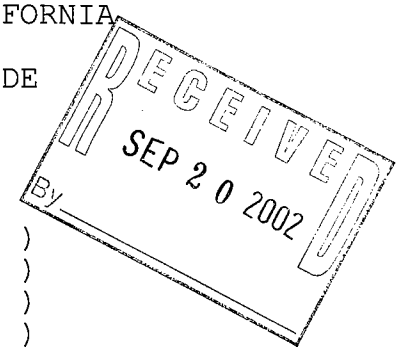
SUPERIOR COURT OF CALIFORNIA

COUNTY OF RIVERSIDE



DIAMOND FARMING COMPANY, a California corporation, and WM. BOLTHOUSE FARMS, INC., a Michigan corporation,	)	
Plaintiffs,	)	
vs.	)	Case No. RIC-344668
CITY OF LANCASTER, ANTELOPE VALLEY WATER COMPANY, PALMDALE WATER DISTRICT, PALM RANCH IRRIGATION DISTRICT, QUARTZ HILL WATER DISTRICT, ROSAMOND COMMUNITY SERVICE DISTRICT, MOJAVE PUBLIC UTILITY, DOES 1 through 200, Inclusive.	)	
Defendants.	)	

REPORTER'S TRANSCRIPT OF PROCEEDINGS

BEFORE THE HONORABLE JOAN F. ETTINGER, COMMISSIONER

DEPARTMENT 10

AUGUST 5 & 6, 2002

APPEARANCES:

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Reported by:
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DEFENSE WITNESSES PAGE

MONDAY, AUGUST 5, 2002; RIVERSIDE, CALIFORNIA

COMMISSIONER JOAN F. ETTINGER; DEPARTMENT 10

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THE COURT: Good morning. We have a pretty full courtroom today. Let's start by getting appearances.

MR. JOYCE: Bob Joyce appearing on behalf of the plaintiff Diamond Farming Company.

MR. ZIMMER: Richard Zimmer, attorney for Bolthouse Farms, plaintiff.

MR. JOHNSTON: Stewart Johnston on behalf of Bolthouse and Diamond Farming.

MR. DUNN: Jeffrey Dunn on behalf of Rosamond Community Services District.

MR. BUNN: Good morning, your Honor. Thomas Bunn on behalf of Palmdale Water District and Quartz Hill Water District.

MR. ABBOTT: Steven Abbott on behalf of the defendants, Los Angeles County Waterworks District, No.'s 37 and 40.

MR. TOOTLE: John Tootle on behalf of the Antelope Valley Water Company.

MR. MARCUS: Jeffrey Marcus on behalf of Littlerock Creek Irrigation and Palm Ranch Irrigation, and we have reached a settlement with the plaintiffs. The attorneys have signed the agreement. I just wanted to make the Court acknowledge the settlement and excuse my clients.

MR. JOYCE: That is true, your Honor. We have concluded the settlement.

THE COURT: Anyone from the defendants feel any reason they should not be excused? Then you're excused.

MR. MARCUS: Okay. Thank you, your Honor.

MR. CONNEL: Liam Connel for the City of Lancaster.

MS. FUENTES: Theresa Fuentes on behalf of defendant Rosamond Community Services District.

THE COURT: Anyone else? That's all the attorneys.

Well, apparently, we don't have enough room for a few of you.

Ms. Fuentes, you can probably move forward at least and get in the first row, and we'll try to make this as convenient for everyone as possible.

Now, I saw a witness list with three witnesses; is that what we're talking about?

MR. ZIMMER: I believe that's correct, your Honor.

THE COURT: Which witness do we have for today?

MR. JOYCE: That would be, I presume given the Court's allocation, the burden of proof on Mr. Scalmanini.

MR. DUNN: We have Mr. Scalmanini to testify today as the first witness.

THE COURT: How long do we expect the testimony for each witness, including direct, and then all of our cross?

MR. DUNN: I would estimate that Mr. Scalmanini's direct would take the remainder of the morning, assuming we break at noon, and spill over for about an hour after the lunch break.

THE COURT: All right. And then --

MR. JOYCE: I anticipate --

THE COURT: -- probably the rest of the day for --

MR. JOYCE: That's very likely, your Honor. I anticipated that we should be able to complete all witnesses by the conclusion of the day on Wednesday at the latest.

THE COURT: I was going to tell everyone. Wednesday I have a construction defect case that I reserved that day because it was going to be a very long trial. We're down to one last party. So we have any day but Wednesday. So I take it we'll be in trial today, Tuesday, Thursday.

Are we needing to then go over to Monday of the next week?

MR. JOYCE: It is my great expectation and hope, no.

MR. ZIMMER: Hopefully we can finish this week.

MR. JOYCE: I think three trial days would be more than sufficient. That's my expectation.

MR. DUNN: I think one witness a day would be fine.

THE COURT: How are we handling direct? Do we have a lead among all of our defense?

MR. DUNN: On the defense side, we've organized both the direct and cross-examination so that on the direct there is just one attorney who will be doing the direct. That happens to be me by the way.

THE COURT: All right. You're the lucky one, and you're going to be doing direct on all?

MR. DUNN: No. Just Mr. Scalmanini. He's the only witness on the defendant's side.

THE COURT: Just so we know how everyone's

expecting this -- you will do direct, then we will go over to plaintiffs for cross, correct?

MR. ZIMMER: Correct.

MR. JOYCE: That's correct, your Honor.

THE COURT: And then we will go back for redirect again for you?

MR. DUNN: That has not been decided on redirect. I think with the very nature of the redirect, it may be, perhaps, one other person may conduct that.

Do you need to know?

THE COURT: Probably not.

MR. DUNN: It's a little hard to anticipate redirect at this point.

THE COURT: All right. And then as far as objections, we're going to allow each attorney to lodge and make whatever objections they feel is necessary.

MR. ZIMMER: Sounds fine.

MR. BUNN: I would think so.

MR. JOYCE: I think practically and maybe legally that would have to be.

THE COURT: I think it would have to be because we don't have joint representation. We have different clients. I was just trying to see.

I don't think you had any agreement that one of the lucky of you would make all the objections, correct?

MR. DUNN: No.

MR. JOYCE: I don't think that we have attempted to limit it that way, your Honor. I suspect you'll have to take

them all as they come.

THE COURT: All right. Now, as far as opening, do we need a bit of time by each side for opening, I would think?

MR. BUNN: Yes, your Honor. I'm going to do that for the defense side. I'm Tom Bunn. I expect 20 minutes.

THE COURT: All right.

MR. JOYCE: Your Honor, technically speaking, in many, many respects we are completely aligned. I suspect, for purposes of aspects of the focus, that we both probably have our own comments on opening, and I don't expect my opening would last more than 15, 20 minutes, maximum.

MR. ZIMMER: I agree with that, your Honor.

THE COURT: All right. Then that will be fine. And then when you're finished -- I mean, you are going to make an opening -- sort of joint opening on behalf of everyone?

MR. BUNN: Yes.

THE COURT: All right. Let me make sure my live notes -- something has happened to my computer out here since I've been gone. Hold on. I lost the mouse. Here we are.

Then, are we ready?

MR. ZIMMER: Your Honor, there was one other issue, and that is in the defense side in terms of the preparation of evidence, how are we doing the direct examination of Mr. Sheahan? We anticipate I will go first from the plaintiff's side of the case, and Mr. Joyce will be doing Dr. Gorelick. And I'm not anticipating starting Mr. Sheahan until tomorrow. I think the defense indicated one day per witness which works out about right.

THE COURT: I think that's fine, because there would be no need to bring him over and then end up paying two days if we're only talking a little bit of time at the end of the day.

MR. ZIMMER: The issues are somewhat complex in areas. It might be easier to ingest it in pieces.

THE COURT: All right. I see the map. That's not the one that came to all the hearings. Where's the one that came to all the hearings?

MR. BUNN: It's here, your Honor.

MR. JOYCE: One of many.

THE COURT: Well, I think -- Mr. Bunn?

MR. BUNN: Yes. Rosamond Community Services District, your Honor, did file a Motion in Limine. Did you want to dispose of that before we got started?

THE COURT: Probably should. Unfortunately, after three weeks, I usually read these ahead of time. This, apparently, deals with an expert witness report that someone is wishing to exclude.

MS. FUENTES: Yes, your Honor. Rosamond Community Services District has moved to exclude the exhibit witness report and all expert witness testimony by Mr. Sheahan, one of the experts by plaintiffs, based on the fact that Mr. Sheahan's expert witness report was submitted to all the defendants less than 24 hours prior to the deposition, and I apologize for my voice.

THE COURT: Mr. Sheahan is an engineer?

MS. FUENTES: Yes.

THE COURT: He was deposed? The deposition went forward?

MS. FUENTES: He was deposed, yes, your Honor.

THE COURT: How long was the deposition?

MS. FUENTES: The deposition lasted one day. We had the option to continue it, but to do so would have been futile.

THE COURT: Where is his report?

MS. FUENTES: We submitted it, yes, your Honor. It's submitted as an exhibit --

THE COURT: To your declaration?

MS. FUENTES: -- with the exclusion of his large map, which we can present.

THE COURT: Isn't the case law pretty much standard for exclusion. Wouldn't it be somewhat of a harsh remedy in a circumstance where someone's been fully deposed? The report, although should have been there sooner, certainly has been fully digested by all our learned attorneys here.

MS. FUENTES: First of all, Code of Civil Procedure Section 2034 requires that any expert witness' testimony or expert witness' report submitted late, that the corresponding testimony of the expert be excluded if it was not disclosed at the time set for the designation of the expert witnesses.

THE COURT: Not sure it truly allows for exclusion of the witness based upon a late received report. Exclusion is typically reserved for very limited circumstances. In other words, where an expert never shows up, never testifies, doesn't give deposition and shows up on the day of trial. I think

that's an easy call.

But when they show up, they're deposed, they're asked questions about the report, exclusion would be a very drastic remedy under the circumstance, would it not?

MS. FUENTES: It would, your Honor. However, we were provided with the report less than 24 hours before his deposition. Our expert was not able to review it. The report was provided to us less than two and a half weeks prior to trial.

We did not continue his deposition for three main reasons. The first being that the suggested continued dates were yesterday and the day before. The second being that continuing his deposition would have been futile in that it was very difficult to get any meaningful testimony out of him at his initial deposition. Defendants would have been forced to bring a Motion to Compel meaningful deposition testimony. But even more importantly, in the two weeks that remained between the time of his initial deposition and preparation and this trial date, defendants decided to spend the time preparing for trial. That was about all the time they had.

THE COURT: But exclusion, I think, under 2034 is allowed only under Subsection J, correct?

MR. JOYCE: Your Honor, if I could --

THE COURT: And then it says if you don't list them, or if you don't submit an expert witness declaration at all, or if you don't produce reports in writings. I don't think that's referring to a late produced report or if you do not make that expert available.

How can we broaden "J" to allow exclusion in a circumstance where the reports produced, albeit, perhaps, not as timely as it should be, and the expert is deposed.

MS. FUENTES: Your Honor, the problem with the late submission of this report, it goes beyond his initial designation of his testimony, and that's also another reason for exclusion. Not only was the report produced on the eve of his deposition, his deposition and his report go beyond his designation.

Yes, the defendant had the opportunity to examine him at his deposition. They spent 20 minutes preparing to do so, and it would have been malpractice if they hadn't attempted to depose him at that time. As can be seen from his deposition transcript, there were times when the defendants were at a loss for how to frame the next question or what even to propose next because they had only seen this report that morning.

THE COURT: Let me ask, as far as the other attorneys, is there anyone who has an argument or can give me some case or statutory authority that would say exclusion is an appropriate remedy in this case?

MS. FUENTES: Your Honor, if I may, it was a joint brief to the pretrial.

THE COURT: I don't think exclusion would be allowed in this particular case, because I think it would be too harsh of a remedy, and -- I mean, they submitted their list. They submitted their expert witness declaration. They produced the report, and they made him available.

The question then, I think, would turn onto whether

some area of his testimony that has not been gone into, whether that should be prohibited and/or whether you would have a right to possibly voir dire him before he actually gives his testimony if there's any other areas that you think you did not get full and complete answers to.

But I'm going to deny the request for exclusion, because I don't think that's supported by the statute.

MS. FUENTES: Your Honor, as far as the area goes, may I state that the area that we would want to exclude is his proposal of any boundaries besides those proposed by Mr. Scalmanini our expert. Mr. Sheahan's expert witness declaration stated that he would testify regarding criticism and critiques of Mr. Scalmanini's boundaries. Mr. Sheahan went beyond that designation by proposing all alternative boundaries. That would be the extent to which we would exclude.

THE COURT: Since the whole testimony deals with boundaries, I think that is, in essence, excluding what is meant to be the focus of his opinion, is it not? Isn't the whole purpose of this to establish the boundary? If he can't testify as to what he believes the boundaries are, there's not going to be a whole lot that he's going to say to be helpful.

Who is he?

MS. FUENTES: Mr. Sheahan.

THE COURT: Now, what day was he going to testify? Tomorrow?

MR. JOYCE: That -- in all likelihood that will be correct, your Honor.

THE COURT: Let's do this: I'd like to -- I'd like to read what you have in your brief. I'd like to take a look at the designation and whatever performance of the deposition you've given me, and I'll do that over the lunch hour. And then we'll take this up at the end of the day when I'll be a little more familiar with everything. We can take a look at what we're looking at.

MS. FUENTES: Your Honor, if I may, I didn't submit to you the entire deposition transcript. If you'd like, I can do that right now.

THE COURT: Why don't you. A certified copy is fine.

MS. FUENTES: I don't think I have a certified copy.

THE COURT: Probably a copy is okay.

MR. JOYCE: If she represents it's a true and correct copy, that's fine with me.

MS. FUENTES: If I may, your Honor. I'm going to submit a copy of the case that I would read to you, so if you want to take a look later.

THE COURT: I think that it's dealing with a different set of circumstances than what we have here. I don't know exactly if it's deposition. It seems like it was somewhat lengthy. He certainly gave some opinions. I'm not sure what there was about that report that might have altered or changed any of his opinions, or whether it was simply that you needed more time because you didn't have the report in time, so you needed more time to delve into his opinions, or really what

we're talking about.

MS. FUENTES: As your Honor will see from our papers and from the transcript, not only did we need more time, we needed more cooperation from the witness.

THE COURT: Well --

MR. ZIMMER: Your Honor, I suppose we're going to discuss issues later. I want to make sure the record is clear that the demand for report and writings in an occasion such as this from an expert is different from a medical case where you're required to provide a report within a certain period of time. Under either scenario, there is no -- as the Court correctly points out -- remedy of exclusion of witnesses' testimony in this case.

There's a demand for reports and writings that exist as of the time of the demand. Because of the timing, we had to wait for Mr. Scalmanini's deposition to be completed. Because of that timing, the report could not be completed until after that. The report was provided immediately when it was prepared.

They are misapplying the law. There is no right to report and writings. It does not exist at the time the demand is made.

MS. FUENTES: Your Honor, if defendant had known it was coming, they would have had time to prepare. They didn't know it was coming until it was received less than 24 hours before the deposition.

THE COURT: All right. We'll take a look at that. I take it -- was there any type of interrogatory or request for

introduction of documents prior to the deposition, or when the deposition was noticed, and did that include the request for production?

MS. FUENTES: Yes.

MR. JOYCE: Yes, your Honor.

THE COURT: And I think what I'm gathering from plaintiff's testimony is this gentleman wanted to hear the testimony of another witness, and then he made his report.

MR. ZIMMER: That's correct.

MR. JOYCE: That's correct.

THE COURT: All right. And we're probably talking about a week --

MR. ZIMMER: A couple weeks.

THE COURT: -- between all that.

MR. JOYCE: About ten days, your Honor.

THE COURT: And then his report was delivered how soon before his deposition?

MR. ZIMMER: I think it was at least 24 hours, and it was made available as soon as it was provided.

THE COURT: And what date was his deposition?

MS. FUENTES: His deposition was on July 18th, and we received the report late in the day, July 17th. I don't know when the other defendant's counsel received it. Our expert did not receive it until approximately July 23rd.

MR. ZIMMER: The point of the matter is there is no obligation to prepare a report. He could not have prepared a report. The only thing that the demand for production gives you is the right to have --

THE COURT: It's not an IME report or anything like that that you have an absolute obligation for. I'm assuming, and maybe erroneously, that there was some type of a production demand in connection with the deposition.

MS. FUENTES: Yes.

MR. ZIMMER: That's correct.

THE COURT: So what would be the basis then? If they're saying it was given 24 hours before, what is the legal authority that they would have had to provide it any sooner than 24 hours?

MS. FUENTES: I suppose a sense of fairness, your Honor.

THE COURT: All right.

MR. BUNN: If I could make one more comment, your Honor? Representation has been made that this report couldn't have been prepared earlier because the expert wanted to hear the testimony of another witness. That other witness, however, had prepared his own written report. The plaintiffs had it for five months before coming up with their own critique of that report. So this "we couldn't do it before" is really a red herring.

THE COURT: I think the ultimate problem, though, is the reports in and of themselves are hearsay. Absent an agreement by all of you that either all the reports come in, typically, there's very little in the reports that would come in. It would be the testimony of the witness. To the extent the reports are illustrative, and maybe I'm a little generous, I'd like to find them illustrative, they often help. Maybe not

so much in engineering, but there's diagrams or scales or whatever there is in there. But really the body of the report is going to be hearsay documents that, hopefully, he's going to testify to.

So as far as the other two witnesses, who was the first deposed?

MR. ZIMMER: Mr. Scalmanini.

MR. JOYCE: The other two witnesses would be Mr. Sheahan and Mr. Gorelick. Mr. Sheahan was deposed first, and Dr. Gorelick was deposed the day after.

THE COURT: And Mr. -- is it Scalmanini?

MR. ZIMMER: Scalmanini, S-c-a-l-m-a-n-i-n-i.

THE COURT: His report was provided when?

MS. FUENTES: At the time set for exchange, February 15th.

MR. ZIMMER: Mr. Scalmanini's so-called report is really not a report. It is simply a restatement of what other people have said. It was extremely difficult, if not impossible, to understand what his opinions were by reading that so-called report.

THE COURT: And then --

MR. ZIMMER: That's part of the reason why it was necessary to take his deposition.

THE COURT: And then Dr. Gorelick. When was his report provided?

MR. JOYCE: He did not prepare a written report, but he did appear and produced the various maps and diagrams that were asked for, and as well as others that they didn't ask

for, and offered themselves up. And they spent the whole day and offered to bring him back a second time.

THE COURT: Is it Mr. or Dr. Sheahan?

MR. ZIMMER: Mr. Sheahan. He's not an engineer. He's a hydrogeologist and geologist.

THE COURT: He did not have a report prepared at the time of the exchange?

MR. ZIMMER: That's correct.

THE COURT: His report was then given 24 hours before the deposition, and how long after it was prepared was it given up?

MR. JOYCE: The day after.

MR. ZIMMER: We got it and turned it over.

MS. FUENTES: It was being edited three days before his deposition.

THE COURT: I'll take a look at it over the lunch hour. We'll deal with this at the end of the day.

MR. JOYCE: Your Honor --

MR. ZIMMER: The other thing, your Honor, is that -- you do have a copy -- we received the motion regarding Mr. Sheahan's testimony either late Thursday or Friday morning, and we have filed with the Court our opposition to that motion. And I just want to make sure the Court has that in its possession.

THE COURT: That was filed this morning; is that correct?

MR. ZIMMER: That's correct. And served on all counsel this morning as well.

THE COURT: Do you have an opposition? Here it is, a taxed copy.

MR. ZIMMER: Yes, your Honor.

THE COURT: I have that.

MR. JOYCE: One more issue, your Honor. On behalf of the plaintiff and I presume plaintiffs, I have an oral Motion in Limine, and that would go to limiting Mr. Scalmanini's testimony here to the opinions expressed by him during his deposition, and to exclude from any testimony here today any opinions he has proffered or formulated since the time of his deposition.

And the reason I am motivated to make this motion is that I received Friday morning the defenses joint designation of exhibits. And in looking through it, I did ascertain that there's about nine exhibits that were not provided at the time of Mr. Scalmanini's deposition. In fact, one of them is a revised Phase 1, which is the area delineated in his report, which is the area that he originally propounded as being the appropriate area at the time of his deposition.

In looking at the designation, I can assume, because I have not yet seen this document, that even that document has now been modified or changed because it's labeled "revised." And there's a whole slew of other exhibits listed that were not produced at the time of the deposition, and we were very meticulous in making sure that we looked at every single piece of paper that he brought with him to his deposition in which he testified that he revised.

THE COURT: The problem with this type of motion is

this: Originally, we're governed by what is in the expert witness designation as far as the areas that an expert's going to testify to. If there was no deposition, it would be limited to those areas. Once, however, they are deposed, then I think the general rule is they're limited to the areas and the opinions they offer at the time of the deposition with the admonition that questions have to be asked.

In other words, there's a lot of different opinions you can have in a general area. If someone hasn't asked a specific question, then you may or may not, depending on really what the other questions are, be limited. I will have no idea until I hear what questions are being asked and someone makes an objection that that was not covered, and then I take a look at your designation and the deposition and what was asked and gone into.

I mean, it's the same rule that would apply to all experts, so essentially, I think to the extent anyone has that type of objection, in a case that simply has three experts testifying, you need to just raise it at the time the question is asked.

MR. JOYCE: I assume then, your Honor, as to the new documentation and/or writings now being proffered up that were not produced during the course of his deposition and apparently not even at that time relied upon by him, that I would be entitled to take him on voir dire, establish that fact, and renew my objection.

THE COURT: You could at the time.

MR. JOYCE: Thank you, your Honor.

THE COURT: Sometimes a document that shows up at trial that nowhere was discussed in a deposition, might be improper, but sometimes it might be probative. There's just too many things. I don't know. We'll do it as it comes up.

MR. JOYCE: Then I will reserve those issues until they present themselves. But if and to the extent part of the pitch being made by the defendants is surprise or lack of opportunity to prepare, I suspect with respect to all this new material, if anyone's lacking an opportunity, I'm standing here at trial. I haven't seen this stuff yet. I'm lacking the opportunity.

MR. ZIMMER: I think what Mr. Joyce is primarily directing himself to is that Mr. Scalmanini came up with what he felt the boundary was for purposes of this litigation. In the exhibit list there is a completely new depiction of the boundary that we have not seen yet. It wasn't attached.

THE COURT: I suppose the question is, is it new in the sense that it is different in how you describe a boundary? I don't think it's latitude and longitude, but it's probably some mechanism. Or is it new in that it's just a different depiction of the same that was testified to? I don't know.

MR. BUNN: It's the latter, your Honor.

MR. ZIMMER: One thing I think would help is if the defense would give us a copy of those exhibits which we have not to this minute seen.

THE COURT: We'll do opening statements, and then we'll take a 15-minute recess, and I'll let you make sure you've exchanged your documents and everyone knows, other than

if we have impeachment. I don't expect we're going to have too much of that this morning. That might short cut some of this.

MR. ZIMMER: That's fine.

MR. JOYCE: Your Honor, it might take a little longer than 15 minutes. Because, for instance, in the case of Mr. Scalmanini, he probably has 25 or 30 maps and/or source materials that he would or could reference on various issues, and some of which he did not. And they were there at the time of the deposition. They just didn't ask for a copy.

THE COURT: Do we have everything marked?

MR. ZIMMER: Not that I'm aware of, your Honor.

THE COURT: Let's finish our opening statements, and we'll see how long we actually need. But whatever -- it's going to save time. Ultimately, whatever exhibits are going to be used in this, I direct that we get them marked ahead of time and shared. So rather than just doing it one after another, it's going to be a delay. So let's take a recess and try to get that done. All right.

MR. JOYCE: Did you want to recess now, your Honor?

THE COURT: No, I want to get openings done. I think we can do that. So, Mr. Bunn.

MR. BUNN: Thank you, your Honor.

MR. ZIMMER: Your Honor, it's difficult for me to see you and/or counsel. Would it be acceptable to the Court if I move in the jury box during his opening statement?

THE COURT: You may.

MR. ZIMMER: Thank you.

MR. BUNN: Your Honor, before I start, I'd like to

move to exclude the witnesses from the courtroom under Evidence Code 777.

THE COURT: All right. Who do we have here today?

MR. BUNN: All three expert witnesses are here today.

THE COURT: Oh, we do have the experts.

MR. JOYCE: Your Honor, I'm not sure if he wants to exclude them for purposes of opening argument, but as to -- I'll speak initially to Professor Gorelick. His primary purpose is to hear, assess, and critique the science behind Mr. Scalmanini's proposed line, and therefore, his -- Mr. Scalmanini's testimony in support of that line, and that makes it difficult if he's now asked to leave the courtroom and not given the benefit to hear what new -- if anything new is offered up.

THE COURT: I think the Court has great latitude in determining exclusion of experts. I mean, certainly, the exclusion of factual witnesses who may be influenced by their recollection of what they saw if they hear someone else testifying is one thing. But I think there's even some authority that suggests experts -- we always lump them into a typical trial. But I think they are not necessarily subject to the rules of exclusion for various reasons, but one, being these witnesses who are supposed to be rendering their own opinions, they should not be influenced by what they hear other than their -- I would suggest each expert's probably going to critique the other experts.

I think in the overall scheme of things we're going

to save a great deal of time and money by everyone to allow the experts to remain, so they don't have to sit there and read the transcripts. They can hear it. We don't have to worry about getting expedited transcripts which cannot happen in a matter of one day. She's not going to be up all night. Even if she was, by the time she gets it to you the next morning, it's not going to be enough time for your expert to digest it.

I need to make an educated decision based on what I hear as to what the boundaries of this basin are, and I think it's going to be facilitated by letting all of the experts hear anything additional that maybe was not quite gone into the same way at the deposition, so that if you're going to have a chance for rebuttal and all that, you can bring them back and comment, or to the extent the plaintiffs have to.

I'm going to deny that. I'm going to allow all the experts to remain.

MR. JOYCE: Thank you, your Honor.

MR. BUNN: Your Honor, if I may? I certainly agree that the Court has latitude in the matter, but I would like to point out that there is specific case in support for excluding expert witnesses, and I can cite that case to the Court if you'd like.

THE COURT: Give me the case. I'll take a look at it, but --

MR. BUNN: People versus Valdez, V-a-l-d-e-z; 1986 case; 177 CAL AP 3rd 680 at page 686.

THE COURT: All right. Now, does anyone wish them to be excluded during the opening statements?

MR. BUNN: We would so move.

THE COURT: For opening statements, I will exclude them since that is not anything that they should be commenting on. So I will ask them to step out for opening statements.

MR. JOYCE: No objection, your Honor.

THE COURT: Then that will give me a chance -- I can look at that case briefly while we're recessing. I'm still -- unless there's something in it that tells me I have no discretion, which I believe is not the case with experts, I think I do have discretion with experts, my ruling would be to allow them to remain during the testimony. But for opening statements, we won't clutter their mind anymore than it needs to be. We'll ask them to step out. All right.

MR. BUNN: Thank you, your Honor.

We're here to determine the boundaries of the area within which the plaintiffs and the defendants have water rights to produce ground water. In their complaints, the plaintiffs call this area the aquifer. But they say they're unaware of its nature or extent.

Last year the Court granted the defendant's motion to bifurcate and try the basin boundary issues first. And then after that, if your Honor will recall, in response to an ex-parte application by Bolthouse, your Honor ordered us to meet and confer with respect to the Phase 1 issues, and agreed. And in response to that, we did meet and confer. And we came up with a one-paragraph stipulation which we have been calling the Phase 1 stipulation.

That stipulation provides that the area to be

considered will be a single area. That the area defined in Phase 1 will be the basis for including or excluding properties from the lawsuit. That the area defined in Phase 1 will be deemed -- well, it will be deemed that pumping from within the area has no legally adverse effects. In other words, are the words the stipulation uses on the water outside the ground area and vice versa.

And finally, and this is what we spent the most time on in our negotiations, the internal boundaries of sub basins within the basin are not being determined in Phase 1. That is an issue reserved for Phase 2. Phase 1 determines the external boundaries of the basin and the question of the interaction, if any, between sub areas is reserved for Phase 2.

As far as the defendants are concerned, that stipulation, while somewhat awkwardly worded due to the committee drafting effort that went into it, that stipulation adequately described the legal effects of the basin boundary that we were going to try in Phase 1. As a matter of fact, we felt that it would be fairly easy to agree upon the boundary after which we would get on to phase 2, and as everyone agrees, the meat of the lawsuit. By the time we got to the point where this stipulation was entered into, Mr. Scalmanini's proposed boundary line had been out for four months. And we felt it was a matter of getting comments on that line.

And to tell you the truth, I'm a little bit surprised to be in here today at all. A little over two weeks ago the plaintiffs sent us their expert's report which showed a much larger boundary than Mr. Scalmanini's that encompassed not

only the Antelope Valley, but also the neighboring Fremont and Leona Valley, and used, not ground water boundaries, but water shed boundaries to come to that determination.

I'll get to the difference between the two boundaries in a minute.

THE COURT: Let me ask: Does either side have an overlay that shows one on top of the other that would easily show the difference of the boundaries?

MR. JOYCE: Yes, your Honor.

THE COURT: I don't need it now, but I'd like something to see that early on. So at the break you can get that.

MR. BUNN: I was going to kind of show with my finger on this map over here if they have an overlay.

MR. JOYCE: We have an overlay that contrasts the two lines.

THE COURT: Then why don't we let counsel use that for opening?

MR. ZIMMER: The problem, your Honor, it needs to be set up with a projector, this map here, or one of the maps, I think, for purposes of what the Court is trying to figure out.

MR. JOYCE: Actually, your Honor, we have a hard copy.

THE COURT: Is it small?

MR. JOYCE: Because we can use it on the Elmo and probably project it up.

MR. JOYCE: Can I step out for just a moment?

MR. ZIMMER: I'll take care of it, your Honor.

THE COURT: Sure.

MR. JOYCE: It may make it a lot easier if you can see the contrast.

THE COURT: Visuals are very helpful in this type of case in testimony. I think in the four and a half years I've been here, you win the prize of being in trial with the most lawyers. We have had more on construction defect cases, but they haven't actually started trial, though. They usually settle.

MR. BUNN: With one exception, we only have one lawyer per party, and actually, we have lawyers representing multiple parties, so --

MR. JOYCE: It could be worse.

Your Honor, if I can be of some assistance to the Court. What you see on this overlay, the bold red line on the perimeter, is a water shed line in large part proposed by Mr. Sheahan. And as you go internally, you will see a black, red, and then an internally dotted black line. Those are two alternative lines suggested by Mr. Scalmanini, if that's of any help.

MR. ZIMMER: In simplistic terms, the outer red line is Mr. Sheahan, and the internal lines are lines of Mr. Scalmanini.

THE COURT: All right. Mr. Bunn, you wish to continue?

MR. BUNN: Yes, I do.

I'd like to address a couple of representations

that were made in the plaintiff's trial brief. One of them was that the parties agreed that there was no case law from which one could define a ground water basin. That is absolutely disagreed with by the defendants, and, in fact, we have cited considerable case law in our own trial brief regarding the determination of the basin boundaries.

The second representation is that it was agreed that the purpose of the Phase 1 trial would be procedural only. Again, that is emphatically disagreed with by the defendants. As a matter of fact, that was proposed repeatedly by the plaintiffs in our Phase 1 stipulation and repeatedly disagreed with by the defendants. So it's a little surprising that they say it was agreed to at this point.

And finally, this is a little bit off the topic, but their trial brief speaks of the events that led to this lawsuit and refer to a plan for water rights that was circulated to the plaintiffs. And I'd like to say for the record that I've never seen any such plan; that as far as I'm concerned, there's no evidence to support this assertion they're making now. I don't think they're going to be putting on any in the trial.

A ground water basin can be analogized to a bucket filled with wet sand. It's not a bucket full of water. Basically, it's -- what holds it up is the sand. But there is water in there that can be extracted for use by farmers and by municipal water agencies. This ground water basin is made up of one or more aquifers containing permeable material, and by "permeable" I mean just capable or storing or transmitting

water.

A ground water basin is typically bounded by boundaries which are relatively impermeable. And these can include bed rock contacts between the -- I'm going to abbreviate the permeable as sand because that's how I think of it myself, but of course, it can be different densities, different coarseness and fineness of materials, but it all holds the water in there. It's the boundary between the sand and hard rock. Bed rock can be a basin boundary. And another type of basin boundary is a fault which prevents the movement of ground water or impedes the movement of ground water underground.

Mr. Scalmanini, our expert witness, will testify that nothing in nature is completely impermeable. Nothing completely halts the movement of water underground. But there can be a relative difference between the very permeable material of the ground water basin and the very impermeable material of the rock surrounding the basin or the other basin boundaries.

A water shed by contrast has to do with surface drainage the way the precipitation drains. And the analogy that I was using for myself was a pitched roof. If water falls on one side of the roof, it drains in one direction. If it falls on the other side of the roof, it drains in the other direction, and that's the water shed boundary.

When the water does drain off, there are a number of things that can happen to it. It can evaporate, it can be used by vegetation on the side of the mountain, or it can find

a way into the ground water basin. So in shorthand, the water shed is where the water comes from.

The ground water basin is where it goes to and is stored. As we demonstrate in our trial brief, ground water cases uniformly use the basin and not the water shed as unit for defining water rights.

There are numerous adjudicated basins in California. Mr. Scalmanini will testify about some of those. And frequently, there's a situation where they're -- as in the Antelope Valley, there's more than one basin within a single water shed. And courts treat those basins separately for purposes of determining water rights. And the water rights within each basin are compared. The different rights' holders within each basin are the ones that are compared for purposes of priorities of rights.

Sometimes there is an issue with respect to basin boundaries in ground water basins. And the form that it has usually taken in the case law is that the issue is whether two areas are to be considered for legal purposes a single ground water basin or multiple basins. And what the courts look to in that situation is the degree of connection between the two basins, and that's what you're going to be hearing about a little bit during this trial.

The supreme court has said for two areas to be part of the same basin, pumping in one area must significantly and materially affect ground water levels in the other.

Now, we thought -- if your Honor will remember some of the discussions that we had at the motion to bifurcate, we

thought that might be an issue in this case. The Antelope Ground Water Basin has been divided into sub areas by different researchers, and we raised the question, you'll recall, whether those sub areas constituted different ground water basins. But, when Mr. Scalmanini looked at the evidence, he concluded that the sub areas should not be treated as separate basins, but the whole Antelope Basin be treated as one unit.

So now, I'd like to point the Court to the map a little bit. And if I can get more of it on the screen. No. So we'll go wide on this.

On this map, this area down here is the San Gabriel Mountains. North is toward the top of the map. Over here are the Tehachapi Mountains, the town of Tehachapi, and the road going toward Bakersfield. Then this up toward the top is the Sierra Nevadas. All this triangular area that's colored white is the Mojave Desert.

Mr. Scalmanini drew a line which maps out the Antelope Valley Ground Water Basin. And it goes along the base of the mountains here north of the San Andreas Fault. And of course, he's going to testify to this in more detail. I'm just giving you the overview. Then along a fault line, couple of fault lines on the western side, and then up on this red line, if the Court can see that, up to the east of the town of Mojave, and then back down. That's Mr. Scalmanini's barrier based on ground water basin boundaries.

Mr. Sheahan's line, by contrast, is based on water shed boundaries, so it goes up to Mount Penpaul (phonetic spelling) here at the top of the water shed 10,000 feet up and

along the peaks of the mountains, and then up into the Sierra Nevadas around north of Redrock Canyon and back down. This is a much larger area, of course. And I don't think it shows on this overlay, but it does show on the map on the easel there. And if I may just real quick?

THE COURT: You may.

MR. BUNN: This line right here, which I can't see on the other map, is the division between the Antelope Valley and the Fremont Valley. It's a water shed division. It's based on the surface drainage down there. This area down here is the Leona Valley, and by including this large area as his designated area, Mr. Sheahan brings in these two additional valleys, the Fremont Valley and the Leona Valley, which the plaintiffs want to consider in Phase 1.

So the issue in this trial is going to be whether to use the smaller boundaries of the Antelope Valley Ground Water Basin or the larger boundaries in the area, encompassing the Fremont Valley and Leona Valley water sheds. Now, neither plaintiff owns any property in the Fremont Valley or Leona Valley. All of their property is in the Antelope Valley.

Now, Mr. Scalmanini, our witness, will testify that the Antelope Valley Ground Water Basin has been defined and its boundaries established from researchers from the U.S. Geological Survey starting with a man named Bloyd, B-l-o-y-d, in 1967. And continuing and later studies have used the same features as the boundaries, but these features have been more precisely located, and that's the reason for the difference that you see in some of the boundary lines on Mr. Scalmanini's

map.

For example, if the boundary is a bedrock contact, that in later work has been mapped more precisely underground, so the surface line has changed a little, but it's still intended to map the same bedrock contact that it always was.

Mr. Scalmanini will testify that the boundaries of the basin consist of these bedrock contacts, also of faults which impede the movement of ground water and a ground water divide. A ground water divide is when the sub surface elevations of water table come to a little peak, not unlike the water shed, so that the ground water underground will flow in one direction on one side of the divide and in another direction on the other side of the divide. And that's what he uses for the boundary in the south eastern part of the basin down in this neighborhood.

Then Mr. Scalmanini will testify that ground water pumping on one side of his boundary does not have a significant material effect on ground water levels on the other side. How can he tell this? It's underground after all. He can tell from the characteristics of the sub surface materials and from the direction and magnitude of ground water flow as mapped by the prior researchers.

Now, this is something that the plaintiff's experts have not considered at all. Instead, what they say is that if the underground material at the boundary line is such that it can conduct ground water, then there's potential ground water flow across the boundary, and it shouldn't be used as a boundary line at all. They have not looked at the direction

and magnitude of actual ground water flow to determine whether water flows across that boundary or not.

The evidence is going to further show in this case that the Antelope Valley Ground Water Basin, a smaller area, has been extensively studied, and the water shed has not. Water shed includes not only the Fremont Water Valley Basin and the Antelope Valley, but it includes all of this area in the mountains going up, as I said, to nearly 10,000 feet. That boundary is quite close to the edge of the desert here, but it goes right up to the ridge line, up the San Gabriel Mountains to the Tehachapis and Sierra Nevadas.

So when we get to Phase 2 of the trial, this extensive study of the Antelope Valley Ground Water Basin is going to be useful in defining the plaintiffs' rights and the defendants' prescriptive rights, if any.

And finally, the evidence will show that including the Fremont Valley and Leona Valley in the lawsuit will not necessarily complicate the lawsuit, because there are numerous parties pumping ground water in that area that will have to be added and to no good purpose. The plaintiffs don't have any properties in those valleys. The water rights that they seek are the overlying rights to the water within the Antelope Valley Water Basin, and that's the reason we should limit the area adjudicated to the Antelope Valley Water Basin. No more and no less.

And we submit that that should be the boundaries of the basin, and they should be as defined by the U.S. Geological Survey and as to which Mr. Scalmanini will testify.

Thank you.

THE COURT: Thank you.

You know, I think we better actually at this time take our recess, because I think you had at least 15 minutes or more.

MR. JOYCE: Thank you, your Honor.

MR. ZIMMER: Thank you, your Honor.

THE COURT: Let's just take a ten-minute recess, and then we'll come back out and finish up.

MR. ZIMMER: Thank you, your Honor.

MR. JOYCE: Thank you, your Honor.

(Recess was taken at this time.)

THE COURT: Where is everyone? Are we ready for plaintiffs?

MR. ZIMMER: Yes, your Honor. Good morning.

Your Honor, I think it's important that we first understand what the legal issue is -- legal and factual issues that are presented to the Court. The plaintiffs brought this action specifically as a quiet title action. And the reason we brought a quiet title action is because we received information that the defendants were or could be claiming prescriptive rights to water which could impede or impair our water rights as overlying landowners. It doesn't matter whether it came about because of a plan or discussions that were held between the various parties preceding this lawsuit.

The bottom line is there is a potential prescriptive claim by some of our -- of these defendants which needs to be litigated. It's very important in our mind that

the focus is kept where it should be, and that is on what the really legal issues are and factual issues that are presented to the Court. And the reason for that is that there are all sorts of case law, all sorts of cases that deal with water rights, and those cases approach the question of how you deal with those water rights from different angles with different stipulations with different assumptions depending upon the focus of what is trying to be accomplished from a legal standpoint, either legally or factually.

So I'd like to draw a little diagram because for me it's kind of conceptual. The plaintiffs in their complaint have identified various different properties that they're asking to have title -- quiet title to their water rights as overlying landowners, and of course -- can the Court still see that?

THE COURT: Yes.

MR. ZIMMER: So for simplistic terms we have identified various parcels and claimed an ownership interest in those. I'm going to put down "two" on those. There's multiple. We'd asked -- come to the Court saying these defendants claimed or -- they claimed prescriptive rights against these specifically identified parcels.

Now, the defendants are appropriators, pumps municipalities for the most part. And let's say these are the municipalities that we have named in this lawsuit. The precise legal question before the Court is whether these specific appropriators have obtained prescriptive rights as against the overlying water rights of these specific parcels. And to show

an adverse for a prescriptive right, they're going to have to show open, notorious, hostile, adverse, wrongful taking of this water right under claim of right continuously for five years.

The only reason that basin boundaries, water shed boundaries, the area, or any of these terms has any significance in this case is because of and to the extent that it helps us to determine whether there is, in fact, any open, notorious, hostile, and adverse taking of water rights by these pumpers against these specific parcels.

Now, you're going to hear testimony from all of the experts, and in particular, the plaintiff's expert, Dr. Scalmanini, is a professor of Stanford, and he's going to talk to you about all the definitions of what a boundary basin is, what a water shed basin is, or what the area of dispute is. And you'll find this is an ill-defined term. The reason it's ill-defined, because it's not -- it depends on what the scope of your inquiry is how you define it. Sometimes the courts use critical boundaries as part of that boundary. Sometimes the courts use adjudicated boundaries. Sometimes the courts use water shed boundaries.

One of the statements that was made by the defense lawyer was that they're all done based on this basin boundary. Now, there's a lot of difference in what that means, but the most recent case on the decision of Barstow versus Mojave was actually dealing with water shed boundaries. But the classification of this area is not so significant as to why you were drawing this line or determining this area. You have -- whatever this area is, we're going to determine in this

lawsuit.

You may recall that the defendants in the case brought their motion to bifurcate indicating that we needed to know what the area was as one of reasons to include or exclude properties. And that's one of the things that will be accomplished.

Now, Mr. Bunn stated to the Court that while we can't consider other areas, Fremont Valley or Leona Valley on the south, because if we did, then we would have to add all these other parties, but that's not the case. Because even in the area -- even in the confined line drawn by Mr. Scalmanini, even in this line here, there are hundreds, thousands probably, of parties that are not before this Court who have property in those areas. So that really has nothing to do with this case at all.

The parties have agreed what parties are going to be in this lawsuit. We have sued the parties that we felt were the primary parties which might claim a prescriptive right against our parcel that would interfere with our overlying right. So the question is, what is this area that we're going to delineate?

Now, I think the Court has probably figured out that there is a significant difference between how the plaintiffs look at the case and how the defense looks at the case. And that is why we raised the issue with the Court initially because we realize that what they are talking about in terms of a what Mr. Bunn calls a basin boundary was different in all these cases, and that we felt there should be

more direction in terms of what the area was of the Phase 1 lawsuit. And what, in addition to that, would be reserved to the Phase 2 lawsuit.

And Mr. Bunn and I and all the parties had numerous different discussions on this. And I believe that the stipulation that was reached protects what both parties want to argue.

The stipulation is that Phase 1 will determine the area within which ground water rights will be adjudicated in this lawsuit. Now, the precise reason for using the term "the area" in this as opposed to the ground water basin is because in your mind from the plaintiff's standpoint, and I think the literature will support and the testimony will support, is a very ill-defined term. And it is critical to determine what the focus is of your lawsuit and why you're trying to determine the areas.

So we used the term "area," and that's why we agreed to using that term. That will include and exclude properties. Potentially, it would include or exclude properties.

The bottom line of the stipulation was that wherever this area is that we define, it needs to be an area that at the conclusion of Phase 1 the Court can rule as a matter of law that pumping outside this line does not affect, to any significant degree, pumping inside of the area.

You will hear a plethora of discussions about hydrology and hydraulic conductivity and permeable materials, but it's really all pretty simple. It's not -- it's not a pail

like Mr. Bunn described. I agree with the analogy in terms of sand, being it's not like an underground river of water or underground complete body of water under the ground. It's like sand. It's permeable material where water is stored. It's not a pail, because nature doesn't have steel and porcelain like in bathtubs. Everything is permeable.

So the question is, what is the extent of that permeability? In other words, can we define an area, a line within which we can say that pumping outside is not going to affect pumping inside. Now, once you get inside the line, in Phase 2, we will have to look very carefully at whether pumping on one particular parcel where the defendants are pumping affects and to what degree. In other words, whether it's open, notorious, hostile, adverse et cetera to this parcel owned by the plaintiff or this parcel owned by the plaintiff.

But to begin with, we need to define an area where there is no water that's going to affect the pumping inside. I think it's significant that even the plaintiffs's expert, Mr. Scalmanini, will testify that the pail analogy is not a correct analogy because Mr. Scalmanini will admit and has admitted in his deposition that this line he has drawn is not impermeable. He's testified specifically that there's substantial flow, significant flow on the north side of the line, on the south side of the line, and there's permeabilities around the entire perimeter of that entire line. It's just a question of how much.

The point that the plaintiffs are making is that in order to properly evaluate whether pumping here by the

defendants is affecting the water rights of the plaintiffs and whether they prove -- what they need to prove -- to prove their prescriptive rights depends upon the hydraulic characteristics of this entire area, however you define it. If the hydraulic characteristics of the area are affected by what's happening here -- if the hydraulic characteristics happening here are affected by what's outside, then you need to move your line out so you're including the hydraulic characteristics of the entire area that could affect what's happening based on these other properties; in other words, whether it's noticed or not.

You can't just say, well, I have a bathtub or pail, and because I have a bathtub or pail, if we're all in the pail, we're taking water out of it. It doesn't work that way in nature. You will hear testimony from the experts that you have water that comes into this Antelope Valley by way of runoff, by way of ground water flow. And if you have -- if you have ground water flow coming into and out of this area, if this is the Scalmanini line and you're having ground water flow into and out of it, along with runoff into and out of it, then you cannot -- unless you go out to an area where there's no potential affect of ground water movement or runoff coming into this area, then you cannot properly evaluate the hydraulic characteristics of the water as these being the pumpers who claim their prescriptive rights, and parcel owners who are trying to show that they had no notice. There was no open, notorious taking. There was no hostile and adverse taking.

And although there is a body of case law that talks about ground water basins, water shed basins, areas of

litigation, they all talk about ill-defined, this term. And in each case you have to look at what the scope of what the Court's analysis was to determine what the proper line should be.

You're going to hear testimony about the line as Mr. Scalmanini describes it. What Mr. Scalmanini did was recapitulate some other things other people have done. You will hear testimony that there are numerous mistakes in Mr. Scalmanini's analysis of what others have done, and I'm going to leave that to Mr. Joyce to go into some of those things and discuss more of the detail, scientific opinions involved in this case. But you will hear of significant mistakes that Mr. Scalmanini has made in his analysis of an interpretation of what other people have done, and in terms of where he's placed his lines on the diagram, in addition, to what I've talked about in terms of him agreeing that even the line he drew has ground water flow across it.

In terms of the comment by Mr. Bunn that Mr. Scalmanini is going to testify that there was no significant and legal effect to ground water flow outside of his line, across his line, I think you will find that that opinion was never testified to at his deposition. In fact, he testified at his deposition, when I was questioning him, that he admitted that there was ground water flow across the line, and he also admitted that he had not analyzed in any way the amount of ground water flow across that line, and admitted it could be a moderate amount or substantial amount of water flow across that line that was entirely new, and that was not

expressed at the time of his deposition.

The stipulation sets forth nicely the delineation of what occurs in Phase 1 versus Phase 2, and I think it's important to not only realize what's being tried in Phase 1, but what's being tried in Phase 2. Because in Phase 1, all we are dealing with is what this area needs to be to properly assess hydrology in the Antelope Valley for the purpose of determining whether there are prescriptive claims that have been obtained by one party versus the other party.

In Phase 2, all of the issues dealing with whether this pumping by defendant, No. 1, was open, notorious, hostile, adverse, or No. 2, the elements of all of those issues and how the water acts inside of whatever the line is, and how pumping in one area affects pumping in another. All of that is reserved to Phase 2 of the lawsuit.

So the area within which the litigation needs to be looked at needs to, No. 1, look at the legal question presented to the Court, prescriptive rights claim. No. 2, be extensive enough to include the entire hydrology of the Antelope Valley to determine whether prescriptive claims have been made by putting the defendant on notice and making open, notorious, hostile, et cetera. And No. 3, reserving all of the other issues in terms of the actual pump, noting what effects it had, whether it raised levels or levels went down or went up, and all these issues are for Phase 2.

I think that's all I have at this time, your Honor. Thank you.

THE COURT: All right. Thank you.

Mr. Joyce.

MR. JOYCE: Thank you, your Honor.

Your Honor, I'm not a hydrologist. I've learned more about the subject in the last 12 months than I care to know. I'm hoping after next April I can forget 99 percent of that. In any event, there's been over simplification this morning.

I think I'd like to start with the first, and that is a bucket filled with sand. I don't think there's going to be any single expert that's going to take the witness stand and is going to testify that the -- that any hydrologic unit in mother nature functions that way. The very fact that you have conceded underground ground water flows indicates that you have water moving in and out of the system. The real issue in this case is what water are we talking about? But in order to aid the Court -- and I'll resort to a little bit of simplicity myself in that regard, and I'll use the diagram as well.

Your Honor, this is Mr. Bunn's bucket. This is his ground water basin. And if we accept his proposition, then rainfall falls in the bucket and everything outside the bucket goes somewhere else. And if we accept his analogy, if you start extracting water in one or more places, it all drops equally. And that is a gross over simplication because it doesn't happen in any way close to that in mother nature, and that's what Professor Gorelick will explain to you; that's what Mr. Sheahan will explain to you; and that's, in fact, what Mr. Scalmanini will admit if he doesn't offer it up on direct examination.

But if you're trying to see water that's going to be here and what we're really concerned about, then need we not take the example of where you put a siphon, or excuse me, a funnel into the bucket, and that funnel is trapping water. And you will notice that when you look at the funnel, that you have a downsloping gradient, and now the precipitation is being plot across the full width of the funnel, full circumference of the funnel. If the defendant punches a hole in the funnel there outside the boundary of the bucket, this water that crosses that hole is lost, and it's lost to the person drawing water from the bucket.

And that's the issue in this case. Should we use the bucket or should we use the boundary of the funnel? Because there's going to be no dispute that there are defendants who have ground water wells upgradient from Mr. Scalmanini's line. They're not going to be in dispute that his client has properties upgradient from Mr. Scalmanini's line. So then the issue is, can it be said that that ground water pumping upgrade and outside of Mr. Scalmanini's line has no affect on what would otherwise be available ground water within the line. And that's one of the serious issues that's going to have to get tested from a scientific perspective, not from political, not from perspective of convenience, but scientifically.

What I'm suggesting is, and what I think the evidence will demonstrate is this: Is that no expert will tell you that any of those boundaries are impermeable. All experts will not heed to experts, that's true. Mr. Scalmanini did

testify in his deposition that -- at least at that point attempted in any way to quantify the magnitude or degree of underflow across those barriers. Primarily, the fault barriers is where the most significant underflow occurs.

But yet at the same time, if you read carefully the Phase 1 stipulation at the end of this trial and once the Court opts to adopt or formulate its own line or whatever the case may be, it has real long-term significance. And that is this: Is that it would raise the spector that some of the appropriator defendants would get by default, what they could not get by an affirmative claim of prescription, and that is a determination that their upgradient ground water pumping has no legal adverse effect on the overlying ground water pumpers within the valley floor.

The reason the water shed is the most appropriate line, because the water shed is the easily surveyed, identified line that is at the crest of the mountains, which clearly is the line of demarcation because all precipitation is going to go one way or the other. The precipitation will be either surface flow, and most cases eventually become under ground water flow by way of example.

Professor Gorelick will testify in this area there are creeks that cross over Mr. Scalmanini's line, and those creeks are demonstrable surface flow entering into the area from outside the area. If there is, likewise, ground water production up at the head areas where the streams originate, that increases ground water storage capacity at those locations, thus lessening surface water runoff that would

otherwise reach the basin and become ground water. That's one example of why you have to be very careful in where you pick the line.

The only way Mr. Scalmanini's line could be justified is if the Court were to reach the conclusion that a given line is, in fact, a virtually impermeable barrier, and if not a virtually impermeable barrier, that there is no ground water production upgradient from it. That will not be supported by the evidence, and therefore, you have to move further out to reach a point where you can safely say that no ground water production is going to take a source of water which would otherwise find its way into the basin and become ground water, which is ultimately in dispute in this litigation.

Now, Counsel has made much of the fact that the word or term "ground water basin" is presumably the preferred or accepted way of adjudicating these rights. The Court should be aware of the fact that Professor Gorelick will testify -- and I believe even to that extent Mr. Scalmanini will likewise concede -- that there is no such thing as an accepted definition of what a ground water basin is within the discipline of hydrology.

More importantly, I have had an opportunity to review plaintiff's trial brief -- excuse me -- the defendant's trial brief and cannot find a judicially declared definition of what a ground water basin is, because none exists. In fact, Mr. Scalmanini in his report relied upon a legal publication entitled Ground Water Rights in California background and

issues, and it's a staff paper written for the State Water Resources Control Board. The author is Ms. Slater in 1977, and she observes in her glossary of terms "ground water basin." There is no single widely accepted definition.

Mr. Scalmanini in his lists of references and reference materials with his report also cited to an author by the name of Todd who wrote a text. And Todd says in practice the term "ground water basin" is loosely defined. However, it implies an area containing a ground water reservoir capable of furnishing a substantial water supply, and that's as good as it gets.

Then Professor Gorelick will testify that he's reviewed some 30-odd text in the area of hydrokollag and come up with maybe some varying definitions of what a ground water basin is. Some of which define it as the area where there is recharge or outflow. Well, if you're talking about recharge, I think even Mr. Scalmanini would agree that you are by definition talking about the water shed area because recharge is the quantity of water finding its way back into the quote unquote "bucket" over a period of accepted study of time.

Likewise, one of the cases that they rely upon was the City of Los Angeles versus San Fernando, California Supreme Court opinion. It's interesting to note that in that case the trial court in rendering relief to the City of Los Angeles framed the relief for the city as follows, and I quote:

"Plaintiff has a Playboy right to all ground water in the San Fernando Basin derived by plaintiff" -- excuse me -- "derived from precipitation within the U.L.A.R.A," comma, "in

so far as plaintiff uses such water to satisfy its municipalities and the needs of its inhabitants."

And then the supreme court in reversing the trial court gave the following instruction for remand, quote:

"On remand, the basin's safe yield should be apportioned between amounts attributable to, No. 1, native waters produced by precipitation within the ULARA, and No. 2, water imported from outside the ULARA".

Well, both the trial court and the supreme court felt it necessary to define the rights in the water tied to precipitation, and precipitation within the ULARA Well, what is the ULARA? It is the Upper Los Angeles River Area.

But the Court didn't stop there. It tells exactly what it is. And what the Court says is, quote:

"The ULARA is bounded by the crests of mountain ranges. The Santa Susanna and San Gabriel on the north. And San Gabriel -- excuse me -- yeah, the San Gabriel Mountains, San Rafael Hills and Repeto (phonetic spelling) Hills on the east. Aleutian (phonetic spelling) Hills and the Santa Monica Mountains on the south, and Semi Hills on the west.

And then it goes on to discuss the valley floor and the sub area called the San Fernando Basin. But the area within which the quantity of water that was an issue was being assessed was the water shed area known as a ULARA .

Finally, defense counsel attached to their trial brief as Exhibit D a portion of a recent treatise entitled "California Water Law and Policy," Volume 1, by Scott S. Slater, and I believe the publication date is 2001. And on

page 3 -- page 33 of that text, under the heading of Continue Unit Requirement for Overlying Rights, he says the following:

"The overlying rights" -- excuse me -- "the overlying right attaches to any land overlying a ground water basin. The owner of the land has the right to take water from the ground underneath for use on his or her land within the basin or water shed." This implies that at least some portions of the land must be wet; ie, overlie the basin as with riparian rights. The overlying owner would then be entitled to use the water extracted from the basin on any single legal parcel within the water shed. No appellate court has clearly defined whether the limit on the overlying right is the water shed or the basin if the two boundaries are not contiguous.

My analogy to the cases construes riparian rights the limit to be the drainage area of the water shed for the simple reason that the judicial rationale for priority is the same in both cases. Use within the water shed will foster reuse because the supply is not lost to the area by appropriation for export.

So, your Honor, the test of the evidence really devolves into scientific sense to this question -- can Mr. Scalmanini testify that upgradient ground water pumping has no effect on the ground water supply within his line? If he cannot testify such, then the Court has to, in the interest of caution, defer to the outer line because then you, at least, leave to the Phase 2, the quantification of the effect, which is where Phase 2 is supposed to go. If we find out at that point that quantification is low, it makes no difference. Then

the question's what if there's no adverse affect, and therefore, it's easily resolved.

If, today, you exclude the area and later find that, in fact, the upgradient from the valley floor is taking water that would otherwise resupply the area, you don't get to go backwards. You don't get to go back, "Whoops we made a mistake. Bring that property back in." So the interest is an issue of qualification, but more importantly, an issue of science.

Finally, Mr. Scalmanini applied to Bloyd. In fact, he says as competing lines as historian Bloyd is his preferred line. With that, I'd like to read to you what Mr. Bloyd had to say about the issue. One of the concerns of the defendant is that by using the water shed boundary that we are including within the area, that we're going to attempt to quantify the total volume of water by becoming recharged, what is referred to the Fremont Valley area to the north.

What Bloyd says -- and Bloyd is one of the original investigators -- is as follows, quote: "Because the Antelope Valley and Fremont Valley Basins are hydrologically connected at at least two places along their common boundary, the right of any user to pump from either basin, if the water supply is insufficient, might be limited legally to his correlative share of the total supply available. Water rights is not determined only by the courts. And the consideration of water rights is beyond the scope of this report.

However, in planning for the ultimate development of the area, water rights eventually must be considered, and

the program finally selected should be compatible with the legal rights to use -- to the use of the water."

Your Honor, even Bloyd recognizes that there is an interconnection, and that he was not attempting to address or solve that reality, and that he was recognizing that, apparently, somebody was going to do it some day, and now is the day. Thank you, your Honor.

THE COURT: All right. Thank you. I first want to address -- I think it was the Valdez case. I looked at that. I think that actually supports, somewhat, what my ruling was, in that there's broad discretion by the courts, and that there is case law and some authority for allowing experts to remain.

Now, we're not dealing with constitutional rights or the need of an expert to assist the defense in preparation of trial, but I think even though this phase is brief probably, compared to the other phase, what we're doing here is we're building the foundation. If we build a faulty foundation, and it goes all the way to judgment, then we haven't done anyone a service.

I would like to have the experts be able to hear what is being said firsthand in trial. I think it's beneficial. I don't think there's any probability or possibility that they are going to give altered or different testimony based on what they hear. I mean, the worse case would be them change the opinion and they agree with the other side. Well, chances of that happening in this particular case, I think, is very slim. But I don't see the typical things we worry about for why we exclude experts.

So I'm going to stand with my original ruling. I'm going to allow them to remain in. We're going to need to recess to mark exhibits.

Has anyone marked anything? That's a "no."

All right. We first need to mark, just for identification purposes so we have a clear record, our diagrams on opening statement.

So -- well, I guess Mr. Zimmer's will be Plaintiff's 1 and Mr. Joyce's Plaintiff's 2.

MR. JOYCE: That's fine.

THE COURT: They will be satisfied for quite a while.

MR. ZIMMER: Mr. Bunn did have the hard copy of what's on the Elmo up.

THE COURT: What I'm going to do -- neither side has more than a hundred exhibits, correct?

MR. ZIMMER: Correct.

THE COURT: So plaintiff will have 1 through 99, or actually 1 through 100. And defense will start with 101. So what do we want to mark because we have this -- this is actually a Plaintiff exhibit, is it not?

MR. BUNN: Yes.

THE COURT: So the diagram that we have been referring to on the Elmo, should we just mark it Plaintiff's 3?

MR. JOYCE: That would be fine, your Honor.

MR. BUNN: That's fine.

MR. ZIMMER: That's fine.

THE COURT: And then from there we can mark the

other ones. Now, before we recess and start marking, we are already a bit delayed. These types of cases never go on time. If we need Monday, I'd rather everyone take Monday. It doesn't do any good to rush through the testimony, because I think this determination is vital to hopefully an appropriate determination on the remainder of the trial.

But to summarize, perhaps, using the terms you've used, I think plaintiff's boundary is the funnel in the bucket, and defenses boundary is the bucket.

MR. JOYCE: My analogy, that's correct, your Honor.

THE COURT: What I think I heard from defense, and really plaintiff talked about also, is the ultimate determination for the quiet title rights. Even though we're using hostile, open, notorious, is it still not a material and significant affect -- the pumping, whether defendants' pumping has a material and significant affect on plaintiff?

MR. JOYCE: That's true, your Honor, to some extent because I'm certain that the defense would argue that there was a manifested effect from their pumping revealing itself somehow in the wells operated by one of our clients. That's the notice issue.

For Phase 2 there's a constitutional issue that we have asserted. They are aware of two. It is my position that given that all but one of the defendants appropriators are government entities, that they have to take more than just pumping to give us the notice. That they have to take affirmative steps reasonably calculated that they intend to take our property right in order to meet the --

THE COURT: That's another issue.

MR. JOYCE: That's a second issue.

THE COURT: But I think what you're saying is to define the boundaries, we kind of throw out what terms we're using. But you've defined it, I believe, by what your expert is going to say about the water shed of this area.

MR. JOYCE: That's correct.

THE COURT: And you do that because you don't want to do the quantitative analysis at this point? You don't believe that is what is necessary for defining the boundary.

MR. JOYCE: It hasn't been done by either side.

THE COURT: Okay. What defendant is saying is, I think, some of this you've used a basin approach. It's been defined by geological studies, and you didn't really touch on too much about the quantitative analysis, other than -- it seemed what you were saying is, although there's other issues, part of the ultimate determination is whatever we call this boundary or basin. If we pump in it, is that the area that would have some appreciable, material, significant effect versus what we pump outside of it?

But is your expert going to be commenting on that area in between your boundary and plaintiff's boundary to be saying whether or not pumping in that area would have a material and significant effect?

MR. BUNN: Yes, absolutely. Let me make one clarification first. The issue here in Phase 1 is not going to be whether the defendants' pumping has an effect on the plaintiffs' wells.

THE COURT: Right, it's not. It's to come up with a boundary.

MR. BUNN: Right. And what we're doing that boundary for is to determine what water the plaintiffs have overlying rights to. They keep trying to change that issue, and part of this was the burden of proof discussion that we had before. But the fact is that they have overlying rights to something which they describe as aquifer, and we're trying to find out what the aquifer is.

And the second point that I wanted to make is that Mr. Scalmanini will testify that in evaluations of ground water basins, you take recharge and discharge into account. You consider all the water that's coming into the basin and all the water that's going out. So we will be doing a quantitative analysis, eventually, that will deal with that, and it will account for all the water coming in and going out.

Now, there's a very important, I think, misstatement that Mr. Joyce made that I -- perhaps, it will help the Court to have its eye on at the beginning. The water flowing into the basin is surface water. It comes. It falls on the mountain. It runs off. The mountain is impermeable. It doesn't soak into the mountain, and it's surface water.

And Mr. Joyce talked about pumping upgradient affecting the flow of the stream, maybe so. But we're not dealing with surface water in this lawsuit at all. So that pumping is beyond the reach of the lawsuit, in it affects the flow of a surface stream that has no relation to plaintiffs' rights in the ground water in the ground water basin.

So okay. I don't know if I answered your question or not.

THE COURT: Well, I think so.

MR. JOYCE: I'll defer comment as to the last objection to the actual evidence.

MR. ZIMMER: Your Honor, I think your question was, do you agree that there's no material or significant effect? Really the material or significant effect by the nature of the stipulation has to be determined in Phase 2. What we're really saying now is that there's really no effect to pumping outside, whether it's material or significant or substantial. To determine that, you're going to have to actually look at the particular properties involved to determine that.

MR. BUNN: I'd just say they're ignoring the California Supreme Court. We cited that test in our brief. The test has always been. The defendant's stipulation hasn't changed that.

THE COURT: I guess I'm just surprised that with all the water law decisions, there's not some generalized agreement on what is, at least, the definitional criteria --

MR. BUNN: There is.

THE COURT: -- of the basin, because it seems like everyone's saying there isn't.

MR. BUNN: It's absolute agreement except for this case. It's in the trial brief. We listed all the cases.

MR. JOYCE: What he's suggesting, your Honor, the other law indicates the parties agreed by stipulation to define the area they want to argue about. They're upset because we

won't stipulate.

THE COURT: Is there a judicial decision that defines basin that I think there wasn't?

MR. BUNN: Yes, your Honor.

MR. JOYCE: If they can find it, be my guest.

THE COURT: Say what it is because I want to look at it.

MR. BUNN: City of Los Angeles versus City of San Fernando. If you can look at it over the noon recess, you're a better person than I, because it encompasses over a hundred.

MR. DUNN: That's why we need to identify.

MR. BUNN: We have done that in the trial brief.

THE COURT: I'll pull that out and find the cite. That's the case you're relying on for the definitional criteria for the basin?

MR. BUNN: Yes.

THE COURT: With that, I think it's known. You can meet and confer over the lunch hour, and we'll start at 1:30.

MR. DUNN: Do you have some exhibit tabs you want us to use?

THE COURT: Yes.

MR. DUNN: Other than simply marking them, are you looking for some other type of agreement or narrowing?

THE COURT: Not at this point. Just make sure you exchange them so everyone knows what they are, and we'll deal with objections as they come up. I think it's the best way.

Thank you, everyone, and have a good lunch.

MR. ZIMMER: Thank you, your Honor

(Lunch recess taken at this time.)

THE COURT: Good afternoon. All right. Are we ready? I spent a little bit of time over the lunch looking at that case, City of Los Angeles versus City of San Fernando. It doesn't help a lot because it wasn't a case -- as far as I can tell -- I mean, I didn't read all of it. I read the areas I thought we were focusing on. It wasn't a case where they were determining a basin. And they seem to say -- they use the initials, but it was the Upper Los Angeles River Area. And at one point they talk about it in terms of water shed, but then when they go on, they calk about in terms of basin.

Let me tell you my question, and I'll give both sides a chance to answer. It looks like from plaintiffs' standpoint we have the water shed. From defenses' standpoint we have the basin. Now, ultimately, do I not -- when I make the final determinations, I think I make it based upon pumping that's taking place in the basin, because the water shed is not the basin. I mean, they're two distinct things. The water shed is -- and I'm probably -- if our experts are in here, they're going to cringe -- I think it's the boundary of that area from where that point on the water rolls into the basin.

MR. DUNN: Yes.

THE COURT: All right. Now, if you were -- and the water shed is much greater in this case than the basin, especially to the north?

MR. DUNN: Yes.

THE COURT: I'm not sure, perhaps, because of the

mountain area or the way the geography is, I don't know, but if you were to go around the perimeter and dig directly down, you wouldn't hit a basin.

MR. JOYCE: Well, your Honor --

THE COURT: At least not the basin that the pumping's taking place in this particular case, correct?

MR. JOYCE: No. May I elaborate a bit, your Honor?

THE COURT: Let me go on. What I don't know, if plaintiffs' experts going to say -- if this is the water shed and this is the perimeter of the water shed, I don't know what his opinion is with respect to the basin. I don't know if it's generally agreed among the experts that there is an aquifer that is comprised of some -- one basin or more basins or whatever. Because I think, originally, the defenses' problem was they thought they were separate basins within one aquifer. I think they somewhat conceded on that point. Whether they are or aren't, they are sort of all intermingled.

I'm wondering if we're fighting over different things. Because I mean, if I make a determination as to what the water shed perimeters are at the time I make the ultimate findings, am I not really relating to the basin, and do we really have a dispute over what comprises the actual basin? I don't know. I mean, a lot of this is somewhat new to me, and I think it really links on what plaintiffs' expert's opinion is.

But if he's going to concede that water shed and basin are different things, which I think everybody would agree to that, based on his feeling of what the water shed is, that there is a basin or an aquifer. And then I'm kind of curious

as to what he feels that area is. Because if he's in general agreement with defense experts on that, and we're really just sort of fighting over how much land should we include -- because ultimately, I'm not sure it matters where it is on top of the earth. I think it matters where the pumping takes place.

MR. DUNN: And if I could add, what ultimately matters is what's the safe amount of pumping that can take place, and within a ground water basin, that safe amount of pumping would include all that water coming into the basin from the water shed. So from my own personal perspective, it's very difficult to see why we're disputing this over the next two to four days.

THE COURT: We might be talking different terms. Sometimes if experts all get together and you have some agreement, that it's mediation and nothing can be held against them, that type of thing, you get a generalized agreement. I'm not sure if this is not that kind of case. But I tell you, first day back after three weeks, and I'm looking at this, and I'm thinking, well, I think we're talking about the same things. Because what you're talking about is simply -- you used the term "the funnel," but the funnel isn't where the water collects. The water still does collect in the bucket even on your picture.

So what I'm really curious is what your expert says the bucket is. If he's in general agreement as to that, I mean, give or take -- I guess, there is always some room for disagreement, even among the different surveys that are done --

but if they're in general agreement, then maybe we aren't really having to dispute this. Because I'm trying to determine, if I make any determination of the water shed, how does that help on the ultimate findings? I'm not sure. So --

MR. BUNN: I think you've put your finger on the issue, and that's what I was trying to elude to without being argumentative in my opening statement; that we are really talking about two completely different units. We're talking about the ground water basin. They're talking about the water shed. We'll certainly stipulate that the water shed is where Mr. Sheahan drew his line. We just don't think that's the appropriate unit to use in determining overlying water rights.

THE COURT: Even your case used the term water shed at one location, but then when they were talking about everything else, they're talking in terms of the basin.

MR. BUNN: If I may clarify that?

THE COURT: I think the basin is always smaller than the water shed.

MR. BUNN: And I think where we went at fault is not giving specific page cites, as I mentioned, in the hundred-page long opinion.

THE COURT: I found a couple.

MR. BUNN: 14 CAL 3rd, at pages 249, I would say, to 251 is where the Court found that the Upper Los Angeles River Area, which is a water shed containing four separate ground water basins.

THE COURT: That was the part I was reading, I think.

MR. BUNN: And the water rights in each basin were determined separate here. They were not determined on water shed wide basis; although, the City of LA clearly wanted them to be. They were determined basin by basin.

THE COURT: I think I focused in on that part. The water shed was a little bit before. I'm not sure they wanted anything determined on the water shed. I think that's just the general area. I'm not sure plaintiffs here, when it comes ultimately to what is really important in this case, cares about what the water shed is and what's the ultimate determination made with the basin and the pumping and the rights there.

So you know --

MR. ABBOTT: If I can expand on Mr. Bunn's discussion just to give a clue. At issue was the City of LA's Pueblo Rights in the Los Angeles River. The City of LA took the position that any drop of water falling within ULARA, the Upper L.A. River Area water shed, was theirs, because in a state of nature would have somehow gotten down to the city. The old Pueblo Rights are surface water rights.

THE COURT: That's not what we have here.

MR. ABBOTT: And the supreme court had historically treated the San Fernando basin as being part of the LA River in terms of water rights. So what they were fighting over is do you extend that into other ground water basins in that water shed? And the supreme court answered the question, no. You treat them as separate basins.

THE COURT: I think here what we're looking at is

the -- whether it's one basin or several basins, whatever -- and I'm still not clear how we distinguish basin from aquifer. I think aquifer is bigger than several basins. I don't know.

MR. BUNN: It's the other way around.

THE COURT: All right. But anyway --

MR. BUNN: We would agree with the way the Court is stating the issue as far as determining what the basin is ultimately, even though the contribution comes from the water shed. So we think that you have it right on the money.

THE COURT: And again, correct me if I am wrong, but the water -- not all the water that flows down the water shed gets to the basin.

MR. BUNN: Correct.

THE COURT: There's various things that happen to it. A certain amount do. What I think plaintiffs -- and I don't think plaintiffs care too much about that either. What you're concerned about is what your prescriptive claims might be in connection with the basin, correct?

MR. JOYCE: Well, in part that's correct, your Honor.

THE COURT: And the overlying land?

MR. ZIMMER: Well, let me --

MR. JOYCE: You or me first?

THE COURT: Tell me why the water shed is anything we need to determine, and if we have a general agreement that this is the water shed -- and it doesn't look like there's a big dispute at this point because I think it's pretty well conceded that whether it's one basin or aquifer or several,

it's all together in this. That's where the big dispute was originally, I thought.

MR. JOYCE: Your Honor, what we're really fighting about, to the extent you want to call it a fight, is water. And when you look at it from that perspective, you can even see why in the case that you referred to, the City of Los Angeles San Fernando case, that they talk about precipitation because that's the source of the water. If the -- the issue then becomes where are people pumping? If people are pumping upgradient in the valley, that means that they're extracting ground water either through fractured rock extraction or through shallow water -- but nonetheless, aluminum or water bearing deposits -- that ground water pumping upgradient from the valley floor is taking water that otherwise in the state of nature would have made its way through underflow into the basin. You exclude that at this point.

Then later on, as Mr. Dunn aptly pointed out, you start talking about the issue of safety yield or how much water can you pump. You're suddenly taking water out of the equation because you exclude the water upgradient.

THE COURT: You're using terms I'm not a hundred percent clear with. So I think what you're saying is that they're pumping -- they're getting water that's still in the water shed, and not reached the basin.

MR. JOYCE: That's correct. It's a stream riparian. Send it up stream and divert the water away. It never gets to the riparian down stream.

THE COURT: I'm not convinced they're not saying

that that can't be considered by me, are you?

MR. BUNN: No.

MR. JOYCE: Well, what --

THE COURT: In other words --

MR. JOYCE: What they're saying is you can't consider whether or not those defendants who, in fact, are pumping outside of Mr. Scalmanini's line upgradient are doing so adversely to our rights down in the floor. That's the issue. Are they taking water that would otherwise get there?

THE COURT: I guess I'm not sure what upgradient, or whatever that term is, means. But when they're pumping it, is the idea to go down to where the basin is? You don't go up in the mountain and drill down a couple feet?

MR. JOYCE: Then the simple answer is let's find out where the outer most wells are upgradient and draw a line around that that would account for all pumps, and go to Phase 2.

THE COURT: I guess the question -- if we were to go with the parameters of the water shed that you've set forth, are there any cities or municipalities or anyone like that that's not included in this lawsuit?

MR. ZIMMER: Leona Valley, County of Los Angeles, Fremont Valley.

THE COURT: I guess -- because then my question is, is anyone saying that those municipalities or cities are involved? In other words, pumping from where you think there's a problem.

MR. ZIMMER: Absolutely.

MR. JOYCE: But they're sitting at this table.

MR. ZIMMER: Your Honor, this is kind of the -- I wonder what you're asking -- you're saying if you have the water shed over here, which is this collection vehicle, and you have the defendants over here saying this is the basin where the water is, looking at it in terms of where the water is, is kind of -- it will take you down the wrong path. This is the reason why we're not talking about where the water is in pools on the ground. You're talking about water being in sand or water being in impermeable materials. That's why this definition of basin boundary is so loose. You're talking about any number of underground water bearing surfaces that are connected hydraulically in some way.

So there are, in fact, wells that are drilled in mountains. There are mountain springs that flow from mountains, because it is not a correct statement -- I disagree with Mr. Bunn, it is not a correct statement that the mountain is permeable -- impermeable. You, in fact, have water that makes its way through rain fall, and it goes down gradient. You can drill wells. In Leona Valley, they are. They have wells in Leona Valley. They're pumping water out of wells. These are upgradient, in Mr. Joyce's terms, from what they're defining as basins.

It just depends on how you define basin. If you define basin the way it's classically defined when you're trying to do the scope correctly, you're going to have to get all hydraulically connected areas within that area. What they're saying, and I agree with the aspect -- the question in

terms of water rights is whether you have two people or two parties who are in the same area pumping which could have an effect on the other party. That means they're in dispute, because his pump in Leona Valley could affect our pump over here. And the reason it could have an effect is because they're hydraulically connected. It's not a big pool of water. It's like a big pool of water that permeates and goes out all sorts of different directions.

THE COURT: Do the experts generally agree that -- and I think they do -- that the water shed is, as your expert set forth, is the water shed that contributes to this basin? And does your expert have a general agreement as far as if we -- maybe it's how we define basin as to where a water ultimately collects?

MR. ZIMMER: I would say, yes, on the first question. I think all the experts would pretty much agree what we describe are water shed boundaries. As to the second question, the answer would be, no. Because what Scalmanini has drawn is a less inclusive line which cuts out significant pumping by Leona Valley and the County of Los Angeles and other areas that are pumping from this same, if you will, common water supply, because it's all hydraulically connected.

If Mr. Tootle is coming upgradient in Leona Valley and that water is hydraulically connected with the Antelope Valley, which we contend it is, he's taking water that would otherwise be the Antelope Valley. He's talking part of that -- our supply.

THE COURT: In other words, he's taking it before

it makes its way to the basin?

MR. JOYCE: That's correct.

MR. ZIMMER: I'm saying --

MR. TOOTLE: I have a right to take that water.

MR. ZIMMER: Because I think it is part -- when it's connected hydraulically, it's part of the basin described correctly for purposes of this lawsuit with the legal issue we have here. If it's hydraulically connected, then it is part of the basin under all definitions that I'm aware of that define basin. There's an agreement on the water shed. It goes back to what Mr. Joyce said. You cannot go back. The second phase in determining the line to be the water shed does not preclude these folks -- I talked to Mr. Dunn about it earlier -- from arguing everything they want to argue about the basin.

They wanted to argue about where the water is, how it permeates, whether its pump is affecting us or not, or whether Mr. Abbott's pump is affecting us or not. That can be done in Phase 2. The basin -- this idea of this basin is not critical as to water, where it is and whether their pumping is meeting the elements of prescription against our clients.

THE COURT: In hindsight, had I thought, I would have sustained that original demur and made you plead simply the water shed.

MR. JOYCE: Your Honor, in hindsight, had you not bifurcated, this all could get done where each element makes sense against each other.

THE COURT: I think the bifurcation was in response to not sustaining the demur and letting you plead in more

general terms. We get wiser sometimes. Maybe. I don't know. I'm not seeing a lot of help in some of these cases.

MR. JOYCE: Your Honor -- and frankly, the Court hit upon a significant issue, and the Court by its comment is almost inviting what happens too many times in these cases. I'm not a water law expert. I don't do this stuff day in day out.

What I see happening is lawyers and/or the experts getting together and entering into stipulations, and those stipulations then get embraced and become part and parcel of the opinion of the appellate court, and ultimately, the supreme court. And then we have a term being bantered about in legal literature called "ground water basin." That's why you start going back out and talk to Professor Gorelick or Mr. Sheahan, because we don't have a readily accepted and readily defined meaning in the discipline that's in issue.

So when we boil it all down, we're really fighting about water. The reason the water shed is -- that's the outer most safest line, so you're talking about all of the water, and you start coming in from that. Then you have to be careful because you got -- I use the term upgradient. What I mean is, you're coming up off the valley floor. If you're pumping up there, that is water in the state of nature that would naturally make its way to the valley floor and become part of the ground supply. Once you exclude that pump, now you're talking about quantities of water.

THE COURT: They're shaking their head. Isn't that the ultimate determination in Phase 2?

MR. BUNN: No.

THE COURT: Okay. Why not?

MR. BUNN: Certainly, Phase 2 is to take into account the water that flows into the basin.

THE COURT: I am not saying there aren't other things we have to determine in Phase 2.

MR. BUNN: Certainly we have to do that in Phase 2, but the fact of the matter is that plaintiffs -- they're trying to rewrite California ground water law. They do not have rights in Leona Valley. They do not have rights in Fremont Valley. We're defining the area in which they have overlying rights. That's the purpose of Phase 1. They left out things that we discussed about Leona Valley that made it seem as if all water flowed underground in Antelope Valley. That's not true. Leona Valley is separated from Antelope Valley by a fault, which does not permit ground water movement across it in any significant way.

What does happen is there is a river that flows across the fault. It's called Amaragosa Creek. That's the only communication between Leona Valley and Antelope Valley is that creek. That creek is surface water and is accounted for under surface water law, and their ground water rights do not reach up to that valley. It's as simple as that. So what we're talking about is the area within which they have overlying rights.

MR. JOYCE: And --

MR. BUNN: And it's vitally important to determine that in Phase 1, and not say, well, we're just being cautious

and include the whole water shed, because you will have made a finding that they have water rights that extend beyond the actual basin within which they have water rights.

THE COURT: But, see, then what we're really -- I'm getting back to what we're determining. We're really not determining a quote unquote "basin," correct? Because wouldn't -- aren't you even saying that they might have overlying rights on an area that extends outside of what the parameters of the basin are?

MR. BUNN: No, I'm not. Their overlying rights are limited to the ground water basin, and we say that -- again, I'd refer you to our trial brief. We make that pretty clear.

MR. TOOTLE: Your Honor, their complaint is the aquifer.

THE COURT: Well, no. Their complaint is the aquifer.

MR. JOYCE: Your Honor, if you look at the plaintiffs' joint trial brief and their Exhibit D they append to it, an excerpt from Scott Slater 2001, and it's a portion I read to you in my opening statement where he confirms that it has not yet been adjudicated in California, whether or not the overlying right extends to the water shed or merely the outer most limits of the ground water basin in those cases where the two are not contiguous lines. Maybe this is when we have to do that. I don't know.

But all I'm suggesting to you, and I think it's really important, is this: You can't draw a line that dissects down the middle, ground water pump on one side and ground water

on the other side, unless you can concurrently say that as a matter of science -- not law, not stipulations, not artificial political lines drawn on a map -- but that as a matter of science, that the pumping on one side has no effect on the pumping on the other. If you can't do that, you can't use that line, and that's why we're here.

THE COURT: Well, then we can probably save testimony though as far as plaintiff's expert if we all agree that what he shows is the water shed, and everyone agrees that's the water shed. Or do we not all agree that?

MR. DUNN: That's fine. So stipulated on my client.

MR. BUNN: Just with one slight clarification. He shows three water sheds -- the Antelope Water Shed, Leona Valley Water Shed, and the Fremont Water Shed.

MR. ZIMMER: Mr. Dunn said the red's fine. That's conclusive.

MR. BUNN: We'll stipulate, yes.

MR. TOOTLE: Your Honor, on the east side, he did not use the water shed.

MR. JOYCE: And I was just getting ready to address that.

MR. TOOTLE: So they have made this argument all the time about using the water shed when, in fact, they don't use the water shed.

THE COURT: That's a straight line into a county line.

MR. TOOTLE: The reason why is because that's

already an adjudicated basin.

MR. ZIMMER: We don't need to deal with that.

THE COURT: We do have a court reporter, and she still can only take down one person at a time. See, this can be exciting.

MR. TOOTLE: Clearly, they have inconsistency in argument. They want to use the water shed, but now, where there is an adjudicated basin, they want to cut it off there. Where there aren't adjudicated basins, they're not willing to cut it off. And there are other buckets up there.

MR. JOYCE: Your Honor --

MR. TOOTLE: And that -- we can have people testify to that.

THE COURT: I think the biggest problem we have is -- maybe we'll all agree on this -- this could possibly be a case of first impression in the sense that no one can find a case where we adjudicated the basin in a bifurcated trial.

MR. DUNN: No report in the appellate case.

MR. BUNN: In a bifurcated --

MR. DUNN: I don't think that's correct, but I'm not sure.

THE COURT: I think we looked for that before. We're having a hard time finding it. That's the case I want to read where they did that, because I want to see -- I mean, they obviously would have had to have a standard.

Where is that case?

MR. BUNN: Well, accept for the bifurcated trial, I still think the Los Angeles versus San Fernando case is that

case, because it specifically delineated four basins within the ULARA Water Shed.

THE COURT: But didn't they agree, here's the water shed and here's the basin in the water shed?

MR. ABBOTT: They did not agree.

MR. BUNN: That was contested.

THE COURT: What was contested? Not the water shed, but the actual -- the actual -- it seems like there were four basins and not all of them ended up --

MR. BUNN: No, ma'am. With respect, the City of Los Angeles first claimed rights to the entire water shed, but when they said, no, you're limited to the ground water basin, they said, very well. It's all one big basin. That's what they said.

THE COURT: From my quick review of it, I did not get that.

MR. BUNN: They did say that. They said all the basins were connected, and they tried to establish that in a state of nature before the pumping had got going from the flow from one basin to another, and the supreme court said we don't look at merely hydraulic connection between the basins.

THE COURT: I saw that. Maybe. I was under the impression, though, that the four basins were less than the water shed.

MR. BUNN: Yes, they are.

MR. TOOTLE: That's correct.

MR. BUNN: If I may, I represent one of the parties in that area, so I'm pretty familiar with how it is. The

San Fernando Basin is by far the biggest. It's the San Fernando Valley. Then to the north of that is a smaller basin, the Sylmar basin. And to the east is the Verdugo Basin, and then the Eagle Rock Basin is beneath the city of Eagle Rock. All of that together is in this upper L.A. river area water shed, and it all comes down to a point at the bottom of it where all the water from the ground flows into the Los Angeles River right by downtown Los Angeles.

THE COURT: But then don't they have a water shed and basin? And that's what I thought here. We have a water shed almost, with a little missing portion, and we have some basin area.

MR. BUNN: Of course they do.

THE COURT: And ultimately, what I thought is when I make the ultimate determinations, we're focusing on the basin. And then what I thought plaintiffs were saying is there's a gray area there between the water shed and the basin that you would still have water rights to. Am I incorrect there --

MR. BUNN: You are incorrect. I'm sorry.

THE COURT: -- from what you're saying, that you have water rights in the area in between water shed and basin?

MR. ZIMMER: First of all, I think we have to go back to the scope of what the Court is deciding. This is not a pueblo water rights under Mexican law, not a question of the rights of a complete body of water, but rather a specific lawsuit as to the water rights. The right of an overlying landowner to reasonably use water on his property.

So the San Fernando case is inapplicable to that extent. The question ultimately will not be, in my estimation, whether the parties are in the same basin. The question will be whether the defendants have proved prescriptively that they have made claims against these particular properties. It's not -- this whole basin thing doesn't really mean anything.

I said this before when we were trying to do this bifurcation, this whole basin concept doesn't mean a whole lot of anything in terms of the decision the Court has to make. The Court has to look at pumping here and determine whether they proved prescriptively -- to prove, to show what they have the water rights of the plaintiff. And it can be -- the question is whether the water is hydraulically connected, and whether they are taking water that is hydraulically connected to us. If they are, and they're taking sufficient quantities of that, they're to put us on notice, and do so for a given period of time.

THE COURT: Is all of the plaintiffs collectively -- all the land within the area that defendants say is the basin?

MR. ZIMMER: No. We have our Bolthouse property outside that area. Mr. Tootle's client has property in the Leona Valley that's outside that area.

MR. TOOTLE: And Fremont.

MR. ZIMMER: Mr. Abbott has one of the districts in the County of Los Angeles.

MR. ABBOTT: Actually, District No. 37. Whether you use the water shed line or basin, it will go outside of

this case.

MR. JOYCE: It's entirely out of either line?

MR. ABBOTT: Yeah.

MR. JOYCE: Then guess what? That goes bye-bye.

MR. BUNN: It's only taken a year and a half to get to that point.

MR. ZIMMER: That's not a problem.

MR. TOOTLE: But they don't have any properties in the Leona Valley or the Fremont Valley.

MR. ZIMMER: That's correct. And as far as the offer of proof, Mr. Tootle is going to be just fine and dandy if it turns out in Phase 2 that he's not hydraulically connected with our properties. He could disclaim right now any prescriptive claims against our properties, and he's out of this lawsuit if he indicates that.

MR. TOOTLE: No, because I have another system in Lancaster.

MR. ZIMMER: Aside from that, from your Leona property and Fremont Valley.

MR. JOYCE: If you want to disclaim in Leona, we'll accept your disclaimer and eliminate Leona. But your Honor, they answered the claim and said prescriptive right. Does that mean you have prescriptive rights? If they're saying no and disclaim it, I don't want to keep them in the lawsuit.

MR. TOOTLE: Your Honor, their complaint said the aquifer.

THE COURT: They plead there's an aquifer, and prescriptive rights were --

MR. TOOTLE: Based on the aquifer. The aquifer is not under Leona Valley. And the aquifer, we can show this is not under Fremont Valley. The aquifer is under, basically, the ground water basin, which our expert will testify to.

MR. ZIMMER: Well, there's several aquifers -- defined aquifers, different and different places. All that doesn't make a difference. The question is whether your client is claiming prescriptive claims against our right to pump on our own property.

MR. TOOTLE: All we're going to claim for is that aquifer under what our expert is testifying to.

MR. ZIMMER: So if it's contention that the aquifer is only in this one place, not on your property and our property, you can claim any prescriptive property against our property.

MR. TOOTLE: Then we need to look vertically at the aquifer.

MR. ZIMMER: You can do that. Look all you want. However, on the aquifer, if you're disclaiming all rights within our property, we're good to go.

THE COURT: In the law do we go vertically? It seems like we're wanting to draw out from --

MR. BUNN: Under the law, it's clear it's ground water basin. I'd like to say one thing about this claimer. What we're doing is establishing the limits of plaintiffs' overlying rights. If you establish that those overlying rights don't extend to the Leona Valley, then he can -- he doesn't need to disclaim. The plaintiffs do not have any rights

against him.

And that's what we've been saying from the beginning. They have to show that which they have rights to. And they don't have rights in the Leona Valley.

MR. JOYCE: And your Honor, that's exactly why their Exhibit D to their trial brief, the commentary by Mr. Scott Slater, is pertinent. He says no appellate court has clearly defined whether the limit on the overlying right is the water shed or the basin if the two boundaries are not contiguous.

MR. BUNN: Mr. Joyce leaves out that he goes on to conclude that a property does have to overlie the basin as opposed to the water shed, despite saying that no court has definitively established that. And I think, frankly --

MR. JOYCE: What he's saying, your Honor --

MR. BUNN: -- Professor Scott Slater was wrong.

MR. JOYCE: Professor Slater --

THE COURT: Wait. One at a time. Let's hear from Mr. Joyce.

MR. JOYCE: What he's saying is -- the reason he's talking about the water shed is because he's recognizing the same reality that the appellate court and the trial court and the supreme court recognize in Los Angeles versus San Fernando, and that is, the water shed is important because that is the source -- the outer most source of all the water that's in dispute.

When you try to quantify over a sufficiently long geologically period of time how much water is available to

fight about, you got to do that with reference to the water shed, and that's why the Court emphasized that the City of Los Angeles had a right in the San Fernando, quote unquote, "basin" to all of the water resulting from precipitation -- not in the basin, but precipitation in the water shed. When you start trying to divide that up and start talking about limiting it to the basin, you eliminate that other factor, which is the ground of water.

THE COURT: All the plaintiffs' property is within the water shed?

MR. ZIMMER: That's correct.

MR. JOYCE: All the water that ends up in the basin doesn't come from within the boundaries of the water basin. They're proposing it comes from the water shed.

MR. BUNN: I'd be willing to stipulate that plaintiffs' right in the Antelope Ground Water Basin extend to all the water that's there because of precipitation of the water shed, just as what's done.

MR. JOYCE: I will accept that stipulation if they include the volume of water pumping from -- by upgradient from the valley.

THE COURT: They say in overlying it --

MR JOYCE: It will land within the natural water shed of the basin or area of land in which precipitation grains into the water source.

THE COURT: Who says that? Your guy? What's his name, Slater?

MR. JOYCE: Scott Slater.

THE COURT: That's what it goes on to say in No. 5.

MR. TOOTLE: Your Honor, there's been a whole history of basin adjudications, and we own water rights in many of these adjudications. Water flows from the San Gabriel Basin to the Central Basin to the West Basin to the ocean. Under Mr. Joyce's theory there, this would all be one basin. Clearly --

THE COURT: That's a problem.

MR. TOOTLE: -- it is not the case, and it has historically not been the case, and these have been adjudicated since the 50s. They have recognized the property owners for which my company came out of, of which the Dominguez family, Rancho San Pedro owned most of the land on top of what is today the West Basin. They did not receive a right in the San Gabriel Basin. They did not receive any rights beyond what their land overlayed in the Central Basin. They only received a right as to what their land overlayed in the West Basin.

MR. JOYCE: Well --

MR. TOOTLE: So now --

MR. JOYCE: That's not completely accurate, because as you know, Mr. Tootle, the Court in those cases indicated a certain amount of flow in basin-to-basin, and confirmed the other basin in that water, and that flow all comes from within the same water shed.

MR. TOOTLE: And he is right. They do have an amount of flow, and we will be very -- if he wants to take the amount of flow that comes from the Leona Valley down to the Antelope Valley and the amount from the Antelope Valley that

goes down to the Fremont Valley -- because there's water that flows from the Antelope Valley down to the Fremont Valley -- if they're willing to forget all this water together, then I'd be willing to stipulate too.

MR. ZIMMER: It seems to me we're making it an awful lot more complicated than it needs to be. I disagree with Mr. Bunn's argument that we are trying to determine the extent of our water rights geographically. We are trying by this lawsuit to confirm that these defendants do not have prescriptive claims against our pumping, reasonably, on our property. All we're trying to do is drill. Carrots we got. We grow carrots.

We want to try -- and all we want to do by this lawsuit is confirm they don't have prescriptive claims. You do not need to determine the extent of how far out your water reaches to determine that. All you have to determine is that they haven't -- either they're disclaiming that they have prescriptive rights, or they fail to prove that they have proved a requisite requirement of prescriptive rights claim. It's as simple as that. And all the rest of the stuff --

THE COURT: Some of the elements of the prescriptive rights go hand and hand with the basin?

MR. BUNN: Yes.

THE COURT: Let's go back to the question of the basin. And I mean, we're going to hear from plaintiffs' expert in a day or so, but he's set forth the water shed. And basin has some general understanding in these terms. Is he in big disagreement that the basin that they have set forth is the

basin this water shed flows into?

MR. ZIMMER: Yes, because as I was trying to point out earlier, the ground water basin that they are describing is less inclusive. The question is hydraulic conductivity. It's our experts' contention that this entire area defined as underlying hydraulically connected aquifers extend out in various different areas much farther than Mr. Scalmanini has on his map. For example, in the Leona Valley, and for example, on the north end.

THE COURT: He's not saying the basin is the same as the water shed.

MR. TOOTLE: Yes, he is. That's exactly what he just got done saying.

MR. JOYCE: Well, what Mr. Gorelick and Mr. Sheahan will testify to is that the term "ground water basin" within their discipline is more often than not a term of convenience. It's more often than not an angus in what's referred to study areas.

In fact, we have one map that will show all the Edwards Air Force area, USGA. They define ground water basin as being square around Edwards Air Force Base. They call it the ground water basin because the term is utilized as a term of convenience. And then all of a sudden, it's taken on legal significance, in part, due to stipulations over the years between litigants to avoid having to do what we're trying to do here, which is put scientific reality behind the concept. So the term doesn't have within the discipline a readily accepted definition.

In fact, Mr. Scalmanini points out in his own report that Todd, as well as others, have referred to the fact that often times political boundaries are used as a matter of convenience as basin boundaries. That may work for the purposes of making life easier for everybody to get forward and move on with management and issues of that nature, if that's the objective. But that doesn't mean it's a scientific reality that there is no hydraulic connection where they draw that political line, and the property on the outside of the line. And if the issue that we're trying to determine is whether or not one person's pumping affects another person's pumping, you can't use lines that are drawn for convenience. You have to look at where that pumping is occurring.

The point I was trying to make, if they want to extend the line out far enough to encompass all the well and not go to the crest of the mountain, that's fine, but at least get the wells inside the line so that we know whose pumping we're talking about. Then, if in Phase 2, the hydrology demonstrates that there is no sufficient connection between one well and another and that there's no adverse effect resulting from extractions in one location as compared to another, then resolve the problem.

But until we get there, we don't know the answer to that. If you exclude that pumping upgradient right now, we don't get to go back and revisit it. They don't have to prove prescription because you will give them a judgment today or tomorrow when we finish Phase 1 saying that that pumping is not legally adverse, hostile etc. That's res judicata, and we're

finished as to that pump.

MR. ZIMMER: That's specifically why, your Honor, we drafted the stipulation. We're not talking about ground water basin in Phase 1. That's why we drafted in terms of an area, specifically, to avoid this problem. They can still argue everything they want to argue in Phase 2 that has to do with a basin, and what it means is what it is.

MR. JOYCE: If it's legal significance.

MR. ZIMMER: All we're determining is what the area is in terms of litigation. I agree with Mr. Joyce. If you want to run the line out to beyond the wells and still consider the rain fall and ground water flow and runoff, that's not a problem for purposes of area of litigation.

THE COURT: Would it be of any benefit at this point for you to meet and confer for about 15 minutes?

MR. DUNN: Yeah, I'd like to talk.

THE COURT: Because it's a little fuzzy here. I think I understand where you're coming from. I'm not so convinced we're all that far apart. I think it's a matter of semantics.

MR. BUNN: Unfortunately, we've thought that all along, but we've been working at this for a year and a half, your Honor. We've gotten together many times. I'm certainly willing to spend another 15 minutes, but there is a fundamental difference in approach between the plaintiffs and the defendants that is going to be hard to bridge.

THE COURT: All right. Well take a few minutes just to see if you can narrow any of the issues. If you need a

few more than that, you can have them.

MR. TOOTLE: Can we make it 20?

MR. JOYCE: Your Honor, while we're at this, I would like to make a suggestion to the Court. The Court indicated that on Wednesday the Court was going to have to defer, and therefore we're going to be dark that day and maybe go Thursday. Would it be possible to go down on Thursday afternoon and be off for any time at all and kick over and go to Monday? Otherwise, I'm back up and back down. In addition --

THE COURT: We might be able to do that. Let's see what we can do. Meet and confer. We'll take that up at the end of day.

MR. JOYCE: Thank you, your Honor.

(Recess was taken at this time.)

THE COURT: Long 20 minutes.

MR. DUNN: Lots of lawyers talking.

MR. JOYCE: Long 20 minutes.

THE COURT: All right.

MR. ZIMMER: Your Honor, we have --

THE COURT: Somebody's missing. I need my seating chart.

MR. ZIMMER: We have all discussed this matter, and we have provided to the defendants a copy of the settlement agreement that we have reached with two of the other defendants in the action.

MR. JOYCE: Which track, closely, the same terms of the settlement reached with the third earlier on.

THE COURT: All right.

MR. ZIMMER: Correct. And my impression is that we're very close to settlement. And if the Court needs to become involved in ironing out any of the details, I don't have a problem with that so long as no one will move to disqualify the Court at a later time.

THE COURT: I'd have to get a stipulation on the record from every party involved.

With that, the staff leaves at 4:30, so I need to let the staff out. So the courtroom is basically going to be locked up.

Where are we as far as how much more time you think you need? Is it a matter of talking to your clients? Is it a matter of talking to the experts? Is there anyone who thinks they're simply not going to settle, and we will be doing this phase?

MR. ABBOTT: In terms of talking to the clients, the people I need to talk to are on vacation for the next two weeks so I have nobody I can talk to.

THE COURT: They didn't give you their private number?

MR. ZIMMER: We're willing to settle with any or all of the defendants, but quite frankly -- no offense to Mr. Abbott, because I know it's not his issue -- Mr. Abbott and I have discussed this in the past. He hasn't been able to get any word out of his clients for months. I'm not going to hold my breath, and I'm not going to continue on with the clients just to make sure -- wait for them to get their act together.

No offense to you, Steve.

THE COURT: We can go forward tomorrow morning. If someone thinks they're close to settling, what do they need to do to get that resolved? Empty up a few more chairs so we can fit everyone at counsel table. No takers?

MR. DUNN: I'm in a similar situation. My client's on vacation; that's why my client is not here this week, but there has been a lot of meaningful discussion in the last couple hours. It's my senses it would take a fair amount of additional discussion to sort of reach some closure on some or all of these issues.

THE COURT: Would it be beneficial? You're all here. Whoever came from a distance has their room.

MR. ZIMMER: We've got our rooms. We're here. We've got our experts.

THE COURT: Come back tomorrow. You can talk some more tonight. Go out to dinner, have some wine, couple glasses of water.

MR. JOYCE: The wine might do more good than the water.

THE COURT: And then come back tomorrow at 9:30. I'll give you some additional time to talk, and we can see. And then if by noon we're not pretty much either -- you know, someone knows they're going to settle or not going to settle, then we can talk about what we need to do with respect to the trial.

Do you think that's going to work?

MR. ZIMMER: As long as we aren't prejudicing

ourselves to continue with this trial. We've been concerned about getting this to the Court.

THE COURT: The way I see it, if you're not going to settle, then we're going to complete this phase of the trial. I'm not going to put this over. And whatever is set for Monday will simply trail, and I can utilize next week as much as I need to to get this done. I'm not going to rush you through it either, so you're going to have the amount of time you need to get this done. I think, then, to rush you through it is not going to be benefit to anyone.

If you can come to a meeting of the minds even to some of the defendants, that is going to be helpful too. And if you can even narrow some of the issues we have to deal with in this phase of the trial, that might be helpful. Other than that, I don't know what to do other than to send you off with that wine.

MR. ZIMMER: I think it's a fair approach.

THE COURT: Come back tomorrow, and we can see where we're at.

MR. JOYCE: We appreciate that, your Honor. I think that is probably sage advice and will be likely followed.

THE COURT: All right.

MR. BUNN: At least as to the wine part.

MR. JOYCE: 9:30 then tomorrow.

MR. JOYCE: Thank you, your Honor.

THE COURT: 9:30.

MR. DUNN: Do you have a problem with us leaving some of the trial material?

THE COURT: No. The deputy will instruct you as to where to put it.

MR. DUNN: Thank you.

THE COURT: Thank you, everyone.

(PROCEEDINGS CONCLUDED.)

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TUESDAY, AUGUST 6, 2002; RIVERSIDE, CALIFORNIA

COMMISSIONER JOAN F. ETTINGER; DEPARTMENT 10

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THE COURT: Good morning. We're ready for our first witness?

MR. BUNN: Yes.

MR. DUNN: Yes, your Honor. Defendants call Mr. Joseph Scalmanini.

THE CLERK: You do solemnly state that the evidence you shall give in this matter shall be the truth, the whole truth, and nothing but the truth, so help you God.

THE WITNESS: I do.

THE CLERK: Thank you. Please have a seat. Will you please state your name and spell it for the record.

THE WITNESS: Joseph C. Scalmanini; S-c-a-l-m-a-n-i-n-i.

THE COURT: You may inquire.

MR. DUNN: Thank you, your Honor.

Mr. Scalmanini, could you do me a favor and take that microphone that's in front of you and swing it a little bit closer to you.

THE WITNESS: How's that?

MR. DUNN: That's much better. Believe it or not, there's a fair amount of background noise from the equipment. It's hard to hear you even from the short distance.

JOSEPH C. SCALMANINI,

called as a witness by and on behalf of the Defense, was duly sworn and testified as

follows:

DIRECT EXAMINATION

BY MR. DUNN:

Q. Mr. Scalmanini, have you been called as an expert witness on behalf of the defendants?

A. Yes.

Q. Now, before we have you give your expert opinions in this case, what I would like to do is establish your educational background and your work experience which had an impact on the opinions that you'll give this morning.

Can we do that?

A. Yes.

Q. Let's start with your work experience first. Are you employed?

A. Yes, I am.

Q. What do you do for a living?

A. Strictly speaking, I'm a civil engineer.

Q. Do you have a particular emphasis in the civil engineering that you do?

A. Yes. The practice -- I have a consulting engineering firm, and the practice, which has been in existence since 1980, focuses almost exclusively on groundwater resources, groundwater hydrology, groundwater supply -- such that expand slightly -- what I'll call, maybe the nuts and bolts of water supply systems, stores, tanks, distributions systems. We also do that type of work. My practice is -- I kind of think of globally as with regard to water resources, with a particular focus on groundwater and water supply aspects

thereof.

Q. What's the name of this civil engineering firm?

A. Lou, Doorman (phonetic spellings) & Scalmanini.

Q. You are one of the principals of that firm; is that correct?

A. Yes, that's correct.

Q. You've been involved with that firm for the last approximately 22 years?

A. That's correct.

Q. I'll come back to some of your work experience in a moment. Let's go to educational background.

Where did you attend college?

A. Undergraduate at the University of Santa Clara in Northern California.

Q. Did you do graduate work?

A. Yes.

Q. Where was that?

A. I did graduate work at the University of California Davis, and received a Master of Engineer -- of Civil Engineer from UC Davis.

Q. As part of your educational background, did you take any courses or involved in any studies that involved hydrology or geology?

A. Yes.

Q. Would you describe that briefly, or generally summarize that for us, please?

A. Well, the entire scope for all practical purposes of my graduate work was water, and specifically,

groundwater related. When I went back to graduate school, it so happened that in -- I'll say -- well, I should back up and say that I worked in industry for six years after finishing my undergraduate work, and then went back to graduate school.

And then in exploring opportunities and interviewing at campus, there was an emphasis by the faculty that you should have some support while you were there, and I had sort of planned to do this on my own. To cut the story kind of short, I ended up studying under and working for the professor of what was then known as Water Science and Engineering Department, which was sort -- actually related to the College of Engineering at Davis, who was the groundwater professor, if you can call him that.

Q. What was his name?

A. Vern Scott. He's long since retired and lives in Colorado now. Anyway, so I did, again, the working part for him, worked full-time doing applied work researching groundwater while I went to school part-time in that graduate work. So I was there for a total of six years; did course work for the first two and worked, and then continued to do what I call applied work, and did teaching as well.

Q. What time period?

A. The time period between 1973 and 1979.

Q. Before you started the consulting firm in 1980; is that correct?

A. Well, we started to form the consulting firm in 1979. We set up the shop -- for all practical purposes, we set up work officially on the first of January 1980.

Q. I don't know if this is a fair question to ask, but I'm going to ask you anyway. Can you tell me, since 1980, how many groundwater basins in California you've been asked to look at in any way in your professional capacity?

A. You're right. That's not a very fair question.

Q. Can you give me --

MR. ZIMMER: Objection. Vague as to groundwater basin.

THE COURT: Overruled.

THE WITNESS: You know countless would be a pretty vague answer, but I'll certainly say dozens. I don't know if I'd go so far as to say hundreds. There are in California, mapped by the state of California Department of Water Resources, some 450 groundwater basins. We've worked in a lot of them. I can probably start on the coast and work my way inland and, you know, rattle off a lot of them from Encino County to San Diego, for example, to the Court.

I've done something on groundwater, and that has to do with either the supply, the legal classification of groundwater, and maybe we would design, and groundwater development. Mendocino, San Mateo, Santa Cruz, Monterey, San Banites (phonetic spelling), San Luis Obispo, Santa Barbara, Ventura, Los Angeles, Orange and San Diego County. And you can do a similar thing from Shasta to Kern County and the inland basin, San Bernardino County and the basins associated therewith, and you can go into the Sierra in the greater Truckee area, the mountains there. And continuing down the east side of the Sierra in the Mona lakes, as far as Inio

(phonetic spelling) County area down as far as Yondrylack bed (phonetic spelling).

We've worked in all those places in some capacity or another in the last 20 years. That's not a numerical answer.

BY MR. DUNN:

Q. Let me see if I can get a more focused question to you. Are you now or have you ever been involved in a groundwater adjudication or groundwater dispute --

A. Yes.

Q. -- that's ended up in court?

A. Yes.

Q. Can you describe those?

A. Well, three come to mind fairly quickly. Two much more significantly than the third, so I'll just mention the third and get off it. I'm doing some work at the very beginning level in the so-called Central Basin of Los Angeles County, which is an adjudicated basin. And there's some question arisen -- in the general area or vicinity of where Century City is today, but I don't think Century City existed when the basin was adjudicated. There's question as to some of the basin was probably excluded, which is -- it was from the judgment at the time. So I just started to look at that question.

The two, in my -- I'm most involved -- one was or is being adjudicated, and one is adjudicated, and let's start with the one that has been adjudicated. That would be the Chino Basin.

Q. Where is that located?

A. For all practical purposes it's all in San Bernardino County. It was adjudicated in superior court in San Bernardino County.

Q. What was your involvement in that matter?

A. Well, in terms of past tense, when it was adjudicated, which was in the 1970s, I was in graduate school. I had no involvement in the actual adjudication. The Cordion (phonetic spelling) Judgment was issued in 1978 and a water master was established, so I guess you'd say implement. And I think -- well, I guess you say the court retains jurisdiction. But the water master was implementing a so-called physical solution to preserve the water supply in the basin.

And the water supply issues at the time of the judgment were a depletion of the supply. There had been a substantial decline in groundwater level in storage in the preceding twenty years prior to the judgment, which caused the parties in the basin to file an adjudication and resolve who had a right to what.

MR. ZIMMER: Objection to the extent this brings into issue other groundwater adjudications that may or may not be relevant here. I assume the fact that he's been involved in this other case is being used primarily or solely for --

MR. JOYCE: Qualification.

THE COURT: I'm going to consider it to the extent that it relates to physical qualifications as an expert, but not for any specifics that he's testifying to.

MR. JOYCE: Thank you, your Honor.

MR. ZIMMER: Thank you.

THE WITNESS: So the Court retained jurisdiction, and in the late 1990s, nominally, 20 years after the judgment, there were issues that hadn't been successfully resolved as far as physically fixing the basin. So I don't know all the details of how it got to this point, but the Court ended up appointing a new water master and appointed a special referee.

So I'd work with the water master and be, in effect, the legal interpreter for the Court assigned to this. And the courts also assigned a so-called technical expert to work with the referee in that regard. I'm not that person.

BY MR. DUNN:

Q. You were the court technical expert?

A. Yes, and still am.

Q. You perform that function today?

A. That's correct, for about four years, but '98 is when we started and have had ongoing interaction with both the water master and staff and consultants that work for water master developments of basin management plan. And then -- if I can be casual, then I, in effect, work for somebody just like her and report to, in this case, him on a regular basis about technical aspects of what's going on in the basin and the success of what's today called the Optimum Management Program, which can be updated to the physical solution that's been evolving over the last 20-something years.

MR. ZIMMER: Your Honor, again, I think a lot of this is beyond his experience and move to strike the aspects of this that don't relate to the fact that he's a technical master

for the court, court-appointed technician, if you will.

THE COURT: That is limit to his expertise. The specific facts, I'm not going to give any weight to as far as any application in this case.

MR. ZIMMER: Thank you, your Honor.

BY MR. DUNN:

Q. And I believe you said there was one other groundwater dispute that you're currently involved in. What is that?

A. That is not yet adjudicated. That would be Santa Maria Groundwater Basin on the coast in Santa Barbara and part of San Luis Obispo County.

Q. What has been your involvement in that matter?

A. Well, for about, I guess, six years I have been the, I don't know, the consulting engineer slash hydrologist for the Santa Maria Valley Water Conservation District, which, I think, the original plaintiff is filing the adjudication in that basin. And I continue to be, well, in that, the engineer/hydrologist on the quantitative aspects of water supply, including in regard to the subjects that we talked about here today, definition of what the hydrologic unit is on groundwater basin in that case for adjudication of rights to groundwater.

MR. ZIMMER: Same objection. Motion to strike as to what is happening in this case. No bearing.

THE COURT: I'm going to deny the motion to strike. I need to hear his involvement to the extent it relates to expertise, but again, the only relevance goes to his experience

as he is an expert.

BY MR. DUNN:

Q. Did you testify as an expert witness in that case?

A. In the only part that's been in court so far.

Q. What part of that did you testify?

A. That was determining boundaries of the basin.

Q. Was that, for lack of a better description, designated as Phase 1 trial?

MR. ZIMMER: Same objection. Has no bearing on this case.

THE COURT: I'll sustain that objection.

BY MR. DUNN:

Q. Did you testify in San Jose -- in Santa Clara County Superior Court?

A. Yes, I did.

Q. And you still are retained to perform services in that matter?

A. Yes, I am.

Q. And you were retained by Santa Maria Valley --

A. Water Conservation District.

Q. Is that correct?

A. Yes.

Q. Is it true that I also -- my firm represents a client in this matter?

A. Yes.

Q. I represent the City of Santa Maria; is that correct?

A. That's what I understand.

Q. The relevance is your client is adverse to my client; isn't that correct?

A. That's correct.

MR. ZIMMER: Leading. Argumentative.

THE COURT: It's leading.

MR. JOYCE: Interesting, but not terribly relevant.

THE COURT: It has some bearing to bias. I'll allow that leading question.

MR. DUNN: Is there an issue with leading questions?

THE COURT: Typically, for foundation, I don't have a problem when it goes to the opinion.

MR. DUNN: Right.

THE COURT: I know there's a big dispute over every judge in California. I like to have their opinion stated in a nonleading fashion.

MR. DUNN: We will do that.

THE COURT: For foundational information, it's fine. I think this falls into somewhat foundational.

MR. DUNN: All right. Thank you.

BY MR. DUNN:

Q. Are you familiar with other groundwater adjudications in California?

A. Yes, I am.

Q. What other groundwater adjudications are you familiar with?

MR. JOYCE: Objection.

MR. ZIMMER: Relevance.

THE COURT: I'll let him just state what he's aware of without going into any facts. The few facts that would probably come out aren't going to really be of any significance to what we have to decide here anyway, so plaintiffs are somewhat concerned. I don't think you need to be. Just state -- perhaps describe the Court therein, and the entities they involve.

THE WITNESS: Okay. I made a list which you can project or --

MR. JOYCE: Your Honor, before we -- this gets a wee bit into the issue I raised earlier. This is information that is new and not -- was not proffered either with his report or at the time of any one of the three sessions of his depositions, nor was the document he's now proffering utilized.

If this is strictly for the purposes of qualifications, then I can understand where the Court might want to take a look at it, but if it's being offered for a different reason, then I would be objecting. It exceeds during the course of his deposition.

THE COURT: Any other water cases, unless it's an accomplished opinion, is not going to have any bearing on this Court's decision. Now, to the extent he has knowledge of some of these, I suppose the only relevance is if, in fact, he had some involvement or some work or something to that extent.

MR. JOYCE: Then --

THE COURT: Which is what I think we're getting to.

MR. JOYCE: I think, your Honor, then I would ask

the opportunity to voir dire. I can establish he had no participation and no involvement in any of these appearing on this list, and therefore, I'm significantly concerned about what it's being offered for for relevancy purposes, because it can't go to expertise.

THE COURT: Mr. Bunn.

MR. DUNN: You mean, Mr. Dunn.

THE COURT: If I mix up my cards -- Mr. Dunn.

MR. DUNN: That's okay.

THE COURT: Do you have an offer of proof as to whether he has any involvement in these?

MR. DUNN: Yes, I do, in fact, that Mr. Scalmanini has taken a look at material from each of these basin adjudications and has information concerning them, and that he influences opinion in this case.

MR. ZIMMER: Your Honor --

MR. DUNN: Wait. I'm not done. I would dispute whether somebody specifically asked him any type of question if he's done this type of work.

THE COURT: Well, to get to the original objection I'd have to see where in the depo something like this was asked, and it not testified to. Because again, this is sort of a foundational question. And then the next question is -- I mean, experts can rely on a multitude of things. And to the extent they relied upon it, they can state what they have relied upon, but that does not mean that material then becomes proof of the material.

MR. JOYCE: I appreciate --

THE COURT: So I mean, it's a bigger problem when there's a jury, because I think they have a hard time once they hear it. So understand, really, what we're trying to tell them, to the extent he wants to see what his knowledge is of these and/or whether or not he relied upon them, which we probably need to establish first, and what it is he relied upon and what his involvement was, I can listen to that. But any specific factual information there is not going to become independent proof.

MR. DUNN: It's not offered for the truth of the matter asserted therein. It just goes to his doing his work in preparing to testify to after an opinion on basin boundaries.

THE COURT: I think it has relevance to his overall experience, skill, and understanding of it. So why don't you first ask a general question as to whether or not he either had some -- did some work on some of these so there's some experience, or whether he just reviewed it and relied upon it, so we know what we're talking about then.

Do you have -- is there a point you can show me in the depo where this was asked?

MR. ZIMMER: Your Honor, I can show the Court where we asked him both for his opinions and what he relied on in his opinions. And he, in fact, stated in his report that all of his supporting -- all of his opinions were based on the data provided in his report.

What is happening here is a subtle attempt by Mr. Dunn and not -- I understand he's a good lawyer. What's happening here, he has told us from the witness stand that he

worked on three adjudications.

Now we have a list of groundwater adjudications on the board, which Mr. Dunn asked him if he looked at, and Mr. Dunn -- looks like they're boot strapping their way into looking at these, formulating an opinion to base in which to apply in this case. That's wrong. That wasn't offered for the base of his opinion at the time of the deposition. We have no opportunity to cross-examine him on those issues. It's not relevant what happened in other areas because of all the problems, I think, we've brought to the Court's attention.

THE COURT: Where is it in the deposition? Does someone have a copy?

MR. ZIMMER: Well, your Honor, initially if the Court were to look at Volume III of his deposition --

THE COURT: I don't have any volumes.

MR. JOYCE: Commencing --

MR. ZIMMER: It's on page 177 of the deposition at line 7 through 10, and I have a copy here. I don't know who took the original to lodge with the Court.

MR. JOYCE: In fact, I would ask at this time that the original with the exhibits to Mr. Scalmanini's deposition be lodged with the Court so we can facilitate this issue.

THE COURT: Does someone have an original?

MR. DUNN: I think we have the original.

MR. JOYCE: They do.

MR. DUNN: And we agree to produce that.

THE COURT: For the time being, I'll look at a copy.

MR. ZIMMER: I can give this to the Court, if I can approach.

MR. JOYCE: What I would ask is that we have the original and all of the exhibits, because that's going to be relevant as we go down the road.

THE COURT: We might as well get those.

MR. ZIMMER: There's two questions consecutively there, your Honor. It's Volume II.

THE COURT: Okay. The one question says, "Does this report cover the opinions that you've been asked to express?" This question, however, by Mr. Dunn does not relate to opinions.

MR. DUNN: We're not asking about opinions.

THE COURT: The next question.

MR. ZIMMER: The next question.

THE COURT: "All the information that you have reviewed for purposes of coming to the conclusions, are those fully described in the list of references?" And the answer is, "Yes."

MR. ZIMMER: Those are the references in his report.

MR. JOYCE: And then, your Honor, if we go --

THE COURT: Where's the report?

MR. ZIMMER: I have a copy of the report also, your Honor.

MR. JOYCE: Your Honor, I would only add to that the following notation from his deposition, Volume II, page 139, and continuing on for about 13 and a half to 14

pages. And that is, is that Mr. Zimmer and myself exhaustively went through all the writings that Mr. Scalmanini brought to his deposition and identified all of them on the record and had the ones that we did not have already available to us appended as exhibits to the deposition. And none of this information was included in any of those writings.

THE COURT: Well, I think defense will agree that nowhere in the report --

MR. DUNN: These aren't writings. That's the whole point.

MR. JOYCE: This looked like a --

THE COURT: The question doesn't request for the writings. It says, "All of the information that you have reviewed for purposes of coming to the conclusions and opinions, are those fully described?" But then you went on to say "in the list of references," but still, I think it's asking for everything you've looked at to arrive at your opinion listed.

MR. JOYCE: Exactly. In other words, is it identified in a way that we can go see it too? And none of these issues presently being proffered were at that time or at any time until yesterday made available to us, and yesterday, made available to us at 1:29.

So my concern -- your Honor, part of my job as litigator is to anticipate, and I see us on the top of the slippery slope. And what we're going to do here is -- I notice in looking at the document that the water basin has been emphasized in each and every one of these. The slippery slope

is obviously the dispute; and that is, is there such a thing that's recognized in the trade or industry or science as a readily reproducible term called "groundwater basin?"

And what this is is one more effort going back to that issue with material that was not proffered up either in his report or at the time of his deposition. It's a new matter.

THE COURT: Well, I think what a basin is is, one, a question of law, obviously, for the Court. I think it also is a question that these experts commonly deal with. But there's a difference in -- based on their experience, and what they deal with, and how they arrive at the definition of a basin, and their testimony relates to that, there's a difference in that versus what other courts had come to and how they have taken the information and processed it and come to their findings.

I would be concerned to the extent we go through this list, and we're getting, basically, findings by other courts because that won't actually be interesting, but if they're not an accomplished decision, it's not going to help me.

MR. JOYCE: And --

THE COURT: So where, Mr. Dunn, are we going because I do agree? I think you know we can always fight over these questions. We always ask them -- we can always ask them more artfully at the time of trial, but I think that question pretty much says is everything you reviewed or relied upon set forth in your report? So this does seem to be something new

that seems to have some significance.

MR. DUNN: Fair enough. Let me approach it this way. One of the things an expert witness can do is he or she can, as part of their opinion, comment on why they discounted other expert's opinions in the case. Now, let's assume for the moment that, in fact, the plaintiffs' counsel had asked Mr. Scalmanini during his deposition to state all the basis for his opinion, and let's assume, hypothetically, that he did that. What you heard yesterday happened is that there wasn't really the true exchange of expert witnesses as you would typically see in this case.

What happened in this case is defendants produced Mr. Scalmanini, and gave a report. And he gave a deposition, and then it was sometime thereafter that we got a report and a deposition on the part of the experts. In other words, their experts were hired to critique Mr. Scalmanini.

And so what we have in this case is I put him on the stand. I'm going to have him give his expert opinion and explain that. At some part of this case, whether it's today or in rebuttal, he gets to comment on what the other folks criticized him on.

The problem I have is, it's Tuesday, and I appreciate we had the time yesterday to engage in meaningful settlement discussions, but he's gone on Monday of next week. So I only have an opportunity to put him on the stand today and Thursday. And I'm more than happy to divide this up. I'll have him give his opinion and all the basis for it, but at some point in time he gets to come back and comment on the experts

who testified.

See how this works. We have the last shot at discovery. He gets to comment on that at some point. I'm more than happy to let him do that after they take their pot shots at Mr. Scalmanini, but I just need to make sure at some point he gets a chance to explain it. And as an offer of proof on this, what he would testify is -- you look at these basins and nowhere does anybody use the kind of interesting analysis as the plaintiffs' expert has done in this case. That's the offer of proof. But we can wait on that until we hear from the plaintiffs' experts. I just need to make sure.

However, having said that, it's fair game for him now to comment on events that took place clearly after he was deposed, so it's a little --

THE COURT: My --

MR. DUNN: Let me finish. I want the record to reflect this. I find it terribly disconcerting to have plaintiffs take the position that they can make their experts and their reports available only after he testifies, and then he can't comment on their experts criticism as to him.

MR. JOYCE: Your Honor, in response to what Mr. Dunn has proffered up, what I now understand to be the case is -- is that he's now attempting to elicit from Mr. Scalmanini what would otherwise be rebuttal testimony before the Court's had the benefit of hearing that to which he's proffering rebuttal.

I would suggest that we defer until there is relevance. That relevance is by definition based on Mr. Dunn's

response premature, because there's nothing yet to rebut. My concern is --

THE COURT: Well --

MR. JOYCE: I think the Court needs to hear and appreciate the opinion as originally proffered. Then if the Court wants to look, and he now has additional work offered up through rebuttal, to bolster it, put it in the appropriate respective.

THE COURT: We'll get his original opinion first.

MR. DUNN: Okay.

THE COURT: But if for some reason come Thursday plaintiffs' expert is not done and we need to preserve his testimony because he's going to be gone, I'll give you a chance to go through it, and we'll listen to whatever objections there might be.

MR. DUNN: That's fine.

MR. JOYCE: And frankly, in fairness and given the scheduling issue, I would concur with that approach. I think it's only fair and important to make sure that his testimony is not mixed on the offering.

MR. ZIMMER: I think as to both the original opinion as well as the rebuttal, that we keep this part of the examination clear to those opinions that he expressed during his deposition and reflected in his report, and only go into rebuttal when it's necessary to do so for scheduling.

THE COURT: That's fine. We can do that.

MR. ZIMMER: I want to make a point that there was no irregularity in the experts or the reports. There was

nothing improper whatsoever about the way the reports were disclosed. There were no reports missing. There couldn't have been. There was no requirement.

THE COURT: Let's hold on. I still have that Motion in Limine to rule on. I would have to say my preliminary thought is that I'm not seeing where he would have had to make a report and produce it if one is not made. I don't see that requirement. But let's hold off. I want to get to some opinions here.

MR. DUNN: Let's do it right now.

MR. JOYCE: Can I ask that the illustration be removed?

MR. DUNN: Absolutely.

MR. JOYCE: It has no evidentiary significance at this point.

MR. DUNN: That's fine.

THE COURT: We couldn't see it that far away.

BY MR. DUNN:

Q. Mr. Scalmanini, let's go to your engineering. What's the appropriate hydrologic unit for a determination in this action?

A. I think --

MR. JOYCE: Well, to the extent that's asking for a legal conclusion, I would interpose an objection. If the question's intended to elicit from a structural engineering perspective, I'll withdraw.

THE COURT: I'm going to take all questions from engineering versus legal.

MR. ZIMMER: In his opinion?

THE COURT: His opinion, yes.

MR. DUNN: If it's the plaintiffs' -- let me say this just to get this out now. If it's the plaintiffs' contention that it's a legal issue, whether or not we use a water shed versus a groundwater basin in this case, fine. We can have the Court decide that legal issue. That's what Court's do.

But to the extent it's a factual issue, then it's appropriate for Mr. Scalmanini to offer an opinion.

MR. JOYCE: All I was trying to do is make sure your original question is factual. I wasn't sure by the tone and tinner of the question where you were going.

THE COURT: I'm taking all of these factual opinions based upon what engineers and scientists do.

MR. JOYCE: Thank you, your Honor.

BY MR. DUNN:

Q. You're not a lawyer, Mr. Scalmanini?

A. No, I'm not.

Q. You don't play one in court; is that correct?

A. Not to the best of my knowledge.

Q. Can you answer the question what the appropriate hydraulic unit is for this current action?

A. I think I can, yes.

Q. What's that?

A. Antelope Groundwater Basin?

Q. Correct.

A. I probably list three or four reasons why.

First, the groundwater basin is recognized as that geographic and vertical volume that contains all the interrelated and interconnected materials which contain and yield water in sufficient quantity to be a significant water supply.

The groundwater basin is basically all those same materials from which all significant groundwater pumping takes place.

Q. Have you ever heard the phrase --

A. Let me --

Q. I'm sorry. Go ahead. I didn't mean to interrupt you?

A. You know, a third reason why I think that the groundwater basin is the hydrologic unit, that historically has been used in essentially all cases adjudicating rights to groundwater.

MR. ZIMMER: Objection, your Honor. Motion to strike as to what's been done on other cases only as to that last sentence.

THE COURT: Sustained.

THE WITNESS: Okay. Can I say something in regards to what's relied on?

THE COURT: Well, we have to have a question --

THE WITNESS: Okay.

THE COURT: -- before you can just offer information.

MR. DUNN:

BY MR. DUNN:

Q. Let's move off this area.

Do you have another reason?

A. Yeah, I do. But the guys argue about how I answer a question about things I rely on. What frustrates it --

MR. ZIMMER: No question pending.

THE WITNESS: -- is --

MR. ZIMMER: Your Honor, this is nonresponsive. No question pending. Argumentative.

THE COURT: Let me tell the witness and all our other witnesses. Lawyers are going to make objections, and it sounds like they're arguing. They probably are. I think what they're trying to do is preserve the record and protect their client's position. Don't get involved in that. Don't worry about what they're saying and the objections they're making.

What I need from you and from our other experts is to just listen to the question and give me your opinions and the factual basis for your opinions, and not worry about having to explain or defend your position based on the objections. The objections are made for a specific purpose.

Sometimes people that aren't lawyers don't quite understand it. They take it as a personal thing. Don't worry about it. All right?

THE WITNESS: Yes.

MR. DUNN: Thank you.

BY MR. DUNN:

Q. Are there any other reasons?

A. Yes.

Q. What are those other reasons?

A. That the groundwater basin is the unit -- the hydrologic unit that's historically been used in analyzing available groundwater supplies as part of adjudicating basins throughout California, but primarily Southern California.

MR. ZIMMER: Same objection. Motion to strike.

THE COURT: Sustained.

BY MR. DUNN:

Q. Forgetting for the moment the court aspect of your answer --

A. Okay.

Q. -- historically, as it relates to you personally, what has your experience been with a groundwater basin within the hyrdrogeologic unit for resolution of groundwater disputes that you've been involved in, either in or out of court?

MR. ZIMMER: Your Honor, it's irrelevant as to this case what he's done in other cases. That's two differences. Two kinds of action. It was --

THE COURT: I'm going to overrule that. I think it has relevance. You may answer.

THE WITNESS: Disregarding any aspect of court, the groundwater basin is the traditional hydrogeologic unit that is used for analysis of the availability of a groundwater supply in totaling an amount of water that can be pumped on an average annual basis or fluctuations of that as a function of a different meaning.

MR. ZIMMER: Objection to the term "traditional unit." Otherwise move to strike those terms.

THE COURT: I'll strike just that phrase "traditional unit."

THE WITNESS: It is --

MR. DUNN: Please continue.

THE WITNESS: -- the area and vertical limits of which are the boundaries within which the groundwater supply is quantitatively analyzed in any specific area.

BY MR. DUNN:

Q. Okay. As it relates to boundaries?

MR. ZIMMER: Objection as to any specific area. I'm not sure what that means, but if he's saying in any area elsewhere, then it's irrelevant to this action.

THE COURT: Overruled.

BY MR. DUNN:

Q. As it relates to issues of basin boundaries, why is the groundwater basin the appropriate hydrogeologic unit?

A. I think, primarily, for reasons that I said.

Q. In this case?

A. In this case or speaking of others. That it accounts for the earth materials that will store and yield all the significant groundwater supply.

MR. ZIMMER: Motion to strike to the term "others."

MR. DUNN: May I be heard briefly on that, your Honor. The witness has laid a foundation regarding his work over a period of approximately 22 years and countless number of groundwater basins throughout the state of California. Some of these, as he's already testified, have been involved in court

proceedings where's he's been personally involved.

He's still personally involved because of work, and the sum and substance of his testimony is what he's trying to get out through his objections. The groundwater basin is the hydrogeologic unit used in deciding these types of boundary disputes.

THE COURT: I'm going to overrule the objection. But why don't we do this -- because the ultimate question of whether I'm determining these boundaries based on the basin or water shed is going to be a question of law, why don't we focus in. One, maybe get a definition -- his definition of a basin, of a water shed, and a little explanation of how that all works. And then on a map -- because I can't tell from that one I saw. There were a lot of little lines -- get him to outline his basin.

MR. DUNN: Let me do exactly that. Let me ask him about what he understands groundwater basin to be, and then I'll have him show groundwater basin in Antelope Valley.

BY MR. DUNN:

Q. So Mr. Scalmanini, the term "groundwater basin," is that defined?

A. Yes, it is.

Q. How is it?

A. The two places -- it's not defined in every last textbook on the subject of groundwater, but the two places where I found definitions and used them in practice are in what some people call the seminal text on groundwater, which is a book called "Groundwater Hydrology" by David Keith Todd, now a

professor of emeritus at the University of California Berkeley, who was first published in 1959, and the second edition was published in 1980. And there's a definition included therein.

Q. And just for housekeeping matters, Mr. Scalmanini, you have in front of you premarked exhibits, and so we're going to just let you pick those out, and just let us know which one you're referring to.

A. This would be Exhibit 106.

Q. Okay. And it's entitled?

A. Groundwater Basin.

Q. Okay.

A. The first definition, which I was describing it --

Q. Just give us a moment, and we'll get it up here.

Can you tell me what Exhibit No. 106 is?

A. Can I hand her a readable copy?

Q. Sure.

THE COURT: It's in a better location for the jurors.

BY MR. DUNN:

Q. All right. Tell us what is Exhibit No. 106?

A. It includes two definitions, and I just started to describe the first, which is extracted from Todd's book called "Groundwater, 2nd edition." Quote, "groundwater basin may be defined as hydrogeologic units containing one large aquifer or several connected and interrelated aquifers. Such a basin may or may not coincide with hydrogeologic units."

Q. And then there's another paragraph below that. What is that?

A. That's extracted from -- I'll call it a teaching syllabus originally prepared by the State Defense of Water and Resources, and subsequently prepared and used in teaching of a course through the University of California Davis, "Concepts of Groundwater Management." And I was coordinator of that course; that would be originally in 1974, and then it was taught several times thereafter while I was still on campus, and for a short period of time going into consulting practice. But I haven't done it in the last 15 or more years.

Anyway, the Department of Water Resources -- in it is what some people might call the heyday of groundwater. Meaning, doing lots of groundwater statutes and countless bulletins published by the Department on groundwater in California in results of studies and analysis of various basins in California.

MR. ZIMMER: Your Honor, nonresponsive, and he's trying to put in before the Court what he shouldn't try to get before the Court.

THE COURT: I'm going to simply ask for objections relating to it. It's nonresponsive at this point, so why don't we -- I think what you're asking him for is the second definition. Repeat the question.

BY MR. DUNN:

Q. Where does the second definition come from?

MR. ZIMMER: Motion to strike the information and

the response that was related to whether it was.

THE COURT: I'll strike anything that didn't relate to the definition. I'm already past the screen so I can't give you the specifics.

MR. DUNN: Let me ask the question this way.

BY MR. DUNN:

Q. Where does that second definition come from?

A. The second definition comes from the teaching syllabus on groundwater originally prepared by the State Department of Groundwater Resource, and subsequently, slightly updated and utilized in teaching a course on groundwater through the University of California Davis.

Q. All right. Thank you.

A. And the definition that's up there, if you need me to read it --

Q. Is that a true and correct copy of the definitions? Let's strike that. Back up.

Did you prepare Exhibit 106?

A. Yes.

Q. The two definitions that are listed there, are those true and correct copies of the definitions and literature that you just described?

A. Yes.

Q. Mr. Scalmanini, what is groundwater basin as you understand?

MR. JOYCE: Your Honor, before we move on, can I ask what I was given? My understanding was 106 was not being utilized. I'm trying to figure out where I can get a copy.

MR. ZIMMER: I think he attached that in those new exhibits.

THE COURT: Do we have a copy?

MR. JOYCE: I haven't gotten this yet.

MR. ZIMMER: You should have.

THE COURT: Does anyone have an extra copy?

MR. DUNN: You can have mine.

MR. JOYCE: Thank you.

BY MR. DUNN:

Q. Moving along. Mr. Scalmanini, what do you understand a groundwater basin to be?

A. I understand it to be exactly what those definitions are.

Q. Have you ever seen or are you aware of any schematic illustrations of groundwater?

A. Yes.

Q. What are those?

A. Well, I prepared an illustration of those schematics.

Q. Okay.

A. Do you have them with you now?

Q. Yes, I do. Would now be a good time to show those?

A. I can show them, or I can draw them from scratch. Your choice.

Q. I'll leave it up to you at this point. Which would you prefer?

A. Showing them is a lot quicker.

Q. You have to help us out and identify --

A. Well, prenumbered exhibit would be 107.

Q. And can you identify that for us? I mean, from its first page. In other words, what's the title on the top?

A. The title is "Free Body Diagrams for Hydrologic Balance."

Q. We'll stop you for a moment.

MR. ZIMMER: The copies we were provided do not have any exhibit numbers as far as I can tell.

MR. JOYCE: Is this -- what number is this?

THE COURT: This is 107.

MR. ZIMMER: Mr. Scalmanini, can you hold that up and point toward us.

MR. DUNN: It's on the screen.

MR. JOYCE: I would only interpose an objection to this extent, your Honor: This is another new document not introduced at the time of his deposition, nor commented upon, nor the subject matter of being examined at deposition, because the first time we saw it was yesterday as 1:29.

THE COURT: I think this would be the same as him coming here at time of trial and drawing it. If he draws it ahead of time, I don't have a big dispute with that.

MR. JOYCE: That was for no other reason than the record.

MR. DUNN: Let's get the record clear.

BY MR. DUNN:

Q. Mr. Scalmanini, take a look at Exhibit 107. Is it your testimony that the first time this came up is in this

case or earlier?

MR. ZIMMER: Calls for legal --

THE COURT: I will overrule that if he knows if he produced it or showed it.

THE WITNESS: It was in the file that I copied at the end of the second deposition session when Mr. Zimmer stood over my shoulder and looked page by page.

MR. JOYCE: In that case I withdraw and apologize.

THE COURT: Everyone, let's have a time out. We need to get to the crux of the testimony, and we haven't gotten to too much of that. A lot of what's happening is we're having back and forth and bantering. We need to stop that.

If you have a legal objection, all you need to do is state the legal basis. Let's not get too worried about whether or not it was produced before. Even if it wasn't, I was going to allow it. That's not going to make a difference in how I decide this case.

MR. JOYCE: I do apologize. I didn't realize it was. I thought I had not seen it. Maybe it's my fault, not his. I apology to that extent.

THE COURT: I'm going to tell you this: On some of these documents, to the extent if they were not produced before, I'm going to give you some latitude, so we don't have an objection every second. And if there -- because maybe after the testimony's out, it's not going to be any big deal. If it's something that's not critical, wait, and then if you think there's a problem, at a break I'll let you bring it up. I can strike it.

MR. JOYCE: Thank you, your Honor.

THE COURT: If I do, I can disregard it. I know how to do that. I'm not concerned about that. But I think that might help expedite in getting through this, because if we're going to have these objections every time over -- sometimes it's important documents, and you have to do it, but on some of these I don't think it's going to be terribly damaging one way or the other.

MR. JOYCE: Thank you, your Honor.

THE COURT: All right.

BY MR. DUNN:

Q. Mr. Scalmanini, what is Exhibit No. 107?

A. It's a schematic illustration of what is commonly used in hydrogeologic units or superficial units in the overall study of surface water and groundwater.

MR. ZIMMER: Objection as "commonly used."

THE COURT: Overruled.

BY MR. DUNN:

Q. Please continue.

A. That illustrated, subsequently, from top to bottom schematically a water shed, a groundwater basin, and a groundwater body. Ultimately, these schematics were prepared to illustrate units, which -- excuse me -- within what I'll call analysts, like engineers and hydrologists, would pick boundaries for analyzing the extent and quantity, and I'll say, yield of surface water or groundwater resources.

MR. ZIMMER: Objection as to what other hydrologists or other engineers would use or what they would

do. Motion to strike that performance. The testimony is hearsay and speculative.

MR. DUNN: I'm prepared to lay the foundation, your Honor.

THE COURT: I'm going to allow you to lay the foundation because if he has some personal knowledge of it working in the industry as to what the common practice is, I believe that is fair testimony.

MR. DUNN: All right.

BY MR. DUNN:

Q. Mr. Scalmanini, take a look at Exhibit No. 107, if you would please. Based upon your 22 years of experience in hydrology in the state of California, is it fair to say that the Exhibit No. 107 not only describes what you understand to be a water shed versus a groundwater basin versus a groundwater boundary as indicated here, but also based upon your experience with other hydrologists and geologists over the last 22 years that that appears to be your understanding as well?

MR. ZIMMER: Objection to what other people's understanding is. It seems to me he can testify to what his understanding is based on his experience.

THE COURT: I'll let him answer that question "yes" or "no," but then you have to lay a foundation as to how he would know that that would be the foundation, not just whether or not he believes this is what the others think.

So you can answer this question first.

THE WITNESS: Yes.

BY MR. DUNN:

Q. How do you know that?

A. Well, in simple summary, this set of schematics is extracted from the same syllabus of teaching that I referred to earlier. And recognizing, as I think I was allowed to say, that people who practice in this arena learn a certain amount in school. You don't find some stuff in too many textbooks. Although, there's generally discussion of the subject, but such as there is, what I'll call, on-the-job education within the Department of Water Resources once upon a time or the continuation of that beyond WDR's ability with its budget's constraint to continue in-house training. And they, in effect, offered the course to us at Davis, and we continued to make it available to people out of WDR.

This is a schematic illustration of how people were taught to practically, I'll call it, do groundwater study. And the basis for my knowledge of the subject is this: I've seen it taught to others. I've taught it myself. And to slightly correct you, it's not limited to 22 years, because I originally started practicing in general in 1967. That's 35 years ago. And I started doing focus work on groundwater at Davis. I did work in subsurface fluids which had to do more with oil and gas in the six years between 1967 and '73, but I started doing focus work and groundwater in '73. So, nominally, coming up on 35 years. That's the answer to your question of how I know.

MR. ZIMMER: I'd like to be heard on that. No. 1 --

MR. DUNN: Wait. Is there an objection or motion to strike?

MR. ZIMMER: The objection is it calls for speculation as to what other people would do. It's not relevant. It's bringing in before this Court alleged opinions of other people who are not in front of this Court to cross-examine. This is a diagram that is made by this individual. I find it hard to believe this is so recognized and everybody accepts this definition that he hasn't come in with a diagram from somebody else. He can't sit here and say what he is assuming. He hasn't showed this to the hydrologist.

THE COURT: I'm going to cut you short. He's testified that this was something that was used in the teaching program. It was generally accepted teaching.

MR. ZIMMER: Where he taught.

THE COURT: I believe he can give that as a foundational basis for his opinion. I'll allow you to cross-examine him on it at that point, but as far as for the opinion coming out, I'm going to allow it. I'd like to actually get to the opinion, because I look at these three things, and they look virtually identical to me.

MR. DUNN: Before we get to his opinion, what does he understand the differences to be between the water shed and groundwater? Because obviously, that's the big dispute here. I think he should offer an opinion.

THE COURT: Well, the diagrams are not that helpful to me because it looks the same. Maybe you can get an explanation as to what is supposed to be shown in these illustrations. As to the difference, I only see different little squiggles here or there, but it looks pretty much the

same.

MR. ZIMMER: Your Honor, I have no objection to him testifying what is his understanding, what he thought. It's trying to get before the Court --

MR. DUNN: Your Honor, there's no objection.

THE COURT: What?

MR. ZIMMER: -- what other people have done or people think before this Court without our ability to examine. And I think it's improper to do that. I don't have a problem with his opinion or what it's based on as long it's as to how he taught or how they taught at his school.

THE COURT: Again, let's get our answer to this question.

MR. DUNN: Before we do that, please, I ask on behalf of all of our clients that there be some type of decorum here. If they have an objection, let's have an objection.

THE COURT: I've asked before.

MR. DUNN: The speaking objections have gone too far. They can cross-examine.

THE COURT: I'm going to ask all attorneys to abide by and state objections on the legal basis.

MR. DUNN: All right.

BY MR. DUNN:

Q. Mr. Scalmanini, attempting to continue with your testimony this morning. What do you understand the difference to be between a water shed and groundwater basin as illustrated here on Exhibit No. 107?

A. Well, Judge, since you saw some charts, I'll

try to take it from top to bottom. You might refer to the figure close by that ultimately -- in my analysis of water resources there's a recognition that the original source of water in the unit comes from precipitation of some form, and when precipitation falls on the ground, it has a tendency to drain in some direction, and a line can be drawn around some parameter. And within that, all precipitation would drain, I'll call it, to the inside of that line; usually, toward some outlet. The outlet might be a river or multiple rivers, or the outlet might be a superficial lake, which is the case in the Antelope Valley area.

So the lines, the three semantics are purposely intending to -- in general, all lines look the same, but the vertical lines at, I'll call it, the crest of what are schematically intended to be hills on the two sides of the vertical lines are hills, to the extent of the water shed and just by simple examining.

You can imagine that any precipitation that falls on the ground surface inside those lines would tend to run off or drain toward the inside of those lines, and any precipitation that fell outside those two vertical lines would tend to drain in some other direction away from the internal part.

Then continuing down the hill, so to speak, recognizing that a fair part of mountainous terrain in California is consolidated, generally reported to be nonwater bearing type materials. Then there is a place somewhere down the sides of the hills where there's a contact between that.

For right now, let's just call it nonwater bearing material with more readily water bearing materials. And the vertical lines then that are drawn, to the extent of those terms, which are, in effect, as the ground surface is the extent of the ground basin water -- excuse me -- beneath the lands within those vertical lines, there is probably encountered earth materials that are sufficiently water bearing; that if water is present in them, they can yield water in sufficient quantities to be a water supply, which gets back to the original definition of groundwater basin. For that matter, it's the definition of aquifer -- the earth material that will store and yield water in sufficient quantity to be a significant water supply.

And then lastly, recognizing that in a state of nature, meaning before man had an ability to extract water from the subsurface, that rain fell on the ground, and groundwater basins filled and overflowed because there was nothing to drain them out down below, whatever the drainage point is. But subsequently, meaning, over about the last hundred years, man's had an ability to extract groundwater from wells or other devices of the subsurface, and he has lowered the groundwater surface so the basin doesn't necessarily fill all the way to its limits. And for some purposes, some analysis studies will look just at the groundwater body itself -- how much of subsurface actually contains water versus materials that could probably contain water, but don't for whatever reason. That might result, for example, from their geographic location, or the fact that man's extracted the water out.

Those are the subtle differences. While the three schematics look the same, for purposes of limits of a water shed, as you said yesterday, you know, extend out to where water will physically drain on the surface on an internal point of the groundwater basin.

The definition, as I said earlier, and the use of that practice is a small unit which contains significant groundwater bearing and yielding materials. And then lastly, there's the groundwater body itself which is how much of those earth materials that I just described actually have water in them at any given time.

Q. Now, as you understand the term "groundwater," and as you described it here on Exhibit No. 107, has that term been applied and used consistently in the literature that you're familiar with?

A. The term "groundwater"?

Q. Yes.

A. Yes.

Q. How do you know that to be true?

A. Well, I'll just say that wherever I've seen it discussed in the literature textbooks, reports, et cetera, the term "groundwater" has always referred to water that occurs in the subsurface; meaning, below the surface of the ground, whether that be in a saturated or unsaturated condition; meaning -- what's a good illustration? "Unsaturated" would be an illustration -- in your yard or in your flower pots that it's not saturated with water where it drains out so the soil has moisture. And that would typically be the case near the

ground surface and within some sort of long distance in some places below the ground surface, and then ultimately, there would be a place where water accumulates in sufficient quantities that the earth materials are fully saturated.

A reasonable lay illustration of that would be that if you went to the beach and you dug down in the beach, you go from, I'll say, warm, dry sand at the surface to moist sand, which would be the unsaturated, not fully saturated condition. And ultimately, if you dig down far enough, you create a little pool. Probably lots of you did that as children. The point is you ultimately reach a fully saturated condition, and that would be the illustrations of the last two. The moisture would be groundwater and the saturated condition would be groundwater.

Q. Are you familiar with the Department of Water Resources Bulletin No. 118?

A. Yes.

Q. Have you read it?

A. Fair to say I've read it, yes.

Q. Have you used it as part of your analysis in this case?

A. I'll say very generally.

Q. All right.

A. I said half an hour ago that the State has mapped and accomplished a report, that's Bulletin 118, which I'll call California's groundwater to map groundwater basins in California. I made a reproduction of the page that includes the mapping of this groundwater basin, meaning, Antelope

Valley, and that might be useful to put up. The reason -- sorry.

Q. If you could help us out by identifying that by it's exhibit number.

A. 109.

MR. ZIMMER: Your Honor, can I request that -- because we just saw these documents last night -- that they identify which ones are contained in the reference list in his report as opposed to which ones are not. Some of them may not be worthy as making objections about. This one has terms he's used before on that basis. I don't have an objection unless we know what new documents they're trying to get before the Court. It's difficult.

MR. JOYCE: I'm hesitant, your Honor. I don't think I've seen this before. If Mr. Scalmanini could qualify or help us out to whether or not it was produced at the deposition. I don't think it was.

THE COURT: I don't see this on the reference page, but we need to take about a ten-minute break for the court reporter. So why don't we take our break and give you a chance to show the document to everyone, and then when we come back, we'll see if there's an objection.

Sir, you may step down, and we'll start in ten minutes.

(Recess was taken at this time.)

MR. JOYCE: Your Honor, with respect to what has been proffered in Exhibit 10, I will advise the Court, it was a new document. It was not produced at the time of the

deposition. I have no objection to it being offered to the case in chief. I do not want my latitude to be construed as latitude to other documents.

THE COURT: That's fine. It won't be. What did we call 109, that bulletin?

MR. ZIMMER: That's the Department of Water Resources Bulletin 118. I believe the 1975 version.

MR. DUNN: We'll ask the expert.

MR. DUNN: All right. Mr. Scalmanini -- I'm sorry, your Honor.

THE COURT: Go ahead.

MR. DUNN: Thanks.

BY MR. DUNN:

Q. Mr. Scalmanini, take a look at what's now been marked as Exhibit No. 109, and can you tell us what that is?

A. Yes. That's a reproduction of a page from the Department of Water Resources Bulletin 118, which includes in the lower left-hand corner the Antelope groundwater Valley Basin. And as I said, you know, in response to the question you asked before we broke, "Did you rely on this?" The answer is "no." I knew it existed and looked at it, but I didn't really rely on it per se for edification. The reason I didn't rely on it, as you can see, that it is very --

MR. ZIMMER: Objection. Relevance.

MR. DUNN: Well --

THE COURT: Unless you want that answer.

MR. DUNN: Yes, I do.

THE COURT: I'm going to overrule the objection.

THE WITNESS: It is almost schematic in nature. It illustrates with yellow, and on some of the documents you can also see a shade that I might call brown. That new smaller place, that so-called younger and older alluvium, which is a description for type earth material that's unconsolidated and makes up what WDR did for mapping purposes and for multiple, so-called, large hydrologic areas of the State. Then in order to get it manageable on a piece of paper it is printed in eight and a half by eleven form -- the list of groundwater basins.

If it's okay, I'll put one in front of the judge so she can see the numbering system that's on this illustration.

MR. DUNN: Please identify in advance what you're putting up.

THE COURT: I think it's a copy of 109.

THE WITNESS: It's 109, paper copy. If you look closely, you will see a number of -- just numbers. If you're looking in the lower left-hand corner, you'll see where the City of Lancaster is located. And just above that is No. 6, batch 44. And then the subsequent label or book in this publication is one line in a table summary of what 6 batch 44 is, the Antelope groundwater Valley Basin, and what's known about it or what's lacking in knowledge. And I think there's mention of problems noted in the basin at the time of this publication.

While it shows schematically the extent of what your common, significant aquifer material is -- meaning, alluvium in this case -- it's not specific enough on which to rely to extract specific basin boundaries, so I didn't rely on

it for that reason.

Q. Mr. Scalmanini --

MR. JOYCE: Your Honor, could I ask that whatever it was that was handed to the Court be identified as 109 sub A, so we have a complete record.

THE COURT: I believe it's identical.

MR. ZIMMER: It's exactly the same. No changes. No highlights. Nothing.

THE WITNESS: I made multiple copies of each of these.

MR. JOYCE: I withdraw my request. I was unaware.

MR. DUNN: All right. May I continue, your Honor.

THE COURT: You may.

MR. DUNN: Thank you.

BY MR. DUNN:

Q. Mr. Scalmanini, now tell us what methodology you used in coming up with your opinion in this case? In other words, how did you come up with the groundwater basin?

A. Well, I started with what I understood to be the question in general which had to do with rights to pump groundwater. And based on experience, you know, I landed on -- without doing any work -- this is the answer to myself -- that we were probably talking about Antelope Valley groundwater Basin or whatever it might be called in that particular area.

So I -- I guess you could say I asked myself, do I need to invent the wheel from scratch; meaning, to find something like that, or has it already been done? In looking at -- now, I got to back up half a step. I really did this for

the first time in the Santa Maria Basin a few months ago. And so at that time a group of experts in the case, commonly known as technical advisory committee, worked independent of the court and lawyers to attempt to define the groundwater basin, which would be the same, quote unquote, hydraulic unit.

MR. JOYCE: Your Honor, I impose an objection as to what was done by him or anyone else in the Santa Maria case.

THE COURT: Again, just state legal basis which, I believe, is relevance.

MR. ZIMMER: Relevance. Hearsay.

MR. DUNN: May I be heard? Nobody cares in this case what the basin boundaries are in the Santa Maria adjudication. Nobody cares in this case. All I'm concerned about is how he created or how he determined the groundwater boundaries in this case, and what methodology was involved with that, and what influenced him, and what experience or education or training.

THE COURT: I'll allow it for that purpose.

MR. DUNN: Continue, Mr. Scalmanini.

THE WITNESS: All I was trying to describe from the methodology was the definition of groundwater basin to the specific application of definition in this particular case, and the reason I mention Santa Maria at all is I just happened to do the work from scratch there a few months earlier. So I repeated the exercise here. The definitions we had up here, whether taken from today or from the WDR slash UC Davis publication, it's an 18-chapter syllabus. The specific author is a man named Richter. In the definitions -- the definitions

are general, generic.

So to get from those general definitions, how do I draw lines around to put boundaries around both spacially -- meaning, on the ground surface -- and vertically, below the ground surface, since the groundwater system aquifer system, groundwater basin has both spacial and vertical limits to get to that. Then I researched the literature further to say, then, how do you -- what do you apply in the way, I'll call it, technical slash scientific criteria in order to create a space spacially and vertically that fits that definition?

So it so happens that the only place I've ever seen an organized set of criteria that you would apply to the physical conditions in any setting is also included in this teaching syllabus that was originally authored by Richter in his chapter, which is, as I tried to describe it earlier, part of what I'll call on-the-job training for people who do this, starting 30-something years ago and continuing forward.

And in my report -- and then also I prepared a similar list, you know, for purposes of making an exhibit out of it. But in Exhibit 110, then, is a summary of criteria that one would take into, I don't know, consideration or account in trying to, I'll call it --

MR. DUNN: Can I hold you for just a minute, Mr. Scalmanini, because we need to locate this for counsel?

THE COURT: What number is this?

MR. DUNN: No. 110. I'm sorry. Go ahead. May we continue?

THE COURT: You may.

MR. DUNN: Thank you. I'm sorry, Mr. Scalmanini. Please continue.

THE WITNESS: So I used these various criteria to, I'll say, in effect, interpret or apply the general definitions to what, I'll say in this case, is a so-called real world case of what is -- well, the question you asked me at the outset -- the hydrogeologic unit that would be applicable? How do you get to that? Whether you get to it by quantifying the water supply or quantifying rights is academic. How do you get to it? So you apply these criteria.

And what's summarized on Exhibit 110 are three subdivisions. The first three of potential boundaries that relate to the lateral or facial extent on the ground surface, so to speak. And the last one is a subdivision of vertically -- how you would apply criteria to determine how far this basin extends or doesn't extend.

In having considered those -- and I'll go back to chronology of investigation -- I asked myself the fundamental question, has somebody already done this or do we need to do it from scratch, which is what I said a few minutes ago? So it turns out that there was apparently some work in the '40s and'50s in the Antelope Valley area. Notably, there was, I'll call it, an economist publication, also from Davis as it turns out, that described and discussed the economic impacts of what had been going on in the Antelope valley, and the significant changes in groundwater conditions out there at that point in time. That was published in the 1950s. But that did not get into the technical details of what the basin was. It just

recognized the fact that the water levels would have been dramatically going down by the '60s.

I think in response to the fact there was notable declines in the groundwater in that valley, then the U.S. geological survey began. What one might call a sequence of studies to look at the groundwater basin, groundwater condition, and explored various things as to how it works; how much yield there is; how it's replenished; what potential there is to store water in it; and things of that type.

Most recently, I think at least the last thing I've seen published is to protect any future stresses in the basin that are expected to be, and what impacts those might have to the available water supply given that expected growth in that valley. So I looked at that series of literature. So the answer to my question to myself of whether this has already been done or whether it needs to be done from scratch was it's already been done. Okay.

And the first investigation that I saw that undertook that effort was ultimately documented in a report accomplished by the U.S. geological survey by -- authored by the name of Bloyd, and it's been commonly referred to in such deposition transcripts as Bloyd report. And that was accomplished in 1967. And Bloyd undertook an investigation of study of the area, specifically, the so-called Antelope Valley East Kern area, which is the area where the so-called Antelope East Kern Water Agency has today a contract for imported supplemental water from the State water project to do something about these declining groundwater conditions that had been

occurring several decades ago and continued into the 1950, 60s and 70s.

Among other things as part of his purpose and scope, Bloyd had within his scope the delineation and description of physical structure boundaries and subdivisions of the groundwater basin and subunits in that overall Antelope Valley East Kern Area. And what Bloyd then mapped and described in his report -- I've put the map on this easel in some photo-enlarged form, and I have smaller versions of same for passing out.

THE COURT: What's that marked, the Bloyd map?

THE WITNESS: Yes. And I'll hand you one in just a second.

MR. DUNN: I believe it's 113.

THE WITNESS: And that is -- you already said Exhibit 113?

MR. DUNN: Yes

THE WITNESS: That's not an exact reproduction of what is figure ten in the Bloyd report. Which of the maps depicts the extent of the Antelope Valley groundwater Basin or what's interpreted as Antelope Valley groundwater Basin, and I need to explain the difference.

BY MR. DUNN:

Q. Can you explain the difference?

A. Sure.

Q. Please do so.

A. Bloyd undertook an effort to look at geologic and hydrologic conditions in the overall area out to, as I

said, the Antelope Valley, Kern Valley area. He identified a total -- I think, it's 14 of the so-called subbasins. Some of which he, ultimately, identified to be in the Fremont Valley Basin and some of which he identified to be in the Antelope Valley Basin. I think that eight of the basins ended up in the Antelope Valley, six in Fremont. If you want to be for exact sure from my memory, we should stop and I'll check. And he described each of the individual basins or subbasins and its boundaries in sufficient detail in the text of his report. That as far as I was concerned, one could conclude that they didn't specifically say I went to Richter's criteria and applied them. He effectively did.

He used boundaries that were for the most part around this basin, and I can walk around it in an few minutes if you'd like. The edge of the unconsolidated materials going back to exhibit --

MR. JOYCE: 107.

THE WITNESS: 107. That he basically described and mapped contacts between the water bearing materials or alluvial and undated materials. The edge of those were the Abutt (phonetic spelling) Rocks of the Foothill, and ultimately, mountainous areas. And he described these materials, the rock materials, to be for all practical purposes non water bearing. And I didn't get his exact words out if that's useful. And then the extent of these materials, he mapped and described as being within the groundwater basin or as within each of the collective individual subdivisions that he described.

He also recognized it takes a little bit of a

collection -- if we could go back to the Richter criteria -- which were exhibit --

MR. JOYCE: 110.

THE WITNESS: That he also applied some of those criteria in recognizing that as almost always happens in nature. Nature doesn't deposit these materials in such a way that we always get nice, clean impermeable bedrock-type material surrounding the significant water bearing materials. So there are other criteria here. In this case, faults that are located around and in some cases through this basin. In looking at available water level information at that time, I'll attribute it to him, because in his report you described significant water level differences across the fault.

In some cases hundreds of faults which are still present today to be evidence of the fact that the fault in subsurface, in effect, acts as a dam and separates water on one side at a very, very, high elevation; meaning, below the ground surface, but relative to the water level on the inside of the basin side; much lower elevation that the faults acted, in effect, as dams, so they provided a boundary across which no significant flow is taking place.

Combination, I think, in general terms of bedrock contacts; meaning, the contact between significant water bearing materials and materials that were reported to be for all practical purposes nonwater bearing, not totally impermeable, but practical nonwater bearing and/or the interpretation of faults that would, in effect, act as sufficient dams across which flow could not significantly take

place.

He utilized that collection of, in effect, Richter-type criteria. Applied them to this basin and mapped. When you add up all that, he described and drew a line; he mapped the groundwater basin that was the first evidence. That's a long-winded answer to your question. That was the first evidence to me somebody had done it, and done it in a way that's consistent with how you would do it if you're doing it from scratch.

Q. Is that the reason you didn't reinvent the wheel in this case?

A. Actually, it's not the only reason, but it's collective. The wheel -- they're all the same, just name change in time. If you come forward in time -- hang on one second. I'll save that for later. If you come forward in time, I don't know if I'll get all the chronology exactly correct from memory, but subsequently, Bloyd's initial work.

Then another investigator by Durbin, Tim Durbin, did this mathematical modeling of the groundwater flow system in the Antelope Valley. And he doesn't discuss defining the basin per se from scratch, because Bloyd had done that, but he utilized the same basin boundaries for what I'll call the same reasons. And he, ultimately, in his modeling efforts considered the boundaries that we just talked about generically to be no flow boundaries.

Q. What do you mean by "no flow boundaries"?

A. That means, in looking at -- going back to the schematic of the water shed -- it would be good to put it up,

the groundwater basin.

Q. This is Exhibit 107?

A. Yes. That model is ultimately in this case looking at all the inflow and outflow to that lower most schematic, which is the body of water that accumulates in the subsurface. So for example, rain falls on the ground surface or permeates the ground. Some of that water ultimately depercolates down, and that's a term of what we call to the ground basin. Man pumps from the groundwater basin, so that extracted water can potentially flow in from the sides.

So in this case -- so in this schematic or in that world setting, water can flow. It can flow across the boundary, out the hard rock, so-called non water bearing materials, into the water bearing materials, based on an interpretation of water level data and water level differences, which one can see mapped by Bloyd and see mapped by subsequent investigators, that the groundwater flow direction along these boundaries is not perpendicular to the ground. In other words, water is not flowing across the boundaries from left to right or right to left on that schematic, but rather is flowing in the basin parallel to the boundaries. So there's no flow that's mappable based on how the groundwater is behaving.

Q. Can you go up to the diagram on the Elmo and just illustrate with your hand, maybe pointing with a finger, exactly what you're talking about?

A. In accounting for all the flows, what I described was -- for example, this is an inch, intended to be a schematic of a well head. I think the well would extend down

in here and a pump would lift water from this saturated body up to the surface, and man would use it. Rain could fall on this ground surface or supplied from water source from irrigation, from imported water supply. Some of that would infiltrate and ultimately permeate to where it's recharged to this underground water body -- saturated water body.

A stream could flow across the ground surface here, and if the stream had water in it and water leaked out of the stream, it also could be flowed into the subsurface and infiltrate and depercolate down. So as I said, a model is accounting for these various components that flow in and flow out, and one of the potential flow components is flow that would come into this -- this aquifer system, this basin from its side. And similarly, one potential outflow would be flowing out the sides, going someplace else.

Bloyd described all of these boundaries, including those where there were faults, that is on the outside, so to speak, whether it is just for the earth materials to run up against bedrock mapped or impermeable or reporting to be nonwater bearing, or whether it runs up against a fault that's on the other side of the fault. There was the same consolidated rock material that was mapped to be nonwater bearing.

So with the exception of two localized places in the basin, Bloyd had reported all of this to be nonwater bearing, so the "no flow boundary" concept is that water is intending to flow in this direction in this schematic, and there is no flow component going across these boundaries either

in or out, with two exceptions which are probably worth mentioning of but are not of much consequence.

Q. Would it be helpful at this time to actually take out the map that you have that shows the boundaries of the basin, in particular, those that should be mapped by Bloyd?

A. Well, those mapped by Bloyd are on this.

Q. That's fine. Let's work with this then.

A. I think -- again, I know that I'm making long-winded answers to your questions.

Q. That's fine.

A. But you asked me how I got there, so how I got there was to start here. This was the first.

Q. You're doing fine. I'm not trying to short cut this in any way. Do you want to keep going then, please?

A. Sure. But I prepared -- and I'll put it up here in just a second. I'll pull out a small copy. I mentioned Durbin as the next investigator, so Exhibit 114.

Q. Okay.

A. Okay.

Q. Hold on just one second. When we identify the exhibit, we've got to give everybody a moment to look for it and pull it out.

A. That's okay. I need to put it up.

Q. If it helps, Mr. Scalmanini, you can stay up there or remain seated at your pleasure.

A. I'll stay here. That's fine. This is a little more jagged, because it was ultimately used for numerical modeling purposes. So modelers don't deal with some, what I'll

call, smooth curvatures of real world boundaries.

Q. Is that because mathematical equations tend to produce straight lines?

A. It's the way we divide this basin into smaller pieces, into cells, they're called for purposes of this discussion. Anyway, that they have some, I'll call it, usually rectangular or straight line type shape to see them. Ultimately, this whole basin is covered with a grid, and then the flow equations are solved by cell by cell or segment by segment.

But what Durbin described in his text and what's illustrated here is the same boundaries as Bloyd had mapped previously, so -- and in looking at his report, he also perpetuated this concept of these boundaries for the most part being no flow. I mentioned, when I was up here a couple minutes ago, the fact that there are a couple of gaps in this overall system. You recognize that there can be some flow from one basin to the other.

I probably should back up because that's documented in Bloyd. If you read my deposition transcript, I was asked about that. I knew I read it. I couldn't remember exactly where I was. I know I fumbled over that. I subsequently found it.

Q. I hope no one will fault you for that. Please continue.

A. There are two places -- what's the previous exhibits?

THE COURT: 113.

THE WITNESS: Put that back up. Bloyd recognized that while -- for all practical purposes, I'll draw with a finger here. I'll work my way around. We'll, ultimately, pay some attention to this extreme southeast corner.

Bloyd didn't close the loops. He described the potential boundary, but he didn't map it. At any rate, the basin extends along either faults or bedrock contacts. Meaning, consider the -- what's reported by him to be nonwater bearing materials. And the case of faults at other sides of the materials are reported to be nonwater bearing, basically, all the way around this basin. And the Fremont Valley portion is up here.

And so coming across the fault system here, you have the community of Rosamond, and then ultimately up to Capter (phonetic spelling), where Edwards base is and Meriac (phonetic spelling) and up around a small basin called Peerless (phonetic spelling). And then extending along the eastern bedrock contact. Right here there's a small gash where it's not abutted by either a fault or something else that could be considered to be permeable or relatively impermeable that there's potential of flow across this boundary. And there's a small gap right here. I think it's, basically, the extreme eastern, I'll call it, point on the northern boundary of what's known as Noak (phonetic spelling) or Nonotch (phonetic spelling) subbasin between the Tropical Hill area and the -- I think it's called Rosamond Hill area.

This particular gap is reported to be about a half mile wide, and at the time of Bloyd's work, the flow through

this gap was estimated to be 300 to 700-acre feet a year. To put that in context, all the work that's been done on analyzing how many quote unquote "recharge," that's the future issue, but the recharge is generally reported to be in the range of somewhere between 30 and 60,000-acre feet. So we have 300 and 700 acres right here.

He also recognized this is not perfect, what could be considered permeable or no flow boundary. I don't remember. You called it. You know the narrowest eluviated part or flow of this gap is slightly more than a mile wide, and the flow -- which in this case is from wells -- is always from a higher head or lower head. The flow in this case is out of the Antelope Valley Basin inflow. Rosamond Basin is estimated to be between 100 and 500 a year.

Q. Mr. Scalmanini, I think -- why don't we have you put up as the next exhibit the map that shows your basin boundaries together, that shows some of these other colored lines from Bloyd and others. I think that will be more easy to see. Can you do that for us?

MR. JOYCE: Which two maps are you referring to now? The original at the deposition or one since the deposition?

MR. DUNN: This will be one since the deposition.

MR. JOYCE: Then I would ask -- this is the one we saw for the first time yesterday at 1:29. I suspect there's going to be foundational questions before we get to it because it's a new map.

MR. DUNN: I think the best way to resolve this is

to ask the difference between the two maps.

THE COURT: Why don't we get that first.

MR. DUNN: Let's put them up and show.

THE WITNESS: Well, I'm going to take a half a step, put one more map up on the way to that. It ultimately leads to the answer you're asking for.

One more subsequent investigation by the name of Duell, or D-u-e-l-l. I'm not sure about the proper pronunciation. He looked at U.S. geological survey and was ultimately focused on developing a groundwater quality monitoring network.

Q. You need to identify, if you would, please.

A. I will. I want to do some housekeeping.

Q. I believe this is Exhibit No. 115.

A. All the same details, same boundaries as previously reported. Among are the things he included in more detail on both sides of some of these boundaries, groundwater flow direction. And you can see from an interpretation of these that in the areas where these -- a fault-type boundary as compared to bedrock boundary, even at the perimeter of bedrock boundaries, that the flow directions do not support any flow coming across the boundary, but rather just flow within the basin.

In this depiction by the USGS, I should note, that the more or less lengthy south westerly boundary of the overall basin is written in Bloyd, and ultimately, written in my report to be unnamed fault associated with the San Andreas fault. Interestingly, when Duell mapped this, he labelled it San

Andreas fault. He didn't say unnamed fault. But all the writings refer to unnamed fault, because the San Andreas fault is recognized to be a little farther to the south than that particular location. The only difference between the map that's in our report and the map here today is that we left off the words unnamed fault associated with the San Andreas fault zone, and in our original map this says San Andreas fault zone, just like Duell did. But what it should say is "unnamed fault associated with San Andreas fault.

The boundary was developed from an interpretation of the fact that there was significant water level differences across fault stone. Everything else as far as boundary lines, all the text that describes them, remains unchanged, but added the words to be precise, "unnamed fault associated with" and the rest remains the same.

The reason I changed it, I must have seen 25 references to the fact that I had the San Andreas fault located in the wrong place. But if you read the text, the intent was to show the unnamed fault. Now, that gets us to our map.

Q. Let's see it.

MR. JOYCE: Which map?

MR. DUNN: This will be Exhibit No. --

MR. JOYCE: For purposes of clarification on the record, is this what was appended at one point to his report at the time of his deposition offered? Is this the new one?

MR. DUNN: This is the one with the correction that he just described, and it's Exhibit No. --

THE WITNESS: 126, I think; is that right?

BY MR. DUNN:

Q. And just so that we're all clear on what was changed, we just labeled the fault; is that correct? Is that fair to say?

A. It always labeled it. I had incomplete words to describe it. In the text of the report I refer to this part of the boundary, which I'll call a lengthy portion. The southwest of the basin had been originally mapped by Bloyd, and subsequently, adopted by other investigators referring to that as the unnamed fault associated with the San Andreas fault zone.

Q. Let me stop you. Do you have an extra copy for the Court?

A. I brought that, but I gave it to them yesterday.

Q. That's fine.

A. This is hopefully big enough and colorful enough that you can follow. So when we describe it in text we describe it the way I just said. When we labeled it on the map, we left off these words "unnamed fault associated with," and the original version in the report says "the San Andreas fault zone." I'll acknowledge that on the second of two that, as far as I've seen, have miss labeled that.

Q. Okay. Generally, what are we looking at here in Exhibit 120? What is it?

A. It's an attempt to try to reduce to one map the sequence of events that I've just described with one more detail added that I haven't described thus far. There was one

further mapping by others before I looked at it that intended to shrink these boundaries in a couple places. And I can talk about that in a couple minutes, but basically, what's outlined in this reddish color is extracted from what Bloyd mapped originally in 1967.

Q. So just so the record is clear, on Exhibit No. 120 -- I'm sorry -- 126. Thank you. There is on that exhibit a red line that is in sort of a strange, unusual shape, but -- and is that the red line you're referring to by Bloyd?

A. That's correct.

Q. All right. Continue, please.

A. And it reflects with some text-type references the nature of the boundary that Bloyd was describing as in effect the contact between the significant groundwater bearing materials inside the red line and the materials described by him and others as nonwater bearing outside the line, whether the line be formed by fault boundary or the line be formed by the fact that the undated materials up -- up against just plain rock with no fault there. It also reflects that contact between the Antelope Valley Basin and Fremont Valley Water Basin, the faulting that support a significant water level difference. As I said 6 -- about 300 feet the water flow from the base is 300 feet higher at this point than it is at this basin.

Q. What does that mean in terms of flow or no flow?

A. In groundwater terms there are plenty of jokes you need to know. Basically, water flows from high elevation

to low elevation. It does it on the ground surface. It does it underground as well. If we have very high groundwater levels, I'll say, on one side of some feature or in some direction relative to lower groundwater levels in some other direction, then the potential is in all cases for there to be flow across in that downhill direction, so to speak. That's what's known as grading. We had discussion about that yesterday. Basically, terms that people like me use to describe the rate of water level declining; meaning, the slope of water level surface.

So if we have high head on one side and a low head on the other, then there's a potential for flow to take place across the boundary. In groundwater terms in, for practical purposes, all cases, the grading is pretty flat. The fact that water is moving there -- it's a porus median. It's -- the sand kind of slows it down, so not like a river. And so typically we see gradients smoothed out when we run up against something like this, a fault that will support hundreds of feet.

Q. We're talking earthquake fault; is that correct?

A. That's correct. That will support hundreds of feet of water level difference, and basically, when the earth blocks movement --

Q. Some type of displacement lateral or vertical here?

A. That's correct. And there's effects on the earth that are such that now water can't readily move across that boundary; otherwise, we wouldn't have 300 feet of

difference. So recognizing that -- as a first clue, that this is a legitimate boundary, and then the reason I wanted to go through the rest of those maps is that you can see mappings of actual groundwater levels by other investigators in the past. And interpreting those matchings of groundwater levels, one can see that the flow on the north side of this boundary is basically to the east, and the flow on the south side of the boundary is basically to the east. It's not from north to south. It's not going across this boundary.

Now, to stand here and say that there is absolutely, positively zero flow? Probably not. There's probably some seepage. It's hard to imagine an earth feature that will spur water across it and not have leakage. Is there a responsible flow, measurable flow? Probably not. Very, very small.

So Bloyd described it, basically, being no flow with the exception of a half mile gap by Rosamond. And all subsequent investigations, including analysis of flow system, have all acknowledged that these boundaries on the south and on the north are basically no flow boundaries on the west too.

So continuing, the red line extends around these contacts and along this fault system, and ultimately, along the edge of the contact between, again, these consolidated water bearing deposits and consolidated, in this case, Rosamond Hill and (inaudible) Hill, depends on those redrock contacts, up to this mile-wide gap that happens to be in the vicinity of California City where there's some contact in a small amount of flow a few acres a year that flows out of Antelope to Fremont

and continues around to, basically, redrock contacts or faults, with redrock on the outside all the way down around the buttes, et cetera, on the east side of the basin.

And then lastly, we could spend a lot of minutes focusing on this southeast corner. He didn't close the map until he described the end of the basin then with the hard units. But basically, that's the answer you asked. What does it show? There are a couple other features that are shown on here.

As I said at the outset, in his original work Bloyd really described at first a collection of groundwater subunits or subbasins. In other words, he looked at features within the overall basin that would tend to subdivide it into smaller units. For whatever purpose there are features that would impact the current movement of groundwater. So as I said, from memory I think there were eight -- Perlous, North Meriac, Lanbuttes, Pernlind or Parlind, Nonotch, Fingbutte, and West Antelope (all phonetic spellings). I think that adds up to eight.

So I've perpetuated the mapping of those subunits, but subsequent investigators and, what I'd say, water level data all suggest that subbasin boundaries might have an influence on the movement of water. In other words, there might be impedence to flow, but there is flow across them. They do not stop to say that part of this basin should be further divided to what might be called basins so boundaries are perpetuated here.

There has been some subsequent work by

investigators at the U.S. Geological Survey about two or three years later, '90s to the year 2000, that reports in very, very brief text description of the fact that the historical boundaries have been modified for their study purposes to reflect the fact that subsequent subsurface -- surface and subsurface investigation by others had shown that in the subsurface, particularly up in the vicinity of Rogers dry lake bed and up in the vicinity of the so-called North Meriac subbasin, that exploration had shown to the extent that the unconsolidated material wasn't as big as what had originally been geologically mapped.

Those investigators, and that's Karlson and others, showed smaller boundaries, and I reflected those. We still left off the details of the far south eastern corner which I can go into if you'd like. That's all on this map with more addition. That's the purple line that extends, basically, from northeast to southwest, which is the location of a so-called geologic cross section.

I mentioned some time ago this morning that when you look at the extent of groundwater basin, it has spacial limits, and it has vertical limits. To illustrate the vertical limits every investigator that's acknowledged this, starting with Bloyd, has indicated that something in the subsurface would ultimately run out of unconsolidated material and into consolidated material. And when you do that, you've reached the extent of the groundwater basin.

MR. ZIMMER: Objection as to what every other investigator has done. Speculation.

THE COURT: I'll sustain that.

THE WITNESS: Let me rephrase it. The ones to which I've referred to have acknowledged that vertical limit of the groundwater basin, and in our report -- and I'm prepared to show that section which is extracted from some of the USGS's work -- this is the location of that section which would illustrate the type of basin underground in that location. So let's take a deep breath.

BY MR. DUNN:

Q. Just so we're all clear as to our understanding, your opinion as to whether the basin boundary is located is delineated by which line?

A. For purposes of this investigation, I would pick Bloyd's line. And that's what I ultimately answered, I think, when I was asked that in my last --

Q. And Bloyd's line is the red line?

A. Bloyd's line is the red line. In the strictest sense, if we had what I'll call, detailed knowledge of what was encountered in the subsurface, which is what Karlson and others described the boundaries a couple years ago for their purposes, then we would be able to, I'll call it, map the fact that between this Karlson dash line and the Bloyd line, there truly was unconsolidated water bearing material. It's discussed in some brevity. I don't doubt it. I just don't know the specifics to be able to do this.

So since Bloyd aligns with mapped geology on the ground surface at the time, then I'd pick that extent of the basin, the extent of water bearing materials that constitute a

significant groundwater supply.

Q. And I didn't ask you this question earlier, but I'll ask it now to avoid further questions, perhaps. But Bloyd and the other reports that you testified to this morning, I guess, a little bit this afternoon, are these the type of reports that are reasonably relied upon by experts in the field of hydrology to make the determination of a basin boundary?

MR. ZIMMER: Speculation as to "basin boundary." "Reasonably relied upon," I have no objection to that.

THE COURT: Overruled. You may answer.

THE WITNESS: Yes.

BY MR. DUNN:

Q. Now, there's all sorts of interesting activity in that southeast --

THE COURT: We do have to take a lunch break. I'm afraid if we start on that, it would be a while. We'll recess and start up at 1:30.

You may step down.

MR. ZIMMER: First of all, housekeeping. We talked about the scheduling for the rest of the week. I need to make a determination to take stuff out of the hotel.

THE COURT: The only problem I heard is rebuttal. He's not available on Monday. Does that mean he's leaving Monday?

THE WITNESS: Yes. Next week is the last week of summer for my family because of school. I'll be gone all next week.

THE COURT: All right.

MR. ZIMMER: That leaves us the conclusion that we'll be going Thursday and Friday.

THE COURT: We usually don't do too much on Fridays, but we're going to have to go Thursday.

Why don't you print up Friday's calendar, and I can see.

I usually schedule my short cause trials on Friday. If I don't have too much, we can try to put this over to Friday.

MR. JOYCE: We would appreciate whatever we can get done this week.

THE COURT: We'll see if we can't do that.

MR. ZIMMER: One other thing, your Honor, I just want to bring to the Court's attention in the hopes of trying to move this matter along more quickly. We have kind of allowed a long narrative and testimony, I did want to at least get on the record the testimony that Mr. Scalmanini is giving regarding differential head, head difference on one side of the line versus the other is testimony that was not given at the time of his deposition. At the time of his deposition he testified there was flow across the boundary in various areas. He had no idea what the flow was, how much, whether it was substantial, unsubstantial, and that is new testimony.

I suspect that he might try and use that in rebuttal, and that's why we did not make an objection at the time. But I do want to put the Court -- I don't want to see him argue now, and technically, it is beyond the scope of his deposition.

MR. DUNN: Mr. Scalmanini -- he disagrees with that. I think it's fairness. That's not an issue.

MR. JOYCE: Your Honor --

MR. DUNN: But to conclusively say it did or did not happen --

MR. JOYCE: We can go to lunch, and I'll take it up on cross.

THE COURT: Show me the parts of the deposition or show him.

MR. JOYCE: On cross I will show that.

THE COURT: That sounds like a quicker way to deal with it.

MR. ZIMMER: The quickest way for me to deal is not to object now, recognizing that could come up in rebuttal.

THE COURT: You can do that. Thank you.

MR. ABBOTT: I just want to confirm that we will not be in session in this trial tomorrow.

THE COURT: That's correct.

MR. ZIMMER: Thank you, your Honor.

(LUNCH BREAK WAS TAKEN AT THIS TIME.)

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REPORTER'S CERTIFICATE

STATE OF CALIFORNIA)
) ss.
COUNTY OF RIVERSIDE)

DATED: Riverside, California, August 28, 2002.

CHRISTINA M. ARAGON, CSR NO. 11982