that a potential form of trouble with regard
9 to production from the Simsboro?

10 A It could be in the outcrop zones.

11 Q Could be, but do you have any evidence that it
12 is?

13 A Not related to any specific development in the
14 outcrop zone right now.

15 Q Any others?

16 A No, I'll move on from here.

17 Q All right. Near the end there's a slide that
18 is called It's About Impacts Not Desired.

19 A Okay.

20 Q You state that you can't pump groundwater
21 without impacting something. That's pretty obvious.
22 Right?

23 A That's correct, yeah.

24 Q So there's always going to be adverse impacts
25 associated with production.

1 A That's correct, yes.

2 Q And then you go on to say you can't base
3 availability on how much can we pump before we impact
4 the system.

5 A That's correct.

6 Q So what did you mean by that?

7 A What I mean is when you pump groundwater you
8 impact the system. And I think my intention with this
9 slide was to address one of the issues I have with the
10 desired future conditions process, and that's the name
11 desired future conditions. I personally don't like that
12 because we all have the same desired future condition.
13 We all want lots of water and no impact to the system.
14 Right?

15 And I think people have this idea of it's
16 a question of how much can we pump before we impact
17 something. And my objective with this slide was to get
18 people to say you can't do anything without impacting
19 the system. What you need to look at is what are
20 acceptable impacts? How much impacts -- how do you
21 define the impacts and how much can you accept before
22 you're not happy with it and it's unacceptable?

23 And that's what should drive availability,
24 not what people desire. Or it should be a balance
25 between what we desire and what our goals are and how

1 much impact the system is going to incur in that.

2 Q So in summary, there will be adverse impacts
3 associated with any authorized production.

4 A That's true, yes.

5 Q And the question is: Are those impacts
6 unreasonable?

7 A That's correct, yes.

8 Q And would you agree with me that a permit
9 condition that obligates the owner of a permit to
10 mitigate -- pay other landowners for the adverse
11 economic impacts -- would address some of the adverse
12 impacts of production?

13 A Yes, I agree with that.

14 MR. JOHNSON: Thank you. That's all the
15 questions I have.

16 JUDGE O'MALLEY: Redirect?

17 MR. LEIN: No redirect, Your Honor.

18 JUDGE O'MALLEY: Okay. Mr. Uliana, you
19 may be excused.

20 And does the General Manager have any
21 further evidence for its direct case?

22 MR. LEIN: No, Your Honor.

23 JUDGE O'MALLEY: Okay. Does End Op have
24 any rebuttal?

25 MS. REESE: No.

1 JUDGE O'MALLEY: No? So does that --

2 MS. REESE: Not on my end. I'm waiting
3 for Mr. Johnson to weigh in.

4 MR. JOHNSON: No, we're complete.

5 JUDGE O'MALLEY: Okay. So that will then
6 close the evidentiary portion of the hearing for all
7 parties.

8 Okay. Do we -- before we go into the
9 briefing -- closing argument schedule, is there anything
10 else we need to address? I think we have all the
11 exhibits marked and in evidence and have the appropriate
12 number of copies.

13 Did GM 5 -- did you give the court
14 reporter --

15 MS. MELVIN: -- copies? We may not have.

16 MR. LEIN: I know we gave her two --

17 JUDGE O'MALLEY: Let's go off the record
18 for a minute.

19 (Discussion off the record)

20 JUDGE O'MALLEY: Let's go back on the
21 record.

22 Do the parties believe that two rounds of
23 briefing will be necessary or just one?

24 MR. JOHNSON: One.

25 JUDGE O'MALLEY: Just one?

1 MS. MELVIN: We have no problem with doing
2 one round of briefing.

3 JUDGE O'MALLEY: Okay. I have a date --
4 if we're just doing one round, I initially had
5 March 7th. Is that too soon?

6 MR. JOHNSON: No.

7 JUDGE O'MALLEY: The transcript I believe
8 will be available in about two weeks. That will -- that
9 would be the 25th, and the briefs would be due on the
10 7th.

11 MR. JOHNSON: That's fine.

12 JUDGE O'MALLEY: Is that appropriate for
13 all parties?

14 MR. LEIN: We won't argue with you if you
15 want more time.

16 MR. JOHNSON: No, that's fine, Your Honor.

17 JUDGE O'MALLEY: Let's go back off the
18 record.

19 (Discussion off the record)

20 JUDGE O'MALLEY: Let's go ahead and go
21 back on the record. While we were off the record, we
22 agreed to have the briefs -- closing arguments filed on
23 March the 7th, 2014, and the parties agreed to only do
24 one round of briefing.

25 So that all parties are on the same page,

1 having the -- and if End Op will file on behalf of all
2 the parties -- on February 21st, 2014, End Op will file
3 an agreed briefing outline that all parties will follow,
4 and the PFD will also correspond to that outline.

5 Okay. Any other questions, comments,
6 concerns before we go off the record?

7 No? Okay. We will conclude this hearing
8 and go off the record.

9 (Proceedings concluded at 4:19 p.m.)

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1 C E R T I F I C A T E

2 STATE OF TEXAS)

3 COUNTY OF TRAVIS)

4 We, Kim Pence and Lou Ray, Certified
5 Shorthand Reporters in and for the State of Texas, do
6 hereby certify that the above-mentioned matter occurred
7 as hereinbefore set out.

8 WE FURTHER CERTIFY THAT the proceedings of
9 such were reported by us or under our supervision, later
10 reduced to typewritten form under our supervision and
11 control and that the foregoing pages are a full, true,
12 and correct transcription of the original notes.

13 IN WITNESS WHEREOF, we have hereunto set
14 our hand and seal this 24th day of February 2014.

15

16

17

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