

1 SUPERIOR COURT OF THE STATE OF CALIFORNIA
2 FOR THE COUNTY OF SAN BERNARDINO

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4 CHINO BASIN MUNICIPAL WATER DISTRICT,)
5 Plaintiff,)
6 vs.) Case No. RCVRS51010
7 CITY OF CHINO, et al.,)
8 Defendants.)

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10 REPORTER'S TRANSCRIPT OF ORAL PROCEEDINGS

11 BEFORE HON. STANFORD E. REICHERT, JUDGE

12 DEPARTMENT C-1
13 CHINO, CALIFORNIA
14 Friday, October 28, 2011

15 APPEARANCES:

16 For Chino Basin Watermaster: BROWNSTEIN, HYATT, FARBER & SCHRECK
17 BY: MICHAEL FIFE
Attorney at Law

18 For the City of Chino Hills: JENKINS & HOGIN, LLP
19 BY: JOHN C. COTTI
Attorney at Law

20 For Three Valleys Municipal Water District: BRUNICK, MCELHANEY & BECKETT
21 BY: STEVEN M. KENNEDY
Attorney at Law

22 For Monte Vista Water District: KIDMAN, BEHRENS, TAGUE
23 BY: JON D. SALMON
Attorney at Law

24 For the Appropriative Pool: JOHN J. SCHATZ
25 Attorney at Law

26 **COPY** (Appearances continued on following page.)

27 Reported by: VICTORIA E. VILLEGAS, CSR NO. 9843
28 Official Reporter

1 (Appearances continued:)

2 For the City of Chino: JAMES E. ERICKSON
3 Attorney at Law

4 For Inland Empire CIHIGOYENETCHE, GROSSBERG, CLOUSE
5 Utilities Agency: BY: JEAN CIHIGOYENETCHE
6 Attorney at Law

7 Also Present: JOHN J. MURA

8 MIKE MAESTAS

9 MARTIN E. ZVIRBULIS

10 JO LYNNE RUSSO-PEREYRA

11 THOMAS HARDER

12 ELDON HORST

13 DESI ALVAREZ

14 ANDREW MALONE

15 ROBERT FINESTRA

16 GEOFFREY VANDEN HEUVEL

17 MARK WILDERMUTH

18 CURTIS PAXTON

19 TIMOTHY P. MIM MACK

20 DAVID CROSLEY

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1 CHINO, CALIFORNIA; FRIDAY, OCTOBER 28, 2011

2 A.M. SESSION

3 DEPARTMENT C-1

HON. STANFORD E. REICHERT, JUDGE

4 (Appearances as heretofore noted on the title page.)

5 (Victoria E. Villegas, Official Reporter, CSR No. 9843.)

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7 THE COURT: Let's go on the record in the
8 Watermaster case. It looked to me like we've got a couple of
9 matters to consider this morning on the Watermaster case.

10 But before I go on, let me get everybody's
11 appearances starting with Mr. Fife.

12 MR. FIFE: Morning, your Honor. Michael Fife for
13 the Chino Basin Watermaster.

14 THE COURT: Thank you.

15 And let me just work my way -- this is the way I
16 pick juries -- from my right from the aisle to the wall, and
17 then move back to the row, and move over here to my left from
18 the aisle to the wall, and then move back row to row, and get
19 everybody's appearance.

20 So let's start here, please, sir.

21 MR. COTTI: Good morning, your Honor. John Cotti
22 for the city of Chino Hills.

23 THE COURT: Okay. Thanks. Hang on just a second.
24 Make sure we've got -- yeah, John -- Mr. Cotti, correct?

25 MR. COTTI: Yes.

26 THE COURT: From Jenkins & Hogin. Got it. Okay.
27 Thanks.

28 All right. Next.

1 MR. MURA: John Mura, city of Chino Hills.

2 THE COURT: Okay. Mr. Mura, thank you. Got it.

3 Next.

4 MR. ZVIRBULIS: Morning. Martin Zvirbulis,
5 Cucamonga Valley Water District.

6 THE COURT: Okay.

7 THE BAILIFF: That's the last card. I don't think
8 it's on that copy.

9 THE COURT: So it's Martin Zvirbulis?

10 MR. ZVIRBULIS: Yes.

11 THE COURT: Okay. Next, please.

12 MS. RUSSO-PEREYRA: Good morning, your Honor.

13 JoLynne Russo-Pereyra for Cucamonga Valley Water District.

14 THE COURT: Okay. JoLynne Russo-Pereyra. Okay.

15 Thanks.

16 Next, please.

17 MR. MAESTAS: Good morning. Mike Maestas, city of
18 Chino Hills.

19 THE COURT: Okay. We just got Mr. Maestas'
20 card. Okay. Thanks.

21 And next, please.

22 MR. KENNEDY: Morning, your Honor. Steve Kennedy on
23 behalf of Three Valleys Municipal Water District.

24 THE COURT: Give me just a sec here. Oh, got it.
25 Okay. Got it. Thank you.

26 Next, please.

27 MR. SALMON: Morning, your Honor. John Salmon from
28 Monte Vista Water District.

1 THE COURT: Okay. Oh. It's -- from Kidman Behrens
2 Tague?

3 MR. SALMON: Correct.

4 THE COURT: How do you pronounce the last name?

5 MR. SALMON: Kidman Behrens & Tague.

6 THE COURT: Okay. Next. Got everybody. Yes, here
7 on the aisle, please.

8 MR. HARDER: Thomas Harder, Jurupa Community
9 Services District.

10 THE COURT: Okay. Got it. Thomas Harder. Thanks.
11 Okay. Next.

12 MR. HORST: Good morning, your Honor. Eldon Horst,
13 Jurupa Community Services District.

14 THE COURT: All right. Next, please.

15 MR. ALVAREZ: Good morning, your Honor. Desi
16 Alvarez, Chino Basin Watermaster.

17 THE COURT: Okay. Thank you. Mr. Alvarez, did you
18 just take over as CEO?

19 MR. ALVAREZ: I did.

20 THE COURT: Congratulations. It's nice to meet you.
21 Okay. Hang on just a second. Thanks. Okay. Yeah. All
22 right. Thank you.

23 MR. SCHATZ: Morning, your Honor. John Schatz for
24 the Appropriative Pool.

25 THE COURT: Thank you. Appropriative Pool.
26 Mr. Schatz. Got it.

27 Okay. Next.

28 MR. MALONE: Andy Malone with Wildermuth

1 Environmental representing Chino Basin Watermaster.

2 THE COURT: Okay. Thanks.

3 Next.

4 MR. ERICKSON: Jim Erickson representing the city of
5 Chino.

6 THE COURT: Okay. Thank you. Mr. Erickson. Okay.
7 Thank you, Mr. Erickson.

8 Okay. Next.

9 MR. CIHIGOYENETCHE: Good morning, your Honor. Jean
10 Cihigoyenette on behalf of Inland Empire Utilities Agency.

11 THE COURT: Thank you, Mr. Cihigoyenette. Okay.
12 Thank you.

13 MR. FINESTRA: Bob Finestra, Agricultural Pool
14 Watermaster.

15 THE COURT: Thank you.

16 MR. VANDEN HEUVEL: Geoffrey --

17 THE COURT: Oops. I'm sorry. Just a little bit
18 behind here. What was the name again?

19 MR. FINESTRA: Finestra.

20 THE COURT: Did we get a card from you?

21 MR. FINESTRA: I'm not an attorney. I've got some
22 hay I can sell you.

23 THE COURT: F-i-n-e-s-t-r-a?

24 MR. FINESTRA: That's right, sir.

25 THE COURT: Okay. Thank you. First name again?

26 MR. FINESTRA: Robert.

27 THE COURT: Robert. Okay.

28 MR. FINESTRA: Thank you.

1 THE COURT: You're welcome. And you're an
2 individual party?

3 MR. FINESTRA: Sharer of the Agricultural Pool,
4 Watermaster.

5 THE COURT: Thank you. Okay. Thank you.
6 Go ahead, please, sir.

7 MR. VANDEN HEUVEL: Good morning, your Honor.
8 Geoffrey Vanden Heuvel, and I'm the Ag Pool's representative
9 on the Watermaster board.

10 THE COURT: Thank you very much, Mr. Vanden Heuvel.
11 Okay. Thank you.

12 Next row. Let's see. Next row back.

13 MR. WILDERMUTH: Mark Wildermuth, Wildermuth
14 Environmental, consultant to the Watermaster.

15 THE COURT: Okay. Thank you. Did we get your card,
16 Mr. Wildermuth?

17 MR. WILDERMUTH: Your Honor, no. I apologize. I
18 left them in the car.

19 THE COURT: That's okay. But you're the real
20 Mr. Wildermuth. Unfortunately, I see your name all the time,
21 but what was your first name again, sir?

22 MR. WILDERMUTH: Your Honor, it's Mark.

23 THE COURT: Mark. Thank you. We actually have two
24 from Wildermuth Environmental.

25 Next.

26 MR. PAXTON: Curtis Paxton, Chino Basin Desalter
27 Authority.

28 THE COURT: Okay. Thank you.

1 Next, please.

2 MR. MIM MACK: Tim Mim Mack, city of Ontario.

3 THE COURT: And next, please.

4 MR. CROSLY: Good morning, your Honor. David
5 Crosley, city of Chino.

6 THE COURT: David Crosley, city of Chino. Do we
7 have a card from you, sir?

8 MR. CROSLY: No, your Honor. I'd be happy to find
9 one.

10 THE COURT: No. That's okay. Just C-r-o-s-l-e-y?

11 MR. CROSLY: That's correct.

12 THE COURT: First name again David?

13 MR. CROSLY: Yes.

14 THE COURT: And city of Chino?

15 MR. CROSLY: Yes.

16 THE COURT: Okay. Are you an attorney or
17 representative of the city of Chino?

18 MR. CROSLY: Representative, sir.

19 THE COURT: Okay. Thanks.

20 Okay. Anybody -- anybody here that I missed? Just
21 like the jury selection, no hands.

22 Okay. Welcome again, everybody. Glad to have you
23 here. I think probably the first order of business ought to
24 be for the court to consider the motion for approval of
25 Watermaster Resolution 2010-04.

26 The court will indicate that it's read both the
27 motion and the supplemental declaration from Mr. Alvarez in
28 support of that motion.

1 Couple of questions first. Let me confirm that
2 there's been no opposition to the motion. Is that correct,
3 Mr. Fife?

4 MR. FIFE: Correct, your Honor.

5 THE COURT: Okay. I had a couple of questions. The
6 first question I had is does the outcome on the motion that I
7 heard last June, June of 2010, make any difference to how this
8 motion should be evaluated by the court? Because I didn't see
9 that in the paperwork anywhere. I know that motion's on
10 appeal. And so the question I had was does the outcome of
11 that motion, one way or the other, affect anything that has to
12 do with this -- with this resolution, the court's approval of
13 this resolution?

14 MR. FIFE: No, your Honor. The motion that you
15 heard last June concerned an allocation of stored water as
16 between the Appropriative Pool and the Non-Agricultural Pool.
17 This motion concerns a OBMP project known as the Desalters and
18 hydraulic control. They're distinct issues.

19 THE COURT: Okay. Thanks. I just wanted to make
20 sure that I wasn't going to be making a ruling that I needed
21 to reserve on for some reason or the other pending the outcome
22 of the old -- the outcome of the old decision on the motion I
23 heard June of 2010.

24 Okay. Thank you, Mr. Fife.

25 MR. FIFE: Correct.

26 THE COURT: Second, I had some questions on some of
27 the rulings. Give me just a moment here. First, let me point
28 out that there seemed to be substantial facts to justify all

1 the factual basis findings. But I did have some questions
2 about the proposed ruling so let me turn to those.

3 The first question I had was with respect to order
4 number six, which was essentially ordering -- if everyone
5 would turn to that. It's on page 15 in the motion, line 22.
6 And let me get some notes, just a half sec.

7 (Pause.)

8 THE COURT: And the question I had is this one,
9 first with a statement, it always makes me a little
10 uncomfortable to start ordering parties to exercise good faith
11 because the question in my mind is the breadth of that order.
12 When I start ordering people to exercise good faith and
13 reasonable best efforts, it seemed like the order in its
14 nature could be too broad to be enforceable or could result in
15 people making motions to hold others in contempt when they
16 find that they think they're in negotiations and others aren't
17 exercising good faith and reasonable best efforts.

18 So that was a question I had. If you could
19 elaborate or give the court some insight, I'd appreciate it.

20 MR. FIFE: Your Honor, each of these orders is --
21 comes out of -- directly out of Watermaster's resolution, and
22 Watermaster's resolution was also backed up by specific
23 resolutions from each of the parties. And so prior to us
24 getting to this order, each of these parties that will be
25 affected by this order have themselves, their governing bodies
26 have adopted resolutions to act in conformance with this
27 language to exercise good faith and reasonable best efforts.
28 So there's a process that precedes this --

1 THE COURT: Okay.

2 MR. FIFE: -- both at the individual agency level,
3 then at the Watermaster board level. And really what this is
4 doing is confirming through court order those commitments that
5 have already been made, and that are really defined by the
6 resolutions of the individual agencies and the overall
7 Watermaster process. So I would not construe this as a
8 stand-alone order from this court to exercise good faith and
9 reasonable best efforts. It's more to give the court's -- put
10 the court's authority behind the commitments, commitments that
11 they've already made in this regard.

12 THE COURT: Okay. Let me just make sure I know who
13 the parties are. In the motion itself, it refers to the
14 Jurupa Community Services District and the city of Ontario as
15 expansion parties.

16 MR. FIFE: Correct.

17 THE COURT: So I gather those are two parties that
18 are part of this agreement?

19 MR. FIFE: Yes.

20 THE COURT: Are there others? Because I couldn't
21 quite tell from the motion.

22 MR. FIFE: And I might turn to the audience for help
23 to make sure I get all of the CDA parties. There's Jurupa
24 Community Services District, as you already listed, city of
25 Ontario, city of Chino.

26 THE COURT: Okay. Hang on a second. These are all
27 members of the Chino Basin Desalter Authority then?

28 MR. FIFE: Correct.

1 THE COURT: Go ahead.

2 MR. FIFE: City of Chino, city of Chino Hills,
3 Western Municipal Water District.

4 THE COURT: Okay.

5 MR. PAXTON: City of Norco.

6 MR. FIFE: City of Norco.

7 MR. PAXTON: Santa Ana River Water Company.

8 MR. FIFE: Santa Ana River Water Company.

9 THE COURT: Hang on just a second.

10 MR. PAXTON: IEUA.

11 MR. FIFE: And then the Inland Empire Utilities
12 Agency is an ex-officio member.

13 THE COURT: Okay. And the Santa Ana Water District?

14 MR. FIFE: Santa Ana River Water Company.

15 THE COURT: Thank you.

16 I count five regular members plus one ex-officio; is
17 that correct? City of Chino, city of Chino Hills, Western
18 Municipal Water District, city of Norco, Santa Ana River Water
19 Company?

20 MR. FIFE: Company.

21 THE COURT: Company.

22 MR. FIFE: And then city of Ontario.

23 THE COURT: City of Ontario. Thank you.

24 MR. FIFE: And Jurupa.

25 THE COURT: And Jurupa. I'm sorry.

26 MR. FIFE: The expansion parties are also member --
27 regular members of the CDA.

28 THE COURT: Okay. Seven members total plus one

1 ex-officio.

2 MR. FIFE: Sounds right.

3 MR. PAXTON: That is correct.

4 THE COURT: And your name again?

5 MR. PAXTON: Curtis Paxton.

6 MR. FIFE: He is the general manager of the Chino
7 Desalter Authority.

8 THE COURT: Thank you. Okay. Okay. Got it.

9 MR. FIFE: I will note, your Honor -- sorry to
10 interrupt --

11 THE COURT: Sure.

12 MR. FIFE: -- as we continue this discussion, the
13 presentation by Mr. Malone will provide factual background for
14 the resolution. So --

15 THE COURT: Okay.

16 MR. FIFE: So as you go through your questions,
17 there may be some that are best answered during the course of
18 that presentation.

19 THE COURT: Thank you very much. I just have a few
20 more.

21 MR. FIFE: Certainly.

22 THE COURT: Really having to do with some of the
23 orders. Let me turn to -- just a moment. Let's see. Turning
24 to order number 11 which is a little complicated. And I'll
25 just restate it for those of you that don't have it right in
26 front of you but listen carefully. It's a little long.

27 (Reading:)

28 "Upon the completion of future Desalters,

1 the Phase III Expansion, as reflected in
2 the approved revised Chino Desalter Phase
3 III Comprehensive Pre-Design Report, the
4 CDA PDR, attached to Watermaster Resolution
5 2010-04 as Exhibit "G," the parties to the
6 judgment will have satisfied all individual
7 and collective obligations arising from the
8 Peace Agreement and the OBMP Implementation
9 Plan, Peace II Measures, and all prior orders
10 of the court related to the requirement to
11 construct Desalters in accordance with Peace
12 Agreement II Section 10.2."

13 Now, because this was so long, I just wanted to
14 confirm in the court's mind that all I'm -- all the order is
15 is that there's a compliance with this particular section of
16 the Peace Agreement and nothing else, Peace Agreement II
17 Section 10.2. Or is there something else?

18 MR. FIFE: No. I think it's actually much broader
19 than that.

20 THE COURT: Okay.

21 MR. FIFE: And I'm noticing this is all one sentence
22 about in the middle there where it says that the parties to
23 the judgment will have satisfied all individual and collective
24 obligations. So it -- it is much broader than just Section
25 10.2. And this is really the significance of much of what's
26 going on, is that in the OBMP there was a commitment to build
27 a series of desalters. And back in 2000 -- and you -- I think
28 you were around.

1 THE COURT: I was around. I'll indicate for the
2 record, I was Judge Gunn's research attorney at the time.

3 MR. FIFE: If you recall, at that time we were
4 looking forward to this process of developing the different
5 faces of the desalters and there were significant questions
6 how this would be paid for, how it would be organized. And --
7 and this is really one of the largest commitments in the OBMP.
8 And so the OBMP contained commitments to build a series of
9 desalters. The Peace Agreement confirmed those commitments.
10 The orders of the court that followed upon those expressed the
11 court's concern that this project continue to move forward.
12 Phase III will now be the completion of that commitment that
13 was made in 2000 in the OBMP and the Peace Agreement. And so
14 what we're asking the court to acknowledge and confirm is that
15 with this expansion, that will be it for the commitment made
16 in the OBMP.

17 THE COURT: Okay.

18 MR. FIFE: And the Peace Agreement.

19 THE COURT: Okay. So what it's really talking about
20 is the court ordering that whence the Phase III expansion is
21 completed, all of these -- many of the aspects -- well, it
22 says all -- I'll quote from the order: "all individual and
23 collective obligations arising from the Peace Agreement and
24 the OBMP Implementation Plan, Peace II measures and all prior
25 orders of the court related to the" construction of the
26 desalters is really what we're talking about --

27 MR. FIFE: Yes.

28 THE COURT: -- not just part of an agreement. So

1 it's really the construction of the desalters that's the
2 crucial part, not the agreement itself. If I'm --

3 MR. FIFE: Yes.

4 THE COURT: Not the provision in the agreement
5 itself.

6 MR. FIFE: Correct.

7 THE COURT: Okay. All right. Thank you. I got
8 that clarified. Okay.

9 This -- let me turn to order number 14 and this
10 might be one that the power point presentation will address
11 because it has to do with "regional impacts attributable to
12 lowering the water table across the basin" and a finding that
13 they "have been fully analyzed in connection with court
14 approval to the Peace II Measures, fully mitigated by the
15 suite of corresponding offsetting benefits arising under the
16 Peace II Measures." And then an order that the members of the
17 CDA -- the Chino Basin Desalter Authority and members of the
18 CDA will have no obligation to offset or mitigate any
19 increased costs that may be incurred by the parties to the
20 judgment that own wells outside of the designated wells."

21 Is that going to be addressed in the power point?

22 MR. FIFE: Yes. The technical basis will be
23 addressed and explained from the legal side. I'll just note
24 that what this is talking about, the project that Andy is
25 going to tell you about -- sorry, Mr. Malone -- involves a
26 lowering of the water table across the scope of the whole
27 basin. This will have impact such as increased costs to pump
28 water out because you will be lifting it --

1 THE COURT: Farther.

2 MR. FIFE: Further. Other things like that. And
3 so --

4 THE COURT: Let me stop you just a minute. Thanks.

5 I see people pulling their cellphones perhaps to
6 turn them off. That humming noise that we get is actually
7 interference with cellphone signals. Even though you may have
8 them on vibrate which I appreciate, we actually need to have
9 them off because the cellphone signal for some reason
10 interferes with our wireless microphone systems and we get
11 that humming sound. So for those of you who haven't actually
12 turned them completely off, I would appreciate if you would do
13 so.

14 Go ahead, Mr. Fife.

15 MR. FIFE: So it is a project that will have an
16 impact across the scope of the basin.

17 THE COURT: Okay.

18 MR. FIFE: And what these specific facilities that
19 Mr. Malone is going to tell you about will do is help to
20 create that basin wide impact. And the idea here is that
21 there are benefits that will follow from that project, and all
22 of the parties will benefit from it. And so the CDA parties
23 wanted it to be clear that their project is creating this
24 impact but everybody is benefiting. So they're not going to
25 be held legally responsible for costs or such things. It's
26 everybody has agreed that the benefits mitigate whatever
27 impacts are caused.

28 THE COURT: The benefits outweigh the detriment or

1 the disadvantages then.

2 MR. FIFE: Exactly.

3 THE COURT: I take -- I'm going to address the
4 audience. Does anyone disagree with that statement?

5 No hands. Okay. Thanks very much.

6 MR. FIFE: Sure.

7 THE COURT: Okay. All right. Excuse me. Let me
8 see. I had a question on ruling 18 about Watermaster
9 negotiating with the County of San Bernardino as the primary
10 party responsible for the contamination and being -- and the
11 CDA being paid.

12 Are there -- are there negotiations ongoing for
13 that? What is the status?

14 MR. FIFE: They are, your Honor. And the
15 negotiations are being conducted both by Watermaster and by
16 the Chino Desalter Authority.

17 THE COURT: Okay. So it's a three-part discussion,
18 three parties discussion?

19 MR. FIFE: Yes. And there have been some changing
20 dynamics. Awhile ago Watermaster was in the lead. Now the
21 Desalter Authority is taking the lead on the negotiations.

22 THE COURT: Okay.

23 MR. FIFE: But, yes, they are ongoing with the
24 county.

25 THE COURT: What's the status of the negotiations?

26 MR. FIFE: And, again, since CDA is really in the
27 lead, I don't know if I can give you the, you know, up to the
28 date today's status, but in general --

1 THE COURT: Let me stop you there.

2 Mr. Paxton, can you shed some light on that?

3 MR. PAXTON: We are having ongoing discussions.

4 They have presented a proposal to us that our board is
5 considering.

6 THE COURT: Okay. Is the -- is the point of the
7 negotiation then an -- can you tell me a little bit more about
8 what the point of the contract is? Because I couldn't pick it
9 up from the papers that I read. Or Mr. Fife perhaps can or
10 somebody.

11 MR. FIFE: Yeah. I think this is, as I recall, this
12 is one of the things that will be covered in Mr. Malone's
13 presentation for the factual basis background. But in essence
14 there's a plume of contaminants that's coming off of the Chino
15 airport.

16 THE COURT: Right.

17 MR. FIFE: If you look at the slide that's on the
18 board there, you can see the airport about in the middle of
19 the screen.

20 THE COURT: Yes.

21 MR. FIFE: And those squares with the dots and the
22 yellow squares, those show the desalter wells.

23 THE COURT: Okay.

24 MR. FIFE: So you can see that the -- a plume coming
25 off the airport is going to impact the wells that the CDA is
26 using.

27 THE COURT: Okay.

28 MR. FIFE: So there will be costs associated with

1 that. So in general the issue that's being negotiated is
2 allocation of costs for those impacts.

3 THE COURT: Okay. In other words, allocation of
4 cost to the county of San Bernardino for the construction of
5 the desalter wells; is that correct?

6 MR. FIFE: Well, for the portion of the costs that
7 CDA will bear due to the plume of contamination.

8 THE COURT: Okay. Thank you.

9 Mr. Paxton, do you want to add anything?

10 MR. PAXTON: Yes. Just to kind of add on there, it
11 would be the capital cost of the facilities needed to treat
12 the contaminants, as well as the ongoing operation and
13 maintenance cost associated with operating that treatment
14 facility for the well sites.

15 THE COURT: Okay. So it's not only a capital
16 contribution to construction but also an ongoing requirement
17 to share the maintenance costs of those projects; is that
18 correct?

19 MR. PAXTON: That's correct.

20 THE COURT: Thank you very much, Mr. Fife,
21 Mr. Paxton.

22 Okay. Let's see. Let me just handle I think a
23 matter that I can handle very quickly and that is with respect
24 to General Electric somehow never made it into the right pool
25 by court order. So let me just make, if I may without --
26 unless I hear an objection, an order forthwith that General
27 Electric belongs to the Non-Agricultural Pool, and we will get
28 that taken care of right now.

1 MR. FIFE: Thank you.

2 THE COURT: You're welcome.

3 Any objection to the court making that order
4 forthwith? No objection. Okay. Thank you. So we'll confirm
5 General Electric in the Non-Agricultural Pool.

6 The last question I had and maybe now is not the
7 right time to address it, we might address it later in the
8 morning, is from language that was proposed and mentioned in
9 the supplemental declaration of our new CEO, whose name --
10 first name is Desi, last name I suddenly can't -- Mr. Alvarez,
11 yeah, Mr. Alvarez, about the restated judgment not being the
12 judgment essentially, that the judgment is in the court file
13 and that's the only source of the judgment.

14 The court understood that. But on the other hand,
15 the whole point of getting a restated judgment, in the court's
16 mind, was getting one final document in one final place that
17 the court would order this is the judgment and nobody will
18 ever have to go back in the way that you've had to go back and
19 expending a lot of time and money and effort trying to figure
20 out what the real judgment is because it had been amended so
21 many times over the course of 30 years.

22 So we can address that. I just wanted to raise that
23 issue now. We can address it later in the morning. I would
24 like at some point to see if there is a procedure or a process
25 by which we can have the restated judgment confirmed as the
26 judgment that will be the operative judgment from this point
27 forward. And if anybody wants to make -- so everyone knows at
28 one time, at one place, the court made an order that this

1 document, whatever it may be, is in fact the operative
2 judgment. And any future amendments to the judgment relate to
3 that document and no other document, and no other amended
4 documents, and no other supplemental amended documents, and no
5 other additional modified supplemental documents, and no other
6 additional amended supplemental amended and modified
7 agreements, so that the court can finally have something firm.
8 I'll raise that issue now. We don't need to decide right now.

9 MR. FIFE: Since we're talking about it --

10 THE COURT: Yes.

11 MR. FIFE: -- we might as well dispose of this one.

12 THE COURT: Okay.

13 MR. FIFE: I think that if that is the court's
14 desire, it might be appropriate to take it back and bring the
15 document forward again with a different motion.

16 THE COURT: Okay.

17 MR. FIFE: Because the way we framed the motion is a
18 receive and file. Because what's been represented to all the
19 parties through the course of this process is that this would
20 be a reference document, but that if there was an error or a
21 question, the controlling language would be whatever amendment
22 was adopted through the court process at the time.

23 THE COURT: Okay. In that event, I'll table it.

24 MR. FIFE: Okay.

25 THE COURT: And make a request, then, at some point
26 in the future. And I won't set a deadline because I know it's
27 a horrendous project, but request in the future that -- in the
28 future we can address this.

1 I hope the Watermaster work fluctuates occasionally,
2 in other words, there are busier times and not so busy times.
3 In one of those not so busy times address this issue to put a
4 final complete document together, put it out as a motion, and
5 seek the court's ruling on that. But I'm not going to set a
6 deadline because I know you have many other things to do.

7 MR. FIFE: Thank you, your Honor.

8 And I would just say that the document is put
9 together and so the document itself would not change. It's a
10 question of how -- what everybody understands to be the legal
11 impact of the document. So --

12 THE COURT: Okay. So that -- I'll make that -- I'll
13 leave it up to Watermaster to make that motion at the time
14 they see fit to propose and make a motion the court adopt,
15 whatever restated judgment at that time, adopt as a final, as
16 the current operative judgment, whatever restated judgment is
17 proposed at the time of the motion.

18 MR. FIFE: Thank you, your Honor.

19 THE COURT: All right. Thank you. All right. That
20 concludes the questions that the court had based on the
21 documents that the court had received.

22 Let me turn, then, to Mr. Fife and other members of
23 the audience and counsel members to inquire if there's
24 something else that we need to address before we proceed on
25 with the power point presentation this morning. Anything else
26 anybody wants to raise? No hands. Okay.

27 What I would like, then, to request, Mr. Fife, is
28 that you -- we get a stipulation from the parties present that

1 the court reporter doesn't need to report the power point
2 presentation -- I should say we should have the power point
3 presentation reported, but that she doesn't have to -- we
4 don't have to describe for the record the particular diagrams
5 that are presented on the power point for purposes of economy,
6 but that the power point presentation itself be submitted to
7 the court as an exhibit and attached to the transcript.

8 So actually I'm going to propose that as the court's
9 own motion. The court moves that the power point presentation
10 disk be attached to the transcript as an exhibit, Exhibit "A,"
11 and can be used for any and all purposes as part of the
12 transcript for this hearing.

13 Any objection to the court's own motion? Okay.
14 Seeing none and hearing none, the court will grant its own
15 motion then, order that the disk for the power point
16 presentation be attached to the transcript today as Exhibit
17 "A," and that we can use it and reference it without
18 describing for the record the particular pictures that appear
19 on the board.

20 MR. FIFE: Thank you.

21 THE COURT: Thank you very much.

22 Anything further before we move on to the power
23 point presentation? Nothing further. Okay.

24 Mr. Fife and Mr. Malone, if you are ready, let's do
25 it.

26 MR. FIFE: Your Honor -- and while Mr. Malone is
27 coming up to the stand, we did this previously back in I think
28 December of 2010 when we approved the Recharge Master Plan.

1 THE COURT: That sounds familiar.

2 MR. FIFE: At that time we had a fairly informal
3 presentation by Mr. Malone. It didn't follow the standard
4 format of question and answer. We just let him go about
5 presenting the information.

6 As I recall, Your Honor had a lot of questions and
7 it became a rather informal dialogue. We anticipated the same
8 type of format today.

9 THE COURT: That's good.

10 MR. FIFE: For the means of expediency.

11 THE COURT: Any objection to the court using that
12 procedure today? Essentially -- we're going to swear
13 Mr. Malone but essentially allowing him to testify without the
14 usual format of question/answer, and essentially allow him to
15 give a narrative but to be interrupted by questions as they
16 arise either from the court, or any counsel, or any member of
17 the audience. No objections, so that will be what we do.

18 Would you please raise your right hand and face my
19 clerk?

20 THE CLERK: You do solemnly state that the testimony
21 you will give in the matter now pending before this court
22 shall be the truth, the whole truth, and nothing but the
23 truth, so help you God?

24 MR. MALONE: I do.

25 THE COURT: Okay. Thank you. Please be seated.

26 I'm going to come down to counsel table like I did
27 last time.

28 Do we need the lights dimmed a little bit?

1 MR. MALONE: That would help.

2 THE COURT: Okay. We'll do what we can. If it's
3 too dark for anybody, we will turn them back up. But let's
4 see what we can do.

5 Is that too dark? No, let me phrase it this way.
6 Anybody object to the current lighting in the courtroom? No
7 objection. Okay. Thank you.

8 Let me come down to counsel table as well.

9 Okay. Go ahead, please.

10 MR. MALONE: Good morning, your Honor. It's a
11 pleasure.

12 THE COURT: Please state and spell your name for the
13 record.

14 MR. MALONE: Andrew Malone, A-n-d-r-e-w,
15 M-a-l-o-n-e.

16 THE COURT: Thank you. Go ahead, please,
17 Mr. Malone.

18 MR. MALONE: It is a pleasure to be back here with
19 you, your Honor. I'm going to jump right in.

20 THE COURT: Please.

21 MR. MALONE: What you have up on the screen right
22 now is a map of the southern portion of the Chino Basin. I'm
23 going to orient you geographically. You can see that I've
24 labeled where the courthouse is along Central Avenue. You see
25 the Ontario International Airport here, the Chino Airport
26 here. This is Euclid Avenue which comes down here and crosses
27 Chino Creek, which is a tributary to the Santa Ana River right
28 here.

1 THE COURT: Okay. Hang on just a second.

2 MR. FIFE: And keep in mind you are speaking to the
3 transcript, so verbal cues about where things are.

4 MR. MALONE: Sure.

5 THE COURT: So we got Euclid -- actually what I'm
6 going to do is, if it is acceptable to all counsel, it looks
7 like I have copies of all the power point slides in front of
8 me. These are beautiful color copies of the power point
9 slides. I'm gonna number them as we go through them, make
10 some notations on them for reference purposes. And then it is
11 the court's intention to attach these to the transcript as
12 Exhibit "B" also. And any objection to the court doing that?
13 It will not have any notes, any characterizations, any
14 extraneous marks from the court, any indications of rulings,
15 any summaries of testimony, or anything else other than
16 geographical names and locations.

17 Any objection to the court doing that and attaching
18 this as an exhibit to -- Exhibit "B" to the transcript? No
19 objection. Okay. Thank you. That is what I'm gonna do then.

20 What was the river that you identified?

21 MR. MALONE: So this is Chino Creek which runs along
22 the west side of the Chino Basin.

23 THE COURT: Okay.

24 MR. MALONE: And is a tributary to the Santa Ana
25 River.

26 THE COURT: Okay. Hang on. So -- oh, I see it
27 labeled here actually. Yes. Go ahead, please.

28 MR. MALONE: Archibald Avenue which runs north/south

1 here in the central part of the basin and comes down and turns
2 into River Road as it crosses the Santa Ana River and heads
3 south into the city of Corona. Just calling these out, these
4 are good roads to drive if you want to see some of the
5 desalter well field, if you want to see the southern part of
6 Chino basin, if you want to see the Santa Ana River and some
7 of its tributaries. These are good roads to drive.

8 THE COURT: Okay.

9 MR. MALONE: Much of my testimony today is going to
10 be about the Chino Desalter Program. The way that the Chino
11 desalter wells are labeled on this map are these squares, and
12 I color-coated them for different reasons. They pump raw
13 groundwater and there are pipelines that are not shown on this
14 map that transmit the raw groundwater to two treatment
15 facilities.

16 THE COURT: Those are the yellow dots?

17 MR. MALONE: These are the green circles.

18 THE COURT: I'm sorry, green dots. Yeah.

19 MR. MALONE: The green circles. So this is the
20 Chino II Desalter Well Field up here next to the 60 and the 15
21 interchange, and the Chino I Desalter facility which is
22 located at the intersection of Euclid and Kimball avenues.

23 THE COURT: Got it.

24 MR. MALONE: Okay.

25 THE COURT: What are the yellow squares, then,
26 again?

27 MR. MALONE: So all of these squares are wells.

28 THE COURT: Okay.

1 MR. MALONE: This well field in total is a central
2 element of the Optimum Basin Management Program, and I'm gonna
3 be describing today why it is a central element. Not only --
4 in summary, not only does it pump groundwater and treat it and
5 put that groundwater to beneficial use as a municipal drinking
6 water supply, but it also enhances -- protects and enhances
7 the yield of the groundwater basin. And I'll describe in
8 detail how that occurs. It also protects the water quality of
9 the Santa Ana River for its downstream beneficial uses in the
10 Orange County groundwater basin. So it does those things.

11 THE COURT: Okay.

12 MR. MALONE: Also these desalters are part of a deal
13 that has been made between the Watermaster, Inland Empire
14 Utilities Agency, which I'll refer to as IEUA from this point
15 forward, and the Regional Water Quality Control Board. I'll
16 refer to them as just the Regional Board. And that deal has
17 allowed a tremendous amount of recycled water reuse to occur
18 within this basin. Recycled water reuse can occur in a direct
19 way like landscape irrigation, or it can occur in an indirect
20 way like artificial recharge of that recycled water back into
21 the groundwater basin as a supplemental supply of water.

22 THE COURT: Cleaner water going into the ground.

23 MR. MALONE: That's -- it's relative to other
24 sources of water.

25 THE COURT: Right. Okay.

26 MR. MALONE: It's not as clean as imported water
27 from the State Water Project or as storm water. But it's
28 cleaner, let's say, than Colorado River water. So it depends

1 on what type of water you're talking about.

2 THE COURT: Thanks. Okay.

3 MR. MALONE: But it's a supplemental supply is the
4 important part and that's a very important part of the Optimum
5 Basin Management Program is the use of that supplemental
6 supply of water. So I'll describe that deal.

7 THE COURT: Okay. Please.

8 MR. MALONE: What also happens when you construct a
9 number of high capacity wells in one concentrated area is that
10 you're going to cause the lowering of groundwater levels in
11 this area. There could be impacts that we talked about
12 earlier to lower groundwater levels. Some of those impacts
13 may be to nearby well owners in that they have to -- it's more
14 expensive or more difficult to pump their wells.

15 We also have land subsidence which has historically
16 been a problem in the Chino Basin that has led to ground
17 fissuring cracks opening up in the ground and in certain parts
18 of the basin, particularly this west side of the basin. And
19 I'll describe this in more detail too. That is where land
20 subsidence has been a problem historically.

21 So we will be talking about some of the monitoring
22 and mitigation requirements that Watermaster is tackling with
23 regard to mitigating the impacts from just the water level
24 drawdowns at nearby wells and also for land subsidence. And
25 these are requirements in the EIR, the Peace II EIR.

26 THE COURT: Is that different than the supplemental
27 EIR?

28 MR. MALONE: It is the SEIR.

1 THE COURT: SEIR. Okay. Thanks. Okay.

2 MR. MALONE: I'm gonna take a little bit of time
3 here on this map to talk about the Santa Ana River and Prado
4 Basin and Prado Dam. This is the southernmost portion of the
5 Chino Basin. Topographically it is the lowest portion of the
6 Chino Basin. All surface water flows down towards this area.
7 Groundwater historically has flowed all the way down to this
8 area too. And it's an area of discharge of groundwater, is
9 rising groundwater historically. Talk a little bit more about
10 that. But Prado Dam down here is the --

11 THE COURT: I'm sorry. Down where?

12 MR. MALONE: Down at the --

13 THE COURT: Oh, okay.

14 MR. MALONE: The very southern end of the basin.

15 THE COURT: Okay.

16 MR. MALONE: Is the major flood control structure on
17 the Santa Ana River. It protects Orange County from flooding.
18 The outlet works is run by the Army Corps of Engineers. They
19 run those outlet works though in cooperation with the Orange
20 County Water District. The Orange County Water District likes
21 to hold as much of the storm water behind that dam as possible
22 during the rainy season, and the reason why they like to do
23 that is they like to release it gradually. That water flows
24 down the Santa Ana canyon and into Orange County and near
25 Anaheim stadium.

26 The Orange County Water District has pretty
27 extensive facilities where they take the water out of the
28 Santa Ana River and they recharge it into their groundwater

1 basin which is later pumped out from municipal drinking water
2 supplies. The Regional Board understands this very clearly
3 and is very keen on protecting the water quality of the Santa
4 Ana River because of that reason, because of its downstream
5 beneficial uses as a municipal drinking water supply through
6 the groundwater basin.

7 THE COURT: Okay.

8 MR. MALONE: So it's a very -- this protection of
9 Santa Ana River water quality is a very important component in
10 the Regional Board's basin plan.

11 THE COURT: Okay.

12 MR. MALONE: So understanding that is gonna be
13 important to our later discussion on the deal that was cut
14 between the Regional Board and the Watermaster and IEUA.

15 THE COURT: Okay. Now, the Regional Board when it
16 looks at this, is it -- does it have its own plan separate
17 from the Optimum Basin Management Plan?

18 MR. MALONE: Yes.

19 THE COURT: Okay.

20 MR. MALONE: That is the basin plan.

21 THE COURT: Okay.

22 MR. MALONE: Okay. And so it's a water -- it is
23 called a water quality control plan. And the way that -- the
24 way that they do things is they look at the beneficial uses of
25 the surface water in this case and they set objectives,
26 concentration for TDS, concentration for nitrate that can be
27 measured at a particular place, and that objective is supposed
28 to protect the beneficial uses.

1 THE COURT: Okay.

2 MR. MALONE: So they have their own plan.

3 THE COURT: Okay. And so when they look at the
4 OBMP, are they looking to make sure that the OBMP integrates
5 into their water quality objectives? Or is it a little --

6 MR. MALONE: They're making sure that it's
7 consistent, that they're interested that everything will be
8 consistent, and that their plan won't be -- that the OBMP will
9 not violate their plan.

10 THE COURT: Okay. And they are -- is there one --
11 the Regional Quality Water Board is a state board. Does it --
12 is -- does it handle water -- does this one board handle water
13 quality issues throughout the state, or is this a local board
14 for southern California?

15 MR. MALONE: There are nine regional boards
16 throughout the state.

17 THE COURT: All right.

18 MR. MALONE: And this is the regional board for the
19 Santa Ana River watershed.

20 THE COURT: Okay. Thanks.

21 MR. FIFE: Your Honor, the state board does have
22 governing control over each of the regional boards but they do
23 function autonomously to some degree.

24 THE COURT: So there's a master control water
25 quality board, so to speak, state wide, and then it has
26 divisions or other subsidiary boards for regions, nine of
27 them. And the -- the one that concerns us is the Regional
28 Water -- Regional Quality Control Board for the Santa Ana

1 River?

2 MR. MALONE: Yes.

3 THE COURT: Did I get that right?

4 MR. MALONE: For the Santa Ana region. Regional
5 Water Quality Control Board for the Santa Ana region.

6 THE COURT: Santa Ana region. Okay. Thanks. Some
7 basic stuff I'm still catching up on.

8 Go ahead, please.

9 MR. MALONE: The other point here is the Santa Ana
10 River. Most of the tributary that cross the Chino Basin from
11 the north to the south are concrete line channels, meaning
12 they can no -- the water traveling in those channels can no
13 longer recharge the groundwater basin. It's not that way in
14 the Santa Ana River. The Santa Ana River is a soft bottom, we
15 call it. It's sand and gravel substrate. All along its reach
16 here in the southern part of the Chino Basin. And the reason
17 why this is important to note is that if groundwater levels
18 are deeper than the bottom of the river channel, then the
19 water in the Santa Ana River can recharge the groundwater
20 basin.

21 THE COURT: Okay.

22 MR. MALONE: If ground water levels are higher than
23 the bottom of the -- of the river channel, then groundwater
24 can rise to become surface flow and flow out of the basin, and
25 it's a loss of water from the basin. That water can't be
26 pumped now. It goes into the river and then down to Orange
27 County.

28 THE COURT: And then into the ocean or into the

1 recharge in Orange County?

2 MR. MALONE: Most likely into the groundwater basin
3 there. It's not typical except during very wet years that
4 Orange County can't take all the water in the Santa Ana River
5 and put it into the -- their groundwater basin. It's only
6 during very stormy times that water will flow to the ocean.

7 THE COURT: Okay. Which leads me to another
8 question I forgot to ask when I was on the bench, and maybe
9 now's not the time to ask but a general question.

10 Does Governor Brown's declaration that we are no
11 longer in a drought here make a difference to any of this, or
12 is that too broad of a question to even answer?

13 MR. FIFE: That would probably take all afternoon.

14 THE COURT: Okay.

15 MR. MALONE: Yeah.

16 THE COURT: It might make a difference but it's such
17 a broad issue, it kind of means everything and nothing? Would
18 that be a way of addressing the question, or is that just not
19 sensible?

20 MR. MALONE: I don't think it has -- it makes a
21 difference in terms of the OBMP and the desalters and
22 everything that we're discussing here. I don't think it makes
23 a difference.

24 THE COURT: All right.

25 MR. FIFE: It would be --

26 THE COURT: Okay. All right. Thanks very much.
27 Go ahead, please, Mr. Malone.

28 MR. MALONE: So down here in the southern part of

1 the basin we do have shallow groundwater. Fortunately, or as
2 planned, I should say, we have a well field here that is
3 purposefully drawing down water levels, and this is how the
4 groundwater -- the recharge from the Santa Ana River to the
5 groundwater basin can be enhanced is through this desalter
6 well field being concentrated and located so close to the
7 Santa Ana River. That we can -- we can modify groundwater
8 levels beneath the river and some of the tributaries down here
9 in Prado Basin such that we increase recharge and decrease the
10 outflow to the Santa Ana River.

11 THE COURT: So you can capture the water before it
12 gets to the Santa Ana River, pump it up, use it for recharge,
13 and then let it work its way back into the Santa Ana River?

14 MR. MALONE: All -- there's some graphics here that
15 will explain it a little bit better.

16 THE COURT: Okay.

17 MR. MALONE: But essentially the water along the
18 Santa Ana River if it recharges here, and we'll show graphics
19 showing how the groundwater moves towards the desalter wells,
20 that the water can then be pumped and put to beneficial use.

21 THE COURT: Okay. Meaning to use for landscaping,
22 irrigation or even drinking?

23 MR. MALONE: Or drinking, yes.

24 THE COURT: Okay.

25 MR. MALONE: That is the quality of the water that
26 comes out of these desalter facilities.

27 THE COURT: Okay. All right.

28 MR. MALONE: Down here is where we believe that

1 rising groundwater is occurring to the extent that we lower
2 groundwater levels in portions of Prado Basin and decrease
3 that rising groundwater outflow. Then that's an improvement
4 in the yield of the basin. That's water that was once leaving
5 the basin but now is staying in the basin and being pumped.

6 THE COURT: Okay. And because it stays in the
7 basin, it means we get to use it here in the Chino Basin?

8 MR. MALONE: Yes.

9 THE COURT: Okay.

10 MR. MALONE: And not down in Orange County.
11 Ultimately it makes its way through a waste water discharge.

12 THE COURT: The lower groundwater in the Prado Basin
13 is a plus, is as advantage? Lower groundwater in the Prado
14 Basin is an advantage for the Chino Basin?

15 MR. MALONE: It's a key part of the OBMP.

16 THE COURT: Okay.

17 MR. MALONE: Is to -- from a yield prospective.

18 THE COURT: Got it. All right.

19 MR. MALONE: Okay.

20 THE COURT: Got it. Please go ahead.

21 MR. MALONE: Just a quick mention about the types of
22 water that are in the Santa Ana River. We talked about storm
23 flow. That typically occurs during the winter. There's
24 another important component of flow in the Santa Ana River.
25 We call it base flow. And there are really two main
26 components of base flow. One is municipal treated. Municipal
27 waste water discharges from upstream municipalities. The city
28 of San Bernardino, the city of Rialto, the city of Colton, the

1 city of Riverside, that would be upstream of this part of the
2 Chino Basin.

3 THE COURT: Okay.

4 MR. MALONE: To the south we have the city of
5 Corona, Elsinore, Moreno Valley, Hemet, San Jacinto, Menifee.
6 They have a waste water that they discharge down the Temecula
7 Valley that makes its way here to Prado Basin.

8 THE COURT: Wait. Those are south of us?

9 MR. MALONE: Those are south of it.

10 THE COURT: But it flows north up to the Prado
11 Basin?

12 MR. MALONE: Yes. The Prado Basin is the main
13 drainage for the entire upper portion of the Santa Ana River
14 watershed. It is the lowest point elevation-wise in the upper
15 part of the watershed.

16 THE COURT: Okay. So even as far south as like
17 Menifee?

18 MR. MALONE: Menifee.

19 THE COURT: Okay. Temecula?

20 MR. MALONE: Temecula is over on the other side of
21 the watershed and that's -- that flows to the south.

22 THE COURT: Okay. All right. Thanks. Okay.

23 MR. MALONE: Yeah.

24 THE COURT: I didn't realize that water flowed north
25 from locations that far south.

26 MR. MALONE: Yeah.

27 THE COURT: Okay. Okay. Thank you.

28 MR. MALONE: The Inland Empire Utilities Agency has

1 a number of waste water treatment plans in the northern part
2 of the Chino Basin, and they discharge some of their waste
3 water to Cucamonga Creek and to Chino Creek, and it makes its
4 way down here ultimately to Prado Basin as well.

5 THE COURT: Okay.

6 MR. MALONE: So there's -- the Santa Ana River flows
7 perennially, meaning all year long it flows with this base
8 flow here, which is primarily composed of the waste water
9 discharges.

10 THE COURT: Municipal treated waste water?

11 MR. MALONE: Yeah.

12 THE COURT: Okay. You -- you said there was a
13 second component.

14 MR. MALONE: There is a second component and that is
15 rising groundwater.

16 THE COURT: Okay.

17 MR. MALONE: And that rising groundwater can occur
18 along the Santa Ana River and in some -- along some
19 tributaries of the Santa Ana River not only in Prado Basin but
20 upstream here in Riverside, upstream in San Bernardino, and
21 then again in some tributary areas. That rising groundwater
22 can rise up, become surface flow, and it becomes part of base
23 flow too.

24 THE COURT: Okay.

25 MR. MALONE: Okay.

26 THE COURT: So when you got -- this is a little
27 counterintuitive to me.

28 So what you want to do is you want to keep the

1 groundwater lower than the bottom of the Santa Ana River so
2 you can use the Santa Ana River water for -- for purposes here
3 in the Chino area?

4 I got that correct?

5 MR. MALONE: Yes.

6 THE COURT: Okay. All right. I'm with you now.

7 MR. MALONE: Yeah.

8 THE COURT: Okay.

9 MR. MALONE: It becomes another source of recharge
10 to the groundwater basin.

11 THE COURT: Got it. Okay.

12 MR. MALONE: With these desalters we can enhance
13 that process. It happens -- it can happen naturally but when
14 we lower groundwater levels we can enhance that process.

15 THE COURT: Okay. So as you pump the water out
16 through the desalters.

17 MR. MALONE: Mm-hmm.

18 THE COURT: Obviously the desalters desalt. So you
19 take total dissolved solids and other impurities out of the
20 water?

21 MR. MALONE: Sure.

22 THE COURT: And then do you put it into recharging
23 pools so it can recharge into the ground? Isn't that where it
24 goes?

25 MR. MALONE: No.

26 THE COURT: Okay.

27 MR. MALONE: Let me explain that because that is
28 another purpose of the desalters here is they have a salt

1 management purpose as well.

2 THE COURT: Okay.

3 MR. MALONE: That -- and why don't I -- why don't I
4 go to the next couple slides?

5 THE COURT: Okay. Let me identify so we're -- just
6 for the record, we are on slide number one and now we're on
7 slide two.

8 MR. MALONE: Over these next couple slides, I'm
9 going to answer your question.

10 THE COURT: Slide number two, a picture of a big
11 pump.

12 MR. MALONE: It's a well.

13 THE COURT: A well. Okay.

14 MR. MALONE: And what you see on top of the well is
15 the pump motor and the pipe coming off the well. Here is the
16 discharge pipe where the water is being pumped out of the
17 ground, and it goes into this discharge pipe. We can take
18 samples of that water and test it for water quality. We have
19 ports at the well where we can go in with devices and measure
20 water levels at the wells too.

21 THE COURT: Actually, like drop the sink in and see
22 what the level is?

23 MR. MALONE: We can drop an electronic tape in and
24 when it beeps when it hits the water, we can measure how deep
25 it is to groundwater.

26 THE COURT: Okay.

27 MR. MALONE: We do that at all the wells in Chino
28 Basin.

1 THE COURT: Some of these questions I'm sure sound
2 stupid but I got to ask. I thought the groundwater existed in
3 permeable soils, not as a -- like in a pool, like, you know,
4 like in a puddle or a, you know, underground lake.

5 MR. MALONE: You're exactly right.

6 THE COURT: Okay.

7 MR. MALONE: In this basin.

8 THE COURT: In this basin. So your measuring
9 devices are sensitive enough that when they hit a -- soils
10 that are saturated, they can tell that they hit groundwater?

11 MR. MALONE: Let me explain how a well is
12 constructed because we're putting our measuring device into
13 the well.

14 THE COURT: Okay.

15 MR. MALONE: You drill a bore hole through the
16 sediments. You case that bore hole with a steel casing.
17 There are holes in a portion of that steel casing that allow
18 the water from the porous media out here in the aquifer to
19 flow into the well.

20 THE COURT: Okay.

21 MR. MALONE: When you turn a well on, you draw down
22 that water in the well. Now it creates a pressure
23 differential between the water and the well and the water in
24 the aquifer.

25 THE COURT: Okay.

26 MR. MALONE: And so the water in the aquifer will
27 flow through the porous media into those holes in the well and
28 then into the well.

1 THE COURT: Got it.

2 MR. MALONE: The well has -- has a pump -- has pump
3 boules installed -- installed that spin around and pump the
4 water up through a shaft that ultimately come out through this
5 discharge pipe.

6 THE COURT: Got it. Okay. I understand.

7 MR. MALONE: There's a flow meter that we -- that is
8 installed on this discharge pipe too, and typically the
9 instantaneous flow rate is measured at that flow meter. But
10 also the total amount of water that has flowed past that meter
11 is recorded too.

12 THE COURT: Okay.

13 MR. MALONE: And so we measure flow, we measure
14 water quality, we measure water levels at these wells.

15 THE COURT: And I gather you've got the pumps
16 calibrated so they never pump more out than is actually
17 seeping in through the I'll call it the screens that allow the
18 water to come into the -- the well itself?

19 MR. MALONE: That can be -- that can be a problem
20 when well levels get too low. The pump boules will have a
21 difficult time pumping as much water as when water levels were
22 high, so the capacity of the well will be impacted and will
23 decrease.

24 THE COURT: They don't ever get one running dry?

25 MR. MALONE: Yes, it happens.

26 THE COURT: All right. Thanks.

27 Go ahead, please.

28 MR. MALONE: This is what one of the desalter

1 facilities looks like.

2 THE COURT: Slide three. Thank you.

3 MR. MALONE: This is the Chino I Desalter facility.
4 It's located again on the corner of Euclid and Kimball.

5 THE COURT: Got it. Can you go back to slide one
6 and actually identify where this desalter -- which one this
7 is?

8 MR. MALONE: Yes.

9 THE COURT: Oh, okay. I see it. And that's
10 Desalter I?

11 MR. MALONE: That's Desalter I. That was the first
12 one built.

13 THE COURT: Okay.

14 MR. MALONE: Michael, can you stay on this slide?
15 I forget to tell you about the color coating of
16 these wells.

17 THE COURT: Oh, yes. Thanks.

18 MR. MALONE: The white wells here, there's 11 of
19 them, they were the initial wells built in the year 2000 --
20 1999, 2000, right around that time period. They started
21 pumping in the year 2000.

22 THE COURT: Okay.

23 MR. MALONE: There was an initial expansion of that
24 Chino I Desalter Well Field with these three wells here that
25 are color-coated in blue.

26 THE COURT: Okay. So that was the initial
27 expansion.

28 MR. MALONE: That was the initial expansion. And

1 they were plumbed into the Chino I Desalter facility.

2 THE COURT: Okay.

3 MR. MALONE: These yellow wells in the eastern
4 portion here, these yellow wells were the Chino II Desalter
5 expansion. The Chino II Desalter was built at that time too,
6 the facility, and these wells are plumbed into the Chino II
7 Desalter facility.

8 THE COURT: Which was the green dot there that I
9 see?

10 MR. MALONE: Yes.

11 THE COURT: That is Chino II.

12 MR. MALONE: Chino II near the interchange between
13 the 15 and the 60.

14 THE COURT: Got it. Okay.

15 MR. MALONE: The last expansion that's occurring is
16 the third expansion. Sometimes it's referred to as Phase III.

17 THE COURT: Okay.

18 MR. MALONE: And we refer to this well field of six
19 wells as the Chino Creek Well Field.

20 THE COURT: Okay.

21 MR. MALONE: The first three wells have been
22 constructed on the west side. Over these next several months,
23 the remaining three wells will be constructed.

24 THE COURT: Okay. Got it. Okay.

25 MR. MALONE: Okay.

26 THE COURT: Are they going to pump into Desalter I
27 then too?

28 MR. MALONE: Into Desalter I.

1 THE COURT: Okay.

2 MR. MALONE: Now, Curtis Paxton is here. I'm gonna
3 -- I'm gonna make a statement and I'd like him to correct me
4 if I'm wrong.

5 THE COURT: Okay.

6 MR. MALONE: But these wells will be plumbed into
7 Chino I. These three wells that are now plumbed into Chino I,
8 as I understand it, will be re-plumbed to go to Chino II, and
9 there will be some expansion of the Chino II Desalter facility
10 as part of this Phase III expansion.

11 THE COURT: Okay. So the blue -- the initial blue
12 -- the ones in blue, the initial expansion for Chino I are
13 going to be re-plumbed to Chino II. That's what we need to
14 ask Mr. Paxton about?

15 MR. MALONE: That is what we need to ask.

16 THE COURT: Mr. Paxton?

17 MR. PAXTON: That is a correct statement.

18 THE COURT: Thanks very much, Mr. Paxton.

19 Go ahead, please, Mr. Malone.

20 MR. MALONE: So the Chino I expansion -- the Chino I
21 Desalter facility, excuse me, it includes a treatment process
22 called reverse osmosis. And I'll show you -- the next slide
23 will show you what some of those facilities look like but
24 there is also other treatment that is occurring here, ion
25 exchange to reduce nitrates in particular. There's also some
26 air stripping that's going on here to address some of this
27 volatile organic compound contamination associated with the
28 Chino airport plume.

1 THE COURT: Okay. What was it called again?

2 MR. MALONE: Volatile organic compounds. It's a
3 general description of a contaminant. The specific
4 contaminant is called TCE.

5 THE COURT: Okay. And it was air something that
6 you --

7 MR. MALONE: Air stripping.

8 THE COURT: Air, a-i-r?

9 MR. MALONE: Yes.

10 THE COURT: Okay.

11 MR. MALONE: Because these contaminants are
12 volatile, you can expose them to the atmosphere and they will
13 volatilize out of the water.

14 THE COURT: In other words, evaporate?

15 MR. MALONE: Right.

16 THE COURT: Okay. Thanks.

17 MR. MALONE: Once that treatment occurs, the water
18 comes over to a holding facility and then can be distributed
19 out for -- for drinking water supply.

20 THE COURT: Okay.

21 MR. MALONE: The water is typically very low in TDS
22 it can be blended with other waters like groundwater. It
23 might be a little higher in TDS or higher in nitrate, so it is
24 a very -- the desalter can be a very useful source of water
25 supply because it can be blended with other supplies to make
26 potable drinking water.

27 THE COURT: Is that always the goal, potable
28 drinking water? Or do you want -- do you have other products,

1 non-potable water for landscaping purposes or --

2 MR. MALONE: Well, you can use potable water for
3 landscaping purposes. You just can't use non-potable water
4 for drinking water.

5 THE COURT: When you are using the desalter, is your
6 objective always to create potable drinking water, or do you
7 have other objectives for it?

8 MR. MALONE: Yes, that's -- that's the objective.

9 THE COURT: That is the objective. Okay. Thanks.

10 Oh, one other question I had.

11 For the air stripping, if you're taking volatile
12 organic materials out of the water, does that create its own
13 pollution problems to dispense with the volatile organic
14 materials that you're stripping out?

15 MR. MALONE: I'm a geologist. I'm not that sort of
16 an engineer. I'm going to ask Curtis to talk about the air
17 stripping process and what happens with the -- with the
18 volatiles once they -- they're volatilized from the water.

19 THE COURT: Okay. Can we do that now?

20 MR. PAXTON: This particular process does not create
21 a -- a byproduct that we then have to do further treatment on.

22 THE COURT: Okay.

23 MR. PAXTON: It's allowed to basically be released
24 into the air. So it's out of the water into the air.

25 THE COURT: Okay. You're not stripping out metals
26 or ethyls or stuff that creates its own pollution?

27 MR. MALONE: Right. That is an allowable treatment
28 process.

1 THE COURT: All right. Thanks very much. I just
2 wondered if there was other problems that we were creating
3 while we were trying to solve the first problems that create
4 other problems that need to be solved along the way.

5 Okay. Thanks very much.

6 Mr. Malone, go ahead, please.

7 MR. MALONE: Next slide, please.

8 THE COURT: This is slide number four.

9 MR. MALONE: Yeah. This is inside the reverse
10 osmosis facility, and so what you're seeing here are the
11 membranes. What happens is is that the -- the groundwater
12 pump from the wells is then forced under pressure through
13 these membranes. Pure water makes it through the membranes.
14 What's left behind is salty brine.

15 THE COURT: Okay.

16 MR. MALONE: The pure water then is your product
17 water, the salty brine is your reject water. That water then
18 is transmitted to a pipeline that takes that salty brine out
19 of the basin. So we're exporting salt out of the basin
20 through this process.

21 THE COURT: And to where do you export it, the
22 ocean?

23 MR. MALONE: This pipeline is ultimately to the
24 ocean. But this pipeline, it's called the SARI line, the
25 Santa Ana Regional Interceptor. It was built by the Santa Ana
26 Watershed Project Authority back in the 70's. It goes down to
27 Orange County Sanitation District where the water is treated
28 and then goes to the ocean.

1 THE COURT: So it gets a second treatment down in
2 Orange County.

3 MR. MALONE: In Orange County before it's discharged
4 to the ocean.

5 THE COURT: But they don't use it for anything else;
6 they just treat it and then discharge it?

7 MR. MALONE: Yeah. Now they have in Orange County,
8 and I'm not totally up to speed on this, but in Orange County
9 they're doing very advanced things with their waste water.
10 They're treating it to very high levels through this process
11 and other processes. And then they're taking it back up and
12 recharging it either at their Anaheim recharge facilities or
13 they're injecting it in wells to protect against sea water
14 intrusion. Now, I'm unfamiliar with whether or not the -- the
15 salty brine water that goes down there is part of that process
16 or not. I'm not completely educated on that.

17 THE COURT: Got it. Okay. Thanks.

18 Go ahead, please.

19 MR. MALONE: I think that's it.

20 THE COURT: Now we are looking at slide six.

21 MR. MALONE: I'm going to continue to give you
22 background information here so that when we talk about the
23 ultimate intent of the desalters that it makes some sense.

24 This map here is a map of the Chino Basin as a
25 whole, and the prior maps we were just looking at the southern
26 portion of the Chino Basin. What we're trying to show here on
27 this map is natural conditions at about the 1905, so turn of
28 the century. This is prior to much pumping going on in this

1 basin at all. And the basin was essentially full. That in
2 the northern parts of the basin that's where water flowing out
3 of the mountains would recharge the basin. And these arrows
4 on this map are showing you the general directions of
5 groundwater flow from the north to the south. And in the
6 southern portion of the basin groundwater levels were very
7 shallow. They were swampy conditions. If you were to drill a
8 well in these areas, it would be artesian, meaning the water
9 would flow to the surface without pumping. There was so much
10 pressure, the basin was so full, and there was so much water
11 pressure behind it from the areas in the north.

12 THE COURT: So you could dig a hole and water would
13 fill up the hole and you draw water?

14 MR. MALONE: Yeah.

15 THE COURT: On these wells that you see, in the
16 cowboy movies, for example --

17 MR. MALONE: Yeah.

18 THE COURT: -- they've got a well, they've got a
19 bucket. Are these artesian wells where you just put the
20 bucket and draw the water out?

21 MR. MALONE: No. Artesian well would mean that if
22 you had a well with no cap on it, that water would be flowing
23 out. You wouldn't even need to put a bucket in there. It
24 would be flowing out under pressure.

25 THE COURT: Okay. And if you put a collar around
26 the hole, it would fill up the collar until the pressure in
27 the column equaled the water pressure in the ground outside?

28 MR. MALONE: You are exactly right.

1 THE COURT: Okay. Thanks.

2 MR. MALONE: So that was the condition down here.
3 There had been some mapping of those artesian areas that was
4 done in 1905 over in this area.

5 THE COURT: So the white area is the -- you would
6 call it the -- you could call it the place where there was --
7 artesian wells could be drilled?

8 MR. MALONE: Yes.

9 THE COURT: Artesian.

10 MR. MALONE: Artesian conditions.

11 THE COURT: Okay.

12 MR. MALONE: And the ground surface was very
13 swampy --

14 THE COURT: Okay.

15 MR. MALONE: -- in that area because ground water
16 was rising to the surface.

17 THE COURT: Okay. Okay.

18 MR. MALONE: So this is before much pumping occurred
19 at all.

20 THE COURT: Okay. Got it.

21 MR. MALONE: We had a tremendous amount of outflow
22 of groundwater is rising -- as rising groundwater outflow from
23 the basin. We probably had a lot more riparian uptake too of
24 the groundwater, that the plants were using a lot of the
25 shallow groundwater.

26 THE COURT: Okay. And that's what riparian uptake
27 is?

28 MR. MALONE: Yes. Plants using the water.

1 THE COURT: Okay.

2 MR. MALONE: Okay.

3 THE COURT: Next slide, number seven.

4 MR. MALONE: What I'm showing on this map here is
5 the effects of pumping during the twentieth century on water
6 levels -- on groundwater levels.

7 THE COURT: Okay. Let me just ask why did you use
8 1933 as a date? Was something significant --

9 MR. MALONE: There is very limited data way back
10 prior to the 1930's. We made a judgment, a professional
11 judgment that there was enough water level data at this point
12 in time to draw water level map.

13 THE COURT: Okay.

14 MR. MALONE: We drew one for 1933, we drew one for
15 the year 2000. We subtracted the two and that's what you're
16 seeing on this map here is the change in groundwater level
17 from 1933 to the year 2000.

18 THE COURT: Okay.

19 MR. MALONE: As you can see, there was a lot of
20 drawdown, especially on the west side and particularly in the
21 northwest side, over 150 feet of water level declines in that
22 area.

23 THE COURT: Okay. And these are grounds -- so if
24 you -- previously you could get water draw -- pumped
25 groundwater out close to the surface, but by 2000 you had to
26 drill down 150 feet to find the groundwater?

27 MR. MALONE: Yeah.

28 THE COURT: Okay. Okay. Or I should say a hundred

1 and 50 feet more?

2 MR. MALONE: More, right.

3 THE COURT: Than you used to previously.

4 MR. MALONE: There you go.

5 THE COURT: Okay. All right.

6 MR. MALONE: I'm also showing on this map here in a
7 green polygon is an area that when we were putting together
8 the OBMP that we had noticed that there was subsidence that
9 occurred in this area, and subsidence management became an
10 aspect of the OBMP and a program element of the OBMP. So I'm
11 putting that up here for reference. We are going to be
12 talking about that in the future today.

13 THE COURT: Okay.

14 MR. MALONE: I'm also -- these little yellow dots
15 here are some wells where we have water level data that goes
16 back all the way to the 1930's. And so I'm going to be
17 showing you a slide in the future that's going to show you how
18 water levels changed at those wells over this time period too.

19 THE COURT: Okay.

20 MR. MALONE: So this is all for your future
21 reference.

22 THE COURT: Got it. Okay. Thanks.

23 MR. MALONE: You can see down here in the -- in
24 Prado Basin --

25 THE COURT: Okay.

26 MR. MALONE: -- no water level change.

27 THE COURT: Okay. So the lighter the tan, the less
28 change.

1 MR. MALONE: Yes.

2 THE COURT: As we head to red at the northwest
3 corner, that's the most change.

4 MR. MALONE: True.

5 THE COURT: Okay. I see zeros. Okay. Thanks.

6 MR. MALONE: Yeah. So these -- we have contours of
7 water level change, negative 50, negative a hundred, negative
8 a hundred here in the Ontario area. I would point out here
9 that this is the area of where Jurupa Community Services
10 District pumps from just west of the Jurupa Hills.

11 THE COURT: Okay.

12 MR. MALONE: And so back here in 2000, there was a
13 notable pumping depression here, the same here in Ontario, and
14 the same here in the Montclair and Pomona area --

15 THE COURT: Okay.

16 MR. MALONE: -- in particular.

17 THE COURT: Okay.

18 MR. MALONE: But in Prado Basin, no measured change.

19 THE COURT: Okay. Got it.

20 MR. MALONE: There's -- this is -- Prado is a
21 forest. There's -- there's not a whole lot of farming
22 especially deep in Prado Basin so there's not a whole lot of
23 pumping, and you might not expect to see a lot of water level
24 decline in Prado.

25 THE COURT: Okay.

26 MR. MALONE: Okay. Michael.

27 THE COURT: All right. Moving on to slide eight.

28 MR. MALONE: These are some photographs of Prado

1 Basin. What you're seeing here on the first photograph and
2 it's going to -- when you click the next slide the other
3 photos are going to come on. Okay. So -- but it's going to
4 cover some of this.

5 THE COURT: Oh, I see where we are. Okay.

6 MR. MALONE: The first photo that you see is an air
7 photo of Prado Basin, and this is Prado Dam, the spillway
8 here.

9 THE COURT: Okay.

10 MR. MALONE: Well, this is Prado Dam. The spillway
11 is located just to the southeast of the dam. This is -- this
12 photograph was taken during the rainy season where you can see
13 a lot of water that's ponded behind Prado Dam.

14 THE COURT: Okay.

15 MR. MALONE: During the summer typically they've
16 released all the water behind the dam, and they let the base
17 flow come down and just flow right on through.

18 THE COURT: Okay. Flow right on through, meaning
19 right on through into the Santa Ana River and then down into
20 Orange County?

21 MR. MALONE: Right.

22 THE COURT: Okay.

23 MR. MALONE: And so the way it comes is it comes
24 down here and flows down this channel. And -- and there is a
25 measuring device down here that's maintained by the USGS. We
26 call that the USGS gauging station at below Prado.

27 THE COURT: USGS?

28 MR. FIFE: United States Geological Survey.

1 MR. MALONE: Survey.

2 THE COURT: Okay. Got it. Okay. Thanks.

3 MR. MALONE: Sorry. Sorry for all my acronym usage.

4 THE COURT: I keep a list, believe me. Go ahead.

5 MR. MALONE: Can you -- this is what Prado Basin
6 looks like when water is ponded behind the dam. You can see
7 it's very forested and a lot of vegetation close in here.
8 There's a lot of biology that lives in here. There are some
9 endangered species that live in here, so it is an important
10 biological resource to the area.

11 THE COURT: Okay.

12 MR. MALONE: One more slide. This is -- this area
13 right down here below Prado, and this is the gauging station
14 where the United States Geological Survey measures flow, and
15 water quality samples are taken at that location too. We have
16 a very long time series of data, flow data and water quality
17 data at this particular location.

18 THE COURT: Okay.

19 MR. MALONE: And the Regional Board uses this
20 location as the metric to measure against its water quality
21 objectives.

22 THE COURT: You mean as a baseline, as a --

23 MR. MALONE: It's their monitoring. They use it as
24 monitoring data to check to see if the water quality of the
25 Santa Ana River is meeting their water quality objectives in
26 their basin plan.

27 THE COURT: What is the next closest measuring
28 station that they have? I mean, is this the only one in the

1 area?

2 MR. MALONE: No. There are others.

3 THE COURT: Okay.

4 MR. MALONE: If we can go --

5 THE COURT: Give me an idea of how far away the next
6 one is? Ten miles? A hundred miles?

7 MR. MALONE: No. Ten miles.

8 THE COURT: Okay. All right. Thanks. That's all I
9 needed to know, just a picture of how closely separated they
10 were.

11 MR. MALONE: That's approximate.

12 THE COURT: Okay. Approximate. All right. Next.
13 We're ready?

14 Actually, before we go on to the next slide which
15 would be slide number nine, I'll have to note that it's noon,
16 and it's time for the court to take a recess. So we're going
17 to be in recess till 1:30.

18 You're all invited back. So court will be in recess
19 till 1:30 and we'll pick it up from there.

20 Thank you very much.

21 MR. FIFE: What do you think, Andy, about an hour?

22 MR. MALONE: Yeah. Probably another hour.

23 (A recess was taken until 1:30 p.m. of
24 the same day.)

25 --o0o--

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1 CHINO, CALIFORNIA; FRIDAY, OCTOBER 28, 2011

2 P.M. SESSION

3 DEPARTMENT C-1

HON. STANFORD E. REICHERT, JUDGE

4 (Appearances not noted for afternoon session.)

5 (Victoria E. Villegas, Official Reporter, CSR No. 9843.)

6 -000-

7 THE COURT: Let's go on the record, then, and please
8 be seated.

9 Thank you, Mr. Malone.

10 We're back on the record in the hearing on the
11 Watermaster case for the afternoon session. I'm not going to
12 take appearances again. I think the ranks have thinned a
13 little bit. Unless anyone wishes me to take appearances
14 again, I'm not going to do it at this time. We are just going
15 to continue with the hearing.

16 MR. FIFE: Yes, your Honor.

17 THE COURT: So any objection to the court just
18 proceeding on with the next bit of information?

19 Hearing none, let's proceed.

20 I'll turn down the lights as I go by, Deputy.

21 Okay. Mr. Malone, I think we were just going to
22 look at slide number nine.

23 MR. MALONE: Yes.

24 THE COURT: So if you would pick it up from there.
25 Thank you very much.

26 MR. MALONE: I'm in the process of providing you
27 with background information, information as to why the
28 desalters are such a central part of the Optimum Basin

1 Management Program.

2 THE COURT: Okay.

3 MR. MALONE: So the next seven slides are a time
4 series of land use in the Chino Basin and how that's changed
5 from 1933 to the year 2000.

6 THE COURT: Okay.

7 MR. MALONE: And so I'll go through these seven
8 slides in series and be explaining it to you. So if you want
9 to stop at each slide, we can do that. But I'll just be --
10 I'll just be explaining to you the next seven slides.

11 THE COURT: Sounds great. Thanks.

12 MR. MALONE: All right. So, again, the Chino Basin
13 here and it's color-coated by land use for 1933.

14 The dark green and the light green colors on this
15 map are irrigated and non-irrigated agriculture.

16 The yellow is citrus and you can see this up here in
17 the Upland area primarily.

18 The purple are irrigated vineyards. You don't see
19 too many of them in 1933 but you will see them come into play
20 in the 1950's especially.

21 You're going to see an orange area here that are
22 dairies, and those you're really going to see come in the
23 60's, 70's and 80's.

24 The brown areas are the urbanized areas and you're
25 going to see those expand across the northern part of the
26 basin and then continue to displace some of the agricultural
27 land down in the southern part of the basin where most of our
28 agricultural land is concentrated today.

1 THE COURT: Okay. I'll just indicate for the record
2 on our Exhibit "B" it looks more purple than brown, although
3 it looks brown on the slide.

4 MR. MALONE: Okay.

5 THE COURT: Okay. Thanks.

6 MR. MALONE: So this is 1933. And if we go to the
7 next one, I believe is 1957.

8 THE COURT: Which will be slide number ten.

9 MR. MALONE: You can see some of the dairies
10 appearing down here in the southern portion of the basin, and
11 you see the urbanized areas of Upland and Chino begin to
12 expand a little bit over here in the Fontana area and the
13 vineyards start to pick up. Next slide is 1963.

14 THE COURT: Okay. Slide 11.

15 MR. MALONE: In the 60's you can really see that the
16 vineyards in the central part of the basin have really
17 expanded. Urbanization has taken over a lot of historical
18 citrus area in the Upland area. You can see the dairies
19 beginning to expand down the southern end of the basin as
20 well. And the Fontana basin continues to urbanize as well.

21 The next slide is 1975.

22 THE COURT: Okay. Which is slide 12.

23 MR. MALONE: You can -- you continue to see
24 urbanization occur in the northern parts of the basin. You
25 can really see the dairies pick up in the southern part of the
26 basin and in the central part of basin. The vineyards are
27 still there but they are in decline at this point.

28 THE COURT: Just looking back for a moment, there's

1 -- there's a red "special impervious." What does special
2 impervious mean?

3 MR. MALONE: Well, for these maps here it's the
4 airport runways.

5 THE COURT: Thanks. Okay. Moving then to the next
6 slide '84, which will be slide 13, if you're ready.

7 MR. MALONE: '84. The vineyards continue to be in
8 decline and urbanization continues in the east and the
9 northwest portion of the basin. And the dairies here are
10 really at their heyday and -- and they dominate the southern
11 part of the basin. In the 90's --

12 THE COURT: Moving to '93 which is slide 14.

13 MR. MALONE: Yeah.

14 THE COURT: Okay.

15 MR. MALONE: And you can see that the vineyards,
16 there's just some remnants of the vineyards here in the
17 central part of the basin, Fontana and Cucamonga and -- and
18 this whole area, the Pomona, Upland, Montclair, Chino area has
19 really almost fully urbanized out. We can even see in the
20 southern parts of the basin that urban land uses are replacing
21 the agricultural land uses. And in the year 2000, which is
22 the next slide --

23 THE COURT: Slide 15.

24 MR. MALONE: -- you can see the continuation of that
25 here in the southern end of the basin.

26 Okay. We're gonna come back to this urbanization of
27 the southern end of the basin after we look at some of the
28 groundwater quality data in the southern end of the basin

1 after these next two slides.

2 THE COURT: Okay. So we've got TDS in groundwater,
3 2010, slide 16.

4 MR. MALONE: Yes. So this is our current
5 characterization of total dissolved solids in groundwater for
6 2010.

7 Let me explain this map. Each one of these dots
8 represents a concentration of TDS at a well in the basin.

9 THE COURT: Okay. Are the dots wells, then,
10 actually?

11 MR. MALONE: The dots are wells.

12 THE COURT: Okay.

13 MR. MALONE: And the color and the size of the well
14 represents the TDS concentration at that well.

15 THE COURT: Okay.

16 MR. MALONE: The way we symbolize our maps is that
17 we have a MCL. And in this case for TDS it's a secondary MCL
18 by the EPA, and it's 500 milligrams per liter.

19 MR. FIFE: And what's an MCL?

20 MR. MALONE: Maximum contamination limit.

21 THE COURT: Okay. Set by the U.S. EPA?

22 MR. MALONE: Yes. In this case it's 500 milligrams
23 per liter. If the well is symbolized by yellow, that means
24 the TDS concentration in that well is one to two times the
25 MCL, so 500 to 1000 milligrams per liter.

26 THE COURT: Okay.

27 MR. MALONE: If the well is symbolized by orange,
28 then it's two to four times the MCL or, in this case, 1000 to

1 2000 milligrams per liter.

2 THE COURT: Okay. I'm sorry. And MCL was what
3 again?

4 MR. MALONE: Maximum contamination or contaminant
5 limit. I'm unsure of which one exactly.

6 THE COURT: Okay.

7 MR. MALONE: But it's a water quality standard.

8 THE COURT: Okay. And does the EPA set that by
9 legislation or by its own regulations?

10 MR. MALONE: By its own regulations, I believe.

11 THE COURT: Okay. Thank you.

12 MR. MALONE: If you're red, if the well is colored
13 red, then you're more than four times the MCL.

14 THE COURT: Okay. And just for the record purposes,
15 looks to me like there are four or five red dots. I see four
16 full red dots and one partially obscured -- two partially or
17 more, six in total.

18 MR. MALONE: Six in total is what I see.

19 THE COURT: Okay. Thanks.

20 MR. MALONE: The general pattern of TDS in the Chino
21 Basin is that in the southern portion of the basin that many
22 of the wells are above the MCL of 500 milligrams per liter.

23 THE COURT: Okay.

24 MR. MALONE: So typically a municipal producer that
25 is pumping groundwater, to serve this groundwater they
26 wouldn't serve it at -- they wouldn't serve this unless they
27 would blend it with some other lower TDS source of water or
28 treat it like through a reverse osmosis process.

1 THE COURT: Okay.

2 MR. MALONE: You go to the next slide.

3 THE COURT: Slide 17.

4 MR. MALONE: And this is nitrate in ground water for
5 the year 2010.

6 THE COURT: Okay.

7 MR. MALONE: And nitrate is interesting. It can be
8 expressed in two different forms, nitrate as nitrate and
9 nitrate as nitrogen.

10 THE COURT: Okay.

11 MR. MALONE: I don't think we need to go into that
12 distinction there. We're just symbolizing this as nitrate as
13 nitrogen. And the importance there is that the MCL is ten
14 milligrams per liter.

15 THE COURT: Okay. Got it. And I see two different
16 standards, one for the U.S. EPA, and one for, says
17 "California" -- "Primary California."

18 MR. MALONE: Yes.

19 THE COURT: And is that set by a agency of the state
20 government then?

21 MR. MALONE: I believe that is the California EPA.

22 THE COURT: Okay. All right. Got it. Thanks.

23 Go ahead, please.

24 MR. MALONE: They're both the same, ten milligrams
25 per liter.

26 THE COURT: Oh. Right. Thanks.

27 MR. MALONE: And so you see very similar pattern to
28 TDS. The southern portion of the basin is primarily the

1 wells, and the groundwater is above the MCL. There is up here
2 in the northwest many wells that are over the MCL. We
3 speculate that that may be due to the historic citrus, that
4 citrus industry that was in that area at one point in time.

5 THE COURT: Due to the fertilizers they were using?

6 MR. MALONE: Fertilizers, yeah.

7 THE COURT: Okay.

8 MR. MALONE: So the importance here is that we had
9 discussed earlier about shallow groundwater in the southern
10 portion of the basin and the potential for that groundwater to
11 become surface water and get into the Santa Ana River and flow
12 down to Orange County.

13 When we looked at the land use slides, we were
14 showing you that a lot of that agricultural area in the
15 southern portion of the basin is going away and is being
16 replaced by urban land uses. And the water is too salty and
17 too high in nitrate to really be pumped by the municipal
18 agencies and put directly in their distribution system without
19 treatment or blending of some sort.

20 So the fear was, when the OBMP was being developed,
21 that the agricultural pumping would go away and it would not
22 be replaced by municipal pumping. So groundwater levels would
23 rise and more groundwater would flow out as surface water into
24 the Santa Ana River. The problem with that would be twofold.

25 THE COURT: Okay. Sorry. Go ahead. Finish your
26 thought.

27 MR. MALONE: The problem with that would be twofold.
28 We'd be losing more water from the basin. We'd be losing

1 yield of the basin. It wouldn't be pumped anymore and be put
2 to beneficial use. It would be lost to Orange County. The
3 second problem is that -- that groundwater is high in TDS and
4 high in nitrogen -- nitrate concentration, excuse me, and it
5 may contaminate the Santa Ana River.

6 Now recall that the Regional Board at below Prado
7 has their water quality standards. If that rising groundwater
8 contaminated the Santa Ana River to the point that we would
9 begin to violate those water quality standards, then the
10 Regional Board indicated that they would go back upstream to
11 Chino Basin and say that you're the cause and we want you to
12 mitigate your contamination of the Santa Ana River. And they
13 might do that by asking the parties to desalt their waste
14 water to lower concentrations of TDS and nitrate and discharge
15 it into the river. So, again, spending a lot of money
16 treating water and just wasting it to the river to -- and not
17 using it in the Chino Basin, but --

18 THE COURT: In other words, have to treat it, then
19 lose it to Orange County.

20 MR. MALONE: And lose it to Orange County.

21 THE COURT: Okay. I'm sorry. I'm having trouble
22 keeping this straight.

23 How does the shallow groundwater -- I know you've
24 told -- explained this to me more than once. How does shallow
25 groundwater become a problem for it to become surface water?
26 What happens again.

27 MR. MALONE: Well, what happens is that pumping the
28 groundwater keeps water levels lower.

1 THE COURT: Okay.

2 MR. MALONE: When you stop pumping, where the
3 agricultural pumping goes away --

4 THE COURT: Right.

5 MR. MALONE: Agricultural land uses can use this
6 water. They can still use it and irrigate and wash their cows
7 with the water. It's not so bad that they couldn't use it.

8 THE COURT: Okay. And it's not salty enough that
9 you can still use it to irrigate, for example?

10 MR. MALONE: You can still use it to irrigate.

11 THE COURT: Okay. So go ahead. Shallow
12 groundwater, if you don't pump it the groundwater levels rise
13 then?

14 MR. MALONE: Yes, it rises.

15 THE COURT: Okay.

16 MR. MALONE: And then so you're gonna have a greater
17 volume of loss to the Santa Ana River.

18 THE COURT: Because it -- because it'll -- it -- now
19 the groundwater raises to the -- below the bottom of the Santa
20 Ana River?

21 MR. MALONE: Yeah.

22 THE COURT: It flows, it permeates into the Santa
23 Ana River and then flows to Orange County?

24 MR. MALONE: Yes.

25 THE COURT: Okay.

26 MR. MALONE: And not only the Santa Ana River, but
27 there are -- I misspoke a little earlier. There are unlined
28 tributaries in Prado Basin too where these are deep in size

1 channels. And that's where groundwater can flow into those
2 streams too and flow down to Prado Dam and out as well.

3 THE COURT: Okay. So when you're talking about
4 shallow groundwater, we're talking about not a shallow aquifer
5 but the -- the depth between the surface that the groundwater
6 -- the layer of the groundwater resides.

7 Is that -- is that correct?

8 MR. MALONE: Yeah. It's -- we do refer to it as the
9 shallow aquifer system. It is the main aquifer system. It
10 just happens the top of that, we call that the water level --

11 THE COURT: Okay.

12 MR. MALONE: The top of that is very close to the
13 ground surface. And where you have the ground surface dip
14 down like in a stream channel, it can intersect the top of
15 that groundwater level surface. And that's where groundwater
16 can flow into the stream and become surface water flow out of
17 the basin.

18 THE COURT: So by shallow groundwater what we mean
19 is the top of the level of the groundwater is close to the
20 actual surface of the land?

21 MR. MALONE: That's true.

22 THE COURT: Okay. I finally understand.

23 MR. MALONE: Yeah.

24 THE COURT: Okay.

25 MR. MALONE: And the further north in the basin we
26 get, the deeper it is to groundwater levels.

27 THE COURT: Okay. In other words, the farther down
28 it is from the actual surface of the --

1 MR. MALONE: Yes.

2 THE COURT: -- of the land?

3 MR. MALONE: Yes.

4 THE COURT: Okay. Okay. Thanks.

5 MR. MALONE: But in the southern part of the basin,
6 that's where the groundwater levels are really close to the
7 ground surface.

8 THE COURT: Got it. Okay. Thanks. All right. I
9 got it. Okay. Thanks. Next -- or please go on.

10 MR. MALONE: So that was really the purpose there,
11 was one of the main purposes of that well field, the desalter
12 well field, was to come in and replace the agricultural
13 production that was disappearing, in decline, and because we
14 are locating these wells in a concentrated fashion closer to
15 the Santa Ana River, to draw down water levels beneath the
16 Santa Ana River and some of its tributaries, and enhance the
17 recharge of the Santa Ana River.

18 THE COURT: So, in other words, replace what used to
19 be the agricultural pumping with --

20 MR. MALONE: With municipal pumping.

21 THE COURT: Okay. Okay. Pumping, I'll call it,
22 with a different purpose.

23 MR. MALONE: Yes.

24 THE COURT: Okay. Got it. Thanks.

25 Go ahead, please.

26 MR. MALONE: So let's move on, Michael. And this --

27 THE COURT: Okay. That's -- oops. Wait just a sec.

28 We are now at slide 18. Go ahead, please.

1 MR. MALONE: Yeah. And I don't think we need to
2 discuss anything on this slide. I'm just showing you this
3 slide to show you that this is the location of the wells,
4 close to the Santa Ana River, and enhancing -- having the
5 potential to enhance recharge of the Santa Ana River and
6 decrease rising groundwater outflow, especially here in the
7 Prado basin.

8 THE COURT: We are actually back -- this is the same
9 as slide one.

10 MR. MALONE: It is, yeah. I just repeated it here
11 to show you again where this --

12 THE COURT: Got it.

13 MR. MALONE: -- where this well field is and how it
14 is supposed to interact with the Santa Ana River.

15 THE COURT: The Chino Creek Well Field is what we're
16 talking about.

17 MR. MALONE: Well, we're talking about the whole
18 well field here but the Chino Creek Well Field is really the
19 subject of the resolution. It's the very last part of the
20 Desalter Well Field to be built.

21 THE COURT: Okay.

22 MR. MALONE: And it happens to be built very close
23 to Prado basin where we think some rising groundwater is
24 occurring. It could have the effect of reducing rising
25 groundwater outflow.

26 THE COURT: And this is to get hydrologic (sic)
27 control, correct?

28 MR. MALONE: Yes. And I'm gonna get to that and

1 explain that in detail in short order.

2 THE COURT: Okay. All right. Next slide is 19.

3 MR. MALONE: Yes. And now we're going to get into
4 the discussion of hydraulic control and the whole story of the
5 deal that IEUA and Watermaster made with the Regional Board.

6 THE COURT: IEUA?

7 MR. MALONE: IEUA, yeah.

8 THE COURT: Okay.

9 MR. MALONE: At about the same time that the OBMP
10 was being developed back in 2000, the Regional Board was going
11 through a complete update of their basin plan. And what they
12 were doing was they were redefining all of their groundwater
13 sub-basins, and they were redefining the groundwater quality
14 objectives for each one of those groundwater sub-basins.

15 And this is what I'm showing you on the map here is
16 how they redefined the groundwater basin sub-basins. And in
17 Chino Basin in particular, we have Management Zone 1,
18 Management Zone 2, Management Zone 3, from west to east across
19 the northern portion of the basin. We have Management Zone 4
20 and Management Zone 5 over here in the southeast.

21 THE COURT: Okay. Hang on. So show me one again.

22 MR. MALONE: Management Zone 1 is on the west side
23 of Chino Basin.

24 THE COURT: And zone two.

25 MR. MALONE: Two is in the central.

26 THE COURT: Got it. Zone three.

27 MR. MALONE: And three is on the east.

28 THE COURT: And then four is which one?

1 MR. MALONE: Four is here.

2 THE COURT: Okay.

3 MR. MALONE: South of the Jurupa Hills.

4 THE COURT: Okay.

5 MR. MALONE: And five is along the Santa Ana River.

6 THE COURT: Okay. Got it. Got it. Thank you.

7 MR. MALONE: Okay.

8 THE COURT: Oh, I see them labeled there. First
9 rule, read on. Okay. Thanks.

10 MR. MALONE: Okay. The way they were setting their
11 new objectives for TDS and nitrate was they were looking at
12 historical groundwater quality data from wells.

13 THE COURT: Dating back to the 30's.

14 MR. MALONE: Dating back from the 1950's to the
15 1970's. The reason why they were doing that because the first
16 basin plans were developed in the 1970's and the state board
17 had come out with a resolution called the Anti-degradation
18 Resolution. 68-16 is that resolution number.

19 THE COURT: And that's the State Water Quality
20 Control Board?

21 MR. MALONE: State Water Resource Control Board.
22 That was their policy, their resolution that they adopted, and
23 it is commonly referred to as the anti-degradation policy.

24 THE COURT: Okay.

25 MR. MALONE: The state's anti-degradation policy.

26 THE COURT: All right. Got it.

27 MR. MALONE: And what that policy in very simple
28 terms says is that they're drawing the line for water quality

1 degradation in 1968, and they're saying no more degradation in
2 water quality of the state's waters.

3 THE COURT: So -- and how do they choose 1968 as a
4 standard?

5 MR. MALONE: Because that's when the resolution was
6 adopted.

7 THE COURT: Oh, I see. Okay.

8 MR. MALONE: 68-16.

9 THE COURT: I see it. Okay.

10 MR. MALONE: Okay. So this Regional Board the way
11 they chose to set their groundwater quality objectives was to
12 look at 20 years' worth of groundwater quality data that
13 bracketed 1968. It was actually from 1954 to 1973.

14 THE COURT: Okay.

15 MR. MALONE: Okay.

16 THE COURT: Got it.

17 MR. MALONE: Water quality was a little bit better
18 in the Chino Basin back then than it is today. So --

19 THE COURT: Back then being '68?

20 MR. MALONE: In '68, yes, or during that 20-year
21 period.

22 THE COURT: Okay. From -- 20 years on both sides of
23 68?

24 MR. MALONE: No. It was 1954 to 1973 that was the
25 20-year period that the Regional Board looked at.

26 THE COURT: Okay.

27 MR. MALONE: To set the water quality objectives.

28 THE COURT: Okay. Got it. Okay.

1 MR. MALONE: These became the so-called
2 anti-degradation water quality objectives. And they did this
3 not only in Chino Basin but all across the Santa Ana River
4 watershed. But all I'm showing you on this map here is the
5 Chino Basin anti-degradation objectives.

6 THE COURT: Got it. Okay.

7 MR. MALONE: You can see here that the top number
8 for each management zone is the TDS objective.

9 THE COURT: Got it.

10 MR. MALONE: The bottom number is the
11 nitrate/nitrogen objective. For Management Zone 1 it's 293
12 for TDS. Let's just focus on TDS for the time.

13 THE COURT: And that's milligrams per liter?

14 MR. MALONE: Milligrams per liter. For Management
15 Zone 2, 255. For Management Zone 3, 262.

16 THE COURT: Okay.

17 MR. MALONE: Our recycled water, the TDS
18 concentration for recycled water is somewhere between 400 and
19 500 milligrams per liter.

20 THE COURT: Of TDS?

21 MR. MALONE: Yeah.

22 THE COURT: Okay.

23 MR. MALONE: State Water Project water sometimes is
24 above 250 milligrams per liter. It can get up to about 300
25 milligrams per liter at times.

26 THE COURT: Okay.

27 MR. MALONE: So you can see that the Regional Board
28 may have some problems permitting the recharge of recycled

1 water in the Chino Basin or permitting even the recharge of
2 imported State Water Project water with water quality
3 objectives this low.

4 THE COURT: Right.

5 MR. MALONE: Okay.

6 THE COURT: Why are -- why is there such a
7 difference between zone one and zone five in terms of what's
8 permitable?

9 MR. MALONE: It was all based on historical water
10 quality data.

11 THE COURT: Okay.

12 MR. MALONE: Yeah.

13 THE COURT: So in a sense an historical accident.

14 MR. MALONE: Yup.

15 THE COURT: Okay.

16 MR. MALONE: Or just the way the land was being used
17 and how this management zone is a little bit different than
18 these management zones, which these management zones receive
19 more storm water recharge than this management zone over here.

20 THE COURT: Okay. Indicating zone one -- zones one
21 and two versus zone four and five, for that matter.

22 MR. MALONE: Yeah.

23 THE COURT: Okay. Thanks.

24 MR. MALONE: Now, the Regional Board has a way of
25 regulating. They have a term called assimilative capacity,
26 and the next slide will spell it for you.

27 THE COURT: Okay.

28 MR. MALONE: Assimilative capacity. And what they

1 do is they determine what the current water quality is in each
2 one of these management zones.

3 THE COURT: Current being present.

4 MR. MALONE: Present.

5 THE COURT: Okay.

6 MR. MALONE: They go through that process of
7 determining what the current quality is, and then they compare
8 it to the groundwater quality objective. If the -- if water
9 quality is degraded over time and the current quality is worse
10 than the objective, there is no assimilative capacity and the
11 Regional Board basically has its hands tied. It cannot permit
12 a discharge in excess of the objective to that management zone
13 under any circumstances unless there's some mitigation that
14 might come along with it.

15 THE COURT: Okay.

16 MR. MALONE: However, if water quality is improved
17 over time then -- compared to the objective, so now the
18 current quality is better than the water quality objective,
19 then you have assimilative capacity and the Regional Board
20 then has some discretion as to whether or not to permit a
21 discharge to that management zone. So in Chino Basin's case
22 they would have -- if there was assimilative capacity, they
23 would have some discretion as to say, yeah, we will let you
24 recharge that recycled water even though you're a little bit
25 above the objective.

26 THE COURT: In other words, recharge it with water
27 that is not at or below the --

28 MR. MALONE: Objective.

1 THE COURT: The objective. Thank you.

2 MR. MALONE: Yes.

3 THE COURT: Okay.

4 MR. MALONE: Okay.

5 THE COURT: I got it.

6 MR. MALONE: Okay.

7 THE COURT: Thanks.

8 MR. MALONE: I know. It's a hard concept.

9 THE COURT: I'm working on it.

10 MR. MALONE: That's the way they do it.

11 THE COURT: Okay.

12 MR. MALONE: Okay. So with this in mind, what IEUA
13 and Watermaster did was they made what's called a maximum
14 benefit argument to the Regional Board.

15 THE COURT: And when did they do that?

16 MR. MALONE: When?

17 THE COURT: Yeah. Is it ongoing or --

18 MR. MALONE: Right around 2004 they did it because
19 this is right when the basin plan was being adopted.

20 THE COURT: Okay.

21 MR. MALONE: So they got this maximum benefit
22 argument into the updated basin plan.

23 THE COURT: Okay.

24 MR. MALONE: And I'm gonna be -- I'm gonna be simple
25 with this explanation too on what maximum benefit is. But
26 there are provisions in the -- the state's water code that
27 allows the Regional Board to artificially raise a water
28 quality objective and create assimilative capacity. If the

1 people that want to do this, that are proposing this can prove
2 to the Regional Board that -- that creating that assimilative
3 capacity, raising that water quality objective is to the
4 maximum benefit of the people of the state, and it protects
5 all beneficial uses, both within the basin and downstream of
6 the basin. The downstream of the basin is very important when
7 we get ready to talk about hydraulic control.

8 THE COURT: So it protects the beneficial uses of
9 the --

10 MR. MALONE: Of the groundwater.

11 THE COURT: -- of the groundwater both locally and
12 downstream.

13 MR. MALONE: And downstream.

14 THE COURT: Okay.

15 MR. MALONE: And you have to prove that doing this
16 is to the maximum benefit of the people of California.

17 THE COURT: Okay. Does that mean the entire state
18 or the people around it?

19 MR. MALONE: The people of the state, the people --
20 yeah. And if you can make the argument that it's to the
21 benefit of the people outside the state and it's to the
22 benefit of the people of the whole country, you can make that
23 argument too. It's even stronger.

24 THE COURT: All right.

25 MR. MALONE: Okay. The Chino Basin folks have this
26 Optimum Basin Management Plan that has a lot of aspects to it
27 that could be argued to be to the maximum benefit of the
28 people of the state and the country.

1 THE COURT: Okay.

2 MR. MALONE: Particularly the use of recycled water,
3 capturing more storm water, making us less dependent on
4 imported water from northern California or the Colorado River
5 watershed.

6 So that was essentially the argument that
7 Watermaster and IEUA made to the Regional Board is that we
8 have an OBMP, and implementation of this OBMP is clearly to
9 the maximum benefit of the people of this state, the people in
10 our local region, and the people in the Colorado River
11 watershed and everybody who is dependent upon that water.

12 THE COURT: Got it. Okay. Okay.

13 MR. MALONE: So the next thing they needed to do was
14 prove that beneficial uses would be protected.

15 THE COURT: By allowing the standard to change to --

16 MR. MALONE: Yes.

17 THE COURT: And -- and then to -- by virtue of
18 changing the assimilative capacity?

19 MR. MALONE: Yes. And then what are we gonna do
20 with that assimilative capacity, and how is that going to
21 affect water quality in that basin, and how is that going to
22 affect water quality downstream from us too. The Regional
23 Board wanted some demonstration of that, that you're gonna
24 protect your in basin beneficial uses and you're going to
25 protect downstream beneficial uses too.

26 THE COURT: Okay. And the Regional Board makes this
27 kind of decision. Do they have a hearing with evidence
28 presented and cross-examination?

1 MR. MALONE: Yes. That's -- it's all -- it's all
2 peer reviewed and goes through a process.

3 Michael, you might know the process better than I do
4 on how a basin plan gets approved but --

5 MR. FIFE: I don't think there's, like,
6 cross-examination but there's -- it's a public process.

7 THE COURT: Okay.

8 MR. FIFE: There's discussion.

9 THE COURT: It's more like legislative hearings
10 then?

11 MR. FIFE: Yeah.

12 THE COURT: Okay. All right.

13 MR. MALONE: And it's approved by the Office of
14 Administrative Law. It's approved by the EPA.

15 THE COURT: Okay. The state or the federal EPA or
16 both?

17 MR. MALONE: Federal.

18 THE COURT: Okay.

19 MR. MALONE: I think might be both.

20 THE COURT: Okay.

21 MR. MALONE: I'm not totally up to speed on the
22 entire process but it goes through a lot. It's several years
23 worth of review.

24 THE COURT: Okay.

25 MR. MALONE: Especially for a --

26 MR. FIFE: We now have a new member of the audience.
27 Tracy, do you want to state your appearance?

28 THE COURT: Could I get your name, please?

1 MS. EGOSCUE: Sure. Would you like me to approach,
2 your Honor?

3 THE COURT: Sure. Come on up.

4 MS. EGOSCUE: My name is Tracy Egoscue. It's
5 spelled E-g-o-s-c-u-e, and I'm general counsel for the Ag
6 Pool, your Honor.

7 THE COURT: Okay.

8 MS. EGOSCUE: But I'm a former executive officer of
9 the Regional Board.

10 THE COURT: Oh, okay.

11 MS. EGOSCUE: So I can speak to the process.

12 THE COURT: Sure. If you would, please.

13 MS. EGOSCUE: Sure. The -- the TMDL's and the --

14 THE REPORTER: I'm sorry. The TMDL's?

15 MS. EGOSCUE: The total maximum daily loads.

16 THE COURT: What's --

17 MS. EGOSCUE: Total maximum daily loads.

18 THE COURT: What's that?

19 MS. EGOSCUE: It is -- it's similar to the basin
20 plan amendment that we're speaking to today. So it's a
21 similar process. It's a regulatory process. The Regional
22 Board does conduct a hearing, it does admit evidence, and upon
23 request of any party you can have cross-examination. It's
24 very rarely done. But there have been some instances, most
25 notably the Santa Monica Bay bacteria TMDL hearing.

26 THE COURT: DL, daily load.

27 MS. EGOSCUE: Total maximum daily load.

28 THE COURT: Okay.

1 MS. EGOSCUE: Where there was a hearing. Once the
2 basin plan amendment has passed through the Regional Board,
3 and the entire record is compiled, which is all the evidence
4 that any party would like to submit, and -- and then also what
5 the staff prepares and engineers prepare. So then a record is
6 compiled. It's called the administrative record. That is
7 then sent to the State Water Resources Control Board. The
8 State Water Resources Control Board conducts an additional
9 hearing and also admits evidence and testimony if they so
10 desire. And then it goes to the Office of Administrative Law
11 which is a state agency. And once the Office of
12 Administrative Law looks it over and makes sure that all the
13 -- all the rules have been followed, there was notice, that
14 the notice was adequate, that all the rules were followed, all
15 the laws, then the United States EPA looks at it and says
16 "yes" or "no," thumbs up or thumbs down. Because as Your
17 Honor, I'm sure is aware, the United States EPA has delegated
18 all of this authority to the State of California. And so they
19 have a -- an oversight role with everything that the regional
20 boards do.

21 THE COURT: Okay. They, the federal EPA?

22 MS. EGOSCUE: That's correct.

23 THE COURT: And so what is the daily load? What is
24 the daily load?

25 MS. EGOSCUE: Okay. So what I'm probably doing, not
26 meaning to do, is confusing you with that term. You should
27 just focus for purposes of today on the basin plan amendment.

28 THE COURT: Okay.

1 MS. EGOSCUE: And just forget that I even brought up
2 the total maximum daily load.

3 THE COURT: Okay.

4 MS. EGOSCUE: I do also want to make note that when
5 you asked earlier who sets the maximum contaminant levels, it
6 is the California Department of Public Health that sets those.

7 THE COURT: Oh.

8 MS. EGOSCUE: I think that you were told it was Cal
9 EPA.

10 MR. MALONE: Yeah.

11 MS. EGOSCUE: It's public health and it's a very
12 important distinction.

13 THE COURT: They set the maximum -- the total --

14 MS. EGOSCUE: The maximum contaminant level for
15 drinking water.

16 THE COURT: Okay.

17 MS. EGOSCUE: That's really important to note
18 because it's a separate agency charged with public health
19 instead of a water quality.

20 THE COURT: Okay. So they set the maximum
21 contaminant standards, and that means total dissolved solids
22 at nitrate?

23 MS. EGOSCUE: That's correct.

24 THE COURT: Is -- are there other standards that
25 they set?

26 MS. EGOSCUE: Yes. They set all of the drinking
27 water standards that we refer to as MCL's.

28 THE COURT: Maximum contaminant limits.

1 MS. EGOSCUE: Levels.

2 THE COURT: Levels. Thank you.

3 MS. EGOSCUE: Yes.

4 THE COURT: All right. Got it.

5 MS. EGOSCUE: And those are separate than the water
6 quality objectives that the Regional Board sets.

7 THE COURT: But they overlap them, it sounds like.

8 MS. EGOSCUE: Sometimes they do.

9 THE COURT: Okay. All right. I got it.

10 MS. EGOSCUE: Okay.

11 THE COURT: Thanks.

12 MS. EGOSCUE: Thank you.

13 MR. MALONE: Thank you, Tracy.

14 THE COURT: Thank you very much.

15 Okay. Go ahead, please, Mr. Malone.

16 MR. MALONE: Okay. So let's go on to the next
17 slide.

18 THE COURT: Okay. So we're now at slide -- actually
19 21. 21. Go ahead, please.

20 MR. MALONE: This is what IEUA and Watermaster
21 proposed for the new elevated water quality objectives for the
22 Chino Basin.

23 THE COURT: 420 and 5.0.

24 MR. MALONE: Yes. They combined all three
25 management zones, one, two and three into one management zone,
26 call it Chino North. Then they asked for a water quality
27 objective at 420 milligrams per liter for TDS and five
28 milligrams per liter for nitrate nitrogen.

1 THE COURT: Okay. And who made this request again?
2 This was --

3 MR. MALONE: They made this request to the Regional
4 Board.

5 THE COURT: Okay. And who's "they," Watermaster?

6 MR. MALONE: Watermaster and IEUA.

7 THE COURT: So Watermaster and IEUA, for purposes of
8 this presentation, combines the three zones and makes a
9 presentation and a request to the State Water Quality Control
10 Board to allow the contaminant levels at 420 for total
11 dissolved solids at 5.0 for nitrogen? Am I correct on that?

12 MR. MALONE: The water quality objectives.

13 THE COURT: Oh. For water quality objectives.

14 MR. MALONE: Yup. And we call these -- remember we
15 called the first one the anti-degradation water quality
16 objectives.

17 THE COURT: Yes.

18 MR. MALONE: We call these the maximum benefit
19 objectives.

20 THE COURT: Okay.

21 MR. MALONE: So remember we also were talking about
22 the protection of beneficial uses in the basin and downstream.

23 THE COURT: Mm-hmm.

24 MR. MALONE: Beneficial uses.

25 THE COURT: Yes.

26 MR. MALONE: What they required us to do was to do
27 some groundwater modeling.

28 THE COURT: "They," the water quality board?

1 MR. MALONE: Yes, the board.

2 THE COURT: The board. Okay.

3 MR. MALONE: Required us to do some groundwater
4 modeling that would show and predict what water quality would
5 do if we implemented the OBMP under these new maximum benefit
6 objectives, how water quality would change in the Chino North
7 Management Zone over time. And we were able to demonstrate
8 that we would not be impacting beneficial uses of the
9 groundwater by implementing the OBMP under these new maximum
10 benefit objectives.

11 THE COURT: So, in other words, the water would
12 remain drinkable.

13 MR. MALONE: Yes.

14 THE COURT: And you would be able to keep more water
15 in the area if you were -- if -- if they let these maximum
16 benefit objectives stand.

17 MR. MALONE: Yes.

18 THE COURT: Okay.

19 MR. MALONE: Okay.

20 THE COURT: I got it.

21 MR. MALONE: All right. They -- they did this but
22 they also --

23 THE COURT: "They," the quality --

24 MR. MALONE: I'm sorry. The Regional Board also
25 required that many of those elements of the OBMP be codified
26 in the basin plan as basin plan commitments that the Regional
27 Board would then hold Watermaster and IEUA to.

28 THE COURT: Got it. Okay.

1 MR. MALONE: Can you go to the next slide, Michael?

2 THE COURT: 22.

3 MR. MALONE: Yeah. Go ahead again. These are some
4 of those commitments.

5 THE COURT: Okay.

6 MR. MALONE: To do ongoing monitoring and analysis
7 of the data to expand the desalters. Like the OBMP had said,
8 we're going to expand the desalters like this. The Regional
9 Board says okay. You will do that now.

10 THE COURT: Okay. And that means not only wells but
11 also desalting facilities.

12 MR. MALONE: Yes.

13 THE COURT: Okay.

14 MR. MALONE: Certain volumes --

15 THE COURT: Okay.

16 MR. MALONE: -- of water to be treated.

17 THE COURT: Okay.

18 MR. MALONE: Expansion of the recharge facilities to
19 be able to capture more storm water and more low TDS State
20 Water Project water. Bringing in low TDS water high up in the
21 basins is a good salt management strategy.

22 THE COURT: Okay.

23 MR. MALONE: Blending of the recycled water as it's
24 going into the ground. They wanted some of that. They wanted
25 the new storm water, "they" being the Regional Board wanted
26 the new storm water and the State Water Project water to be
27 blended with the recycled water before it went into -- to do
28 everything that IEUA can do in order to improve the quality of

1 its waste water. An example of that might be to try to get
2 rid of self-regenerating water softeners that discharge a lot
3 of salt into the sewer system and cause their effluent, their
4 waste water to have higher TDS. So to implement programs like
5 that, to improve the quality of the waste water, the Regional
6 Board made these commitments that IEUA and Watermaster have to
7 live up to.

8 THE COURT: Got it.

9 MR. MALONE: The last thing they did with the
10 desalters, and this is to protect downstream beneficial uses,
11 is they said these desalters must achieve hydraulic control.
12 And hydraulic control is defined as -- let's go to -- is this
13 the next slide or --

14 THE COURT: No. That was the previous slide.

15 MR. FIFE: I think I went back.

16 THE COURT: So this is slide 23.

17 MR. MALONE: Yeah.

18 THE COURT: Okay.

19 MR. MALONE: Looking at the southern end of the
20 basin.

21 THE COURT: Wait just a sec. In my packet it's
22 different.

23 MR. FIFE: Do we have to hit it again, right, so the
24 arrow appears.

25 THE COURT: There we go. That's what was confusing
26 me.

27 MR. MALONE: Sorry.

28 THE COURT: I've got 23 up. Okay. Thanks. Okay.

1 Go ahead, please.

2 MR. MALONE: We are looking at the southern end of
3 the basin again. The Santa Ana River and Prado dam down here
4 and Prado Basin. And the white squares -- I know there's a
5 lot on this map but I'll take some time to explain it all.
6 The white squares here are the existing desalter wells. The
7 new Chino Creek Well Field will be drilled right over in this
8 area right here.

9 THE COURT: Okay.

10 MR. MALONE: What I'm trying to explain here is what
11 hydraulic control is.

12 THE COURT: Well, I think I understand what it is,
13 actually. I think -- let me --

14 MR. MALONE: Okay.

15 THE COURT: -- state it and see if I've got it
16 right. Is to prevent groundwater from essentially changing
17 the groundwater levels so that the flow is not into the Santa
18 Ana River.

19 MR. MALONE: Yes. That you're minimizing the impact
20 of rising groundwater to the -- on the water quality of Santa
21 Ana River to de minimis levels.

22 THE COURT: Okay. Okay.

23 MR. MALONE: Now, the way that the Regional Board
24 wants us to demonstrate that we have hydraulic control is that
25 through water level monitoring around these wells that these
26 wells have created such a depression in the groundwater level
27 surface that we can map the groundwater flow of any water
28 molecule that is flowing to the south in the Chino North

1 Management Zone will be intercepted by one of these wells
2 here. That they want to see that this entire well field will
3 capture all groundwater flowing south, that none of the
4 groundwater in Chino North makes it past the desalter well
5 field. Now, I said none. They're willing to say to a de
6 minimis leakage.

7 THE COURT: Okay. I got it.

8 MR. MALONE: And I believe that they have said that
9 that definition is going to be 1000 acre-feet per year. If
10 somebody knows differently. I believe that's the last letter
11 that came from Kirk Berchtold who is the --

12 MR. FIFE: Did they state a thousand?

13 MR. ALVAREZ: He didn't state a number. He just
14 said that effectively once we achieve this that any flow would
15 be de minimis.

16 THE COURT: Okay. I'm sorry. I'm terribly sorry,
17 I've forgotten -- it's Mr. Desi --

18 MR. MALONE: Alvarez.

19 THE COURT: Mr. Alvarez -- thank you -- speaking.

20 MR. MALONE: Okay.

21 THE COURT: So if -- so we are not talking about
22 every last drop, but we're talking about if a thousand
23 acre-feet get from the Chino Valley into the Santa Ana River,
24 that's okay with the Regional Board?

25 MR. MALONE: There's going to be more than that that
26 gets into the Santa Ana River, because there's rising
27 groundwater down here that the desalters no matter how hard we
28 pump we won't be able to cut off all the rising groundwater

1 that makes its way to the Santa Ana River.

2 THE COURT: Well, if you had a particularly wet year
3 that would also be a problem, wouldn't it, in terms of
4 capturing all the water from the desalters?

5 MR. MALONE: It --

6 THE COURT: All the groundwater?

7 MR. MALONE: It could. But generally this cone of
8 depression is going to be so robust that even during wet
9 hydraulic periods we will still have this cone of depression
10 or depression in the groundwater levels that will capture all
11 the groundwater flowing south in Chino North.

12 THE COURT: So you will be essentially pumping so
13 much groundwater out into the -- through the desalters --

14 MR. MALONE: Mm-hmm.

15 THE COURT: -- through the desalter wells --

16 MR. MALONE: Mm-hmm.

17 THE COURT: -- and then -- that it will -- it will
18 keep the water levels from rising enough to put the
19 groundwater into the Santa Ana River.

20 MR. MALONE: Yeah. To a level that can really be
21 detected and considered to be a nuisance and cause violation
22 of groundwater quality or exceedances of surface water quality
23 objectives at below Prado --

24 THE COURT: To be almost negligible.

25 MR. MALONE: Yes.

26 THE COURT: Okay.

27 MR. MALONE: The term they use is de minimis.

28 THE COURT: De minimis. Okay. When you've got all

1 this pumping going on, are you -- you pump it out, it goes to
2 the desalters, it's desalted, it's being recharged, though,
3 back into the ground. Am I correct?

4 MR. MALONE: It gets used as either drinking water
5 or potentially as landscape irrigation. So a small portion of
6 that water might make its way back to the -- the aquifer.

7 THE COURT: Okay.

8 MR. MALONE: But it's not purposefully -- we're not
9 treating this -- we're not desalting the water and then
10 artificially recharging it back into a recharge basin. It's
11 being used for municipal drinking water or landscape
12 irrigation possibly.

13 THE COURT: Okay. So the Appropriative Pool, right,
14 is pumping the water to use it for municipal purposes then?

15 MR. MALONE: The CDA is. The Chino Desalter -- the
16 Chino Basin Desalter Authority.

17 THE COURT: CDA. Okay.

18 MR. FIFE: The members of the Appropriative Pool who
19 are members of the CDA.

20 THE COURT: Are then using that water and selling it
21 to municipal customers essentially. Am I right about that?

22 MR. FIFE: Correct.

23 THE COURT: All right. I got it. So it -- so what
24 gets pumped out ends up in the sewer system mostly except for
25 what is used for landscaping?

26 MR. MALONE: For outdoors. Yeah.

27 THE COURT: Okay. All right. Thanks.

28 MR. MALONE: This map here, what you're seeing at

1 all of these other symbols are wells with groundwater level
2 elevations for the year 2000, spring 2000. This is before any
3 desalter pumping had occurred. I'm showing the desalter wells
4 on here but not all of them were even here. I'm just showing
5 them on the map.

6 THE COURT: Okay.

7 MR. MALONE: But this is a map of how groundwater
8 flowed in the year 2000 prior to any desalter pumping.

9 THE COURT: Got it.

10 MR. MALONE: This is our baseline for measuring
11 hydraulic control.

12 THE COURT: Okay. Got it.

13 MR. MALONE: This blue arrow here is showing you how
14 a water molecule would flow from the northeast to the
15 southwest under this hydraulic gradient.

16 THE COURT: That's the blue arrow essentially.

17 MR. MALONE: The blue water is how groundwater would
18 flow.

19 THE COURT: Okay.

20 MR. MALONE: You can see right here that it's just
21 flowing from the northeast to the southwest, past where the
22 desalter well field is today, down into Prado Basin where that
23 water could rise to become surface water outflow to the Santa
24 Ana River.

25 THE COURT: Okay. The water moves -- I mean, we
26 have a blue arrow that kind of almost implies that it flows in
27 a trough. But it's a big flat sheet of aquifer water, isn't
28 it, that's moving?

1 MR. MALONE: Yeah, it's got thickness. It's got
2 volume.

3 THE COURT: Okay.

4 MR. MALONE: And it flows downhill like a -- like a
5 -- like surface water would flow downhill.

6 THE COURT: Okay.

7 MR. MALONE: But the way that we measure the
8 gradient of that hill is by measuring water levels at wells.
9 And so the water level, the top of that aquifer, that water
10 level, we tried to contour that with that well data, and so it
11 tells us which direction the groundwater is flowing.

12 THE COURT: Okay. And so the elevations here, the
13 top one that I can see, the upper right-hand side says 600.
14 So that's 600 feet above sea level?

15 MR. MALONE: Yes.

16 THE COURT: Okay. Down to the bottom one I see at
17 the lower left, 510?

18 MR. MALONE: Yes.

19 THE COURT: So 510 --

20 MR. MALONE: Feet above sea level.

21 THE COURT: Okay. I got it.

22 MR. MALONE: And so that's the top of the water
23 level at the aquifer.

24 THE COURT: Got it.

25 MR. MALONE: Okay. So this is obviously not
26 hydraulic control. The next map I'm gonna show you is a map
27 from 2010 after ten years of pumping at the existing desalter
28 facilities.

1 THE COURT: Okay.

2 MR. MALONE: As you can see, a lot's changed in our
3 contour map because of these desalter wells and their pumping
4 and their lowering of groundwater levels in this area.

5 THE COURT: Yeah, definitely.

6 MR. MALONE: Can you hit the --

7 MR. FIFE: Oh, sorry.

8 MR. MALONE: Okay. You're looking for these arrows,
9 right?

10 THE COURT: Yeah. Found them. Got them.

11 MR. MALONE: Okay. So same arrows and I'm gonna
12 take you from the east to the west. Groundwater flows
13 perpendicular to these contours everywhere and so what we're
14 seeing here to the east is that groundwater that is recharging
15 in the Santa Ana River is flowing to the west towards these
16 desalter wells.

17 THE COURT: Okay.

18 MR. MALONE: To ultimately be pumped by these
19 desalter wells.

20 THE COURT: Well, you have totally changed the
21 direction.

22 MR. MALONE: Yes.

23 THE COURT: From essentially north to south.

24 MR. MALONE: Yes.

25 THE COURT: To east to west.

26 MR. MALONE: Yeah. If we're over here in the north
27 and we're flowing south, these contours down here indicate
28 that this water molecule would be consumed by one of these

1 desalter wells down here.

2 THE COURT: Okay. Kind of in the center of the
3 picture.

4 MR. MALONE: Yeah.

5 THE COURT: Just for reference. Okay.

6 MR. MALONE: Yup. However, to the west here where
7 we don't have desalter wells, our contours are showing that
8 groundwater is still flowing past the desalter well field here
9 from the Chino North Management Zone into the Prado Basin
10 where it could potentially rise and leave the basin as surface
11 water.

12 THE COURT: Okay. Very similar to the way it was in
13 2000, actually.

14 MR. MALONE: Yes. Yes.

15 THE COURT: Okay.

16 MR. MALONE: And really because there's no pumping
17 going on from the desalters over in this area.

18 THE COURT: Got it. Okay.

19 MR. MALONE: That's the reason why we are
20 constructing the Chino Creek Well Field over in this area is
21 to achieve hydraulic control on the west side. Everywhere
22 else over here we have demonstrated through this groundwater
23 elevation mapping that we have achieved hydraulic control and
24 the Regional Board has agreed with us.

25 THE COURT: Okay. And that's -- that's -- that's
26 the agency to whom you have to demonstrate hydraulic control.

27 MR. MALONE: Yes.

28 THE COURT: Okay.

1 MR. MALONE: I would also say that Orange County
2 Water District is interested in this and that they participate
3 too. They review these reports and these maps. And the
4 Regional Board invites them to some of the meetings to discuss
5 any of their concerns they might have with hydraulic control
6 and how we're measuring it.

7 THE COURT: Okay. So both the Watermaster here in
8 Chino and the Santa Ana -- can't keep the names straight --
9 the Santa Ana water people.

10 MR. MALONE: Santa Ana Regional Board.

11 THE COURT: Thank you. Santa Ana Regional Board are
12 subject to the -- the Regional Board which sits on top, which
13 sits above them in authority in a sense, the Chino Watermaster
14 and Santa Ana.

15 MR. MALONE: I think what you meant to say is IEUA
16 and Watermaster.

17 THE COURT: Yes.

18 MR. MALONE: They're the ones with the maximum
19 benefit commitments to the Regional Board.

20 THE COURT: Got it.

21 MR. MALONE: The Regional Board is requiring them to
22 get hydraulic control.

23 THE COURT: To protect the downstream people in
24 Orange County.

25 MR. MALONE: Yes.

26 THE COURT: Okay.

27 MR. MALONE: Yeah.

28 THE COURT: Okay. I got it. I think I got it.

1 MR. FIFE: You got it.

2 MR. MALONE: And in exchange we get these elevated
3 water quality objectives, these maximum benefit quality
4 objectives which allowed us to implement the OBMP.

5 THE COURT: In other words, keep more water here in
6 the Chino Basin. And there was a second benefit I can't
7 remember but that was one of them.

8 MR. MALONE: Yeah.

9 THE COURT: Okay.

10 MR. MALONE: And I think you know we have talked a
11 lot about the benefits of these desalters to be able -- we
12 wanted these desalters anyhow because we wanted to preserve
13 and enhance the yield of the basin. We wanted to clean up the
14 groundwater basin. We wanted to export salt. We wanted to do
15 all these other things anyhow so we were, in effect, already
16 doing maximum benefit. But we just happened to make that
17 argument to the Regional Board and ask them to raise those
18 water quality objectives so that we could legally implement
19 our plan.

20 THE COURT: Got it. Okay. I got it. All right.

21 MR. MALONE: So that is really the story of
22 hydraulic control. Let's move on.

23 THE COURT: Slide 25.

24 MR. MALONE: We have one more slide here and I want
25 to -- I think this is really important. We modeled this
26 process of the desalters coming in and lowering groundwater
27 levels and enhancing recharge from the Santa Ana River and
28 achieving hydraulic control. We have computer simulation

1 models of the ground water basin. That's how we evaluate and
2 test our plans. So we modeled this process. Now for the last
3 ten years we've been monitoring it as well. Very closely
4 Watermaster has been spending a great effort on monitoring
5 groundwater levels at all the agricultural wells and at the
6 desalter wells. And they've gone out there and drilled their
7 own monitoring wells to do this water level monitoring. And
8 so what we've seen over the last ten years is the -- this
9 management plan coming to fruition. We're looking at it.
10 We're watching it happen and it's confirming what we always
11 believed from our models. The data that we collect is also
12 being used to update our models as well and refine them and
13 make them even better predictive tools.

14 THE COURT: So you're looking -- so in a sense did
15 you formulate a hypothesis in the 90's, and then execute it in
16 the 2000's, and you're seeing that your model was pretty --
17 your hypothesis was pretty correct in drawing conclusions
18 about what would happen after the pumping?

19 MR. MALONE: Yes.

20 THE COURT: Okay.

21 MR. MALONE: Yeah.

22 THE COURT: Okay.

23 MR. MALONE: That the models we were using to
24 predict what would happen indeed did happen. And we've been
25 monitoring it as well.

26 THE COURT: Okay.

27 MR. MALONE: Okay. So this process of using
28 computer simulation predictive models, and then backing it up

1 with the monitoring is very standard advanced basin management
2 strategy.

3 THE COURT: Okay.

4 MR. MALONE: You don't see it being done everywhere.
5 But in places where ground water basins are being managed
6 effectively, you see that being done and the Chino Basin is a
7 prime example of that.

8 THE COURT: Okay. Did you come up with the computer
9 models or -- in other words, were these -- were these
10 developed in the -- at least computer models developed in the
11 1990's here in the Chino Valley? Did you have other --

12 MR. MALONE: It's evolved over time.

13 THE COURT: Okay.

14 MR. MALONE: In the 80's is really when the first
15 models of the Chino Basin were developed. They were developed
16 by other companies besides our own. Since we've been
17 performing as Watermaster engineer, we've taken a lot of those
18 models and we have changed source codes --

19 THE COURT: Okay.

20 MR. MALONE: -- to a standard source code used by
21 the United States Geological Survey called modflow. We have
22 improved those models periodically over time so they have
23 really evolved back from the 1980's. And my boss Mark
24 Wildermuth who was here earlier has been involved in that
25 every step of the way.

26 THE COURT: The actual design of the computer system
27 itself?

28 MR. MALONE: Of the models.

1 THE COURT: Okay. Thanks.

2 MR. MALONE: Here is what I think is a very
3 instructive graphic on how the monitoring data has turned out
4 over the last ten years. This is another water level change
5 map. So the two maps I showed you prior from 2000 and 2010
6 were subtracted from each other. So we're seeing the change
7 in groundwater level over this ten-year period --

8 THE COURT: Okay.

9 MR. MALONE: -- on this map, and it's shown by the
10 color shading. In red is where groundwater levels have
11 declined over time over this ten-year period. And the green
12 areas over here are where water levels have risen a little bit
13 over this ten-year period. And the magnitude of decline is as
14 much as 60 feet over here to the east around some of the
15 Desalter II Well Field. And over here where the Chino Creek
16 Well Field is we've had maybe five to ten feet of water level
17 increase in that area.

18 THE COURT: Okay.

19 MR. MALONE: All the dots on this map are wells.
20 The green dots represent where there is less production, less
21 pumping occurring at that well in 2010 as compared to 2000.
22 In most cases it's because that well is no longer there. It's
23 an agricultural well that's gone away.

24 Wells that have red dots are wells where there's
25 more pumping that occurred in 2010 compared to 2000. And
26 those are mainly the desalter wells, you can see on the map.

27 THE COURT: Okay.

28 MR. MALONE: So you can see there's a lot of green

1 dots across here where we're having less agricultural pumping.
2 Most of the red dots are the desalter wells. What this
3 graphic is showing is that the desalter wells over here are
4 causing the drawdown. Even though some of this agricultural
5 pumping is going away, the desalters are pumping so much that
6 they're causing the drawdown to occur.

7 THE COURT: Okay.

8 MR. MALONE: And we see that drawdown extend all the
9 way to the Santa Ana River, almost ten feet of water level
10 decline near the Santa Ana River. And to me this is empirical
11 evidence that our management plan is working and that we're
12 steepening the hydraulic gradient from the river to the
13 desalter wells.

14 THE COURT: Backwards to the desalter wells, away
15 from the river.

16 MR. MALONE: Backwards to the desalt wells. We're
17 enhancing the Santa Ana River recharge to the -- to the Chino
18 Basin.

19 THE COURT: Say that one more time. We're
20 enhancing --

21 MR. MALONE: We're enhancing the recharge of the
22 Santa Ana River to the Chino Basin.

23 THE COURT: In other words, we've got water flowing
24 out of the Santa Ana River now into the Chino Basin.

25 MR. MALONE: Into the Chino Basin.

26 THE COURT: And the water generally in the Santa Ana
27 River is of a higher quality than what's in the Chino Basin;
28 is that correct?

1 MR. MALONE: In this general area that's exactly the
2 case.

3 THE COURT: Okay.

4 MR. MALONE: You're remembering back to the slides
5 where we have, you know, over a thousand milligrams per liter.
6 I'd say in general the quality of the river here is 500
7 milligrams per liter.

8 THE COURT: Okay.

9 MR. MALONE: Something along those lines.

10 THE COURT: Okay.

11 MR. MALONE: For TDS.

12 THE COURT: Got it. Okay.

13 MR. MALONE: So when we put the Chino Creek Well
14 Field in over here our intention is to change this over time
15 from this green color to a red color, cause the drawdown,
16 create hydraulic control over on the west side.

17 THE COURT: Okay. Essentially make it a -- a sink
18 for water to flow into.

19 MR. MALONE: Yes.

20 THE COURT: Back, away -- I keep back calling it
21 backwards but what we really mean is away from the Santa Ana
22 River.

23 MR. MALONE: Yes.

24 THE COURT: I got it.

25 MR. MALONE: Okay.

26 THE COURT: Slide 26.

27 MR. MALONE: Slide 26 is a result from our computer
28 simulation model, and it is showing us what we expect

1 hydraulic control to look like in the year 2030.

2 THE COURT: Okay.

3 MR. MALONE: So the blue wells are the Chino Creek
4 Well Field. They -- in our model simulation they are
5 simulated to begin pumping I believe in 2013, 2014, that time
6 period. So they've been pumping in this simulation here for
7 maybe 15, 16 years.

8 THE COURT: Okay.

9 MR. MALONE: And these green lines are the
10 groundwater elevation contours. You can still see -- these
11 little red arrows are the flow direction. These little red
12 arrows are the flow direction.

13 THE COURT: Oh, I see that. Okay.

14 MR. MALONE: Yeah. And so you can still see water
15 flowing from the Santa Ana River towards the Desalter Well
16 Field in the southeast.

17 THE COURT: Okay.

18 MR. MALONE: You see all these little arrows
19 terminating on these desalter wells, so anything flowing south
20 in Chino North is being consumed by the desalter wells. And
21 then especially over here on the west side, we see that same
22 phenomenon where everything in the north is coming in. And
23 when I say everything, all the groundwater flow from the north
24 is flowing south and terminating at these wells, being
25 consumed by these wells.

26 THE COURT: Okay.

27 MR. MALONE: This is what the Regional Board wants
28 to see in monitoring data.

1 THE COURT: I got it. Okay.

2 MR. MALONE: Okay. Michael.

3 THE COURT: Slide 27.

4 MR. MALONE: We are now gonna shift the discussion
5 to monitoring and mitigation requirements associated with the
6 Peace II SEIR.

7 THE COURT: Okay.

8 MR. MALONE: First of all, we're gonna talk about
9 the impacts to local well owners around the Chino Creek
10 Desalter Well Field.

11 THE COURT: Got it.

12 MR. MALONE: The first thing we did we -- was we
13 defined an area where mitigation to those well owners would be
14 potentially afforded. If you had so much drawdown that it
15 would -- that it affected your well, affected your --

16 THE COURT: You have to pump deeper -- go deeper to
17 get your water.

18 MR. MALONE: Yeah. Or you just can't produce enough
19 water to serve your needs.

20 THE COURT: Okay. Because so much is flowing now to
21 the desalter wells.

22 MR. MALONE: Yeah. And you have lower groundwater
23 levels, and you just can't get enough water out of your well
24 anymore to suit -- to meet your needs.

25 THE COURT: Okay. All right. Are these mostly
26 agricultural customers?

27 MR. MALONE: Yes, they are.

28 THE COURT: Okay.

1 MR. MALONE: Yeah. And the way we went about this
2 is that we used the computer simulation model, and we looked
3 for -- what we simulated was drawdown only due to the desalter
4 expansion. You recall earlier Mr. Fife saying that all the
5 parties bought into the benefits and the impacts of the
6 400,000 acre-feet of overdraft.

7 THE COURT: Yes.

8 MR. MALONE: So we didn't simulate that here. We
9 only simulated the drawdown that would be due to the desalter
10 expansion.

11 THE COURT: The Chino Creek Well Field.

12 MR. MALONE: Yes.

13 THE COURT: Okay.

14 MR. MALONE: Yeah. There's -- and like I said,
15 there's the Chino Creek Well Field is coming in. There's
16 some, you know, moderate modifications to the pumping rates at
17 the other wells because now you have six new wells, and
18 there's some -- some plumbing things that are going on between
19 the two desalters.

20 THE COURT: Right. Changing some of the piping --

21 MR. MALONE: Yeah.

22 THE COURT: -- from some of the wells, the current
23 wells going to the Desalter I, now going to Desalter II.

24 MR. MALONE: Yes.

25 THE COURT: Okay. I remember now.

26 MR. MALONE: So there is some minor changes there
27 but essentially you are right. It is the new Chino Creek Well
28 Field that is coming in and that's what we are simulating

1 here.

2 THE COURT: Okay.

3 MR. MALONE: We defined the so-called mitigation
4 area as an area where drawdown due to the desalter expansion
5 would be greater than 20 feet of drawdown.

6 THE COURT: Okay. How do you choose that figure?

7 MR. MALONE: Okay. I'm gonna -- I'll tell you.

8 THE COURT: All right. Thanks.

9 MR. MALONE: We're saying that everybody that has a
10 private well in here is subject to mitigation. If you're
11 outside, you're not subject to mitigation.

12 THE COURT: Okay. Why not 25 feet or why not
13 15 feet?

14 MR. MALONE: It was -- it was a bit of a judgment
15 call and it was based really on our professional judgment.
16 And but what we did was we went back and we looked at the
17 water level history in this area. If you recall the graphic
18 that I showed you earlier today with those six wells, the
19 little dots that were generally in this area.

20 THE COURT: Yes.

21 MR. MALONE: I'm gonna show you the water level time
22 series of those wells right now.

23 THE COURT: Okay. So that's slide 28.

24 MR. MALONE: And what you see on this graphic is a
25 time series of water levels from 1935 to about 2010, at these
26 wells. And we had to piece it together because some of these
27 wells existed back in the 30's to the 60's, and some of these
28 wells only existed from the 70's forward. So we pieced

1 together a long-term time series of water levels in this area.

2 THE COURT: Okay. And so the -- the numbers, the
3 top one that I see, for example, 02S08W11LO1, is the name of a
4 well?

5 MR. MALONE: Yeah. That is called a state well
6 number.

7 THE COURT: Okay.

8 MR. MALONE: The State Department of Water
9 Resources, they used to do a more thorough job of this, but
10 they would give each well that was drilled a state well number
11 based on its township, range and section that that well was
12 located in.

13 THE COURT: Okay.

14 MR. MALONE: And that's how we're identifying these
15 wells here.

16 THE COURT: All right. Thanks.

17 MR. MALONE: So our approximate ground surface
18 elevation is 690 feet above mean sea level so that's right
19 about here. You can see in this area back in the 30's we were
20 maybe 20, 30 feet depth to groundwater.

21 THE COURT: Okay.

22 MR. MALONE: Okay. Since about 1945 we had a
23 tremendous amount of drawdown all the way to about 1978 when
24 the judgment was implemented.

25 THE COURT: Okay. I got it.

26 MR. MALONE: Since the judgment has been implemented
27 we've had maybe 30 -- 20, 30, 35 feet of water level recovery.

28 THE COURT: Okay.

1 MR. MALONE: Okay.

2 THE COURT: Got it.

3 MR. MALONE: The thought is that a responsible well
4 owner is going to construct a well that will be able to handle
5 up to about 20 feet of water level decline. That either your
6 well was built prior to the 90's and it's already experienced
7 this -- this deeper groundwater level, or that if you built it
8 since then that you should likely know that -- that
9 groundwater levels have been deeper in this area before in the
10 past.

11 THE COURT: Okay.

12 MR. MALONE: That was our professional judgment that
13 we -- that we used here to select the 20-foot --

14 THE COURT: Oh, I see. Okay.

15 MR. MALONE: -- mitigation area.

16 THE COURT: Okay. So you knew -- or essentially
17 knew or should have known that it can vary as much as 20 feet.

18 MR. MALONE: Yeah.

19 THE COURT: Based on the historical patterns.

20 MR. MALONE: Yeah.

21 THE COURT: Okay.

22 MR. MALONE: And if your well is impacted by 15 feet
23 of drawdown, let's say, then in our professional opinion, you
24 know, there's something else wrong with your well. You didn't
25 construct it right or maybe there is something else wrong with
26 it that you shouldn't be subject to mitigation by the CDA.

27 THE COURT: Got it. Okay. And it says
28 "precipitation ADFM." What is that?

1 MR. MALONE: I didn't mention what that is but that
2 is a way we typically put these on these sorts of time series
3 charts and it's an indication of climate. It's called the
4 cumulative departure from mean precipitation curve. Where we
5 have upward slopes of that gray line, that means it's a
6 relatively wet period compared to the long-term mean. And
7 where we have downward slopes of that gray line, that means
8 it's a dry period.

9 THE COURT: Cumulative departure from mean --

10 MR. MALONE: Precipitation.

11 THE COURT: Precipitation. Okay.

12 MR. MALONE: And what it does is it explains some of
13 that water level recovery from 1978 forward. 1978 to 1983 was
14 a very wet period. And it's shown here as this upward slope
15 in the ADFM curve.

16 THE COURT: Okay. I see.

17 MR. MALONE: So not only did the judgment come in
18 and it -- it caused less pumping to occur in the basin, but we
19 also entered a wet hydrologic period.

20 THE COURT: Okay. Coming down from about '68 to
21 '78, there were dry years --

22 MR. MALONE: Yes.

23 THE COURT: -- and then the judgment goes into
24 effect. And then coincidentally after the judgment starting
25 in '78 or so the general water situation started to improve.

26 MR. MALONE: Yes.

27 THE COURT: Just by virtue of more rainfall.

28 MR. MALONE: Yes. Actually when you look at this,

1 from 1945 on you were just punctuated by a couple of wet
2 years. 1969 was a very wet year.

3 THE COURT: Okay.

4 MR. MALONE: But overall that was a very dry period.
5 The basin was being pumped at higher rates than it's being
6 pumped today. We had all this drawdown occur and really that
7 was the impetus for the judgment in the first place was all
8 this drawdown.

9 THE COURT: Thank you. Okay. Got it.

10 And when it says normalized to mean -- precipitation
11 ADFM normalized to mean, what does that mean?

12 MR. MALONE: That means that we start -- this line
13 starts and finishes -- this starts and finishes at zero. So
14 we normalize it to the mean so that that curve starts at zero,
15 and then begins to depart from the mean, and then we have it
16 finish right at zero too. I can't explain it much better than
17 that.

18 THE COURT: All right. Thanks.

19 MR. MALONE: I think the takeaway you need from this
20 is just upward slopes wet years, downward slopes dry years or
21 periods.

22 THE COURT: That I can figure out. Okay. Thanks.

23 MR. MALONE: Yeah.

24 THE COURT: Now we are looking at slide 29. Go
25 ahead, please.

26 MR. MALONE: This is how the monitoring and
27 mitigation for drawdown impacts to private well owners. This
28 is how it's stated in the SEIR.

1 THE COURT: Okay.

2 MR. MALONE: That we define that mitigation area.
3 We just talked about that.

4 THE COURT: Okay.

5 MR. MALONE: Watermaster is to perform a canvas of
6 all the wells in that mitigation area. All the private active
7 wells in that mitigation area Watermaster is to canvas them
8 and collect information about them, how deep they are, general
9 characteristics of the pumps, the water levels. That sort of
10 information.

11 THE COURT: Okay. Do we -- does that require -- I
12 mean somebody is -- actually must be driving around and
13 looking at the property then.

14 MR. MALONE: Yes.

15 THE COURT: Okay.

16 MR. MALONE: And we have staff, "we" being
17 Watermaster has staff out there that are measuring water
18 levels anyhow, that are measuring production at meters, taking
19 meter reads. So we have staff out there already. But, yeah,
20 the SEIR says that Watermaster staff needs to go a little bit
21 above and beyond that and collect more information about these
22 wells so that there's a good baseline understanding of what's
23 out there today.

24 THE COURT: Okay. Does that mean just literally
25 like searching aerial photographs to see if there are wells
26 there that nobody's identified yet?

27 MR. MALONE: It could mean that.

28 THE COURT: Okay. Okay.

1 MR. MALONE: It could mean that. We typically do
2 know because we talk to the well owners and we typically know
3 what's out there.

4 THE COURT: Okay.

5 MR. MALONE: And, frankly, a lot of this area has
6 been urbanized now and so there's a lot fewer agricultural
7 wells out there than there have been in the past.

8 THE COURT: Going back to the urbanization slide
9 from 2000 that we looked at at 15, it's pretty urbanized.

10 MR. MALONE: Yeah.

11 THE COURT: Yeah. All right. Thanks.

12 MR. MALONE: Watermaster is to monitor groundwater
13 pumping and groundwater levels before startup of the desalters
14 -- desalter wells and for five years thereafter.

15 THE COURT: Okay.

16 MR. MALONE: The Chino Basin Desalter Authority
17 provides the mitigation. The well owner has to show that they
18 cannot produce enough groundwater to meet their needs. And --
19 and there needs to be some evidence to suggest that the
20 desalter well pumping and the drawdown is the cause.

21 THE COURT: Okay.

22 MR. MALONE: Of that decline in production at that
23 well and that they can't meet their needs for.

24 THE COURT: Again, this is all required by the SEIR?

25 MR. MALONE: Yes.

26 THE COURT: Okay. So when the well owner thinks
27 that he can't -- well, first he says he can't produce enough
28 and, second, thinks that the desalter is the cause. To whom

1 does he present that evidence? To Watermaster? To the --

2 MR. MALONE: He or she makes a claim to the Chino
3 Desalter Authority. All of the data that's been collected by
4 Watermaster is used to make that decision.

5 THE COURT: Okay.

6 MR. FIFE: And sorry to interrupt, there are forms
7 on which they do that.

8 THE COURT: I saw that form.

9 MR. FIFE: Yeah. Those were included with the
10 declaration of Mr. Alvarez.

11 THE COURT: Yes. Okay. And so who makes the final
12 decision then in terms of -- who makes the decision with
13 respect to mitigation, Watermaster?

14 MR. MALONE: CDA.

15 THE COURT: CDA. So is -- so is there a problem,
16 I'll pose as a due process problem, where you've got the CDA
17 acting both as the judge and jury who are making these
18 decisions?

19 MR. MALONE: I see Mr. Paxton standing up in the
20 back.

21 THE COURT: Okay.

22 MR. PAXTON: As part of the monitoring and
23 mitigation plan, there is a technical review team that's
24 established and has representatives from the Agricultural
25 Pool, Milk Producers Council, from the Appropriative Pool, as
26 well as CDA, so that that group of experts working together
27 will help make that determination.

28 THE COURT: Yeah. But who has the final decision?

1 MR. MALONE: Ultimately the CDA board of directors.

2 THE COURT: So if I'm a well owner and I think my
3 well's been affected by the CCWF --

4 MR. MALONE: Chino Creek Well Field.

5 THE COURT: Yeah, Chino Creek Well Field -- I go --
6 first I get my claim reviewed by this panel of experts that
7 there has not -- has essentially nominated experts from these
8 various entities, and then it goes to the -- but it still goes
9 to the CDA. Is there a judicial review for these decisions or
10 what happens if they get a negative result from the CDA?
11 Because it still sounds to me like those people are subject to
12 having their claims reviewed by the same entity with respect
13 to being the judge and the jury.

14 MR. PAXTON: Ultimately my understanding is they
15 could -- they could file something with Watermaster after that
16 process.

17 THE COURT: Okay. But it still -- it still seems
18 like it's the same group and there's no ultimate independent
19 judicial review or some other independent review of their
20 claims.

21 MR. FIFE: Well, I think what Mr. Paxton just
22 indicated is that they are members of the Agricultural Pool.
23 They're parties to the judgment just like all the CDA members
24 are.

25 THE COURT: Okay.

26 MR. FIFE: So ultimately you always retain
27 jurisdiction over all of these questions.

28 THE COURT: They still come to the court via the

1 judgment for review because they're parties to the judgment.
2 They could ask the court for a hearing under a provision of
3 the judgment to overrule if the court, I or some other bench
4 officer saw fit, whoever is handling the Watermaster case, as
5 a final determination of their claim outside of the -- I'll
6 call it the CDA hyphen Watermaster procedure. Is that
7 correct?

8 MR. PAXTON: That's my understanding.

9 THE COURT: Mr. Fife, is that correct?

10 MR. FIFE: That's my understanding.

11 THE COURT: Okay. I'm stating on the record it's my
12 understanding too that there's got to be some judicial review
13 of these claims so that the CDA hyphen Watermaster doesn't
14 become judge, jury and executioner for the claims. I'll state
15 that clearly now. All right. Okay.

16 All right. Thank you. Go ahead, please,
17 Mr. Malone.

18 MR. MALONE: The CDA prepares the contingency
19 response plan. So the mitigation here can be restore loss
20 production capacity somehow at the well or provide an
21 alternate source of water.

22 THE COURT: So that means giving this customer, this
23 party to the judgment -- pump in additional water into his
24 well?

25 MR. MALONE: Or supplying him with maybe there's a
26 potable water supply line nearby or recycled water line near
27 that they could tap into and supply them with an alternate
28 source of water, or drill them a new well, or deepen their

1 well for them. Do something like that. But obviously a lot
2 of these agricultural pumpers need water right away. So
3 probably drilling a new well and waiting that long might not
4 be an expedient mitigation strategy.

5 THE COURT: Okay. So the CDA hyphen -- I'll call it
6 the CDA/Watermaster.

7 MR. MALONE: CDA.

8 THE COURT: CDA -- thank you -- would stand the cost
9 of running a new line directly into that producer's land.

10 MR. MALONE: Mm-hmm.

11 THE COURT: If necessary.

12 MR. MALONE: As I understand it, they are in the
13 process of developing that -- that contingency response plan
14 and it needs to be according to the SEIR. It needs to be
15 finalized before the wells turn on.

16 THE COURT: The CCWF wells.

17 MR. MALONE: Yes.

18 THE COURT: All right. Thanks. Okay. All right.
19 Go ahead, please. Number 30 then.

20 MR. MALONE: Yes. You have seen this slide before.
21 We are gonna switch now to the monitoring and mitigation
22 requirements for subsidence.

23 THE COURT: Okay.

24 MR. MALONE: Like I've described to you in the past,
25 subsidence and the management of subsidence was an initial
26 program element of the OBMP. We identified this area on the
27 west side as to be an area of subsidence concern in the
28 1990's.

1 Michael, can you go forward, please?

2 THE COURT: We are now looking at slide 31.

3 MR. MALONE: We are looking at a nearby area here.
4 Here's Central Avenue and here's Chino Avenue. So we are
5 right up in this area here. These red lines here represent
6 where the ground cracked back in the early 1990's, early to
7 mid 1990's. These yellow wells here represent wells that --
8 that came in in the late 80's, early 90's and started pumping.
9 And -- and so this was really the focus of the OBMP subsidence
10 management plan effort, was to make sure that the subsidence
11 that resulted in these ground fissures would not happen again
12 in the future. Believe the statement in the OBMP and in the
13 Peace Agreement is that subsidence and fissuring in Management
14 Zone One is not acceptable, and to the extent that it can be
15 managed by managing pumping and recharge that Watermaster
16 should do that.

17 THE COURT: Okay. But that was -- but that is with
18 respect to all zones, correct?

19 MR. MALONE: In the Peace Agreement it states
20 Management Zone 1.

21 THE COURT: Only Management Zone 1.

22 MR. MALONE: Yes, because that is really the only
23 place where we -- we were recognizing subsidence as an issue
24 at that point in time.

25 THE COURT: Okay.

26 MR. MALONE: We know a lot more now today.

27 THE COURT: Okay. Thanks. And so that's the old --
28 hang on just a second. All right. So that's -- the

1 Management Zone 1 is reflected on --

2 MR. MALONE: Yes.

3 THE COURT: -- slide 19.

4 MR. MALONE: Yes.

5 THE COURT: Which for purposes of -- for some other
6 purpose was designated as a different --

7 MR. FIFE: 21.

8 THE COURT: 21. Thank you. Designated as part of
9 the Chino North Management Zone by Watermaster and the IEUA
10 for the maximum benefit objectives.

11 MR. MALONE: Right.

12 THE COURT: All right. I think I'm following.

13 MR. MALONE: Okay.

14 THE COURT: Okay. All right. Go ahead, then,
15 please.

16 MR. MALONE: So let's go forward. I'm going to give
17 you a little background. This is what one of the fissures
18 looked like on the prison property, the California Institution
19 for Men.

20 THE COURT: Okay. How deep was that hole?

21 MR. MALONE: They did some trenching along here and
22 it's tens of feet deep. That fissure goes tens of feet deep.
23 So it opens up a depth, and then especially during rainy
24 periods the shallow soils can wash down into that fissure and
25 then it opens up on the ground surface.

26 THE COURT: Okay.

27 MR. MALONE: A lot of this area was agricultural at
28 that point in time in the 90's. It's all been urbanized now

1 so it's clearly not something that we want happening
2 underneath foundations in the future. The damages could be in
3 the millions.

4 THE COURT: Yes. Okay.

5 MR. MALONE: So we do our best to not have this
6 happen again.

7 THE COURT: And you do -- do your best to not have
8 this happen by recharging water into the groundwater.

9 MR. MALONE: I'm gonna show you here. Can you go to
10 the next --

11 THE COURT: Okay. This is 33.

12 MR. MALONE: I'm gonna give you a little more
13 background here.

14 THE COURT: Okay.

15 MR. MALONE: What you're looking at here is a little
16 jewel box that we use to put sediments in as we drilled a bore
17 hole as part of this surveillance management plan. We needed
18 to do a little bit of science first to really figure out what
19 the process was in order to develop a management plan. So we
20 drilled this bore hole at Ayala Park here in Chino, and what
21 you're looking at here are sediments that were taken from that
22 bore hole at different depths. So you see 220 right here.
23 That represents 220. This says 238 to 239 and that's this
24 sediment right here.

25 THE COURT: Okay. So what we have is the box open.
26 I'm sorry.

27 MR. MALONE: The box is open.

28 THE COURT: I'm sorry. One side of the box is open

1 and the other side is the same box with the cover closed
2 showing the depth.

3 MR. MALONE: Showing the depth, right.

4 THE COURT: Okay.

5 MR. MALONE: And what you see here are different
6 layers of sediments. Some of them are sands and gravels, some
7 of them are clays. You recognize that?

8 THE COURT: Yes. Actually, it's -- so I certainly
9 see the sand and gravel. Is the box labeled 314 to 315, it's
10 in the upper -- yeah, that one.

11 MR. MALONE: It's a dark brown clay.

12 THE COURT: That's clay?

13 MR. MALONE: Yeah. Okay. When a well turns on and
14 starts pumping groundwater, the water flows through the
15 interconnected pore spaces in the sand and gravel layers to
16 that well. It flows readily and freely. It doesn't do the
17 same through the clay.

18 THE COURT: Okay.

19 MR. MALONE: Okay. So what happens is is that you
20 get pressure differentials set up in the aquifer system where
21 you have lower pressure in these sands and gravels than the
22 adjacent clays that might be above or below that sand and
23 gravel. Now there's still water inside this clay but it just
24 moves really slowly because it's clay. Water can't move fast
25 through it, so what it does is drains vertically towards this
26 low pressure area in the sands and gravels. That water that's
27 draining out of those clays was actually providing a little
28 bit of support to that clay, so when the water leaves the clay

1 squishes.

2 THE COURT: Okay.

3 MR. MALONE: When the clay squishes it can squish
4 permanently. It can permanently compact.

5 THE COURT: So even if you inject water in it, it
6 won't expand again.

7 MR. MALONE: Yeah, exactly. If you lower water
8 levels -- if you pump too much and lower water levels too much
9 in these sands and gravels, these clays can drain and compact
10 permanently. And when that happens the land surface subsides.
11 All that compaction is translated directly to the land surface
12 and you have land subsidence.

13 THE COURT: Okay.

14 MR. MALONE: And when that happens in a differential
15 fashion, like it did here, you can have the ground actually
16 crack.

17 THE COURT: Okay. Okay.

18 MR. MALONE: So that's, in short, the process on how
19 this works. The trick is figuring out how much you can pump
20 and how much you can lower water levels without causing these
21 clays to permanently compact.

22 THE COURT: Okay. Are we gonna hear more about
23 that?

24 MR. MALONE: That's our management plan is that we
25 figured that out.

26 THE COURT: Okay.

27 MR. MALONE: The way we figured it out was with a
28 monitoring facility.

1 THE COURT: Which is on slide 34.

2 MR. MALONE: Yeah. That is located right here.
3 Now, again, we're on the west side of Chino Basin. I'll
4 orient you here.

5 THE COURT: No. I'm pretty well oriented now.

6 MR. MALONE: Okay.

7 THE COURT: Okay.

8 MR. MALONE: This purple area is what we call our
9 managed area so we've developed a subsidence management plan
10 within that purple polygon.

11 THE COURT: Okay.

12 MR. MALONE: Okay. These are the fissures right
13 here, these brown lines.

14 THE COURT: I see them. Okay.

15 MR. MALONE: Okay. This facility right here is what
16 we call an extensometer. And it measures --

17 THE COURT: You'll need to spell that for the
18 record.

19 MR. MALONE: E-x-t-e-n-s-o-m-e-t-e-r, extensometer.

20 THE COURT: Okay. Go ahead, please.

21 MR. MALONE: It measures the compaction that's
22 occurring in the aquifer system.

23 THE COURT: So do you have two vertical sensors
24 somehow that measure the distance between them?

25 MR. MALONE: I'll explain that too in a second.

26 THE COURT: Okay.

27 MR. MALONE: What we do is we measure pumping and
28 water levels at all these -- all these wells that are

1 symbolized on this map by dots, the red dots and the green
2 dots. We're measuring water levels and pumping. And then
3 we're measuring the compaction that's occurring at the
4 extensometer.

5 THE COURT: Okay.

6 MR. MALONE: So with that information we were able
7 to determine where our safe water level was where we wouldn't
8 cause additional subsidence.

9 THE COURT: How do you figure that out? Because
10 wouldn't you just know that till after the fact?

11 MR. MALONE: Yes. We had to cause a little bit of
12 subsidence. It was a very, very tiny bit of subsidence. Our
13 monitoring equipment is very sensitive, very high resolution.
14 And we had to run pumping tests. We purposefully caused water
15 levels to decline, and we let them rebound, and we looked at
16 how much compaction occurred, and we -- we made that
17 determination.

18 THE COURT: Okay.

19 MR. MALONE: It is a whole story on its own and I'm
20 happy to explain it.

21 THE COURT: Well --

22 MR. FIFE: I don't think we have time.

23 THE COURT: I don't think we have time either. But
24 the question is -- the next question is how do you choose that
25 particular location for the extensometer?

26 MR. MALONE: Because the fissures had opened up
27 right here.

28 THE COURT: Oh.

1 MR. MALONE: And we wanted to be close to the
2 fissures. That was really where the maximum amount of
3 subsidence had occurred historically in the 90's.

4 THE COURT: Got it. Okay. Thanks. And it's now
5 3:07 so we need to take a short break for everyone to relax a
6 little bit and also for Ms. Villegas to take a break. So we
7 will be in recess till how about 20 past?

8 MR. MALONE: I think we maybe just have a half an
9 hour, 45 minutes left.

10 THE COURT: Sounds good. We'll be in recess till
11 3:20.

12 (Recess.)

13 THE COURT: All right. We're back on the record in
14 the Watermaster case.

15 MR. MALONE: There's a reason why I'm giving you
16 this background. It's because it relates to the monitoring
17 and mitigation requirements for subsidence.

18 THE COURT: Thanks. I appreciate that. Go ahead,
19 please.

20 MR. MALONE: Also shown on this map are other
21 monitoring strategies for subsidence. These black lines here
22 represent where we do traditional leveling surveys for
23 subsidence.

24 THE COURT: By "traditional" that means once every
25 five or ten years?

26 MR. MALONE: It is every year.

27 THE COURT: Every year.

28 MR. MALONE: Yeah.

1 THE COURT: Okay.

2 MR. MALONE: We have a survey crew that goes out
3 there at individual benchmarks and establishes new elevations
4 every year.

5 THE COURT: "We" being Watermaster, "we" being --

6 MR. MALONE: Watermaster.

7 THE COURT: Okay. Okay.

8 MR. MALONE: This shaded area that's mostly yellow
9 here is remote sensing data. It's using radar satellites to
10 monitor subsidence over specific time periods. We do that
11 every year too.

12 THE COURT: Okay.

13 MR. MALONE: You can see some of these gray areas in
14 here to the south. This is mainly agricultural areas. The
15 radar satellites don't do as well at monitoring subsidence in
16 those areas. But in urbanized areas it has good hard
17 reflectors, and so we typically get a good signal back from
18 the radar.

19 THE COURT: Roofs and stuff --

20 MR. MALONE: Roofs.

21 THE COURT: -- as opposed to trees and bushes?

22 MR. MALONE: Exactly. They're more stationary and
23 better reflectors.

24 THE COURT: Okay.

25 MR. MALONE: So there's a tremendous amount of
26 monitoring that goes on here. What Watermaster does is it has
27 a land subsidence committee that meets at least annually and
28 typically more than annually. We look at all this data and we

1 have an adaptive management plan where if the data is telling
2 us that our management plan really isn't that protective and
3 there is subsidence occurring, then we can adapt our
4 management plan and try to mitigate that subsidence that's
5 occurring.

6 THE COURT: By pumping less or more water out, you
7 mean?

8 MR. MALONE: Yes. Either by pumping or recharge
9 that you would do that.

10 Again, our management plan is a water level -- a
11 safe water level. And so it might be that that water level is
12 no longer determined to be safe and that we want to adjust
13 that water level. And whether or not you use pumping or
14 recharge to maintain water levels above that safe water level,
15 that's up to the committee to recommend and for the local
16 pumpers to figure out how to manage their own pumping in order
17 to do that.

18 THE COURT: So are you issuing -- when you say the
19 local pumpers, do you mean the people in the Appropriative
20 Pool or people -- Agricultural Pool people or both?

21 MR. MALONE: In our case right here there's mainly
22 three local pumpers. It's the city of Chino, the city of
23 Chino Hills and the State of California at the prison.

24 THE COURT: Okay. So just three public entities to
25 deal with.

26 MR. MALONE: Yeah. In this case right here.

27 THE COURT: Okay. And the -- I'll call it the, for
28 lack of a better description as you identified it, the purple

1 polygon.

2 MR. MALONE: Yes. And that is the MZ1 managed area.

3 THE COURT: The purple polygon?

4 MR. MALONE: Yes.

5 THE COURT: Okay.

6 MR. MALONE: Now, what our monitoring and mitigation
7 requirements are for the new well field, the desalter
8 expansion that's going on, is to expand Watermaster's
9 subsidence monitoring program and this process of adaptive
10 management into this blue hatched area here surrounding the
11 new Chino Creek Well Field.

12 THE COURT: Okay. Actually it not only surrounds it
13 but it looks like it extends quite a ways east, if I'm
14 identifying --

15 MR. MALONE: Yes.

16 THE COURT: Okay.

17 MR. MALONE: It extends east out here to I don't
18 know what that street is there.

19 THE COURT: Good question.

20 MR. MALONE: But, yes, it extends somewhat east.

21 THE COURT: Okay. Thanks.

22 MR. MALONE: What's going to happen in this area is
23 that new benchmarks are going to be installed along streets
24 and street corners, and we're going to extend these black
25 lines out into these areas to do the traditional leveling
26 surveys.

27 THE COURT: Okay. Yearly leveling survey in the
28 crosshatched area then?

1 MR. MALONE: Yes. The INSAR -- we will continue to
2 do the INSAR -- I'm sorry -- the remote sensing monitoring for
3 subsidence.

4 THE COURT: Okay.

5 MR. MALONE: We are going to continue to do that as
6 this area becomes more urbanized. Our hope is that the remote
7 sensing data becomes more coherent in this area and becomes
8 more useful to us as a monitoring strategy.

9 THE COURT: Okay.

10 MR. MALONE: So we will continue to do that too.

11 THE COURT: Okay. You call it INSAR?

12 MR. MALONE: We call it INSAR. It's called
13 interferometric synthetic aperture radar.

14 THE COURT: Be careful what you ask for, you might
15 get it.

16 MR. MALONE: Yeah.

17 THE COURT: All right. Thanks.

18 MR. MALONE: The last thing we are going to do is we
19 are --

20 THE COURT: Wait a minute. Since I have it on the
21 record, poor Ms. Villegas is going to have to figure out what
22 that was again. It's -- what was it again?

23 MR. MALONE: Interferometric.

24 THE COURT: Inter f-e-r-o metric?

25 MR. MALONE: Yes.

26 THE COURT: m-e-t-r-i-c. What was the next word?

27 MR. MALONE: Synthetic aperture radar.

28 THE COURT: Thanks. Go ahead.

1 MR. MALONE: It's using satellites to monitor for
2 subsidence.

3 THE COURT: Got it.

4 MR. MALONE: The last thing we are going to do is we
5 are going to install a new extensometer facility very close to
6 the Chino Creek Well Field.

7 THE COURT: Okay. How much does that cost?

8 MR. MALONE: That is going to cost us approximately
9 400,000, maybe \$450,000 to install.

10 THE COURT: Okay.

11 MR. MALONE: Michael, can you go on to the next
12 slide?

13 THE COURT: Number 35.

14 MR. MALONE: This is the extensometer at Ayala Park.
15 So this is the initial installation. We have two of these at
16 Ayala Park, one that goes down to 1400 feet, one that goes
17 down to 550 feet. It's enclosed in a big brick building.
18 Basically this steel pipe here extends 400 -- 1400 feet to the
19 bottom of this well. This is a well and it goes all the way
20 to the bottom of the well.

21 THE COURT: Okay.

22 MR. MALONE: And as the aquifer system compacts,
23 this conductor casing here will go down with the ground
24 surface, but that pipe will stay stationary because it's
25 anchored at 1450 feet.

26 THE COURT: Okay.

27 MR. MALONE: And so that's the displacement that
28 we're measuring.

1 THE COURT: Okay. I wondered how you'd actually did
2 it.

3 MR. MALONE: Yeah.

4 THE COURT: Okay. And is that a weight that's
5 extended on the other arm?

6 MR. MALONE: This is 1400 feet of steel pipe. If we
7 just let it stay there by itself, it would bend under its own
8 weight and slide up against the side of the well casing and
9 would cause a lot of friction. So what we try to do with
10 these counterweights is hold down on it, not enough to lift it
11 off the bottom but stretch it out, and so we create a
12 friction-free environment in there. That's what we're trying
13 to do is create a friction-free environment. And that is
14 really why our instrumentation is so high resolution is
15 because we go to these lengths to try to create a
16 friction-free environment.

17 THE COURT: And actually keep some tension on the
18 measuring rod, so to speak.

19 MR. MALONE: You do.

20 THE COURT: Okay.

21 MR. MALONE: But that stays constant.

22 THE COURT: Okay. How do you figure out that that
23 stays constant?

24 MR. MALONE: How do we figure out that that stays
25 constant?

26 THE COURT: Yeah.

27 MR. MALONE: Just by looking at the data.

28 THE COURT: All right. Thanks. Go ahead, please.

1 MR. MALONE: This is an expensive facility.

2 Michael, can you go on to the next slide?

3 THE COURT: 36.

4 MR. MALONE: Actually, I'm gonna skip over this
5 slide. It's the same one as --

6 THE COURT: Two slides ago.

7 MR. MALONE: Yeah.

8 THE COURT: Moving on to 37 then.

9 MR. MALONE: Yeah. These are the monitoring and
10 mitigation strategies for the potential impacts from
11 subsidence. What the CDA is committed to do with this Chino
12 Creek Well Field is to only screen these wells in the shallow
13 aquifer system. The reason why we do this is because the deep
14 aquifer system in this area is confined. And what that means
15 is when you pump water out of a confined aquifer system,
16 meaning it's under pressure, you just have to pump a little
17 bit of water and you can cause a lot of water level change in
18 the well.

19 THE COURT: Okay.

20 MR. MALONE: With an unconfined system like our
21 shallow aquifer system is, you can pump a lot of water and
22 have just a little bit of water level change. That's the most
23 simplistic way I can tell you. But the gist of it is that
24 it's much less risky from a subsidence prospective to pump an
25 unconfined shallow aquifer system than to pump the deep
26 aquifer system.

27 THE COURT: Okay. Because -- I gather because the
28 shallow aquifer is dynamic and the deep aquifer system isn't.

1 The water just kind of sits there in the deep aquifer.

2 MR. MALONE: Yeah. The deep aquifer, it's under
3 pressure. It's pressurized. So when you pull water out of it
4 the whole system kind of relaxes, and it's not like you're
5 draining the pore space. You're just relaxing some of that
6 pressure. And so it causes a lot of water level decline when
7 you pump a deep confined aquifer system.

8 THE COURT: And does the pressure just come from the
9 rock and material surrounding the deep aquifer?

10 MR. MALONE: Typically there's a clay layer that
11 sits above that aquifer. And so then you have all this water
12 from the forebay areas of the groundwater basin that are at
13 higher elevations and are pushing on that water and making it
14 under pressure.

15 THE COURT: Okay.

16 MR. MALONE: So when you pump a little bit of water,
17 you are releasing a lot of that pressure and the water levels
18 go way down. And then the clays can begin to drain because of
19 that really big pressure differential now. And it's just a --
20 it's a recipe for clays to compact and -- and having land
21 subsidence is to pump deep aquifers that are rich in clays.

22 THE COURT: And it was called forebay?

23 MR. MALONE: The forebay areas are typically in the
24 north where the water is recharging from the surface and
25 recharging the aquifer.

26 THE COURT: Okay.

27 MR. MALONE: And a lot of times those forebay areas
28 are interconnected all the way down to the south. And because

1 they're at higher elevations, water levels at a higher
2 pressure, and it's actually pushing on that water and creating
3 that high pressure environment because you have a clay that's
4 overlying it and is capping it --

5 THE COURT: Okay.

6 MR. MALONE: -- basically and confining it.

7 THE COURT: Okay. And forebay then is
8 f-o-r-e-b-a-y?

9 MR. MALONE: Yes.

10 THE COURT: Thanks. Go ahead, please.

11 MR. MALONE: Sorry for all the jargon.

12 THE COURT: No problem. It's good. I just need to
13 simplify things for Ms. Villegas so she's not calling you for
14 spellings.

15 Thanks. Go ahead, please.

16 MR. MALONE: So they will pump from the shallow
17 aquifer system only is their commitment.

18 THE COURT: "They" being --

19 MR. MALONE: The CDA.

20 THE COURT: Okay.

21 MR. MALONE: They will construct these wells to pump
22 only from the shallow aquifer system. That will mitigate the
23 potential for subsidence to occur. That's also good from a
24 hydraulic control prospective because that shallow aquifer
25 system is typically higher in TDS concentration, higher in
26 nitrate concentration. So the Regional Board they want that
27 poor quality water pumped as part of hydraulic control.

28 THE COURT: Pumped out.

1 MR. MALONE: And treated.

2 THE COURT: And treated.

3 MR. MALONE: And the salt exported.

4 THE COURT: Okay. All right.

5 MR. MALONE: So it works for both purposes, for
6 subsidence mitigation and for hydraulic control, to be pumping
7 from the shallow aquifer system.

8 THE COURT: As a result of the additional pumping
9 coming from the Chino Creek Well Field. Did I get that
10 correct?

11 MR. MALONE: That's the pumping we're talking about.

12 THE COURT: Okay.

13 MR. MALONE: Is from the shallow aquifer system
14 only.

15 THE COURT: Got it. Okay.

16 MR. MALONE: Watermaster is to expand its subsidence
17 monitoring program into that area like we talked about. We
18 will continue to do all the same monitoring that we've done,
19 traditional leveling surveys, the remote sensing, the
20 extensometer, and the monitoring of pumping and water levels
21 in the area as well. Continue to do that all and then we will
22 continue to meet as a land subsidence committee and review
23 that data. And -- and if subsidence is occurring that this
24 committee deems is intolerable, then mitigation strategies
25 will be recommended at that point in time.

26 THE COURT: Okay.

27 MR. MALONE: By the subsidence committee.

28 THE COURT: So LSC stands for land subsidence --

1 MR. MALONE: Committee.

2 THE COURT: Who is on that committee?

3 MR. MALONE: It is any Watermaster party that wants
4 to participate.

5 THE COURT: So you just apply, you get on it?

6 MR. MALONE: You don't have to apply. You can just
7 show up to the meetings.

8 THE COURT: Okay.

9 MR. MALONE: Everyone's invited.

10 THE COURT: Okay. Who makes the determination as to
11 whether or not the subsidence is intolerable?

12 MR. MALONE: The committee would.

13 THE COURT: By a majority vote?

14 MR. MALONE: There's no -- there's no specific
15 callouts in the SEIR as to how that would be done. It would
16 -- it would just be done based on the data. We don't know
17 exactly what we will see. But this committee has seen
18 intolerable subsidence before. It probably would be in the
19 form of differential subsidence which would be the threat for
20 ground fissuring.

21 THE COURT: Okay.

22 MR. MALONE: So that in particular is what we'd be
23 looking for. But I think that if you'd ask the city of Chino
24 directly, which overlies much of this area, that they don't
25 want to see much of any subsidence occur.

26 THE COURT: Okay. So what we're really talking
27 about is intolerable differential subsidence. The committee
28 would make this decision but there's no particular procedure

1 set up for doing this, nor how the committee votes or what
2 intolerable means.

3 MR. MALONE: Mm-hmm.

4 THE COURT: Yes?

5 MR. MALONE: Yes.

6 THE COURT: Okay. All right. Thanks.

7 MR. MALONE: The way that the SEIR is written that
8 the CDA then would have voluntary discretion as to how to
9 mitigate. But some of the mitigation strategies that are
10 contemplated are to reduce pumping rates at wells, maybe drill
11 wells in different areas, seal off certain depth intervals of
12 the screened interval in the wells.

13 THE COURT: Okay.

14 MR. MALONE: That the data that would be really key
15 to making these decisions will come from the extensometer.
16 The extensometer is that decision grade information that then
17 allows you to make adaptive management decisions with regard
18 to subsidence.

19 THE COURT: Okay. And right now there's just one
20 but you're going to put in a second one?

21 MR. MALONE: Right now there's one at Ayala Park.
22 That one would not suffice for the Chino Creek Well Field. It
23 is too far away. So we have to drill a new one in the
24 vicinity of the Chino Creek Well Field to understand
25 subsidence there.

26 THE COURT: Okay. And, again, if the CDA has just
27 voluntary discretion for mitigation, at some point is there an
28 appeal process that would sooner or later come to the court?

1 MR. MALONE: I think it might be the same thing that
2 we discussed with regard to the drawdown impacts.

3 THE COURT: Okay. All right. I just -- I was
4 curious about the procedures.

5 Anybody else want to comment on that? Hearing
6 nothing, we'll move on.

7 MR. FIFE: Not really. You know, it's hard. And --
8 and I was having a conversation with the Ag Pool counsel.
9 It's -- at the break. It's hard to say. And CDA's attorney
10 isn't here.

11 THE COURT: Okay.

12 MR. FIFE: So I can say what my understanding is but
13 this is probably -- as well as the other question we were
14 talking about -- something that we should follow up with CDA's
15 counsel. And if there's contrary answer we can come back to
16 you because I'm sure that they would be interested to clarify.

17 THE COURT: I'm sure they would. Who is CDA's
18 counsel, by the way?

19 MR. FIFE: Her name is Allison Burns. And I'm only
20 hesitating because I think the law firm name is --

21 UNIDENTIFIED MALE: Stradling Yocca Carlson & Rauth.

22 THE COURT: Stradling --

23 UNIDENTIFIED MALE: Yocca.

24 THE COURT: S-t-r-a-d-l-i-n-g?

25 UNIDENTIFIED MALE: That's correct.

26 THE COURT: What was the second name?

27 UNIDENTIFIED MALE: Y-o-c-c-a.

28 THE COURT: Okay.

1 UNIDENTIFIED MALE: Carlson, C-a-r-l-s-o-n. And
2 last is Rauth, R-a-u-t-h.

3 THE COURT: Got it. Thank you.

4 MR. FIFE: So we will probably need to have a
5 conversation with them and confirm these understandings.

6 THE COURT: Okay. All right. Thanks.

7 Go ahead, please.

8 MR. MALONE: Next slide, please.

9 THE COURT: Number 38.

10 MR. MALONE: This is just a photograph of what the
11 new extensometer will look like. This is a prototype that
12 Watermaster developed at the -- at the Ayala Park
13 extensometer. This is a much more compact technology. It's
14 below ground. What it is is two monitoring wells with a cable
15 instead of a steel pipe installed. At the bottom of the cable
16 that's a steel weight that rests on the bottom of the well.
17 And it's the same sort of monitoring strategy but in a much
18 more compact design.

19 If we were to try to build one of these new pipe
20 extensometers down there, first of all, it would be much more
21 difficult to find a footprint that we could put it in down
22 there. And it would be a big aboveground building. Here
23 we're going to be below ground in a vault, much less
24 expensive, much more compact. We have been measuring
25 subsidence at this facility right next to the pipe
26 extensometer facility for the last several years, and the data
27 is very comparable. We think this is a very pioneering
28 technology. But we think that we have enough confidence in it

1 now to be used out in the field elsewhere, and it's going to
2 save the parties a lot of money in order to do it this way.

3 THE COURT: So you've been running this one parallel
4 to the pipe one you've got?

5 MR. MALONE: Yes.

6 THE COURT: Okay. But doesn't cable stretch?

7 MR. MALONE: The materials have improved over time.
8 These are stainless steel aircraft quality cables. And, yes,
9 they do stretch when we put the counterweights on them, but
10 they -- they're very solid. And -- and we're measuring just
11 as good of data here as we are with the pipes. So we're
12 really confident in the materials we have chosen.

13 THE COURT: And you've been running it parallel, you
14 said, for five years?

15 MR. MALONE: I would say it's been probably closer
16 to four years we've been running it.

17 THE COURT: Okay. And the data's been comparable
18 then with respect to the pipe extensometer?

19 MR. MALONE: Yeah. We wanted to see that first
20 before we would try this somewhere else.

21 THE COURT: Okay. If you invent this can you
22 license it to someone? I'm just curious. It might be a
23 source of income for Watermaster to sell these if you invent
24 them.

25 MR. MALONE: We haven't gone there.

26 THE COURT: Okay. All right. My entrepreneurial
27 spirit came out.

28 MR. FIFE: Is the court giving Watermaster

1 permission to become a for profit entity?

2 THE COURT: Well, no, but I'm always looking for
3 revenue streams, especially these days, so you can contribute
4 it to the -- not to the court management, the case management
5 system because I disagree with that, but certainly contribute
6 to the state court system if you ever make any money. All
7 right. That was a joke, for the record.

8 Number 39. Sometimes the jokes don't come through.

9 Number 39 then. Go ahead, please.

10 MR. MALONE: We are moving on now from subsidence to
11 giving you a look at how water levels have changed basin wide
12 over the last ten years. Then we're gonna show you some
13 computer simulation results of how we expect water levels to
14 change in the future.

15 I'm gonna talk a little bit about the Recharge
16 Master Plan and what's been going on there. There's been a
17 recent update, as you obviously know, and how the Recharge
18 Master Plan is contemplated right now to be used to address
19 some drawdown issues in specific areas of the basin.

20 THE COURT: Okay.

21 MR. MALONE: Okay. So this first slide here is a
22 change in water level from 2000 to 2010, last ten years.
23 Again, we use a similar color coating scheme here where the
24 red and orange areas are where water levels have declined over
25 this ten-year period. And the green areas are where water has
26 recovered over this ten-year period.

27 THE COURT: Recovered. In other words from 2000?

28 MR. MALONE: From 2000. We're comparing two time

1 periods, 2000 to 2010.

2 THE COURT: Okay.

3 MR. MALONE: The significance of 2000 is it's the
4 beginning of the implementation of the OBMP. It's when the
5 Peace Agreement was adopted.

6 THE COURT: I remember. Okay. Go ahead.

7 MR. MALONE: You can see in the southern portion of
8 the basin, we looked at this already, where this drawdown is
9 occurring around the eastern portion of the Chino Desalter
10 Well Field, and where we have this five to ten feet of water
11 level increase along the western portion of the well field.
12 Throughout most of the rest of the basin on the central and
13 eastern side we're having drawdown, some as much as 30 to
14 40 feet in some areas.

15 I'm pointing right now on the map to an area that is
16 east of the Chino Desalter Well Field and in the vicinity of
17 Jurupa Community Services Districts well field. What this
18 agency has reported recently is that water levels are drawing
19 down in their well field to the point where they can't drop
20 their boules any further, that they're starting to have
21 capacity problems at some of their wells.

22 THE COURT: This -- which means that you need to
23 stop pumping in that area?

24 MR. MALONE: Well, let me get to what the Peace
25 Agreement --

26 THE COURT: Okay.

27 MR. MALONE: After we go through this, let me get to
28 what the Peace Agreement says about what Watermaster's

1 obligations are when it comes to situations such as this.

2 THE COURT: Go ahead, please.

3 MR. MALONE: The western part of the basin has
4 experienced some water level recovery here. Watermaster has
5 been directing 6500 acre-feet per year of recharge to this
6 area. That is part of the Peace Agreement commitment. There
7 has been some dryer yield program put and takes. And so I
8 think that there have been more puts over here. So water
9 levels have recovered over here.

10 We also have our subsidence management plan over
11 here as well where pumping has clearly reduced as a result of
12 that plan too. The pumpers just simply can't pump as much
13 water as they did historically over in this western part in
14 order to comply with the subsidence management plan --

15 THE COURT: Okay.

16 MR. MALONE: -- in that safe water level.

17 THE COURT: Okay.

18 MR. MALONE: So there is a number of reasons why
19 water levels have increased over here and why they've
20 decreased over here. You should keep in mind that the 200,000
21 acre-feet of controlled overdraft that was -- that was part of
22 the original judgment, that's been occurring over time. We've
23 now started this -- this 400,000 acre-feet of basin
24 re-operation controlled overdraft. We've had a lot of land
25 use transition that we looked at. That makes a difference in
26 return flows to the aquifer system.

27 There's a lot of moving parts. The desalters coming
28 in here and increasing recharge from the Santa Ana River.

1 There's a lot of moving parts. The basin is coming into a new
2 equilibrium but it's clearly out of balance right now because
3 we are purposefully putting it out of balance in a lot of
4 ways, especially with this controlled overdraft.

5 THE COURT: And the controlled overdraft, I'm
6 familiar with this but refresh my memory as to what it means.

7 MR. MALONE: Controlled overdraft means essentially
8 -- and, Michael, you may want to step in here. But we are
9 forgiving the desalter replenishment up to 400,000 acre-feet
10 over a certain period of time. So we're pumping more than
11 we're replenishing, and so we are gradually causing water
12 levels to decline in the basin.

13 THE COURT: Correct. But that's the point of it is
14 to get the water flowing away from the -- to get the aquifer
15 flowing away from the Santa Ana River; correct?

16 MR. MALONE: The point of it is to achieve hydraulic
17 control.

18 THE COURT: Right.

19 MR. MALONE: So if we lower water levels in the
20 central part of the basin, then that's going to -- that's
21 going to decrease the gradient here and allow these desalter
22 wells to more easily and robustly achieve hydraulic control,
23 this trough of --

24 THE COURT: Right.

25 MR. MALONE: -- of depressed water levels in the
26 southern end of the basin.

27 THE COURT: So is there a problem that's the dynamic
28 which is you need to keep pumping water out to create

1 hydraulic control? And it is hydraulic, not hydrologic;
2 correct?

3 MR. MALONE: Hydraulic control.

4 THE COURT: Hydraulic control. And on the one hand.
5 On the other hand, you don't want to pump too much out or you
6 end up with the problem that Jurupa's got which is their
7 boules, b-o-u-l-e-s --

8 MR. MALONE: Mm-hmm.

9 THE COURT: -- are dry and they can't pump any water
10 out. Is that -- is that the parameters that you're trying to
11 work with all the time?

12 MR. MALONE: Yeah. We don't want that to happen.

13 THE COURT: Okay. So what you are trying to do is
14 -- is operate a dynamic system within certain parameters on
15 one side for the entire valley, entire water basin, keep
16 hydraulic control, on the other hand recharge enough so
17 there's water in the valley that all the producers can pump
18 and keep their customers supplied. Am I correct about that?

19 MR. FIFE: I think you've just skipped ahead about
20 three slides.

21 THE COURT: Oh, thanks. All right. Let's keep it
22 working then.

23 MR. MALONE: I mean we're noting where, you know,
24 where some producers are having production issues.

25 THE COURT: Okay.

26 MR. MALONE: I think that's, you know, one of the
27 main points of this slide here.

28 THE COURT: Okay.

1 MR. MALONE: Why don't you go on to the next one?

2 THE COURT: All right. 40.

3 MR. MALONE: This is kind of a complicated map and a
4 little bit too colorful. But what we are looking at here is
5 water level change as predicted by the computer simulation
6 model for the year 2005 to 2030.

7 THE COURT: Okay.

8 MR. MALONE: So how is water level gonna change over
9 that time period --

10 THE COURT: Okay.

11 MR. MALONE: -- as a result of the implementation of
12 the OBMP and the Peace Agreement and the Peace II Agreement
13 which includes this overdraft, this controlled overdraft.

14 THE COURT: Okay.

15 MR. MALONE: So over here in this area of Jurupa
16 Community Services District's Well Field we are anticipating
17 about 60 feet of drawdown. Some of that's already occurred
18 because we're already in 2011, but --

19 THE COURT: Okay. Hang on just a sec. Because
20 right -- because on the previous map the water change from
21 2000 to 2010 shows them going down 60 or so feet there, and
22 then on the next map are they down another 60 feet from the
23 2010 level?

24 MR. MALONE: Well, there's a little bit of overlap
25 there because here we're looking from 2000 to 2010 on the
26 measured data.

27 THE COURT: Right.

28 MR. MALONE: Here this is a computer simulation that

1 starts in 2005.

2 THE COURT: But what would -- what would that --
3 what -- if you -- if you put the two together in general and
4 not an estimate, does that mean that the Jurupa Community
5 Services Water District level is gonna be down from the 2011
6 level like a hundred feet on an estimate when you add them up?
7 Is that what it means?

8 MR. MALONE: I think that -- that's the order. You
9 know, you're right there.

10 THE COURT: Okay. Okay.

11 MR. MALONE: Yeah.

12 THE COURT: That's what I was trying to figure out.

13 MR. MALONE: However, I want to warn you though that
14 2005 was a time prior to these desalter wells, the Chino II
15 Desalter wells turning on. So they have a big influence from
16 2005 to 2010.

17 THE COURT: Right.

18 MR. MALONE: These wells right here.

19 THE COURT: But they're gonna keep pumping. And so
20 if we're drawing off water through the desalter wells, not
21 recharging it, but rather using it for appropriative purposes
22 for the water districts, is -- is a conclusion that, for
23 example, the Jurupa Community Services Water District going to
24 have a lack of supply?

25 MR. MALONE: They are. They have told Watermaster
26 verbally that they are already starting to have these issues
27 at their wells.

28 THE COURT: Okay.

1 MR. MALONE: That the capacity is declining at some
2 of their wells because water levels are declining. They're
3 having trouble pumping as much and they're afraid with further
4 drawdown some of their wells may go dry.

5 THE COURT: Is Watermaster and Jurupa working
6 together to come to a resolution of how to --

7 MR. MALONE: Yes, they are.

8 THE COURT: Okay. I won't get into that because I
9 suspect that's the subject of negotiation and outside the
10 scope of our presentation today.

11 MR. MALONE: Yeah. But I wanted to inform you
12 though that they are.

13 THE COURT: Okay.

14 MR. MALONE: Can we just skip to the last slide?

15 MR. FIFE: You are hitting the right issue.

16 THE COURT: Okay. Let me -- wait a minute.

17 MR. MALONE: The second slide here is saying
18 pursuant to court order, and I'm -- I think it is Judge
19 Reichert's court order that a steering committee be formed to
20 discuss the scope and implementation of a Recharge Master
21 Plan.

22 THE COURT: Okay.

23 MR. MALONE: That steering committee has just
24 recently begun discussions.

25 THE COURT: Okay. Who's on the steering committee?
26 I can't remember if I made an order to that effect.

27 MR. MALONE: I don't know exactly. It's a number of
28 parties though. And it's not just Jurupa and Watermaster.

1 It's a number of Appropriative Pool parties.

2 Do you know?

3 MR. FIFE: Mr. Alvarez?

4 MR. ALVAREZ: The committee is made up of
5 representatives of Jurupa Community Services District,
6 Cucamonga Valley Water District, city of Ontario.

7 THE COURT: Hang on just a sec. Okay. Go ahead.

8 MR. MALONE: IEUA.

9 MR. ALVAREZ: The Chino Valley Conservation
10 District, and the two flood control districts, San Bernardino
11 and Riverside, as well as Watermaster.

12 THE COURT: Okay. Does each entity have one
13 representative on the committee?

14 MR. ALVAREZ: One and an alternate.

15 THE COURT: Okay. It was San Bernardino --

16 MR. ALVAREZ: County Flood Control District.

17 THE COURT: And the Riverside County Flood Control
18 District?

19 MR. ALVAREZ: Right.

20 THE COURT: Okay. And they have just started
21 meeting?

22 MR. ALVAREZ: Yes, sir.

23 THE COURT: Okay. And they're working on addressing
24 how to fix -- how to do some recharge projects to, for
25 example, either fix or forestall any problems that the Jurupa
26 entity will have with respect to pumping?

27 MR. ALVAREZ: They are looking at what recharge
28 projects need to be implemented to address the issues there

1 and basin water.

2 THE COURT: Okay. This may sound overly simplistic
3 but I just have to ask the question.

4 Wouldn't it help if you just stopped pumping some of
5 the water from the desalters, stop the drawdown on the
6 aquifer? Or is that just too -- way too simplistic a
7 solution?

8 MR. ALVAREZ: The --

9 THE COURT: Sure, counsel.

10 MR. HORST: I am Eldon Horst from Jurupa Community
11 Services --

12 THE COURT: Oh, thanks.

13 MR. FIFE: This is the general manager.

14 THE COURT: Okay. Thank you.

15 MR. HORST: And from our perspective we're
16 interested in seeing the Recharge Master Plan implemented.
17 Recharge Master Plan identifies projects that there are
18 commitments in Peace I and Peace II that Watermaster has to --
19 to achieve balance, so recharge and balance with extraction.
20 So obviously out of balance today. And the Recharge Master
21 Plan identifies projects that will do that. What we're
22 looking forward to, and we have a declaration submitted, is
23 simply to get an implementation plan implemented with a
24 schedule and commitments to achieve to finish these projects.

25 THE COURT: Okay. Okay. Thank you.

26 Is that part of the -- I've read all this stuff but
27 there was so much. Occasionally some of it has slipped my
28 mind. Is that part of the motion today? Is that part of the

1 resolution today?

2 Mr. Fife?

3 MR. FIFE: These are -- all of the issues ultimately
4 tie together in Chino Basin. The Recharge Master Plan
5 strictly speaking is a -- is a standalone issue. So in
6 December of 2010 you approved our updated Recharge Master
7 Plan. That's the order that's being referenced.

8 THE COURT: Okay.

9 MR. FIFE: It is relevant because of what you're --
10 you've been hearing there are drawdown issues. There are
11 commitments in the Peace Agreement, in the Peace II Agreement
12 about balance, about Watermaster performance. The idea's that
13 it is through the Recharge Master Plan that these commitments
14 will be upheld. So it's -- you see on the last bullet point
15 here that we have a report to you in December of 2011, so this
16 is more of segue than anything else.

17 THE COURT: Okay.

18 MR. FIFE: We've now traveled through all of the
19 issues central to this resolution. There are still issues and
20 they are being dealt with in the Recharge Master Plan, which
21 is another subject that will be back and you will hear about
22 in our filing in December.

23 THE COURT: In about less than 60 days then because
24 today's the 27th of October.

25 MR. FIFE: Yes. It's on a short schedule. The
26 timing's -- you know, this hearing was originally way back.

27 THE COURT: I remember that.

28 MR. FIFE: And we have gotten pushed so the timing

1 is a little bit compressed now, and that may influence the
2 degree of detail we're able to provide by December. But all
3 of these issues now are the next set of issues for you to hear
4 about.

5 THE COURT: Got it. Okay. All right. Thanks,
6 everybody.

7 Anything further, Mr. Malone, then?

8 MR. MALONE: Can we go back to the map? I just want
9 to make one last point.

10 THE COURT: This is the map which is slide 40.

11 MR. MALONE: Mr. Alvarez wanted me to point out the
12 distribution of the recharge facilities in the Chino Basin.

13 THE COURT: Okay.

14 MR. MALONE: On the west side along San Antonio
15 Creek Channel there's a lot of recharge facilities where we
16 can take storm water, recycled water, imported water and
17 recharge the west side of the basin.

18 THE COURT: Okay.

19 MR. MALONE: In some of the central and northern
20 parts of Management Zone Two, there are also recharge
21 facilities. Over here in Management Zone Three there are some
22 but not a lot compared to the other two management zones.

23 THE COURT: As I see zone three then, it's really
24 the zone that is closest to the Jurupa Community Services
25 Water District then; correct?

26 MR. MALONE: Yes.

27 THE COURT: Okay.

28 MR. MALONE: The Recharge Master Plan update

1 contemplated potential projects to improve the recharge
2 facilities over here. It also contemplated another creative
3 way to mitigate water level impacts, and that's called in lieu
4 recharge where Jurupa Community Services District would be
5 supplied in some way surface water through interconnections,
6 pipelines, and then that would allow them to pump less, like
7 you were mentioning earlier.

8 THE COURT: Okay.

9 MR. MALONE: So that water levels would be mitigated
10 at their wells.

11 THE COURT: When you talk about surface waters, you
12 mean like pumping from a river or something?

13 MR. MALONE: No. Like imported water, other
14 supplemental supplies, possibly other groundwater from
15 agencies that are located further to the north that don't have
16 the same drawdown issues. These are the types of things that
17 are being discussed, I believe, at the -- at the steering
18 committee or may be discussed at the steering committee.

19 THE COURT: I always hear about the Metropolitan
20 Water District being a source of water. Is that one of the
21 things under consideration too?

22 MR. MALONE: Imported water.

23 THE COURT: Yeah. Okay. From the -- the
24 Metropolitan Water District -- the Los Angeles County
25 Metropolitan Water District --

26 MR. MALONE: Yeah.

27 THE COURT: -- for lack of a better description.
28 That's not its correct name.

1 MR. FIFE: It's Metropolitan Water District of
2 Southern California.

3 THE COURT: Thank you.

4 I knew I was getting it wrong.

5 MR. MALONE: Our imported water pipelines come in in
6 the northern part of the basin. That's where the treatment
7 plants are too that treat that imported water. So that's --

8 THE COURT: Okay.

9 MR. MALONE: -- you know, potentially one of the
10 sources.

11 THE COURT: Okay. For some reason I thought --
12 jumped to the conclusion that the imported water would already
13 be treated, that it comes in untreated or treated or both.

14 MR. MALONE: It's in canals. It's in canals all the
15 way till it comes here, and so it needs to be filtered and
16 treated and disinfected before -- before it's served.

17 THE COURT: All right. Thanks.

18 MR. FIFE: In the December filing you'll be hearing
19 a lot about Metropolitan Water District and the availability
20 of water from them. That is going to be a very large subject
21 that you will hear about in December.

22 THE COURT: All right. Thanks. Something to look
23 forward to. All right. Okay. Next?

24 MR. MALONE: That's all I have.

25 THE COURT: All right. Mr. Malone, thank you very
26 much.

27 Let me turn and open the floor. Any counsel have
28 any questions for Mr. Malone or any other issues they would

1 like to ask Mr. Malone about while he is on the stand? No
2 response.

3 Okay. Mr. Malone, you're excused. Thank you very
4 much.

5 MR. MALONE: Thank you.

6 THE COURT: All right. I'll go back up on the
7 bench. I'll turn the lights back on, Deputy.

8 Okay. It's the court's conclusion, then, that all
9 of the evidence and argument has been submitted with respect
10 to Motion for Approval of Watermaster Resolution 2010-04. Is
11 that correct?

12 I will open the floor to counsel in case there's any
13 additional argument or evidence that anyone here would like to
14 present to the court on the -- on that motion. Any additional
15 evidence or argument?

16 Hearing none, the court is prepared to sign the
17 proposed order re Watermaster Resolution 2010-04. The court
18 believes it's appropriate based on the evidence presented and
19 the questions that were resolved for the court today in its
20 questioning, and additional argument from counsel, in
21 particular, Mr. Fife. And so if there is no -- hearing no
22 objection, the court's prepared to sign the order at this
23 time. Anyone objecting at this time? No objections.

24 The court's going to go ahead and sign the order as
25 presented, and it will be filed today then.

26 Thank you very much, everyone.

27 And anything further anyone would like to present to
28 the court at this time? If -- anything further at this time?

1 SUPERIOR COURT OF THE STATE OF CALIFORNIA
2 FOR THE COUNTY OF SAN BERNARDINO

3 --o0o--

4 CHINO BASIN MUNICIPAL WATER DISTRICT,)
5 Plaintiff,)
6 vs.) Case No. RCVRS51010
7 CITY OF CHINO, et al.,) REPORTER'S
8 Defendant.) CERTIFICATE
9

10 I, VICTORIA E. VILLEGAS, CSR, Official Reporter of
11 the above-entitled court, do hereby certify:

12 That I am a Certified Shorthand Reporter of the
13 State of California, duly licensed to practice; that I did
14 report in Stenotype oral proceedings had upon hearing of the
15 aforementioned cause at the time and place hereinbefore set
16 forth; that the foregoing pages numbered 1 through 155,
17 inclusive, constitute to the best of my knowledge and belief a
18 full, true, and correct computer-aided transcription from my
19 said shorthand notes so taken for the date of Friday, October
20 28, 2011.

21 Dated at Chino, California, this 4th day of January,
22 2012.

23
24
25 Victoria E. Villegas CSR
26 Official Reporter, CSR No. 9843
27
28