EXHIBIT B TO DECLARATION OF MICHAEL T. FIFE

UNCERTIFIED REALTIME ROUGH DRAFT

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BY MR. MCLACHLAN:

Q All right. Could you please state and spell your full name for the record.

A Dennis Williams, D-e-n-n-i-s W-i-l-l-i-a-m-s.

Q I understand, am I correct, you have a Ph.D.?

A Yes.

Q So I can refer to you as Dr. Williams?

A That's fine, yes.

Q All right. And you understand that you are being produced today as an expert witness in the Antelope Valley groundwater litigation matters?

A Yes.

Q Okay. Approximately how many times have you been deposed?

A Probably 30.

Q And have you been deposed in the last year?

A Yes.

Q Do you feel sufficiently familiar with the standard admonitions that I may dispense with those, or would you like me to go through those?

A I think you can dispense with them.

Q Okay. At any point in time during the course of the deposition that it becomes an issue, we can deal

with those admonitions or if you have questions, by all means, you can address them to me or your counsel.

Do I understand correctly that Mr. Dunn is representing you here today?

A Yes.

A Yes.
Q Okay. Who?
A Joe Scalmanini primarily.
Q Okay. And on what issues, if you recall, were you interfacing with Joe Scalmanini in reference to the problem statement?
A Pretty much the work that had to do with the geology, the hydrology and some of the understanding of the safe yield concepts.

Q Okay. So subsequent to your review of the problem statement report generated by the technical committee, have you performed any other work related to this litigation?
A Yes.
Q All right. If you could, sequentially, going from back in time to the current time, I would like to walk through that. So after your review of the technical committee report, what project would come next in time?
A Well, we were asked to look at the groundwater model that was developed of the area by the United States Geological Survey and we were -- met with the United States Geological Survey and the others after they did an update, which I call Modification 1 or Mod 1.
And then we were asked to then recalibrate this model, which I call Mod 2, basically to the Phase 3 value of the total sustainable yield of

110,000 acre-feet a year.
Q Okay. I appreciate the answer. I'm going to go through and follow up. I have a few follow-up questions on that answer.
A Sure.
Q The first one will be who was that asked you to

do that work?
A Best Best & Krieger asked me to do the work.
Q And was that Mr. Dunn or somebody else at his office?
A Mr. Dunn.
Q Okay. And could you give me a starting timeframe as to when you commenced that work?
A I have, in my documents that I brought here, invoices that have that exactly, but if I could switch to one of the tabs in my deposition folder --
Q By all means. Go ahead.
A -- which is called groundwater model. This model -- we -- we met with them prior to that -- met with the U.S. Geological Survey prior to that.
Q I'm sorry. Prior to what?
A Well -- well, prior to now. In 2012 we met with them and discussed their first modification, and then we were tasked with looking at the -- trying to recalibrate it because the -- we felt that the pumping that the U.S. Geological Survey model had was too low compared to what we thought and Mr. Scalmanini's firm thought was too low. So we -- that work began in approximately 2012.
Q Okay. And when you -- you have used, several

times in your answers, the word "we." Could you elaborate on who you are referring to. If it's somebody

other than staff people at Geoscience, I would like you to elaborate on who the "we" is?

A Certainly. "We" generally refers to myself and my staff at Geoscience, but with this precalibration, we were working closely with Ludorff & Scalmanini, consulting engineers, and they redid the pumping distribution and the return flows that we used in the Mod 2 model.

Q Okay. So they redid which components? The pumping?

A The pumping, distribution, and the return flows.

Q All right. So let's -- do you remember, in 2012, whether it was the first half of the year that you met with the USGS initially or was it in the second half of the year?

A I would have to refer to my invoices, probably, to do that.

Q Could you pull them?

A Yeah. Give me a minute.

Q Sure.

A There are in a binder labeled "Invoices."

Q Very good. Organization is important.

A Let me thumb through here a minute. There is -- in June of 2012 I had discussions with Joe Scalmanini regarding Antelope Valley modeling -- I'm sorry. In

A Yes, I believe. Let me see if it's recorded in here. Yes. We have -- I have a note here in the September 2012 invoice that prepare model data to rerun the USGS model and review the model parameters set up by USGS, set up model calibration, analyze the results for calibration, and so on.

Q All right. Stepping back up a little bit out of the detail, other than the work you described over the last five or ten minutes relative to the recalibration of the USGS model in general and all that that entailed, have you been tasked with any other projects related to this litigation?

A No. My work was looking at the technical committee's work, basically, which led up to the expert report, taking the US Geological Survey model and recalibrating the model and then running a scenario with 110,000 total pumping, and then preparing for this Phase V.

Q All right. That is helpful. Then let's go back to the details a little bit of the timeline of the work.

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Between May of 2012 when the USGS meeting occurred and September of 2012 when you received the electronic copy of the model, could you describe, generally, any work that you did in that period of time?

A I had -- I was in close contact with Joe Scalmanini on the modeling and the preparation of the model. As I said, we worked closely with his firm regarding the reanalysis of the pumping that was used and the return flows which were used as input to the

model.

And then various conference calls. I think there was a conference call in June with the Antelope Valley users group. I was involved in that. There was more discussions with Mr. Scalmanini and then a lot of just model preparation, maps and input data, calibrating the model. That went on in August. And pretty much the same for September, which was a lot of the model calibration work.

Q And so all this work was done before you actually had the electronic --

A No, no. We had the electronic files.

Q Okay. Well, I must have misunderstood. I thought earlier you had mentioned that you received the electronic version of the USGS model in September 2012?

A Maybe I --

Q Let's just clarify that.

A Just let me back -- oh, I'm sorry. Here is one note in a July invoice that says for the period June, model input files for the USGS model calibration were provided by the USGS.

Q Okay. So does that mean you received the model in June --

A Yes.

Q -- sometime.

A It would be in June, yes. Let me go back, just to double check here, see what happened in May. I think that is it.

Q The run flow percentages?
A Yes.

Q And do I understand correctly that the Mod 2 model used the return flow percentages generated by the Scalmanini firm and the others on the technical committee?
A Yes.
Q Okay. Generally, in the most general sense, could you describe for me what it means to say that you looked at those percentages?
A Well, I went through the expert report, in quite some detail, primarily Appendix C which was done by Tim Durbin on the independent natural recharge analyses, which then complemented the work that was being done by Mr. Wildermuth's firm in Appendix E, which had to do with determining the native safe yield.
And then in Appendix D, which was the work that Mr. Scalmanini did on return flow percentages, all these three appendices worked together, which led into, pretty much, the summary of all of the native safe yields and supplemental safe yields that are summarized in Appendix F, and the sum of those two for the current cultural conditions in 2005 was the 110,000 which was stated in the judge's statement in Phase 3.
Q Okay. Other than the materials contained in the summary expert report, sometimes referred as the problem statement, did you review anything else in this

evaluation of the return flow percentages?

A Other than personal discussions with Mr. Scalmanini over the last several years. I think everything that was done, it was presented in the 2010 expert report.

Q Everything that you evaluated came out of the expert report, other than your discussions with Mr. Scalmanini?

A Well, I looked at -- yes, that is true. You know, I looked at the testimony and trial exhibit. Everything, pretty much, refers back to the work that was done in the expert report.

Q Okay. So would it be fair to say that in terms of the return flow percentages that you looked at, your work was largely derivative of the Ludorff & Scalmanini firm work on return flows?

A It was a combination of everything, really. Basically, this concept of total sustainable yield, which is two components, the native or the natural recharge plus the amount of water that comes from imported water supplies or supplemental yield, so all those, you know, make up the total value, so -- of the 110,000. So, yeah, everything -- everything was summarized very nicely, I think, in the expert report on how that happened. And -- but we did -- we used the

model for that, and then we did a model -- we did another simulation run where we looked at the issue of

the Phelan Community Services District.

Q All right. So before we get into more detail, I think maybe I'm going to segue into cataloging what we'll refer to as your expert file. And peeking over your shoulder, I see a trolley with a couple of large banker's boxes.

Are the materials that are behind Mr. Wellen and Mr. Dunn all parts of your file?

A Yes, they are.

Q All right. Then I'm going to, if it's okay with you, I think, I think I'm going to step around over there to try to speed the process so we can identify what's over there, rather than have to put it up on this small table --

A Yes.

Q -- and perhaps disconnect the people on the phone, but we'll come back to the binder, maybe, in a second.

So we have already covered your billing file?

A Right.

Q And does that have a particular place in these boxes?

A No, no, there is no order.

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Q So I'm just going to set it down here for a moment.

A That is the expert report.

Q Okay. So the summary expert report is here. And this is your copy of it?

A No.
MR. DUNN: You can ask me about it later.
MR. McLACHLAN: I'll review that later, after you are sworn in.
Q Okay. So then we have covered all of your file but for what I'm calling -- well, you have called it deposition folder, so we'll call it deposition folder. And all the -- it's your understanding that all of the materials in the binders are found on this disk, but a few of the loose materials are not?
A That's correct.
Q And the model, is it also found on this disk?
A No.
Q Okay. So other than the few loose materials and the model, what else that you have produced in terms of work product relative to the Antelope Valley groundwater litigation is not on the disk, if anything?
A No, the -- the Tab 2 groundwater model summary and maps and so on is on that disk.
Q Okay.
A But the actual model input files are not.
Q Too large to be on that disk, I would guess?
A Well, they are, but they are not -- you know, they are L.A. County's property, so --
Q What, exactly, does that mean?

A Well, the input files are -- the groundwater model was given to Los Angeles County, so --

Q And yourself?
A Well, we got them from L.A. County, yes.
Q All right. So do you have an understanding that the USGS produced the -- its model to L.A. County under some sort of a restriction?
A I assume so. I don't know.
Q Okay.
A The U.S. Geological Survey -- I'm not sure what the details of that was, but we got that through Los Angeles County.
Q Okay. So if I were to ask you to produce to us electronic copies of this model, would you be able to do that?
A The model code is standard. It's industry standard, it's Mod Flow and it's available anywhere. The input files -- the way I understand is Los Angeles County was working closely with the U.S. Geological Survey in developing the model for what they call the Mod 1 version. So we obtained those files, so those are the property of Los Angeles County.
Q Okay. And do I understand you correctly that these Mod 1 input files you obtained from L.A. County, you then, with the assistance of some others, modified

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those?
A Yes, we did.
Q And you modified those to conform with the available data during that time frame you previously identified?

A Well, two things. One, as I mentioned, the pumping distribution and amounts used by the U.S. Geological Survey when they did Mod 1, Joe Scalmanini -- Joe Scalmanini felt it was not right, it was too small, and so we had his firm update those. And then we recalibrated the Mod 1 model and then recalibrated that to the 110,000 acre-feet a year.

Q Now, why did Mr. Scalmanini have the opinion that the pumping was too small in USGS Mod 1?

A Well, I can jump ahead and show you if you want. There is a chart that shows the pumping that was used by the USGS and the pumping that Mr. Scalmanini's firm actually happened.

Q Okay. So then I think -- why don't we answer that question, and then I'll go back to finishing off your file generally, and then we can dig into some of the specific opinions.

Could we start at the back, just because I see it's your C.V.?

A Oh, yes.

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Q That C.V. at the back is current?

A Yes, it is.

Q Okay. And for those in the phone, the binder is fairly voluminous, but do we have an extra copy of this? I would rather --

A I made four copies.

Q Well, we have -- the contents of this binder, are they all on the disk?

A I don't think so. No, because they are -- I

A The first thing is the section -- it talks about the evolution of the USGS model from its original date

in 2003, and then talks about the first modification under Section 2 which was done in 2012, and then it talks about the Modification 2, which we did, Geoscience, after we got the computer code, in which we recalibrated the model. We updated the pumping and the return flows. Mr. Scalmanini's firm worked with Geoscience on that.

And then we reran the model to the -- did a number run, but we reran the model to the sustainable yield of 110,000 acre-feet a year. And then we looked at the water balance from that, and it seemed reasonable.

And within that 110,000 -- getting back to the original question. The 80,000 natural recharge was in there, as well as the return flow percentages developed in the expert report, so all of those factored in. And this model, then, was intended, I think, to be used as a management tool in the future, and it could be used as one.

Q All right.

A So the first step, of course, is to recalibrate the model and then the second step would be to do some management scenarios. We really only ran one, you know, the 110,000.

Q Okay. How does the model relate to your Phase V

testimony?

A Well, my Phase V testimony had to do with return flows. So the return flows that were developed in the expert report, primarily, in general the 25 percent for ag land and 28.1 on M&I, so it's a little more detailed than that, but those percentages were put into the USGS model. They were run with the 110,000 acre-feet a year, and the water balance shows pretty much a very small change in storage which means the basin is in balance which, pretty much, validates that number. That is how they were used.

Q Right. So let's go through the remaining tabs. We have, next in order, the maps?

A These are just maps that I wanted to have in case we wanted to talk and I didn't have to dig through the expert report. The geologic maps showing areas of subsidence and so on, and then the last one is just a map showing purveyor areas.

Q Okay. All right. So then those maps, they appear they are -- there was one in the back that is a Geoscience map; is that right?

A That's right.

Q And are all the rest of those the work product of Ludorff & Scalmanini?

A No, they are -- for example, starting from the

back, the two maps, which I just wanted to show the area, kind of had a good outline of the basin plus a

cross section. This is from the 2003 Leighton & Phillips U.S. Geological Survey model report.

And then the other ones, moving forward, the 11 by 17 figures, 3.5, these are Scalmanini exhibits, although I copied them from the expert report. They are the same figures, but they are a little clearer. Some of the exhibits from the trial testimony weren't very clear.

Q All right. So could you, before we maybe take a short break -- are you doing okay over there?

A Sure.

Q All right. If at any point in time you need to take a break to stretch your legs or use the rest room, just raise your hand.

Could you summarize for us the opinions that you planning to provide at the Phase V trial?

A The opinions I plan to provide, basically, have to do with the total sustainable yield and the various components. In other words, starting with a natural recharge of 60,000 and then the calculation of the return flow percentages for both agricultural lands and municipal and industrial, and then the use of those percentages and natural recharge in the refined

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groundwater model which I ran using 2005 cultural conditions projected about 50 years into the future so we get rid of the time lag -- and we'll talk about that later -- that the sustainable yield, as reported in Phase 3, the 110,000, is pretty much validated by the

model. In other words, there are no adverse impacts from pumping that amount.

Q Okay. Is that the sum total of your opinions, in a broad brush sense?

A What I have been asked to do so far. If I'm asked to do something else, there may be -- in addition, I may testify on the impact to Phelan Community Services district's well pumping and so on.

Q All right. Just so we can maybe get that one out of the way, could you summarize for us the work that you were asked to do relative to Phelan?

A Yeah. We were asked to look at the Harder report. And if you look at Figure 7, which is the first -- first figure behind the map tab, the lower right-hand corner of the -- of the map shows a blue bar. It shows some number wells, with numbers like CSD11, 10, so on, those are community services -- Phelan Pinon Hills Community Services district wells.

Q Sorry. I'm still trying to catch up here. Are we under the map here?

A Right here before that.

Q Oh, before the map tab? I am sorry.

A Yes.

Q All right. I'm with you.

A So this area where Phelan Community Services District wells are are actually outside of the USGS model boundary, but in the Harder report he states that there was a water level decline -- and let me, so I don't misspeak on this.

I'm going to page 10 of my tabs. There is a Section 5 of that where we use the Mod 2 model to test the Phelan CSD pumping and what impacts it might have in the Antelope Valley area of adjudication. So to do that, we took the water level declines as stated by Harder, which were .47 feet per year -- the water levels are going down -- and then we assume that that would degrade this general head boundary, and the model basically -- the boundary condition of the model here is water levels and we let those decline at that .47 feet per year and we ran it for 50 years, and it looked like it would probably induce another 200 acre-feet a year more outflow from the Antelope Valley area of adjudication because of that head decline.

Q I see. Okay. I understand.

A That is it.

Q That is it. In terms of Phelan?

A Yes, that is we did.

Q So let me see if I understand it by recharacterizing or rephrasing it.

You took the estimate by Mr. Harder of -- was it .47 feet?

A Yes, per year.

Q And then you input that into the model and ran it for 50 years to check and see what impact that would have on the boundary head?

A Yes.

Q Okay. And you found a decline of approximately

200 acre-feet per annum?
A Yes. It would induce a flow from -- to *El Mirage Valley from Antelope Valley of 200 acre-feet a year, based on holding those 2005 conditions constant and so on and then just allowing that boundary condition to decline at that rate.
Q Okay. Good. And that is the extent of the work that you did relative to Phelan?
A Yes.
Q I think the report that you have been referencing just now, which appears to have ten pages, when was that prepared? I'm just referring to text portion of groundwater model report?

A I mean, we finalized it yesterday, so -- I mean we were working on it, but we just summarized it for my deposition binder.
Q Okay. When you say summarized, is there some larger report other than this one?
A No.
Q Okay. All right. So I think now might be a good time just to take a couple minutes.
MR. DUNN: We are close to the noon hour.
MR. McLACHLAN: Let's go off the record just for a moment here.
(Discussion off the record.)
MR. McLACHLAN: Back on the record.
So to just briefly recap the discussion we had off the record --
MR. DUNN: Well, it was an off-the-record

discussion.

MR. McLACHLAN: Well, I'm going to make it an on-the-record discussion, in part, and you can object if you like.

MR. DUNN: Well, I object to my comments being included in your discussion. It was an off-the-record discussion.

MR. McLACHLAN: Okay. All right. Let's off the record for a second.

(Discussion off the record.)

MR. McLACHLAN: Now, back on the record.

So I would like to -- some of the lawyers here would like to briefly take up the issue of the nonproduction of the model, very specifically the inputs to the model and the related data, et cetera, that sounds to be the basis of this witness's intended deposition -- intended Phase V trial testimony.

And, Mr. Dunn, do you know whether or not you are able to produce those input files to the other litigants in this litigation?

MR. DUNN: I don't know that we can. We'll check with the -- with the -- with the department of public works for Los Angeles County on the restrictions on releasing the model, during the lunch break, and we'll get back to you as soon as -- during the break.

MR. McLACHLAN: All right.

Are you okay with that? Not that but, I mean, with what we have established. We have established that

we don't know whether or not the input files and the rest of the model can be produced to us.

Do you have any more on the record?

MR. FIFE: I think what we have established is that these files have not been produced as of yet, correct?

MR. DUNN: That is obvious.

MR. FIFE: This witness has not brought them with him, correct?

MR. DUNN: Correct.

MR. FIFE: You do not know even whether you can give them to us, but you will find that out?

MR. DUNN: Generally, yes, that's correct.

MR. McLACHLAN: Okay. So with that, let's go back to the substantive questioning.

I also note that one of the problems I have with producing this amount of materials today is that the Phase V case management order, in paragraphs, I believe, five and 12, required these materials to be produced three days prior to the deposition. And I looked on line, and it appears that, for the most part, I didn't find any of Mr. Williams' produced. I didn't receive any of them, and so I think we have a technical violation in terms of that, which may mean at the end of this -- and it may play upon what happens with the model -- that this deposition may not conclude today.

Obviously, you may object to that, but that may be the net result at the end of the day because I think that the reason we have those provisions in the case