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1 TUESDAY, DECEMBER 2, 1993, 8:30 A.M.
 2 --oOo--
 3 MR. DEL PIERO: Ladies and gentlemen, this hearing
 4 will come to order.
 5 This is a continuation of the hearing regarding the
 6 amendment to the City of Los Angeles' water rights licenses
 7 to divert water from streams tributary to Mono Lake.
 8 When last we left we had the last panel, I think, on
 9 behalf of the Los Angeles Department of Water and Power.
 10 Seated are Mr. Hasencamp, Mr. Deas, and up to bat is Mr.
 11 Dodge.
 12 MR. DODGE: I have a preliminary matter, Mr.
 13 Chairman.
 14 MR. DEL PIERO: There is nothing preliminary about
 15 any matter you bring.
 16 MR. DODGE: We have scheduled tomorrow a panel of
 17 historical witnesses, and they have all submitted written
 18 declarations in a timely manner, except Wallace McPherson,
 19 who was then in a Reno hospital.
 20 MR. DEL PIERO: Mr. McPherson is the gentleman who
 21 resided out on Paoha Island; is that correct?
 22 MR. DODGE: His father took tours out on Paoha
 23 Island. I don't know whether he resided out there, but the
 24 family ran the Mono Inn for many many years.
 25 Mr. McPherson did not submit a declaration. We

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1 submitted to the Board a declaration that Mr. McPherson had
 2 previously submitted to Judge Finney.
 3 I learned yesterday that while Mr. McPherson is at
 4 home in Bridgeport, he is quite ill and unable to join us
 5 tomorrow.
 6 We would propose instead of calling him as a rebuttal
 7 witness, to try to add a gentleman who, I believe his name
 8 is Walter Chesley to the panel tomorrow. I am told Mr.
 9 Chesley appeared in the public policy session here in
 10 Sacramento and had a bunch of photographs and talked about
 11 the --
 12 MR. DEL PIERO: I recall Mr. Chesley.
 13 MR. DODGE: He talked about historical conditions in
 14 Rush Creek relating to waterfowl and things like that.
 15 I don't know whether he is available, but if he is,
 16 we would like to bring him over to the Mono Basin tomorrow,
 17 but if there is going to be objection to that, I want to get
 18 it resolved now.
 19 MR. DEL PIERO: Is there going to be objection to
 20 that?
 21 MR. BIRMINGHAM: I was not present during the public
 22 policy statement that was made by Mr. Chesley.
 23 MR. DEL PIERO: Mr. Pollak was.
 24 MR. BIRMINGHAM: So, at this point, I really can't
 25 say whether or not there would be -- actually, I think that

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1 there will be an objection. If the Mono Lake
 2 Committee/National Audubon Society call Mr. Chesley, they
 3 can call him in their case in chief, but we have absolutely
 4 no idea of what Mr. Chesley will testify about.
 5 MR. DEL PIERO: Mr. Pollak, did you not receive
 6 copies of Mr. Chesley's statement and the photographs?
 7 MR. POLLAK: We have a copy of the transcript of the
 8 public policy hearing. We have not received the photographs
 9 from staff.
 10 MR. DEL PIERO: He provided them to staff and they
 11 were supposed to be duplicated for you?
 12 MR. POLLAK: That's my understanding.
 13 MR. DEL PIERO: Did you know that?
 14 MR. CANADAY: We don't have his photographs.
 15 MR. DEL PIERO: Who has them, do we know?
 16 MR. CANADAY: I believe he still has them. There was
 17 a question -- Dan do you recall?
 18 MR. FRINK: Yes, I recall he testified and there was
 19 a question as to whether he would participate in the
 20 hearing. We did not propose to call him as a witness,
 21 although I know the Board members were interested in hearing
 22 from him.
 23 As it is, I think in view of the dispute that has
 24 arisen over historical conditions in the Mono Basin, he
 25 probably could be called as a rebuttal witness, and the

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1 logistics of the matter are such that even if he is

2 appearing as a rebuttal witness, it may be easier to go
 3 ahead and hear him at the time that we hear the other
 4 witnesses on historical conditions in the Mono Basin.
 5 MR. BIRMINGHAM: If Mr. Chesley was able to travel to
 6 Sacramento to participate in the public policy hearing, I
 7 don't know of any reason why he wouldn't be able to travel
 8 Sacramento to participate as witness in the proceeding, and
 9 perhaps we can overcome the Department's objection if we can
 10 get a copy of the photographs that Mr. Chesley offered, and
 11 he can be presented as a witness by the Mono Lake
 12 Committee/National Audubon Society when it presents its case
 13 in chief, which will come after the Department of Fish and
 14 Game.
 15 MR. DODGE: I am not suggesting that Mr. Chesley,
 16 whom I have never met -- I assume he can travel to
 17 Sacramento. He did it once, I assume he can do it again.
 18 My only suggestion was that tomorrow --
 19 MR. DEL PIERO: He is elderly, but he appeared very
 20 fit.
 21 MR. DODGE: But tomorrow we have a panel of witnesses
 22 talking about historical conditions. It just makes sense
 23 that he would join that panel.
 24 If the Chair desires he should come to Sacramento,
 25 again that's fine, too.

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1 MR. DEL PIERO: Do we know if he is available
 2 tomorrow, Mr. Canaday?
 3 MR. CANADAY: I am not sure of his availability
 4 tomorrow, but he lives only about an hour and fifteen
 5 minutes from Sacramento. He is closer to Sacramento than
 6 Mono Lake. He lives up in Pine Grove above Jackson.
 7 MR. DEL PIERO: I think we will have him here in
 8 Sacramento.
 9 MR. BIRMINGHAM: If we can obtain copies of his
 10 photographs, we will have no objection to his appearing as a
 11 witness.
 12 MR. DEL PIERO: Let me indicate to Mr. Dodge why I
 13 think I would rather have him here in Sacramento. He is
 14 more than capable of being examined and cross-examined.
 15 He is a pretty articulate gentleman, and during his policy
 16 statement he indicated, at least he appeared to indicate a
 17 pretty fair recollection of facts in regard to various
 18 streams and tributaries to Mono Lake. I don't have a
 19 problem with having him here.
 20 And one other thing, sir, given the timing that we
 21 have, since we had five scheduled, if we are down to four, I
 22 have a greater sense that we are going to be able to
 23 complete all four without having to rush them, and without
 24 having to shorten up the time being allowed to those people
 25 who present testimony tomorrow.

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1 So, if we can get him here, I would rather have him
 2 here.
 3 MR. SMITH: Could you please have him provide us with
 4 the photos at the earliest opportunity so we can distribute
 5 those.
 6 MR. DODGE: I will certainly do the best I can. I
 7 have never said one word to the man. He may not do what I
 8 tell him.
 9 CROSS-EXAMINATION
 10 by MR. DODGE:
 11 Q Most of my questions will be for Mr. Hasencamp, so
 12 Mr. Deas, you can relax for the most part. If I catch you
 13 sleeping, I will have a question for you.
 14 Mr. Hasencamp, I want to ask a few questions about
 15 LADWP's proposed Management Plan. Now you indicated in
 16 response to Ms. Cahill's question that under the LADWP
 17 Management Plan that flows in the upper Owens River would
 18 exceed 200 cfs.
 19 Do you recall that testimony?
 20 MR. HASENCAMP: A Yes.
 21 Q Can you tell the Board approximately how often that
 22 would happen?
 23 A I don't have that data in front of me. I know that
 24 the State Board staff has a copy of the data.
 25 Q Calculations have been provided to me which would

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1 suggest that in approximately 17 years of the months under
 2 the LADWP Management Plan flows would exceed 200,cubic feet
 3 per second in the upper Owens River.

4 Does that sound about right to you?
 5 A That sounds like a reasonable estimate.
 6 Q Now, you also told us about the fact that there were
 7 certain trigger points under the LADWP Management Plan such
 8 that if Mono Lake got to a certain level, there would be no
 9 diversions.
 10 Do you recall that testimony?
 11 A Yes.
 12 Q And do those trigger points lead on occasion to great
 13 fluctuations from month to month in the amount of water
 14 delivered to the upper Owens River?
 15 A No, not really.
 16 Q But does that happen occasionally?
 17 A No, because Grant Lake rises when the runoff rises.
 18 It captures most of the runoff and then it is released later
 19 in the year. When the natural flow in the Owens River
 20 starts to wane, then that is supplemented from Grant Lake
 21 water.
 22 Q So, if I were to give you a scenario where in month
 23 one, 250 cubic feet per second goes into the upper Owens
 24 River, and in month two, by reason of your trigger point,
 25 zero goes into the upper Owens River, and in month three,

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1 230 cfs goes into the upper Owens River, is it your
 2 testimony that does not occur under the LADWP plan?
 3 A I don't believe it does.
 4 Q Now, Ms. Cahill asked you some questions about the
 5 frequency of your minimum flows. Now, your minimum flows
 6 are shown on Table A; is that right?
 7 A Minimum flows for which creek?
 8 Q Well, for Lee Vining Creek and Rush Creek; right?
 9 A Yes.
 10 Q On Table A, and depending on the month, the minimum
 11 on Lee Vining Creek is either 15 or 25; is that correct?
 12 A Yes, those are target minimums. If there is not flow
 13 in the creek, then we cannot achieve those flows.
 14 Q Okay, are those also daily minimums?
 15 A No.
 16 Q So, it is possible then that for some given day
 17 within a month that the flow would be less than 15?
 18 A Well, if the water is not in the creek, it would not
 19 achieve those flows.
 20 Q Assuming the water is in the creek, are those daily
 21 minimums in addition to monthly averages?
 22 A Oh, yes, they are.
 23 Q Now, your model is a monthly model based on what, 52
 24 years of data; is that right?
 25 A Fifty-three years of data.

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1 Q Fifty-three years of data, so you would have data for
 2 53 years of 12 months, or 600 some odd months; correct?
 3 A Sounds about right.
 4 Q Now, can you tell me, just take Lee Vining Creek, how
 5 many of those 600 some odd months, I believe is 636 months,
 6 what percentage of those 636 months would Lee Vining Creek
 7 be flowing at its minimum?
 8 A I can't tell you exactly, but in the summertime, not
 9 very often; and in the wintertime, more often.
 10 Q Now, Ms. Cahill tried to get you to agree yesterday
 11 that Lee Vining Creek would be at its minimum approximately
 12 77 percent of the months.
 13 Does that sound about right to you, or not?
 14 A Well, it doesn't sound right.
 15 Q You think it is a lower number; right?
 16 A Yes.
 17 Q And can you give me any estimate of the percentage of
 18 the time it would be at its minimum?
 19 A Not really, other than in the summertime it would be
 20 above the minimum much more often.
 21 Q The same question for Rush Creek; can you give me any
 22 estimate as to the percentage of the months that Rush Creek
 23 would be flowing at your proposed minimum?
 24 A This is the release from Rush Creek because, of
 25 course, Walker and Parker Creeks flow in near the Narrows.

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1 Q I am talking about the release, yes.
 2 A Again, I can't tell you precisely.
 3 Q Can you give me an estimate?
 4 A No.
 5 Q Let's move on to Parker and Walker Creeks. Now, you

6 had told us that that was a flow-through situation. Do you
 7 recall that testimony?
 8 A Yes.
 9 Q Now, have you looked at the EBASCO report on Parker
 10 and Walker Creeks?
 11 A No, I have not.
 12 Q For Parker and Walker Creeks, are you aware that a
 13 single channel was created in 1990 to carry the water?
 14 A No.
 15 Q Are you aware that there are any problems With the
 16 Channel of Walker and Parker Creek\$ carrying the high spring
 17 runoff?
 18 A No, I am not aware of it.
 19 Q Assuming there were a problem with the channel of
 20 Walker and Parker Creeks carrying the natural high spring
 21 runoff which you propose to send through without diversion,
 22 does the LADWP proposed Management Plan also include
 23 reoccupying distributary channels to take care of the high
 24 spring runoff?
 25 A Well, on Parker Creek there would be some diversions

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1 during the high flow events so they would flow as flow-
 2 through conditions except for some irrigation diversions
 3 upstream. But the plan does not specifically address the
 4 distributaries on Parker or Walker Creeks.
 5 Q Doesn't address it one way or another?
 6 A No.
 7 Q Now you told us that DWP's plan called for flows that
 8 would emulate the shape of the natural hydrograph.
 9 Do you recall that testimony?
 10 A Mimics the natural hydrograph.
 11 Q And that was testimony that Dr. Beschta gave, too:
 12 Wasn't it?
 13 A Yes.
 14 Q Are you familiar with the flows in Rush Creek that
 15 the DWP has sent down since Judge Finney's injunction in
 16 June of 1989?
 17 A I am familiar with some of the flows. I don't know
 18 the timing and magnitude of the entire period.
 19 Q Since June of 1989 until the present relating to Rush
 20 Creek, has the DWP attempted to mimic the natural
 21 hydrograph?
 22 A There has been a small amount of that, but certainly,
 23 not what our plan is proposing to do.
 24 Q Does someone have our Exhibit 229 -- if we can
 25 distribute that to people.

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1 Mr. Hasencamp, I will represent to you that in
 2 Exhibit 229 we have done our best to draw in two things, and
 3 I am talking about Rush Creek here. One is the minimum
 4 daily inflow since the injunction came into being. That's
 5 the dotted line. The solid line is the mean daily release.
 6 Could you just sort of familiarize yourself with that
 7 document. I can give you a paper copy of it if that would
 8 help.
 9 A Okay.
 10 MR. DODGE: Mr. Chairman, did you get a copy of this?
 11 MR. DEL PIERO: Yes.
 12 MR. DODGE: Q Let me know when you are ready to talk
 13 about this.
 14 A I am ready.
 15 Q Now, you would agree that in 1990 there was no effort
 16 to mimic the natural hydrograph. In fact, there was quite a
 17 constant release; correct?
 18 A Are you indicating that the dotted line is the
 19 natural hydrograph.
 20 Q Yes.
 21 A So, Grant Lake Reservoir inflow includes the Lee
 22 Vining conduit plus the natural channel of Rush Creek; is
 23 that what I understand?
 24 Q No, this is the inflow to Grant Lake from Rush Creek.
 25 A So this chart doesn't include Lee Vining?

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1 Q That is correct.
 2 A And the injunction you are referring to, so I
 3 understand, is the lake level injunction or the streamflow?
 4 Q Lake level injunction.
 5 MR. BIRMINGHAM: Perhaps if the witness could have a
 6 copy of the injunction that Mr. Dodge is referring to -- in
 7 fact, I think there are two injunctions that are relevant

8 here. One is the injunction on minimum lake level which
 9 specifies maximum and minimum, actually maximum flows that
 10 can be released down Rush Creek, and then there is the
 11 second interim streamflow order which specifies maximum and
 12 minimum flows that can be released down the streams, and if
 13 there are going to be questions about it, I think it only
 14 fair the witness have an opportunity to examine the
 15 injunctions as well as the graph.
 16 MR. DEL PIERO: Are you going to ask questions about
 17 the injunction?
 18 MR. DODGE: He doesn't need the injunction to answer
 19 these questions.
 20 MR. DEL PIERO: So long as the questions are limited
 21 to the chart that has been presented to the witness, I am
 22 not going to ask --
 23 MR. DODGE: Q I am really trying to establish a
 24 couple of, I think, pretty obvious points. One, in 1990,
 25 and I am referring, by the way, only as a time reference --

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1 I will just tell you in June of 1989, Judge Finney set a
 2 lake level injunction. And that was reinstated in 1990, and
 3 that is just for a time reference.
 4 Now, I want to ask you, in 1990, wouldn't you agree
 5 with me that in terms of releases that are shown on our
 6 Exhibit 229, assuming those are accurate, that there was no
 7 effort to emulate the natural hydrograph?
 8 A Well, I would say yes, but then, I would say we were
 9 following the preliminary injunction which required us to
 10 release all the water that was stored in Grant Lake down to
 11 the minimum Grant Lake level proposed by Judge Finney so
 12 there was no effort to mimic the hydrograph.
 13 Q Going forward to 1991, it looks like there is at
 14 least some correspondence to the natural hydrograph; would
 15 you agree with that?
 16 A Yes, again, that's with the interim flow orders which
 17 took place in 1990, so now that is the pattern there.
 18 Q And going forward to 1992, there's a brief spike,
 19 which I believe is the three-day flushing flow; is that
 20 right?
 21 A It looks like it.
 22 Q Okay. And that looks like it took place about a
 23 quarter of the year after the natural peak; would you agree
 24 with that?
 25 A Yes.

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1 Q And again, but for that three-day spike, there's no
 2 effort to emulate the high flows that occurred in the spring
 3 and early summer of 1992?
 4 A No.
 5 Q And then, going ahead to 1993, would you again agree
 6 with me that there was little effort to mimic natural
 7 hydrographs?
 8 A No, there was effort, but there was concern about the
 9 return ditch, so the flows were limited to about 160 cfs.
 10 Q Now, looking at figure 3, Mr. Hasencamp, you have
 11 already testified that that shows the highs and lows of your
 12 proposed Management Plan: correct?
 13 A For the simulation, yes.
 14 Q For the simulation, right. And then, if I read your
 15 testimony correctly, in addition to that, you did a drought
 16 analysis; correct?
 17 A That's correct.
 18 Q And if I read your drought analysis correctly, you
 19 analyzed the six-year drought starting at 6377 feet;
 20 correct?
 21 A That's correct.
 22 Q And you calculated a drop of 3.7 feet to an elevation
 23 of 6373.3; correct?
 24 A Yes.
 25 Q And at that elevation, Negit Island is physically

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1 land bridged; is that right?
 2 A Yes, that's true.
 3 Q And Twain Island which holds 50 percent of the
 4 nesting gulls is in danger of being invaded; is that right?
 5 A I can't answer that.
 6 Q But you have heard testimony to that effect; haven't
 7 you?
 8 A I can't remember exactly.
 9 Q So, we have got here six years, 6377, a drop of 3.7

10 feet and you get to 6373.3; right?
 11 A Yes, 6373.3.
 12 Q That's modeled information; is that right?
 13 A It's modeled and it also is based on what actually
 14 happened during the most recent drought we had.
 15 Q Now, Mr. Deas, you also had some drought analysis;
 16 correct?
 17 MR. DEAS: A Referring to --
 18 Q In your written testimony I am referring to.
 19 A I did no analysis.
 20 Q You took a look at Jones & Stokes' eight-year
 21 analysis?
 22 A Yes, I did.
 23 Q And you suggested in Table E, didn't you, at page 12
 24 of your testimony, that, in fact, Jones & Stokes had
 25 predicted too great a drop?

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1 A Yes.
 2 Q So, you said in Table E -- I'm going to run out of
 3 room.
 4 Mr. Canaday gave me the world's smallest blackboard.
 5 MR. DEL PIERO: He did that intentionally.
 6 (Laughter)
 7 MR. DODGE: Q You have an eight-year drought and
 8 Jones & Stokes had it dropping 6.01 feet to arrive at 6371,
 9 and you said it was only going to be 4.6 feet to arrive at
 10 6372.4; isn't that right basically?
 11 A Only for the uncertainties that we quantified.
 12 Q Well, I mean, it's right here in table E.
 13 A Right, that is with respect to the correction to the
 14 neglect of the first year fish flow releases and the
 15 termination of a drought with a dry year instead of a wet
 16 year.
 17 Q I also saw in your testimony reference to a drought
 18 of ten years. Do you recall that?
 19 A That was hypothetical?
 20 Q Where did you get the figure of ten years?
 21 A We looked at the criteria used by Jones & Stokes to
 22 develop their eight-year drought, found that they had
 23 neglected 1935. They had the data there, so we just simply
 24 used it and redid the analysis, and under that scenario,
 25 including all of the droughts that fit the criteria, we

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1 ended up with a ten-year drought instead of the eight-year
 2 drought they mentioned.
 3 Q But you ended up with a ten-year drought, but then
 4 you rejected using a ten-year drought; didn't you?
 5 A Yes.
 6 Q Why did you do that?
 7 A Because in the historic period we ran out of anything
 8 approaching a ten-year drought, and they are looking at a
 9 hundred-year event.
 10 They stated that an eight-year drought would be a
 11 plausible hundred-year event. By simply including one
 12 additional year, we found not only that the analysis was
 13 sensitive, but if you took out another year, you might end
 14 up with only a seven-year drought, but also, the ten-year
 15 drought just doesn't seem warranted given the current
 16 hydrologic period we are working with.
 17 Q You say the historic record?
 18 A Yes.
 19 Q How many years does that go back?
 20 A Well, even if you look back to, I think they went to
 21 1902 or --
 22 Q 1904?
 23 A 1904. We don't seem to have anything approaching a
 24 ten-year drought of this severity.
 25 Q If you used a ten-year drought, would you agree with

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1 me that both the 6.01 and 4.6 would be a higher number?
 2 A It depends on the drought severity.
 3 Q But all other things being equal, they would be
 4 higher; wouldn't they?
 5 A Well, if you define drought as below normal and you
 6 add ten years of 99 percent of normal rounded off, it would
 7 not drop. In fact, the lake would rise. So drought
 8 severity is something you must account for.
 9 Q I asked you to assume that all things were equal, by
 10 which I mean the severity of the drought for ten years and
 11 for eight years. Don't you agree you would get a large drop

12 on the ten-year drought?

13 A Yes, but assuming a ten-year drought is as severe as
14 an eight-year drought goes back to a comment I mentioned
15 yesterday in my oral summary, that as a drought lengthens in
16 duration they tend to decrease in severity, so going to a
17 longer drought and maintaining the same severity would not
18 be a proper assumption.

19 Q Now, you say that the historical period goes back to
20 1902 or 1904, and you limited your analysis to that
21 historical period as did apparently Jones & Stokes.

22 Are you aware of information that goes back further
23 than the historical period, would suggest that the Mono
24 Basin has, in fact, incurred droughts in excess of ten
25 years?

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1 A Yes, I am aware of such information.

2 Q What sort of information is that, sir?

3 A It's dendrochronology.

4 MR. DODGE: I would apply for an additional 20
5 minutes.

6 MR. DEL PIERO: Granted.

7 MR. DODGE: I will try not to exceed that.

8 Q Mr. Hasencamp, using hindsight, when did our recent
9 drought end?

10 MR. HASENCAMP: A Well, with the close of last
11 year's runoff year, which was April 1, using the runoff
12 criteria.

13 Q In fact, the low point came around December 1 of
14 1992?

15 A Yes, for Mono Lake.

16 Q For Mono Lake, right.

17 Would you agree with me that the low point was about
18 6373.4?

19 A Yes.

20 Q Okay, I don't have room for a third column here,
21 but, Mr. Hasencamp, what was the lake level in June of 1989
22 when Judge Finney issued his temporary restraining order?
23 A It was probably about 6376.7.

24 Q 6376.7, so during that period from June of 1989 to
25 December of 1992, we had a drop of 3.3 feet; correct?

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1 A That's correct.

2 Q And the concept is a runoff year; right?

3 A That's right.

4 Q Would you agree with me that if we backed off this
5 June of 1989 number to 4/1/89, the beginning of the runoff
6 year, that we would get a lake level of about 6376.9, a
7 little bit higher in a drought?

8 A Yes, that's correct.

9 Q So that would be a difference then from 4/1/89 to
10 12/92 of 3.3 feet; correct?

11 A That's correct.

12 Q Now that basically is the real life data for what
13 happened at Mono Lake in a drought with no diversions;
14 right?

15 A No.

16 Q Well, why am I wrong?

17 A Because in 1989, we diverted about 15,000 acre-feet
18 out of the basin, so that's probably about one-fifth of the
19 entire runoff for that year. So, 1989 was a relatively wet
20 year in comparison to the other years of the drought, and
21 the runoff was 73 percent of normal, and 73 percent of
22 normal is about enough to keep Mono Lake at the same level,
23 but because we exported, we took more water, and the lake
24 dropped a lot faster.

25 Q So, from 4/1/89 to 12/92, we had a 3.5 foot drop with
some exports?

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1 some exports?

2 A Yes.

3 Q Now, Mr. Hasencamp, this is a 3.5 foot drop, not
4 modeled, mind you, but an actual drop in Mono Lake even with
5 some exports, 3.5 feet in four years; right?

6 A That's right.

7 Q Now, doesn't that give you some pause when you say
8 the worst case which leads us to 6373.3 is 3.7 feet over six
9 years?

10 A No. As I said, I looked at the data and, again, if
11 you see our model, our drought analysis shows that in 1989
12 had there been no export, the lake level, in fact, would not
13 have dropped.

14 Q Let me ask you this question, sir: Let's assume that
15 contrary to fact, that the drought began in 1989 rather than
16 earlier, and assume that things occurred just as they did in
17 real life, that we had a drought right through 1992, but
18 contrary to real life, 1993 and 1994 were drought years.

19 You would agree that Mono Lake would have fallen well
20 in excess of 3.7 feet; wouldn't you?

21 A No.

22 Q If 1993 and 1994 hypothetically were drought years
23 after what really happened from 1989 to 1992, you don't
24 think Mono Lake would continue to fall?

25 A Well, again, it depends on the severity of the

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1 drought. If it is a drought similar to the 1989 criteria of
2 the drought, the lake would not have fallen. If it is a
3 year similar to 1991 or 1992, then, yes, the lake would
4 fall.

5 Q I mean, if you got a continuation of the same sort of
6 drought, which in real life produces a 3.5 foot drop,
7 wouldn't you expect approximately another 1.5 to 2.75 foot
8 drop in the following two years of the drought?

9 MR. BIRMINGHAM: I believe the testimony is to the
10 contrary. It was not a drought that caused the 3.5 foot
11 drop during the period Mr. Dodge is questioning about. It
12 was the drought in combination with diversions out of the
13 basin.

14 MR. DODGE: I will stand by the question.

15 MR. DEL PIERO: I am going to overrule the objection.
16 I think the witness indicated his understanding of what the
17 situation is. It is clear on the record what his under-
18 standing is, and also clear in the context of the question
19 asked.

20 I don't think there is any effort here on the part of
21 Mr. Dodge to ask questions that are not within the context
22 of the line of questioning taking place.

23 Mr. Hasencamp, given what you know about the
24 hydrology situation, given what you know about the facts
25 that 15,000 acre-feet of water has been diverted, do you

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1 recall the question? I would appreciate it if you could
2 answer it.

3 Mr. Dodge, do you want to restate your question?

4 MR. DODGE: Q If we had 3.5 foot drop in real life
5 from 1989 to 1992 caused by the drought and whatever other
6 causes -- I am not trying to trick you on that -- assuming
7 you had a continuation for the following two years of the
8 same sort of conditions that led to a 3.5 foot drop,
9 wouldn't you expect the total drop over six years to be
10 slightly in excess of 5 feet rather than the 3.7 feet that
11 you put in your testimony?

12 A Well, the drop, given the diversions that occurred in
13 1989 and given the small amount of diversions that occurred
14 in 1991, and if there were another year or two of runoff
15 that was in the range of 60 percent of normal, then, yes, I
16 would say the lake would drop more than that amount, more
17 than the 3.7 feet that were predicted.

18 Q And you would have a lake level down close to or even
19 below 6372; wouldn't you?

20 A That's possible with a dry enough year.

21 Q Now, Mr. Deas, let me ask you the same sort of
22 questions on your eight-year drought. Do you recall that
23 Jones & Stokes predicted a drop of 6.01 feet and you said it
24 was going to be 4.6 feet. Given the real life over four
25 years of 3.5 feet, wouldn't you agree that the Jones &

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1 Stokes' figure far from being high is really conservative.

2 MR. DEAS: A First of all, I would like to clarify
3 your initial remark, about my drought analysis. I just was
4 applying the same rules that Jones & Stokes used, just to
5 clarify.

6 You could also say that a drop of 100 feet would be
7 conservative.

8 We are in the process of determining the water supply
9 decision and you have to draw the line somewhere. I
10 honestly, in my opinion, don't believe, or believe that
11 there's enough uncertainty in the Jones & Stokes' drought
12 analysis that I wouldn't even like to use it in this case.

13 There should be another type of analysis.

14 Q Well, maybe my question wasn't clear. Let me ask
15 another question: Given the 3.5 foot drop actually observed

16 over four years, wouldn't you agree that Jones & Stokes'
 17 prediction in an eight-year drought of a drop of 6.01 feet
 18 is closer than your prediction of 4.6 feet?
 19 A Again, I believe there's enough uncertainty in the
 20 analysis that maybe it was fortuitous that they came out
 21 With 6.01 feet. However realistic it may or may not be, how
 22 the number was arrived at is what my concern is with that
 23 study.
 24 It seems like under their analysis that's what they
 25 arrived at, but I would have to do an analysis of my own to

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1 determine what I felt the lake would actually fall to.
 2 Q Mr. Deas, I will abandon that question. You talked
 3 about LAASM. Is LAASM a replacement for LAAMP?
 4 A LAASM is a model developed by the Department of Water
 5 and Power so they could analyze their own operations and
 6 planning, and that's what it was built for.
 7 Q Is it designed to be a replacement for LAAMP?
 8 A No.
 9 Q I understand there are improvements ongoing in LAAMP.
 10 If those improvements are put into place successfully, is
 11 LAAMP a workable model?
 12 A I won't know until I see those improvements.
 13 Q Potentially it is workable?
 14 A Anything is possible.
 15 Q As you sit here today, do you think it is going to be
 16 workable or not?
 17 A I don't know.
 18 Q I understand there is an outside audit ongoing of
 19 LAASM. Has that been completed?
 20 A I haven't heard of this -- or I have heard of it
 21 under a different title. I don't recognize that.
 22 Q Mr. Hasencamp, can you help us with that?
 23 MR. HASENCAMP: A There was someone that was
 24 reviewing a portion of the model.
 25 Q Has that been completed?

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1 A Yes.
 2 Q Can we get a copy of that?
 3 A Yes.
 4 Q Now, the last line of questioning is for either of
 5 you. Now this Figure 4 up here on the board, I think it was
 6 you, Mr. Hasencamp, but my recollection might be wrong; did
 7 you tell us that there was a .8 arbitrary drop in that
 8 Figure 4?
 9 A Not arbitrary, but there was an adjustment made of .8
 10 feet.
 11 Q An adjustment made?
 12 A Yes.
 13 Q Can you tell us what facts, what events led to that
 14 adjustment?
 15 A Well, there were certain changes in the hydrology
 16 over the period from 1987 through 1993. One of the changes
 17 was for release of water down Parker and Walker Creeks that
 18 had previously been dry. And so, there was a rewatering of
 19 the water table, and so you would expect the lake to rise,
 20 Mono Lake to rise, more from releases from these creeks,
 21 but in reality, it took quite a while before the water
 22 finally did reach Mono Lake.
 23 So, the lake in our actual versus calculated
 24 comparison, the actual lake level was slightly below the
 25 calculated, so we adjusted that to our drought analysis.

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1 Q So, it is true then, if I understood your testimony,
 2 applying LAASM resulted in a lake level that was .8 feet
 3 different than what really happened?
 4 A No, I believe I testified it was .6 feet.
 5 Q I thought I heard .8 feet. It was .6 feet?
 6 A The adjustment was .8, but the difference was .6.
 7 Q The difference noted was .6?
 8 A Yes.
 9 Q Now, let me ask you this, Mr. Deas: I believe you
 10 testified that it was a good thing that models be
 11 reproducible because people come and go and you need to be
 12 able to reproduce the model; correct?
 13 MR. DEAS: A Yes.
 14 Q And you would agree with me that this sort of
 15 adjustment, whether it is .8 or 1.6, is something that's not
 16 reproducible?
 17 A If it is well documented, it is perfectly

18 reproducible.
 19 Q But someone just looking at LAASM itself couldn't
 20 reproduce Figure 4; could they?
 21 MR. HASENCAMP: A Not with the information that was
 22 provided on September 22.
 23 Q Have you any idea how many times Mr. Vorster told me
 24 that Figure 4 is not reproducible?
 25 MR. BIRMINGHAM: I'm sure it's an order of magnitude.

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1 MR. DEL PIERO: Is that a stipulation, Mr.
 2 Birmingham?
 3 MR. BIRMINGHAM: At least a thousand, I'm sure.
 4 (Laughter)
 5 MR. DEAS: A This is an example of using the model
 6 as a tool and then using professional judgment on top of
 7 that to provide a reasonable number.
 8 MR. DODGE: Q But a .6 differential between LAASM
 9 and what was actually observed might give one pause over the
 10 validity of LAASM; isn't that a fact?
 11 MR. HASENCAMP: A No, I don't think so. Again,
 12 there was a change of hydrology over that period and so I
 13 think that's not an unreasonable error for that change in
 14 hydrology.
 15 MR. DODGE: Thank you, gentlemen, that's all I have.
 16 MR. DEL PIERO: Thank you very much, Mr. Dodge.
 17 Ms. Koehler, good morning.
 18 CROSS-EXAMINATION
 19 by MS. KOEHLER:
 20 Q I am Cynthia Koehler and I am counsel for California
 21 Trout.
 22 I don't have very many questions for either of you.
 23 My colleagues have covered almost all the points, so I am
 24 sure I will be very brief, but slow.
 25 Mr. Hasencamp, I just want to make sure I understood

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1 your testimony yesterday. Is it correct that the fish flows
 2 proposed in your Management Plan were not recommended by the
 3 fishery experts which testified on Los Angeles' behalf in
 4 this proceeding?
 5 MR. HASENCAMP: A No, that's not correct.
 6 Q That's not correct?
 7 A No, in fact, they are recommendations from our
 8 fishery experts who testified.
 9 Q Is it your testimony that the fishery experts which
 10 testified in this proceeding on behalf of Los Angeles made
 11 the streamflow recommendations to this Board which you are
 12 now also making in the Management Plan?
 13 A Yes. Well, they offered the minimum flows and so we
 14 incorporated the minimum flows, but, of course, the flows,
 15 as I have testified, will typically be much higher than
 16 that.
 17 Q Let's talk about those flows for a moment. You have
 18 testified that the average for Rush Creek would be between
 19 35 and 106 cfs; is that correct?
 20 A Depending on the month, yes.
 21 Q Depending on the month and for Lee Vining those
 22 averages would be 16 to 75 cfs, again depending on the
 23 month?
 24 A That's correct.
 25 Q But these averages do not necessarily reflect the

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1 level of flow that would actually exist in either of these
 2 creeks most of the time under your Management Plan; isn't
 3 that correct?
 4 A Yes, that's correct.
 5 Q Well, is it correct then that these average values
 6 could be achieved with long periods of very low flows and
 7 very short periods of very high flows that would be another
 8 way to achieve those average values?
 9 A That's another way to achieve it. However, that's
 10 not what happens in reality.
 11 Q We are talking about your plan. Your plan doesn't
 12 specify, as you testified, a daily regime?
 13 A That's true.
 14 Q Okay. Turning to the minimum flows, I want to make
 15 sure I understood your testimony. Is it correct that the
 16 plan proposes that the minimum, again on a monthly basis, in
 17 Rush Creek would be 20 to 30 cfs?
 18 A Except for fishery maintenance flows, that's true.
 19 Q And could you clarify that?

20 A Yes. In June of every other year there's what we
 21 call a flushing flow.
 22 Q Right. And in Lee Vining, excepting for the flushing
 23 flows, the minimum could be 15 to 25 cfs?
 24 A Yes, when the water is available.
 25 Q Now, Ms. Cahill asked you last night about the text
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1 of your Management Plan. I am going to ask you to turn to
 2 page 7 of that because I didn't entirely understand your
 3 answers to her questions.
 4 I'm reading from your Management Plan, the glossary
 5 brochure.
 6 A If I may interject, that, I don't believe, is part of
 7 the official record or is admitted as evidence, and that
 8 Management Plan was not developed by me. It is not part of
 9 my testimony.
 10 MS. KOEHLER: Can I ask for clarification on that?
 11 It was my understanding it has been entered as an exhibit.
 12 MR. BIRMINGHAM: That is not correct. Maybe I can
 13 clarify that. The document Ms. Koehler is holding up has
 14 been identified as Exhibit 83, but it was only identified
 15 because there were a number of questions, but this document
 16 83 was not submitted as an exhibit in connection with our
 17 case in chief, but was only identified because there were
 18 many questions being asked about it, and I thought for
 19 purposes of the record -- the Hearing Officer may remember
 20 when staff and Board Member Forster were asking questions
 21 about that particular document, I asked that it be
 22 identified, but it was originally submitted to the Board as
 23 part of the policy statement and was not submitted as
 24 evidence.
 25 MR. DEL PIERO: That's my recollection.
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1 MS. KOEHLER: Q Well, let me clarify. Is it your
 2 testimony that this document, which is identified for
 3 identification purposes only as LADWP Exhibit 83, is this not
 4 an accurate representation of your Management Plan?
 5 A Well, there's some additional items in there that are
 6 not part of my testimony on the Management Plan, and there is
 7 other verbiage in there which is not directly part of the
 8 Management Plan.
 9 Q I understand that there are things that may be extra,
 10 but your testimony today is not the sum total of L.A.'s
 11 Management Plan; is that correct?
 12 A No, I think this is the total of the Management Plan.
 13 Q I see. To the extent that this document, Exhibit 83,
 14 differs, and I'm not talking about -- Let me go to the extent
 15 that the information in Exhibit 83 regarding the Management
 16 Plan to the extent that that information derives from your
 17 testimony, are you saying it is incorrect?
 18 A There are statements in there that might be confusing,
 19 and if there is a discrepancy between what is in my
 20 testimony, then the written testimony stands first ahead of
 21 the document you have.
 22 Q I see. My concern, Mr. Hasencamp, is that this has
 23 been a widely distributed document which represents itself to
 24 be L. A.'s model Mono Lake Management Plan, and what I would
 25 like you to clarify for the record is to what extent are you
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1 standing behind this document as the Management Plan aside
 2 from the extraneous material?
 3 A I'm standing behind it for most of its accuracy, but
 4 again, I did not write it, so I cannot answer all the
 5 questions that are in it.
 6 Q Then in order to clarify, I'm going to ask you two
 7 questions about its accuracy. I am reading from page 7:
 8 Minimum stream flow releases for Lee Vining Creek will range
 9 from 16 cubic feet per second in winter to 74 cubic feet per
 10 second in June. Is that an accurate statement?
 11 A No.
 12 Q So, you could not stand behind that part of this
 13 document?
 14 A No, that must be a misprint. It must be average.
 15 Q The second sentence, as I believe Ms. Cahill pointed
 16 out last night, is: Rush Creek will range from 35 cfs in
 17 winter to 106 cfs in July.
 18 In response to her questions regarding the accuracy of
 19 the statement, I believe your response was it could be
 20 misinterpreted; is that correct?
 21 A Yes, those are average flows.

22 Q Is there any way that anybody could interpret that
 23 sentence to mean that the minimum flows in Rush Creek will
 24 actually be 20 to 30 cubic feet per second?
 25 A Many people could interpret it in many ways, and
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1 that's certainly one of the interpretations.
 2 Q Because I read that it will range from 35 cfs to 106.
 3 Is there anything in that sentence that indicates range would
 4 actually be lower than 35 cfs?
 5 A No.
 6 Q I would like to ask you a couple of questions about
 7 the actual operation of the Management Plan as I understand
 8 the plan as it is proposed in your testimony.
 9 Every month LADWP would compare the actual elevation
 10 of Mono Lake with the minimum target lake level for that
 11 month under the Management Plan; is that correct?
 12 A Yes, that's correct.
 13 Q And then LAASM would then be used to calculate the
 14 amount of water necessary to maintain the target lake level
 15 elevation, the minimum target lake elevation by the end of
 16 the month. is that correct?
 17 MR. DEAS: Would you restate that, please.
 18 Q All right. My question was a follow-up to the
 19 previous question. Once that comparison between the actual
 20 lake level and the minimum target lake level for a particular
 21 month has been made, my question is, would LAASM then be used
 22 to calculate the amount of water necessary to maintain that
 23 minimum target lake level by the end of the month?
 24 A I believe that I am a little confused by the question.
 25 MR. BIRMINGHAM: I will object on the ground the
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1 question is vague and --
 2 MS. KOEHLER: Let me clarify my question. I am trying
 3 to --
 4 MR. DEL PIERO: I am not going to sustain the
 5 objection. I am going to overrule the objection because you
 6 don't understand the question.
 7 MS. KOEHLER: I will be happy to try and simplify my
 8 question. I am talking about the way the plan will work,
 9 what actually L. A. is proposing to do to get down to basics,
 10 and as I understand, the first step would be this comparison
 11 between the target lake level in the plan and the actual lake
 12 level. What I'm asking about is, will LAASM then be used to
 13 determine how much water needs to get down the stream or not
 14 get down the stream in that month to maintain that target
 15 lake level by the end of the month?
 16 A Yes.
 17 Q So, would it be accurate to say that the end product
 18 of this monthly LAASM calculation would be a total amount of
 19 water that needs to get down the creek or not by the end of
 20 the month?
 21 A Yes.
 22 Q Is it correct that the Management Plan does not
 23 provide any guidance other than the minimum fish flows as to
 24 how L. A. should release water on a daily basis to meet this
 25 target elevation requirement?
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1 A Referring to LAASM, it's a monthly model.
 2 Q I'm not asking about LAASM. I'm asking about the
 3 Management Plan.
 4 MR. HASENCAMP: A Yes, that's true.
 5 Q So, L. A. would be free, then, to decide minimum flows
 6 to release or not release water in any manner as long as this
 7 total amount gets down the stream by the end of the month.
 8 A No, that's not true. We do have ramping constraints
 9 that we have in place.
 10 Q Aside from ramping restraints.
 11 A Ramping constraints?
 12 MR. DEL PIERO: Aside from the ramping constraints, is
 13 there anything else?
 14 A No.
 15 MS. KOEHLER: Q I believe you told Ms. Cahill last
 16 evening that the Management Plan in its current form does not
 17 provide for any variation in flows, fishery flows, based on
 18 water year type, wet, normal, and dry; is that right?
 19 A Yes, that's right.
 20 Q So, under the Management Plan the ecosystem would not
 21 experience these different types of water years?
 22 A No, that's not true, because in the wetter years the
 23 operations would release more water down the streams.

24 Q But that's discretionary. The plan does not require
25 that; isn't that right?

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1 MR. BIRMINGHAM: I wonder if the witness could be
2 allowed to finish his response to the question before --
3 MR. DEL PIERO: Have you finished your response?

4 A No, I haven't.
5 MR. DEL PIERO: Then why don't you finish your
6 response?
7 A And also the lake level releases occur typically in
8 the summertime, so those flows would be on top of the minimum
9 flows as well, and typically more water would be released in
10 wetter years and less in the drier years.

11 MS. KOEHLER: Q But your plan does not call for
12 emulation or mimicking of the particular year types. You
13 were saying, as I understand your testimony, that it is
14 likely to occur, but there's nothing in your plan that
15 mandates that to occur?

16 A That's true.
17 Q It has been your testimony, I believe, that your
18 Management Plan attempts to mimic the natural hydrograph for
19 Rush and Lee Vining creeks to the extent possible; is that
20 right?

21 A Not to the extent possible, but to a reasonable
22 extent.
23 Q And what is the distinction you are making there, Mr.
24 Hasencamp?

25 A Well, the extent possible would be to let all the
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1 water go down the creeks, and that would virtually mimic the
2 natural hydrograph. Our Management Plan mimics the
3 hydrograph in that the peak flows occur in June and July, and
4 it drops down toward a base flow in the rest of the year.

5 Q But isn't it the case that the natural runoff pattern
6 will not be mimicked with regard to the water year type?
7 A No, that is not always the case. There would be a few
8 examples, but generally wetter years, more water will go down
9 the creeks, and, of course, in the lower part of Rush Creek
10 you would have Walker and Parker creeks that are flowing
11 naturally, and so those would augment the lower portion.

12 Q I'm sorry, in my question I'm referring to Rush and
13 Lee Vining creeks, and I understand that you're saying what
14 may occur, or what can occur given L.A.'s discretion and
15 operational flexibility under the plan. What I am asking you
16 is, isn't it the case that the plan does not provide for
17 mimicking of the water year type? In other words, I
18 understand it may occur in some years, but I'm asking you,
19 isn't it the case that it doesn't have to occur in any year
20 necessarily, that you have a discretion to -- Let me leave
21 the question at that, that it doesn't have to occur in any
22 year.

23 A Well, the plan calls for a typical release of
24 two-thirds of the total stream flow, and certainly we would
25 release that in a pattern which mimics the hydrograph, but

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1 there is not a mandatory fixed and hard rule as to how that
2 has to be completed.

3 Q In fact, the plan provides substantial operational
4 flexibility so you would never have to, unless that fit in with
5 the rest of the goals for the system in a particular time?
6 A Well, certainly the entire system has to be looked at,
7 including the Upper Owens River and all the reservoirs.

8 Q Isn't it correct that the natural runoff pattern from
9 an ecosystem perspective varies on a very short-term basis,
10 practically moment by moment?
11 A Only during the peak time of the runoff. Typically,
12 August through April the flows change very slowly unless
13 there's a sudden rainstorm or something.

14 Q Well, let me ask you this, would it be correct that to
15 mimic the natural hydrograph during the period in which you
16 have discussed, where you say there are rapid changes, would
17 Los Angeles need to operate its diversion facilities to allow
18 for very short-term changes in order to mimic the natural
19 hydrograph during this peak period you have identified?

20 A Could you state that again, please?
21 Q Well, if I understand your answers to the previous
22 questions, you are saying there is a peak period, a fairly
23 lengthy period, is it April to August, that you are saying
24 when changes do occur in the natural runoff pattern
25 relatively rapidly?

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1 A When the peak runoff occurs, and it has a different
2 period when it may occur, but typically it happens in those
3 months.

4 Q To mimic the natural hydrograph or natural runoff
5 pattern, whatever phrase you are more comfortable with, isn't
6 it correct that you would need to operate the diversion
7 facilities to allow for very quick changes in flow terms?

8 A Well, for Rush Creek, we have Mono Gate 1, so we can
9 release any pattern that --
10 Q I'm sorry, you are anticipating my questions.

11 Wouldn't you need the facilities to make those creek changes?
12 A Yes.

13 Q Why don't you tell us now, if you can, about the
14 physical ability of L. A.'s diversion facilities to make this
15 type of changes.

16 A Well, in Lee Vining Creek, we are limited since we
17 have no storage upstream, to the amount of water that is
18 coming down the creek, so if we bypass all of the water down
19 the creek, that, then, would be the limit of the amount that
20 we would release and how we could change the stream. No
21 matter what descending limb on a ramping requirement we
22 impose, if the runoff drops off quickly, more quickly than
23 that, then there's nothing we can do.

24 On Rush Creek, of course, we have Grant Lake, so we
25 can release pretty much any pattern that is desired.

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1 Q So, is it your testimony, then, that the Rush Creek
2 facility is set up at this point to allow for instantaneous
3 response to changes in flow?

4 A Yes.
5 Q And I believe you testified in response to Mr. Dodge's
6 questions that you are familiar with the continuous flow
7 record tracking the daily inflow fluctuation to Rush Creek;
8 is that correct?

9 A Are you referring to this exhibit?
10 Q I am referring to -- Well, I guess that's some of the
11 information, but let me ask you this: Are you familiar with
12 those continuous flow records?

13 A Generally, although I cannot cite them.
14 Q Would you agree that those records present as close a
15 picture as possible of the natural runoff into Rush Creek?

16 A No, they don't at all because Southern California
17 Edison --
18 Q I understand --

19 MR. BIRMINGHAM: Excuse me, Mr. Del Piero, again Ms.
20 Koehler is interrupting Mr. Hasencamp before he has had an
21 opportunity to finish his answer. Would you instruct her to
22 allow him to finish.

23 MR. DEL PIERO: Had you completed your response?
24 A No.
25 MR. DEL PIERO: Go ahead and complete.

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1 A Southern California Edison stores its peak runoff and
2 then releases a much more attenuated flow than would be there
3 naturally.

4 MS. KOEHLER: Q Do you anticipate that your Management Plan will
5 result in daily release down Rush Creek that more or less
6 mimic the pattern established by the daily inflow records?

7 A I am not sure how the daily releases would work. We
8 would have to check with our fishery expert. I have
9 testified that a certain volume of flow in a given month
10 would satisfy the requirements. How that should be done on a
11 daily basis, other than what I have testified, I don't know
12 how it would be.

13 Q When DWP releases only its minimum flows for Rush
14 Creek, isn't it true that these releases would have to be
15 very constant or else allow it to fall below the level?

16 A Yes, those are daily minimums as well as monthly
17 averages, and 30 cfs in the summer is the minimum.

18 Q Isn't it correct that under your plan when additional
19 releases are made to the stream beyond the fish flows, they
20 could be made in a very abrupt fashion, that is, very high
21 releases in one month followed by a sharp decline in the
22 next?

23 A Yes, that's similar to the hydrograph in those years.
24 Q Isn't it also correct that L. A.'s Management Plan
25 provides enough operational flexibility that these additional

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1 releases could be made in an unseasonable fashion? Let me

2 give you an example. Doesn't the plan allow you to make high
3 releases to the creeks even during months when the natural
4 flows to those creeks would otherwise be very low?

5 MR. BIRMINGHAM: Objection, compound.

6 MR. DEL PIERO: Sustained. Break it up, because I
7 want to know the answer to both parts.

8 MS. KOEHLER: Q Let me ask you if my example is
9 correct, couldn't the Management Plan allow Los Angeles to
10 make very high releases to the creeks during months when the
11 natural inflow would otherwise be very low?

12 A Except for Walker and Parker creeks which are
13 tributary to Rush Creek, the plan is not very restrictive on
14 how the operations are to be performed, but certainly we
15 would make every effort to make that hydrograph.

16 Q But your plan doesn't require you to do that?

17 A Not specifically.

18 Q Your plan doesn't provide guidance to do that; does
19 it?

20 A No, it wasn't intended to.

21 Q Mr. Deas, I have just a few questions --

22 MR. DEL PIERO: Twenty minutes.

23 MS. KOEHLER: I request another 20 or so. I think I
24 should be able to finish up in much less.

25 MR. DEL PIERO: Granted.

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1 MS. KOEHLER: Q Mr. Deas, is it your testimony that
2 LAAMP is fundamentally flawed as a tool for simulating the
3 Los Angeles Aqueduct system?

4 MR. DEAS: A I think that's what my testimony stated.

5 Q Well, is it also your testimony, then, that it cannot
6 be refined to serve as a useful tool to simulate the L. A.
7 Aqueduct system?

8 MR. BIRMINGHAM: Objection, argumentative.

9 MR. DEL PIERO: Overruled, you may answer the
10 question.

11 A Well, they are in the process right now of improving
12 it. We will have to wait and see if that is sufficient.

13 MR. DEL PIERO: Excuse me, that is not responsive to
14 the question.

15 A May I have the question again, please?

16 MS. KOEHLER: Q Let me try and clarify what I want to
17 get at.

18 MR. DEL PIERO: Restate your question. I want to hear
19 the answer.

20 MS. KOEHLER: Q Is it your testimony that LAAMP
21 cannot be refined to serve as a useful tool by the Board in
22 this proceeding?

23 A I don't believe that is my testimony.

24 Q You testified that it is fundamentally flawed, and I
25 am trying to reconcile what seems to be a conflict between

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1 your statement that the model is fundamentally flawed and yet
2 perhaps could be refined. Either it's beyond all hope, or
3 it's useful in some way, so I'm simply trying to understand
4 what your testimony is in this regard.

5 MR. BIRMINGHAM: Objection, argumentative.

6 MR. DEL PIERO: Overruled. Answer the question.

7 MR. BIRMINGHAM: I don't believe there is a question
8 pending.

9 MR. DEL PIERO: Yes, there is. The last soliloquy Ms.
10 Koehler delivered was explaining what the question was. The
11 second response to the question was again nonresponsive, so
12 Mr. Deas, if you would be kind enough to answer the question,
13 it has been stated twice.

14 MR. BIRMINGHAM: I believe the last question that she
15 asked prior to the soliloquy was, is it your testimony that
16 it cannot be improved, and I have a pair of reading glasses I
17 would be more than happy to lend to Ms. Book. I believe he
18 expressly stated that, that is not my testimony. I don't
19 know how much more responsive that can be.

20 MR. DEL PIERO: Mr. Deas indicated that that was not,
21 I hope I am correct, was not his written testimony. The
22 question that was asked originally was restated again in a
23 different fashion so you could understand it was whether or
24 not you thought the model under discussion is capable of
25 being rehabilitated. That is my restatement again, Mr. Deas,

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1 for the third time of the concept that Ms. Koehler is asking.

2 Do you have an answer, yes or no?

3 A It depends how far back in the process you wish to go.

4 I outlined the fundamental steps of constructing a model. If
5 you went to the conceptualization, the formulation and the
6 application, and you found out there was a coding error, you
7 would go back and correct it. When there are fundamental
8 errors, you simply have to go back farther in the process. A
9 lot of work has been done, a lot of good work has been done,
10 a lot of data has been gathered, a lot of information has
11 been learned, but it is a definition of how far back in the
12 process you wish to go in order to fix the model, and in my
13 opinion you have to go far back in the process.

14 MS. KOEHLER: Q All right. Is it correct that
15 although it is your testimony, as you have stated, that you
16 believe the model is fundamentally flawed -- Are you saying
17 these fundamental problems are solvable?

18 A I think I somewhat answered that in the last response.

19 Q I just want to make sure we understand what you are
20 saying.

21 A You can go back.

22 Q Your written testimony also expressed some concern
23 with the documentation provided for LAAMP. When were you or
24 DWP first given the opportunity to critique the LAAMP
25 documentation?

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1 A I don't recall the exact date when I received it.

2 Q Do you recall the year?

3 A Yes, I think early in 1993, maybe late 1992.

4 Q When did you or LADWP express your concerns with
5 regard to the model documentation to Board staff?

6 A I expressed my concerns to DWP. I didn't express my
7 concerns to the Board staff.

8 Q Are you aware of whether anyone from the Department of
9 Water and Power expressed or related your concerns to the
10 Board staff prior to commenting on the Draft EIR?

11 A I can't answer that.

12 Q Do you know, Mr. Deas, whether prior to asking Jones
13 and Stokes to prepare a model simulating the L. A. Aqueduct
14 system, that the Board asked the DWP to do so?

15 A I believe they did.

16 Q Were you involved in that effort?

17 A Very early on.

18 Q Is it correct, then, that LADWP's attempt in
19 developing such a model wasn't able to serve the analytical
20 functions necessary for the purposes of this proceeding or
21 the Environmental Impact Report development?

22 MR. BIRMINGHAM: Objection, compound.

23 MS. KOEHLER: A Let me make that easier, then. Is it
24 correct that the Board's staff determined that L. A.'s
25 initial attempt at developing such a model could not serve

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1 the analytical functions necessary for this water right
2 proceeding?

3 MR. BIRMINGHAM: Objection, calls for speculation.

4 MR. DEL PIERO: Sustained.

5 MR. KOEHLER: A Is it correct that Board staff
6 rejected the first model presented to it by LADWP?

7 MR. BIRMINGHAM: Objection, lacks foundation.

8 MR. DEL PIERO: Sustained.

9 MS. KOEHLER: I'm sorry, I'm having a tough time
10 asking a question.

11 Q Were you involved in the model originally developed by
12 LADWP?

13 A Not to any degree.

14 Q Then I suppose I misunderstood your earlier response
15 to my question. I thought you said you were involved from
16 very early on.

17 A The early phase of the model development were pretty
18 much information meetings where State Board staff, Jones and
19 Stokes, DWP sat down and said, what do we want.

20 Q And did you remain involved in this process?

21 A When I was in the Department of Water, I remained
22 peripherally involved.

23 MR. DEL PIERO: What does that mean?

24 A My involvement declined exponentially.

25 MS. KOEHLER: Q Is it your testimony you do not know
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1 what the Board staff's reaction was to the first model
2 submitted to it by the LADWP?

3 MR. BIRMINGHAM: Objection, assumes facts not in
4 evidence.

5 MR. DEL PIERO: Overruled, answer the question.

6 MR. BIRMINGHAM: Excuse me, the question lacks
 7 foundation. I don't think there has been any evidence to the
 8 effect the model was ever submitted by DWP to Board staff.
 9 If she would like to ask that question, then I won't have any
 10 objection.
 11 MR. DEL PIERO: Your testimony is you reviewed the
 12 documentation as part of the Environmental Impact Report and
 13 all the submittals to the model?
 14 A With respect to the Draft Environmental Impact Report.
 15 MR. DEL PIERO: Were you not a party to the process at
 16 the beginning?
 17 A I was involved, like I mentioned, very early in the
 18 game.
 19 MR. DEL PIERO: Will you answer the question, Mr.
 20 Deas.
 21 A I was aware that the model was rejected. I don't know
 22 on what ground.
 23 MR. DEL PIERO: Proceed.
 24 MS. KOEHLER: Q Is it correct that the first model
 25 which L. A. originally developed was the basis for the

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1 development of LAASM?
 2 A A lot of the information used there was involved.
 3 Q Did you submit that documentation for LAASM?
 4 A I believe so.
 5 Q Was that documentation submitted to the Board and to
 6 the parties in this proceeding?
 7 A I believe the Department of Water and Power submitted
 8 it. I did not submit it. I think those steps have been
 9 taken.
 10 Q Are you satisfied that the documentation which you
 11 personally provided for LAASM in this proceeding is sound and
 12 is otherwise consistent with your standards for
 13 documentation?
 14 A I didn't personally submit the document.
 15 Q I'm asking you about what you personally did do.
 16 A Well, I worked on the process with the Department of
 17 Water and Power, and what they submitted is what I would call
 18 a very functional set of documentation, and if you were to do
 19 a survey of models and model documentation in the
 20 professional field, you would find that that is probably an
 21 above-average set of documentation for a working model.
 22 Q I would like to clarify what it is you were
 23 responsible for in terms of submission to this Board. Aside
 24 from what was actually physically submitted, did you prepare
 25 documentation for the LAASM model?

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1 A We put together a modeling group early in the process
 2 so we could involve as many people in the DWP as possible,
 3 and the whole entire group put together documentation.
 4 Q I see. Do you feel that you are competent to discuss
 5 the quality of that documentation?
 6 A Yes.
 7 Q Do you know whether or not all of that documentation
 8 was submitted in this proceeding?
 9 A That's it, that's what was submitted.
 10 Q I'm asking you about the work that you did together
 11 with this group. Do you know whether all of that was
 12 submitted?
 13 A All of the work which, I believe, is pertinent.
 14 Q Do you recall Mr. Hasencamp's testimony last evening
 15 with regard to the information submitted in this proceeding?
 16 A Very vaguely. I'm not sure.
 17 Q Mr. Hasencamp, if these questions are more correctly
 18 addressed to you, it is of no concern to me who responds to
 19 them. Is it correct that the actual outputs for the
 20 Management Plan were not submitted with the documentation in
 21 this proceeding?
 22 MR. HASENCAMP: A Yes, that is correct.
 23 Q Is it also correct that none of the input assumptions
 24 regarding the Management Plan were submitted in the
 25 documentation for this proceeding?

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1 A Well, the Management Plan has a lot of input, so the
 2 Management Plan in my testimony shows a lot of it, shows the
 3 ones that we felt were the most important problems, so it is
 4 sort of a summary.
 5 Q Mr. Deas, I believe you answered in response to a
 6 question by Mr. Dodge that LAASM is not being offered in this
 7 proceeding as an alternative to the LAAMP model; is that

8 correct?
 9 MR. DEAS: A I don't think that's the question he
 10 asked. He asked if it was a replacement, and I said no.
 11 Q Well, let me ask you if it is an alternative.
 12 MR. BIRMINGHAM: Objection, calls for speculation.
 13 MR. DEL PIERO: Overruled, answer the question.
 14 MR. BIRMINGHAM: Mr. Deas is not a representative of
 15 the Department of Water and Power. He is not qualified to
 16 state whether or not the Department of Water and Power is
 17 going to submit LAASM as an alternative.
 18 MR. DEL PIERO: Mr. Birmingham, we have got testimony
 19 here that Mr. Deas is an employee of the Department of Water
 20 and Power. Mr. Deas, during his initial presentation,
 21 indicated he was here on behalf of the Department of Water
 22 and Power. During most of his testimony he has talked about
 23 both LAAMP and LAASM.
 24 The question that was first put to him was whether or
 25 not his testimony was that LAASM would be offered as an

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1 alternative. He chose to restate the question being asked
 2 and suggested that the question that was asked by Mr. Dodge
 3 was, in fact, not the question put to him directly. Now you
 4 object, indicating he is not representing the Department of
 5 Water and Power. Can you explain to me what is going on?
 6 MR. BIRMINGHAM: Certainly I can explain, and I'm not
 7 trying to be obstreperous, I'm certainly not. Whether or not
 8 LAASM is going to be offered as a replacement to LAAMP is
 9 going to depend on a lot of factors. Mr. Deas is not the
 10 individual who is going to make that decision. Mr. Deas is
 11 not here as a representative of the Department of Water and
 12 Power. Mr. Deas is here as an expert witness called on
 13 behalf of the Department of Water and Power to express
 14 opinions concerning the adequacy of the LAAMP model.
 15 Whether or not LAASM will be offered as a replacement
 16 for or alternative for LAAMP is going to depend on what LAAMP
 17 looks like after it has been modified, and the Board has
 18 heard testimony about the modifications that are taking place
 19 on the model.
 20 But ultimately, the decision about whether or not the
 21 Department of Water and Power and the City of Los Angeles,
 22 party to this proceeding, are going to offer LAASM as an
 23 alternative or replacement is a decision that is going to be
 24 made in the future by the management of the Department of
 25 Water and Power in consultation with experts like Mr. Deas

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1 and Mr. Hasencamp, but that is a decision that is going to be
 2 made in the future.
 3 MR. DEL PIERO: Let me ask a question. Mr. Canaday,
 4 the process we are going through here is a process to amend
 5 the water rights licenses for the City of Los Angeles
 6 Department of Water and Power. Concurrent with this process
 7 is the preparation for ultimate certification of a final
 8 environmental document.
 9 Comments on that Draft EIR are required pursuant to
 10 CEQA during the circulation period. Parties that have the
 11 opportunity to comment on that environmental document are
 12 afforded that opportunity pursuant to statute during that
 13 circulation period of the draft. Has the circulation period
 14 been closed?
 15 MR. CANADAY: Yes, it has.
 16 MR. DEL PIERO: Mr. Birmingham, in response to your
 17 comment, when does Los Angeles anticipate presenting LAASM as
 18 an alternative to be considered inasmuch as a comment period
 19 on the Draft EIR has been closed?
 20 MR. BIRMINGHAM: The comment period on the Draft EIR
 21 has been closed. The Department of Water and Power submitted
 22 significant comments to the State Board on the Draft EIR
 23 specifically on LAAMP. Ultimately, this Board has to make a
 24 decision about certification of the Draft EIR or the
 25 Environmental Impact Report, and it must make a decision

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1 about which model will be used, whether any of them will be
 2 used. Mr. Vorster is a modeler, and he may come in with a
 3 model, but we cannot stand here today, as Mr. Deas has said
 4 in his testimony, and say LAAMP won't work, because LAAMP is
 5 currently being revised.
 6 And ultimately this is, as the Hearing Officer has
 7 noted, a proceeding which is really on two different tracks.
 8 We are involved in an evidentiary hearing at which the
 9 parties are to submit evidence, and at the same time there is

10 an Environmental Impact Report that's being prepared, and the
 11 two processes are sometimes at odds with one another.
 12 But the evidence that's submitted in this hearing
 13 certainly will affect the decision of the State Board. It is
 14 not going to be simply what is in the Draft EIR, or the final
 15 impact report that is ultimately certified.
 16 The question there is going to be whether or not that
 17 document contains enough information to permit the Board to
 18 make an informed decision in terms of impact on the
 19 environment, which is a different question than we are
 20 addressing in this hearing.
 21 I know that's not responsive to what you have asked,
 22 but I really can't answer the question because we may never
 23 offer LAASM as a replacement. It really is going to depend
 24 on the product that is produced by Jones and Stokes as part
 25 of this process.

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1 MR. DEL PIERO: Thank you, Mr. Birmingham. Mr.
 2 Canaday, do you have a comment?
 3 MR. CANADAY: Yes, I do. In response to what the
 4 Board staff is doing in regard to LADWP's and other's
 5 comments on the Draft EIR, I called a meeting and invited
 6 LADWP staff, Mr. Deas and Mr. Vorster, and our technical
 7 staff, and our engineering staff, and they met and had full
 8 discussions and met face-to-face, identified things that
 9 needed to be corrected. We requested the additional funding
 10 from the Department to make those corrections. That funding
 11 was provided. Those corrections are being made at this time.
 12 We intend to use the correct LAAMP model to respond to
 13 comments to the Draft EIR. We will be providing that updated
 14 model to those members, Mr. Hasencamp, Mr. Deas, and Mr.
 15 Vorster, for a seven-day period for them to run the model
 16 themselves to satisfy themselves that the corrections that we
 17 have agreed upon have been made, and after that seven-day
 18 period, Jones and Stokes is directed to use the model to
 19 prepare the final EIR.
 20 We have not taken any steps to consider LAASM as a
 21 replacement for LAAMP for the final EIR.
 22 MR. DEL PIERO: Just for the record, during the
 23 comment period on the Draft EIR, the LADWP in their comments
 24 on LAAMP proposed utilization of LAASM as an alternative?
 25 MR. CANADAY: No.

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1 MR. DEL PIERO: I am going to rule on this so we can
 2 try and get this clarified. There is a concurrent process
 3 going on. There is a water rights process going on here.
 4 The CEQA process is going on here.
 5 Let's talk about CEQA first. CEQA is an Act adopted
 6 by the State Legislature precisely for the purpose of
 7 affording decision-makers and the public the opportunity for
 8 maximum understanding and exposure of the environmental
 9 issues and potential impact that might result from decisions
 10 made by governmental entities.
 11 This process is subject to the California
 12 Environmental Quality Act, and that's why the Draft EIR has,
 13 in fact, been prepared.
 14 As part of the CEQA process, the Draft EIR is
 15 circulated. It was the opinion of the Legislature in
 16 approving CEQA that a draft report ought to be circulated
 17 expressly for the purpose of providing maximum opportunity to
 18 comment on any potential deficiencies or inadequacies in that
 19 report prior to the report being certified as a finalized
 20 document by the decision-makers.
 21 That circulation period and the activities of the
 22 decision-making body during that circulation period are
 23 spelled out pretty clearly. The clearinghouse circulates
 24 that document to all the affected parties. Everyone gets the
 25 opportunity to review the draft document. Everyone gets the

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1 opportunity to present comments to the decision-makers. All
 2 those comments are gathered back in. The comment period is
 3 closed. Then ultimately the decision-makers have to certify
 4 a final EIR.
 5 The purpose for the circulation period is for the
 6 review of that document within the process provided for it by
 7 the State clearinghouse to get everyone's comments up front.
 8 It is not for people to hold back, or not to comment on
 9 perceived deficiencies in the document. It is to provide
 10 within the context of the procedure and the public policy
 11 interest that the State Legislature expressed at the time of

12 the adoption of CEQA, the maximum opportunity for not only
 13 decision-makers, but for the public to understand what is
 14 going on, what the project is, what the potential impacts
 15 are, what the potential mitigations are.
 16 So, if, in fact, LAASM was not presented as a
 17 potential alternative in terms of the CEQA review process,
 18 that opportunity for LADWP at this point has been foreclosed,
 19 assuming that the comment period remains closed and no other
 20 extraneous activities go on. So that's off the table.
 21 What we have here now is the water rights portion in
 22 this concurrent process. The water rights portion of this
 23 concurrent process affords parties to this process the
 24 opportunity to present evidence, to present witnesses for
 25 both direct as well as cross-examination, afford the general

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1 public again the opportunity to understand what is going on
 2 in a public session where as much information as is possible
 3 is to be disclosed either by counsel for or opposing counsel
 4 for the various parties are able to elicit within the
 5 process.
 6 In the event that the Los Angeles Department of Water
 7 and Power wishes to propose LAASM as an alternative to LAAMP
 8 as part of the water rights process, it would normally take
 9 place during the course of this process. It would normally
 10 take place during the course of the presentation of evidence
 11 on behalf of the Los Angeles Department of Water and Power.
 12 Now, Mr. Deas and Mr. Hasencamp are the last panel to
 13 be presented by the Los Angeles Department of Water and Power
 14 in regard to direct testimony. The reason this issue has
 15 come up was a question asked by Ms. Koehler as to whether or
 16 not Los Angeles DWP proposes to introduce LAASM as an
 17 alternative to LAAMP. That opportunity is not available
 18 under CEQA because the comment period for the CEQA process is
 19 closed.
 20 This is the last panel for direct testimony on behalf
 21 of Los Angeles Department of Water and Power in terms of the
 22 evidentiary process. So, the presentation made by Mr.
 23 Birmingham is Mr. Deas is not in a position to make that
 24 recommendation. If, in fact, that is the case, I will be
 25 happy to sustain your objection, Mr. Birmingham. But I would

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1 point out to you, however, that this is the only opportunity
 2 and the last opportunity you have in order to make that
 3 presentation, so if you wish to continue to take that
 4 position, sir -
 5 MR. BIRMINGHAM: Well, if I may address the last point
 6 that was made by the hearing officer, this is something Mr.
 7 Frink and I discussed prior to the commencement of the
 8 proceedings.
 9 MR. DEL PIERO: I am not discussing with either you or
 10 Mr. Frink up until this time, but I am pointing this out
 11 because Los Angeles Department of Water and Power has chosen
 12 not to introduce LAASM as an alternative to this point, and
 13 you've clearly stated that. It seems to me, and the reason
 14 why there is a period of comment on the Environmental Impact
 15 Report, is that both the CEQA process and the water rights
 16 process are expressly for the purpose of having not only the
 17 decision-makers, but the public, understand what's going on.
 18 And there is an express intent on the part of the Legislature
 19 in terms of the CEQA process to get as much information
 20 available to that process as possible. Artificially
 21 withholding that information not only causes a detriment to
 22 the process, but at least at this point in time has
 23 effectively, to my mind, foreclosed Los Angeles Department of
 24 Water and Power from being able to comment on that
 25 environmental document. So, if you wish to have something

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1 entered into the current report in terms of these two
 2 processes, it is now.
 3 MR. BIRMINGHAM: In fact, we have introduced in this
 4 hearing process as an exhibit LAASM and all other supporting
 5 documents for LAASM, and at the conclusion of this panel, I
 6 had intended to move for the admission of that as evidence in
 7 this proceeding.
 8 Now, with respect to this being our last opportunity
 9 to offer that as an alternative, the State Board staff is
 10 participating in this proceeding as a party and submitted
 11 LAAMP as an exhibit in the process.
 12 Based upon the comments that were made by the
 13 Department of Water and Power in its comments to the Draft

14 EIR and the written testimony that was submitted by the
15 Department of Water and Power, the meeting which Mr. Canaday
16 referred to did take place, and Mr. Frink and I prior to the
17 commencement of this proceeding discussed the potential need
18 to modify LAAMP, and you indicated to me at that time, and I
19 believe consistent with the procedure for this proceeding,
20 but what was being submitted by the State Board staff in its
21 case in chief in this proceeding was LAAMP. Ultimately, on
22 its rebuttal case, it would present the modifications that
23 were then contemplated and are currently being performed,
24 that is, Mr. Canaday said, that will be presented, it is my
25 understanding, in the rebuttal case by the State Board staff.

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1 And I don't like to use the term rebuttal, because the
2 State Board staff has not been advocating one position or
3 another, but that is how I would term it in these
4 proceedings.
5 Once we have had the opportunity to review the
6 modifications to LAAMP and Mr. Canaday referred to the
7 seven-day period which was agreed to, and once there has been
8 opportunity to review the run itself and see if it works, the
9 Department of Water and Power may conclude that it would not
10 want to propose replacement of LAAMP with LAASM.

11 But we may want to propose a replacement and, Mr. Del
12 Piero, that would be an abuse of discretion of authority with
13 the State Board to permit the State Board staff to introduce
14 a modified LAAMP in its rebuttal case and then not permit the
15 Department of Water and Power in its rebuttal case to say
16 that the modifications to LAAMP are insufficient and,
17 therefore, at the close of the presentation of all of the
18 evidence submit LAASM as a replacement.

19 MR. DEL PIERO: Mr. Frink, do you have a comment on
20 this?
21 MR. FRINK: Yes, I do have a comment. Throughout the
22 process we have had a number of questions regarding the
23 timing of determining fishery flows, of going ahead with
24 other aspects of the EIR, of getting the Draft EIR in before
25 the hearing or the desirability on the part of some of the

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1 parties to prepare a final EIR before the hearing began, and
2 yet we are under a direction from the court to complete the
3 Board's suggested review by September 16 next year, so we
4 weren't able to resolve all of the timing questions as Mr.
5 Birmingham and Mr. Kennedy have both mentioned.

6 The revisions to LAAMP are underway. The testimony
7 concerning those revisions will be presented in this hearing
8 in the context of rebuttal evidence, and I think because of
9 the timing difficulties, that it probably is necessary and
10 appropriate for the Department of Water and Power and other
11 parties to await making their final recommendations on the
12 basis of the entire evidentiary record until those revisions
13 and any other relevant information are in.

14 I would agree that it would be inappropriate to hold
15 the presentation of LAASM entirely until rebuttal, but I
16 don't believe that has been done. What we have now is a
17 question of what will be the recommendation of the various
18 parties, and I think in view of the fact that all of the
19 evidence regarding the various models isn't in, it probably
20 is necessary to await submission of that evidence before
21 final recommendations can be made.

22 MR. DEL PIERO: Mr. Dodge.
23 MR. DODGE: Reluctant as I am to agree with Mr. Frink
24 and Mr. Birmingham, I do think in light of the ongoing
25 revisions of LAAMP, that it would be a mistake to bind any

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1 party to a position as to whether a revised LAAMP is
2 satisfactory, and I think that Mr. Birmingham correctly
3 points out, and I will accept his representation, that LAASM
4 is being introduced as an exhibit in its entirety, and I
5 think that again we are going to have to await the reviewed
6 LAAMP before any parties can be bound as to what its position
7 is.

8 MR. DEL PIERO: Let me make an observation. Mr.
9 Birmingham, you have another comment. Ms. Koehler, you have
10 been remarkably quiet here all this time. Am I missing
11 something here?

12 MS. KOEHLER: I am waiting my turn.
13 MR. DEL PIERO: Mr. Birmingham.
14 MR. BIRMINGHAM: The final comment I would want to
15 make, Mr. Del Piero, is I would not want the Board to be left

16 with the impression that the Department of Water and Power
17 was artificially withholding evidence or withholding comments
18 in the Draft EIR. We did comment quite extensively on LAAMP
19 in our comments to the Draft EIR, and the State Board staff
20 was aware, I believe, of the preparation of LAASM because it
21 was something that was initiated at the request of the State
22 Board early on in this process.

23 As Mr. Deas did testify, there were meetings when the
24 State Board staff got together with DWP, Jones and Stokes.
25 and representatives of the other parties and said, what kind

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1 of model do we want, and how can we go about obtaining it.
2 And so, this has been a dynamic process, and I don't
3 want the State Board members to feel that the Department of
4 Water and Power has been withholding anything, and I would
5 hope that the State Board staff would concur that we have not
6 been artificially withholding evidence in this proceeding.
7 That's my last comment.

8 MR. DEL PIERO: Ms. Koehler, do you have any comments
9 before I start?

10 MS. KOEHLER: I would like you to finish, and then I
11 will proceed.

12 MR. DEL PIERO: Let me begin by saying that no matter
13 how much the parties would like to believe it to be true, no
14 matter how much they would prefer it to be that way, the State
15 Board staff is not the State Board. The problem that I see
16 here with this process is because there is a concurrent
17 process going on, both processes ultimately have to dovetail
18 at a specific point in time in order for the State Board to
19 be able to render a legally sufficient and defensible
20 decision in regard to this matter pursuant to the direction
21 of the court.

22 The Draft EIR comment period is closed. LAASM was not
23 submitted as part of it. It strikes me that if LAASM is
24 allowed to be introduced in the evidentiary record on the
25 water rights and undermines the validity of the Environmental

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1 Impact Report, representations by counsel for L. A.
2 Department of Water and Power I believe to be honest and
3 truthful. Alternatively, however, the effect of that taking
4 place would be to undermine the validity and adequacy of the
5 Environmental Impact Report in order for the Board to
6 ultimately render a decision that meets the requirements of
7 the California Environmental Quality Act.

8 I'm sure that thought has not escaped a number of the
9 minds in this room who are far more adept and flexible in
10 terms of understanding the complex issues that are here.

11 This poses a serious problem, ladies and gentlemen.
12 It poses a serious problem from an evidentiary standpoint,
13 and it poses a serious problem from the standpoint of the
14 Board being able to actually render a decision within the
15 timeline provided to it by the court. It would be my opinion
16 if LAASM is introduced in the evidentiary record, that
17 significant supplement to the Environmental Impact Report
18 might be necessary. Whether or not it is necessary remains
19 to be seen, and I have to review that, but at least at this
20 point in time there is a serious question in my mind as to
21 whether or not the Environmental Impact Report would be
22 adequate to evaluate.

23 Now, let me ask you a question, Mr. Birmingham. Will
24 you represent to me today that Los Angeles Department of
25 Water and Power will not challenge the adequacy of the EIR on

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1 the ground of the fact that LAASM has not been adequately
2 evaluated should you choose ultimately to introduce it?
3 Because that goes to the crux of what this Board is charged
4 with, Mr. Birmingham. This Board is charged with rendering a
5 decision on behalf of the public of the State of California.
6 That's what our responsibility is. Our responsibility is
7 completing an Environmental Impact Report that meets the
8 requirements of the California Environmental Quality Act,
9 that meets the requirements laid out for us by the State
10 Legislature, and meets the requirements laid out for us by
11 the court. That is our charge.

12 Our charge is to do what complies with the law in the
13 best interests of the residents of this State given our
14 responsibility and given the direction that this Board has
15 received from all of those different entities that have
16 jurisdictional authority over how we conduct our business.

17 Now, if you would be kind enough to answer my

18 question.
 19 MR. BIRMINGHAM: Before I answer your question, I need
 20 to make one comment, and then I'm going to ask for a recess
 21 before I answer your question. I have to confer with Mr.
 22 Downey, a representative of the City Attorney's Office.
 23 I agree completely with what you just stated
 24 concerning the dilemma that this creates because of the dual
 25 nature, the dual processes that we are following, and it was

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1 for exactly that reason that we as counsel for the Department
 2 of Water and Power suggested to the State Board staff, who is
 3 responsible for the preparation of the Draft EIR, and then
 4 ultimately certified by the Board, but we suggested to the
 5 staff that it would be virtually impossible to conduct this
 6 evidentiary hearing until there had been a final EIR
 7 certified, and we propose that --

8 MR. DEL PIERO: I understand that process. I
 9 understand what's gone on. I also understand lateness in
 10 terms of responses to Draft EIR's by a variety of parties.
 11 Finger pointing at this point in time is not what I'm
 12 interested in. If you want a recess in order to discuss the
 13 matter with your client, go ahead and do that. I am
 14 concerned at this point with what the business of this Board
 15 is about.

16 MR. BIRMINGHAM: I am not attempting to finger point,
 17 all I'm saying is we recognized that and tried to address the
 18 very concerns that you are now raising with the State Board
 19 staff members who are designated by the State Board staff as
 20 the contact people for communication with the Board prior to
 21 the commencement of the proceeding.

22 MR. DEL PIERO: Again, Mr. Birmingham, that is not the
 23 point. The point here has to do with the CEQA process in
 24 terms of commenting on an administrative draft. It's got to
 25 do with the development of LAASM. It's got to do with time

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1 limits in terms of Los Angeles Water and Power's comments on
 2 the administrative draft. It's got to do with whether or not
 3 they intended, or ultimately intend, to offer LAASM as an
 4 alternative to LAAMP, whether or not it was appropriate for
 5 them to have commented on that during the comment period on
 6 the Draft EIR, and then furthermore and most importantly, it
 7 goes to the ability of this Board to render a decision.

8 The activities of all the parties here, what's gone on
 9 before, is to my mind not something that is particularly
 10 important. I want an answer to that so that my Board can be
 11 in a position of rendering a decision that is sufficiently
 12 adequate in terms of the law, to do what the courts told us
 13 to do, the Legislature told us to do, and what the public
 14 deserves.

15 So, if you want to take a recess, we will recess for
 16 15 minutes.

(Recess.)

18 MR. DEL PIERO: This hearing will again come to order.
 19 Mr. Birmingham.

20 MR. BIRMINGHAM: As I understand the question that was
 21 put to me by the Hearing Officer, it was whether or not the
 22 Los Angeles Department of Water and Power would stipulate
 23 that it will not challenge the certification of the
 24 Environmental Impact Report on the ground that it does not
 25 adequately address LAAMP.

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1 MR. DEL PIERO: It was the adequacy of the
 2 Environmental Impact Report.

3 MR. BIRMINGHAM: On the ground it does not -- I want
 4 to make sure I understand what I am agreeing to, that the
 5 Department of Water and Power of the City of Los Angeles will
 6 not challenge the adequacy of the Environmental Impact Report
 7 on the ground that it does not adequately address LAASM.

8 MR. DEL PIERO: It was the adequacy of the
 9 Environmental Impact Report.

10 MR. BIRMINGHAM: On the ground it does not -- I want
 11 to make sure I understand what I am agreeing to, that the
 12 Department of Water and Power of the City of Los Angeles will
 13 not challenge the adequacy of the Environmental Impact Report
 14 on the ground that it does not adequately address LAASM.
 15 That is something which the Department of Water and Power
 16 will agree to. It was never our intent to challenge the
 17 adequacy of the Environmental Impact Report on its failure to
 18 analyze LAASM, because as indicated, we did not include LAASM
 19 in our comments.

20 But it is our position that entry into this
 21 stipulation does not --

22 MR. DEL PIERO: Mr. Birmingham, I'm not asking you to
 23 stipulate. I asked you simply to answer a question. If you
 24 wish to tell me you won't, that's fine. If you wish to tell
 25 me you will, that's fine, too. I need to understand what has

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1 gone on in terms of the process by which comments to the
 2 Environmental Impact Report have been made and evidence has
 3 been introduced in this concurrent process in order to
 4 guarantee that the Board has a complete record on both counts
 5 to render a decision. I don't want to be confronted with the
 6 situation where at the end of this evidentiary process,
 7 because of the way evidence has been introduced by the
 8 various parties, the Board is in the position of having
 9 participated in a tremendous exercise, tremendous expenditure
 10 of public funds, and the tremendous commitment of time on the
 11 part of this agency, only to find it's in a position of not
 12 being able to render a legally adequate and defensible
 13 decision. Understand?

14 MR. BIRMINGHAM: Yes, I do, and I concur completely,
 15 and, in fact, it would be our view, the Department of Water
 16 and Power's view, that the only basis for challenging the
 17 adequacy of the EIR would be on the CEQA record, and the
 18 evidence that is submitted in this evidentiary hearing, as
 19 the Hearing Officer has noted, is not part of the CEQA
 20 record, but that doesn't necessarily mean that evidence that
 21 was not included in the comments to the Draft Environmental
 22 Impact Report can't be received in this proceeding, nor does
 23 it mean that in analyzing the environmental effects, the
 24 State Board staff cannot use evidence that was submitted in
 25 this proceeding.

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1 It is simply this, if someone wishes to challenge the
 2 adequacy of the Environmental Impact Report, the inadequacy
 3 needed to be raised in connection with the Environmental
 4 Impact Report process. I think we are saying exactly the
 5 same thing.

6 MR. DEL PIERO: Okay.

7 MR. BIRMINGHAM: And we do not intend, we will not
 8 challenge the adequacy of the Environmental Impact Report
 9 because it does not adequately analyze LAASM. That was never
 10 our intent.

11 MR. DEL PIERO: Thank you.

12 MR. BIRMINGHAM: But in this process, whether or not
 13 we will suggest that LAASM should be used as an alternative
 14 to LAAMP in this process, this evidentiary hearing, is a
 15 decision we cannot make today. If we are forced to make it
 16 today, based upon the evidence as it exists right now, we
 17 would say, yes, we are going to submit LAASM as an
 18 alternative because LAAMP, as it exists today, has the
 19 problems that we have discussed.

20 Whether or not LAAMP, as it is being modified, will
 21 have those problems is something we can't even begin to
 22 answer today because we haven't seen the modifications.

23 But ultimately what we may propose doing, after we
 24 have an opportunity to analyze LAAMP, is we may propose that
 25 the Department of Water and Power be permitted to use LAASM

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1 as its operational model in implementing the conditions that
 2 are imposed by the State Board staff as the result of these
 3 proceedings.

4 Now, that doesn't affect the Environmental Impact
 5 Report process.

6 MR. DEL PIERO: You misspoke, the conditions will be
 7 imposed by the State Board.

8 MR. BIRMINGHAM: What did I say?

9 MR. DEL PIERO: State Board staff. (Laughter.) The
 10 record is real clear.

11 MR. BIRMINGHAM: Let me restate it so the record is
 12 clear, that we may propose that LAASM be used as the
 13 operational model to implement the conditions that are
 14 imposed by the State Board as the result of this proceeding,
 15 and that is what LAASM was developed for, not as something to
 16 be analyzed as part of the Environmental Impact Report, but
 17 whatever the conditions are, we may want to use LAASM as the
 18 model to implement those conditions.

19 MR. DEL PIERO: Thank you.

20 Now, where we began this process, Ms. Koehler, you
 21 were asking Mr. Deas whether or not it was the intention of

22 Los Angeles Department of Water and Power to introduce LAASM
23 in this proceeding. Mr. Deas, I assume you don't know.

24 MR. DEAS: A I don't know.

25 MR. BIRMINGHAM: I think her question was, was it
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1 intended to be offered as a replacement for LAAMP.

2 MS. KOEHLER: As an alternative to LAAMP.

3 MR. DEL PIERO: Again, the response, Mr. Deas.

4 MR. DEAS: A I don't know.

5 MS. KOEHLER: It may be after this long dialogue
6 appropriate to ask you for a ruling on the question, if I
7 may. I understand fully Mr. Birmingham's position that Los
8 Angeles is not yet in a position to decide how it would like
9 to ask the Board to use LAAMP. I hope I am accurately
10 characterizing Mr. Birmingham's concerns, and I appreciate
11 that. I would like to ask you for a ruling on whether it is
12 appropriate for me nevertheless at this time to ask Mr. Deas
13 the purpose for which LAASM was developed. It is an exhibit.
14 I assume it will be admitted into evidence, and I think
15 regardless of how Los Angeles ultimately recommends to the
16 Board that it use LAASM, that it will be useful in this
17 proceeding to explore how it was developed and the purposes
18 for which it was developed.

19 MR. BIRMINGHAM: We have absolutely no objection to
20 those questions to the extent Mr. Deas knows the answers.

21 MR. DEL PIERO: Please proceed.

22 MS. KOEHLER: Q Mr. Deas, as I just said, turning
23 away from the question of how Los Angeles ultimately
24 recommends the Board to use or not use LAASM, you were
25 instrumental in the development; is that correct?
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1 MR. DEAS: A Yes.

2 Q Is it correct to state that LAAMP is a planning model
3 for the Los Angeles Aqueduct system?

4 A LAAMP?

5 Q LAAMP.

6 A I believe that's what the State Board staff termed it.

7 Q By your answer, are you suggesting -- I am asking you.

8 A Yes, it is a planning model.

9 Q In your opinion, in your development of LAASM, did you
10 intend it to be a similar type of planning model?

11 A Can you define what you mean by planning model for me?

12 Q Well, you understand there to be a distinction between
13 a planning model and an operations model?

14 A Often in my field people would term LAAMP or LAASM a
15 planning operation model.

16 Q Then let me try to get to it this way. In your
17 development of LAASM, was it your intention it be used for
18 the same purposes for which Jones and Stokes developed LAAMP?

19 A I believe, in my opinion, that Jones and Stokes
20 developed LAAMP for analyzing impacts of the environmental
21 impact review process. I believe that the City of Los
22 Angeles developed this model, LAASM, so they could use it to
23 operate their own system. It was not necessarily constructed
24 for the environmental impact process. It was an in-house
25 model.
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1 Q Aside from the process for which it was developed, I
2 am asking you about the purpose for which it was developed.
3 The State Board staff, as you identified, had a particular
4 set of purposes for which it wanted to use a model, and Jones
5 and Stokes then developed a model to address those purposes,
6 and that's LAAMP. My question to you is, the development of
7 LAASM, was it developed to perform the same types of
8 analytical function? I understand it is an in-house model,
9 but were the same purposes to be addressed in this model --
10 Let me ask that question first.

11 A Could you define the purposes for which LAAMP was
12 developed?

13 Q I prefer not to, Mr. Deas. I'm asking you about that.

14 A Then I have to assume it was developed for the purpose
15 of analyzing system impacts due to different environmental
16 impacts of the alternatives.

17 Q Let me stop you there. Is it your testimony that you
18 don't know the purposes for which LAAMP was developed?

19 A I believe that LAAMP was developed for analyzing
20 system impacts, water supply, export from the Mono Basin,
21 Mono Lake response, export to L. A. for the Los Angeles
22 Aqueduct system for the EIR process.

23 MR. DEL PIERO: Mr. Deas, if that is your belief, then

24 why did you ask Ms. Koehler what she thought the purpose was
25 for the development of LAAMP?

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1 A I wondered if she had a different set of purposes.

2 MR. DEL PIERO: Why don't you go ahead and answer the
3 question.

4 A The purpose for the development of the Los Angeles
5 operating model was to analyze different hydrologic events
6 given operations under which the EIR alternatives would fall
7 into roughly as at the basic level, which I believe you call
8 analytical -- they are both system models which are to move
9 water.

10 MS. KOEHLER: Q Mr. Deas, in developing LAASM, I am
11 still not certain you understand what I am asking you. In
12 developing LAASM, did you or any of your planning people ever
13 consider the purposes for which the State Board staff was
14 interested in having an analytical model of the Los Angeles
15 Aqueduct system?

16 A Yes.

17 Q And was LAASM developed specifically to address those
18 purposes?

19 A In certain instances the Department of Water and Power
20 knew that there was going to be a potentially wide range of
21 alternatives presented by the Draft EIR, so the model was
22 constructed with enough flexibility to allow analysis of
23 those so the Department with their own model could analyze
24 the impact of the potential Environmental Impact Report.

25 Q I'm not sure if you have answered my question. I'm
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1 asking you about, and I'm sorry if it seems at times I am not
2 being clear --

3 MR. DEL PIERO: Ms. Koehler, if you would like another
4 20 minutes, you are welcome to have the additional 20
5 minutes.

6 MS. KOEHLER: Thank you.

7 MR. DEL PIERO: I really sincerely hope we are going
8 to complete this panel by 1:30 today.

9 MS. KOEHLER I really don't have any more questions,
10 Mr. Del Piero.

11 MR. DEL PIERO: I am granting you the 20 minutes
12 because it is taking a long time to get answers to what I
13 think are very simple questions.

14 MS. KOEHLER: LAAMP was developed, just so we are
15 clear, to deal in part with the CEQA process as we have
16 discussed it at some length at this point. It was also
17 developed, would you agree, to help this Board in this water
18 rights proceeding?

19 MR. BIRMINGHAM: Objection, compound.

20 MR. DEL PIERO: Sustained.

21 MS. KOEHLER: Q Would you agree that the LAAMP model
22 was developed to aid this Board in making its decision in the
23 water rights proceeding?

24 A Yes.

25 Q And you have testified, I believe, that you are
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1 familiar with the purposes which the State Board, through its
2 staff, set for the development of such an analytical model?

3 A Yes.

4 Q In developing LAASM, were those purposes specifically
5 to be addressed? I am not talking about whether it was
6 in-house or out-house, I am talking about the information
7 that the model was designed to generate.

8 A Yes.

9 Q So, is it your testimony, then, that LAASM and LAAMP
10 have overlapping purposes?

11 A Well, they model the same system, so, yes.

12 Q Let's move on. You have testified that LAASM really
13 should only be run by someone familiar with the Los Angeles
14 Aqueduct system; is that correct?

15 A Yes.

16 Q Does this suggest that a Board member or Board staff
17 may have some difficulty running the model without your
18 assistance or assistance of some other expert?

19 A That may be the case.

20 Q Is it correct that LAASM, as submitted to the Board in
21 this proceeding, does not have the capacity to specify
22 minimum releases to the Upper Owens River if Mono Lake is
23 below a specific target? Perhaps I can clarify that question
24 with an example. Isn't it correct that your model is driven
25 by the target lake level for each month?

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1 A This is LAASM, correct?
 2 Q LAASM.
 3 A I'm just thinking to answer your question. I believe
 4 that is correct.
 5 Q And so once the target is reached, all other available
 6 water is exported to the Upper Owens; isn't that correct?
 7 A Not exactly, because we have to meet fish flows and
 8 lake level, and we must obtain the predetermined Grant Lake
 9 target storage for the month. Once all those have been
 10 obtained, then we can go ahead and export water.
 11 MS. KOEHLER: I think I'm through with this witness.
 12 MR. DEL PIERO: Thank you very much. Ms. Scoonover.
 13 MS. SCOONOVER: Yes, and I will be brief.
 14 CROSS EXAMINATION
 15 by MS. SCOONOVER:
 16 Q My name is Mary Scoonover. and I represent the State
 17 Department of Parks and Recreation and the State Lands
 18 Commission.
 19 Mr. Deas, I have what should be a couple of fairly
 20 quick questions for you. Would you agree with me that the
 21 refinements now being made to the LAAMP model are refinements
 22 to correct a few coding errors and to expand the capability
 23 of LAAMP?
 24 A Yes.
 25 Q Would you agree with me that LAAMP is conceptually

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1 sound?
 2 A Could you restate that?
 3 Q Would you agree with me that LAAMP is conceptually
 4 sound?
 5 A No.
 6 Q Then, Mr. Deas, would you characterize these changes
 7 that are being made that we have just discussed as being
 8 conceptual changes?
 9 A I don't know the exact list of changes that are
 10 occurring.
 11 Q Is it your understanding that some of these are
 12 conceptual changes?
 13 A Some of them are.
 14 Q Mr. Hasencamp, I have a couple of questions for you,
 15 and they have to do with some of the operational restrictions
 16 that you discussed in your testimony, and then you discussed
 17 with Mr. Birmingham. One of the operational restrictions was
 18 that in wet years you are trying to help minimize Mono Lake
 19 level fluctuations, and you explained yesterday that you were
 20 intent on, I believe, not increasing the lake level too
 21 rapidly and not to too high a level. Is that an accurate
 22 summary?
 23 MR. HASENCAMP: A Well, I have said that if there was
 24 a repeat of the wet period, 82 to 86, that we could change
 25 our operations to prevent the lake from rising as quickly as

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1 the model has indicated.
 2 Q And you stated there were a couple of specific
 3 negative impacts associated with the rising lake level;
 4 impacts to tufa were one of those.
 5 A Yes.
 6 Q If you were to assume that these negative impacts
 7 associated with the higher lake levels have been overstated
 8 so as to actually be insignificant, would that change the
 9 operational constraints of the Los Angeles Aqueduct in a wet
 10 year?
 11 A Well, we are looking at the whole Mono Lake system,
 12 and it is my understanding that the rapid rise in the lake
 13 level has some detrimental effects, so the point was to
 14 minimize that rapid rise so if there is evidence that
 15 suggests that that is not the case, then we would not be as
 16 concerned about it.
 17 Q Are you concerned with the system capacity only in wet
 18 years?
 19 A Well, generally wet years, but there's a few times
 20 where flash floods occur where the flows pick up very
 21 quickly, even in a drought, but yes, generally wet years.
 22 Q You discussed a little bit on the Owens Valley
 23 spreading operations. Does this occur only in wet years?
 24 A It occurs generally in wet years.
 25 Q Can you tell me the capacity of the spreading

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1 operations, for example, the number of acre-feet the City of

2 Los Angeles is able to spread in a single year from Owens
 3 Valley?
 4 A No, I can't. It is not a constant amount, because if
 5 you spread a lot in one year, the next year you cannot spread
 6 quite as much because the ground is already saturated, so it
 7 is dependent on several variables.
 8 Q Is there included in your analysis of the Los Angeles
 9 Aqueduct system the assumption that the Lower Owens River
 10 will be rewatered?
 11 A No.
 12 Q Have you included in this analysis the potential for
 13 rewatering historic wetlands east of the Lower Owens River?
 14 A No.
 15 Q Are you familiar with the historic wetlands in the
 16 Lower Owens River area?
 17 A No, not really.
 18 Q That is all for you, Mr. Hasencamp.
 19 Mr. Deas, can you give me an example of the proposed
 20 change to the LAAMP model which you would consider to be
 21 conceptual?
 22 A Yes. For example, the Mono Basin exports -- I'm going
 23 to have to give you an example to explain this. In 1983, we
 24 had a large runoff year in the entire Eastern Sierra, and the
 25 system essentially filled up the reservoirs and the dams, and

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1 at that time you certainly don't want to export additional
 2 water from Mono Basin when you are already at capacity or at
 3 near capacity of the system.
 4 As an improvement to LAAMP, it would be logical to
 5 essentially look down system prior to exporting from the Mono
 6 Basin, so instead of blindly exporting from the Mono Basin to
 7 an already at-capacity or near-capacity system, and perhaps
 8 spilling that water to Mono Lake or putting at risk your
 9 reservoirs, logic would be to first look down and say, well,
 10 I really can't. The logic would say there is no room, so I'm
 11 not going to export.
 12 MR. BIRMINGHAM: I believe Mr. Deas might have
 13 misspoke when he said Mono Lake as opposed to Owens Lake.
 14 A I am sorry, the spill would be to Owens Lake.
 15 MS. SCOONOVER: Q That kind of change to the model
 16 cannot be made with specific user input, but must be a
 17 conceptual change then?
 18 A Yes, because specific years of input in this case, in
 19 LAAMP each month, they usually specify a monthly export. So,
 20 April through March you can enter a number. However, you
 21 cannot change that number for a wet year or a dry year, and
 22 the number is not adjusted for capacity down system.
 23 Q In general, Mr. Deas, how would you characterize a
 24 conceptual change to LAAMP as opposed to a refinement?
 25 A Maybe they are the same thing. They may be the same

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1 thing.
 2 Q So, any refinement in LAAMP or most refinements in
 3 LAAMP would be considered conceptual changes to the model?
 4 A No, I'm sorry. Refinement might be improving the use
 5 of interface or printing out a different value that is
 6 currently not printed out, so I would say refinement may also
 7 include correcting LAAMP to properly look down system.
 8 Q So, correcting a coding error, I believe you agreed
 9 with me earlier, was a refinement to LAAMP, as well as
 10 expanding the capabilities of LAAMP; would you call those
 11 refinements?
 12 MR. BIRMINGHAM: Objection, compound.
 13 MR. DEL PIERO: Sustained.
 14 MS. SCOONOVER: A I asked you whether it was your
 15 understanding the refinements to LAAMP were correcting a few
 16 coding errors and expanding the capabilities of LAAMP, to
 17 which, I believe, you answered yes. Is that accurate?
 18 A I did answer yes.
 19 Q Do you believe those changes are conceptual changes,
 20 or would you describe those changes as refinements?
 21 A Some of them will be refinements, and some of them
 22 will be conceptual.
 23 MS. SCOONOVER: Thank you. That's all.
 24 MR. DEL PIERO: Thank you very much. Anyone else want
 25 to ask questions? Mr. Frink.

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EXAMINATION

1 by MR. FRINK:
 2 Q Mr. Deas, with the exception of the computer modeling

4 which you assisted the Department of Water and Power with on
 5 the Mono Basin, have you prepared any other computer models
 6 for other water diversion systems?
 7 MR. DEAS: I'm sorry, I didn't catch the end of that.
 8 Q Other water diversion and delivery systems.
 9 A I have created a small water balance model for the
 10 Corps of Engineers on a reservoir somewhere back east. It's
 11 been a long time. I've done some water modeling for some
 12 proposed reservoirs. So, yes, I have done some other
 13 systems.
 14 Q Is a water supply model and an operational model the
 15 same thing, in your opinion?
 16 A In the context with which I have done this modeling,
 17 the operation models have been for their project purpose,
 18 water supply. It may be a multi-purpose project, there may
 19 be some power generation, some recreation involved, but it
 20 probably should have been stated that water supply was a
 21 major use.
 22 Q And do you recall approximately the amount of water
 23 involved in the reservoirs that you developed the model for
 24 with the Corps of Engineers?
 25 A I'm sorry, I can't recall.

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1 Q Do you know if the model is being used?
 2 A I do not know.
 3 Q In preparing a complicated computer model for a
 4 complex water diversion system, is it necessary to make a
 5 large number of assumptions regarding various input?
 6 A Yes.
 7 Q And is there a margin of error associated with each of
 8 those inputs?
 9 A Yes.
 10 Q Would you care to speculate as a modeler on what you
 11 could consider to be a reasonable margin of error in
 12 preparing an operations model?
 13 A It depends on the system, it depends on the available
 14 data, and it depends on the purpose of the model. If you are
 15 modeling a daily event, then you need a lot more data than if
 16 you are modeling a multi event, for example. So, it's a
 17 function of the system.
 18 Q If you were attempting to prepare a model to predict
 19 the yearly deliveries through a particular water diversion
 20 system, would you expect the model to be accurate within 1
 21 percent?
 22 A No.
 23 Q What degree of accuracy would you hope to achieve?
 24 A If the model is properly formulated, representative of
 25 the system, 5 to 15 percent.

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1 Q Mr. Hasencamp, my understanding is that the initial
 2 LAAMP model was provided to the Department of Water and Power
 3 and other interested parties in 1991, and that a revised
 4 version was provided in 1992; is that correct?
 5 MR. HASENCAMP: A That's correct. There were
 6 subsequent versions after the version received in 1992 as
 7 well.
 8 Q Do you know if anyone on the Department of Water and
 9 Power staff reviewed the LAAMP model for DWP during 1991?
 10 A Yes.
 11 Q And did they provide comment to Jones and Stokes on
 12 that LAAMP model at that time?
 13 A Yes. There was a meeting held in August of 1991, I
 14 believe it was, and the parties were asked to submit comments
 15 on the LAAMP model. The Department of Water and Power along
 16 with other parties submitted comments to the version, I don't
 17 know if it was 1.0 or what version of the LAAMP model, but
 18 that was not the completed version.
 19 Q After you received the completed version in April of
 20 1992, did the Department of Water and Power staff review that
 21 model?
 22 A There is a little discrepancy in that we received a
 23 version in March of 1992, and then I understand there were a
 24 few changes made, but we did not receive the final version
 25 until sometime this year, 1993, but the version that we got

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1 in 1992 we did begin reviewing it in 1992, yes.
 2 Q Did you provide comments and any suggested revisions
 3 to Jones and Stokes staff with respect to the version that
 4 you received in the spring of 1992?
 5 A No.

6 Q Mr. Hasencamp, I assume in view of the concerns that
 7 the Department of Water and Power has expressed with regard
 8 to the LAAMP model, that you would agree it would be helpful
 9 to have peer review of complicated models such as that?
 10 A Yes, I would.
 11 Q Has the LAASM model been subject to that type of
 12 desirable peer review to date?
 13 A No, I don't think it has. Maybe Mr. Deas can answer
 14 that question.
 15 MR. DEAS: A There was some review of certain
 16 components of the model carried out by independent parties to
 17 examine some of our regression equations to determine if they
 18 were adequate.
 19 Q Other than that, has there been any outside review of
 20 the LAASM model?
 21 A Not beyond the immediate crew involved.
 22 Q Mr. Deas, I believe you indicated that there is still
 23 a problem with the way that the LAAMP model treats the
 24 transit gain between Tinemaha Reservoir and Haiwee Reservoir
 25 that results in a net error of approximately 19,000

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1 acre-feet; is that correct?
 2 A Yes.
 3 Q And your testimony indicates that the LAAMP model also
 4 does not account for reservoir evaporation resulting from
 5 overestimating the water available for export to Los Angeles
 6 by approximately the amount of 10,000 acre-feet; is that
 7 correct?
 8 A I think I said 8 to 9 thousand.
 9 Q For reservoir evaporation?
 10 A That is correct.
 11 Q 8 to 9 thousand for reservoir evaporation?
 12 A That is correct.
 13 Q Now, the result again of the error in the model is it
 14 underestimates the quantity of water available for export; is
 15 that correct?
 16 MR. HASENCAMP: A That is correct.
 17 Q So, is there an offsetting factor between these two
 18 errors so that you could subtract the 8 to 9 thousand
 19 acre-feet from the 19,000 acre-feet and end up, in your view,
 20 with a net error of 10 or 11 thousand acre-feet?
 21 MR. DEAS: A Not exactly because I arrive at the
 22 numbers differently. The Tinemaha to Haiwee transit gain,
 23 you can think of it in just a gross sense, you are supposed
 24 to add 9,300 acre-feet, and instead it was subtracted, and
 25 that is just a net error in the determination of the Owens

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1 Valley available water.
 2 For the Tinemaha to Haiwee evaporation numbers, I
 3 actually went into the LAAMP computer code and corrected it
 4 and recalculated the number, and the impact was 8 to 9
 5 thousand acre-feet on the flow to Los Angeles. So, the error
 6 from the evaporation is stated in terms of flow to Los
 7 Angeles. The error in Tinemaha to Haiwee transit is just
 8 indicated in a gross sense. It was supposed to be added, and
 9 it was subtracted.
 10 Q In any event, there would be an offsetting
 11 relationship between the two errors?
 12 A It seems there would be. I would like to make the
 13 change and see what the impact does.
 14 Q Can you conceive of any way in which that would not be
 15 an offsetting relationship between those two errors?
 16 A I would have to look at the computer code to see how
 17 that water is handled in that reach.
 18 Q Mr. Deas, on page 28 of your testimony, Table F shows
 19 the lake levels for each month below which there could be no
 20 water export from the Mono Basin under the DWP Mono Lake
 21 Management Plan; is that correct?
 22 MR. DEAS: A Yes.
 23 Q As I understand, the application of the LAASM model
 24 does not provide for a gradual reduction in water export as
 25 you approach your designated water level; is that correct?

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1 MR. HASENCAMP: A Yes.
 2 Q So, in other words, your diversions are allowed up
 3 until you reach the level, and then there's a shutoff?
 4 A Yes.
 5 Q From your review of the LAAMP model, is it your
 6 understanding that it does provide for a gradual reduction in
 7 diversions before diversions are shut off entirely?

8 A Yes.
 9 Q Mr. Hasencamp, I believe you stated yesterday that
 10 water in excess of the water that is needed for fishery
 11 protection in Parker Creek would be available for diversion
 12 for in-Basin irrigation. Does the Department of Water and
 13 Power have a position on what level of flow is required for
 14 fishery protection in Parker Creek?
 15 MR. HASENCAMP: A Well, I was using the flows from
 16 the interim stream flow order.
 17 Now, that's solely for determining where the
 18 irrigation cutoff is, and, of course, that flow is 9 cubic
 19 feet per second in the summer and 6 in the winter. But that
 20 is not the Department's recommendation on what minimum stream
 21 flows are necessary. That was just for the purpose of
 22 determining irrigation.
 23 Q Is the Department making a recommendation on minimum
 24 stream flows in Parker Creek in this proceeding?
 25 A No.

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1 Q Do you know approximately how much water is diverted
 2 for irrigation on Parker Creek?
 3 A Well, historically, it's averaged a little over 1,000
 4 acre-feet, but with the Management Plan, in dryer times that
 5 irrigation water would not be available, so it would be less
 6 than that.
 7 Q Is it your understanding, then, that any diversions
 8 that would occur from Parker Creek for in-Basin irrigation
 9 would be under claim of riparian right rather than under the
 10 water right licenses that are at issue in this proceeding?
 11 A I believe that is true.
 12 Q I have a number of questions regarding the Department
 13 of Water and Power's Mono Lake Management Plan. Has the plan
 14 been presented for approval to either the Board of Water and
 15 Power Commissioners or the City Council for Los Angeles?
 16 A No, just the General Management of the Department of
 17 Water and Power.
 18 Q When was the plan prepared?
 19 A Over the summer of 1993.
 20 Q In the course of preparing the Mono Lake Management
 21 Plan, did the Department of Water and Power do an analysis of
 22 the economic cost of obtaining replacement water for water
 23 that would no longer be available from the Mono Basin?
 24 A An analysis was done after the plan was prepared.
 25 Q When was the analysis done?

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1 A Over the last month.
 2 Q So, it was done after the plan was submitted as a
 3 proposal in this proceeding?
 4 A Yes.
 5 Q Has the Department of Water and Power calculated the
 6 indirect cost, or water shortage cost, of implementing the
 7 Mono Lake Management Plan?
 8 A Would you repeat the question?
 9 Q I am using words here from Dr. Wade's exhibit and
 10 testimony in which he referred to water shortage costs and
 11 then in the cross-examination those were referred to as
 12 indirect costs as distinguished from the cost of actually
 13 replacing water that's lost from Mono Basin.
 14 My question is, has the Department of Water and Power
 15 done an analysis of these indirect costs of reduced water
 16 export from the Mono Basin which would occur under the Mono
 17 Lake Management Plan?
 18 A No, Dr. Wade did an analysis on the alternatives
 19 listed in the EIR, and for rebuttal evidence we would present
 20 that information with the economics of the Management Plan.
 21 Q In developing the Management Plan, though, the
 22 Department of Water and Power did not look at these indirect
 23 or water shortage costs; is that correct?
 24 A That's correct.
 25 Q Has the Department of Water and Power or the

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1 consultants calculated the effect of implementing the Water
 2 Management Plan on hydroelectric production?
 3 A A cursory review.
 4 Q When was that done?
 5 A That was done within the last month, also.
 6 Q Have the Department of Water and Power consultants
 7 attempted to determine the quality or the impacts on water
 8 quality of implementing the Mono Lake Management Plan?
 9 A No, they have not.

10 Q And has the Department attempted to identify the
 11 environmental impact in the Sacramento-San Joaquin River
 12 Delta of implementing the Mono Lake Management Plan?
 13 A No.
 14 Q I believe your testimony indicates on page 43 in Table
 15 D that implementation of the Mono Lake Management Plan would
 16 result in a decrease of Mono Basin water exports to the level
 17 of 45,700 acre-feet a year; is that correct?
 18 A Well, that is correct for the -- There is a slightly
 19 different hydrology, because when you talk about our average
 20 annual runoff, our official averages are from 1941 to 1990.
 21 So, for the table here we use the data from 1941 to 1990 only
 22 so that our averages would be consistent with our published
 23 averages.
 24 Q Is there another number that you have calculated as
 25 being the likely average annual amount of water available for

00097

1 export?
 2 A Yes, on Figure 9, and the caption reads, of a total
 3 water supply from the Mono Basin, an average of 46,300
 4 acre-feet will be exported, and the balance of 74,000
 5 acre-feet will be released to Mono Lake, and again that
 6 assumes a repeat of the historical hydrology.
 7 Q Of the 46,300 acre-feet that would be exported from
 8 the Mono Basin under the Mono Lake Management Plan, how much
 9 of that would actually be delivered to the City of Los
 10 Angeles on an average basis?
 11 A It's very difficult to say because it becomes an
 12 accounting problem, so to really find out, you would have to
 13 do a run with no export and then a run with a 46,000
 14 acre-foot, and then calculate the difference for Los Angeles,
 15 so I don't have that, but it would be slightly less than
 16 46,000, but I don't know, probably in the range of 5 percent.
 17 MR. FRINK: I believe that's all the questions I have.
 18 Thank you.
 19 MR. DEL PIERO: Mr. Satkowski.
 20 EXAMINATION
 21 by MR. SATKOWSKI:
 22 Q Mr. Deas, earlier Ms. Scoonover asked you about the
 23 changes that were being made to the LAAMP model; is that
 24 correct?
 25 MR. DEAS: A Yes.

00098

1 Q When you said you didn't know exactly what the list of
 2 changes were, is that also your testimony?
 3 A Right.
 4 Q Are you aware of the October 18, 1993 memo describing
 5 these changes?
 6 A I looked at it this morning.
 7 Q You hadn't seen it before this morning?
 8 A There are two memos, I believe.
 9 Q There may be two.
 10 A Which date did you refer to?
 11 Q October 18.
 12 A October 18. Like I mentioned, I saw the one from
 13 October 8, but I've not seen the one from October 18.
 14 Q When was the LAASM development completed?
 15 A Sometime during the summer. The documentation was not
 16 completed until a few months after that.
 17 Q Which summer?
 18 A I'm sorry, the summer of 1993.
 19 Q And when it was completed, you sent it out to others
 20 for a kind of review or their use?
 21 A No, there was no need. It was an in-house model for
 22 other people to use.
 23 Q Did you notify the Board or the Board staff this model
 24 was completed?
 25 A That's not my responsibility.

00099

1 MR. HASENCAMP: Yes, we notified the Board staff that
 2 we had a model and that we would be submitting it for all the
 3 parties on September 22, 1993, I believe is the date.
 4 Q Were you asked to release the model earlier than
 5 September 22?
 6 A Not to my knowledge.
 7 Q Mr. Deas, I believe you said when developing LAASM
 8 there was a working group that was put together to work out
 9 some of the details of LAASM; is that correct?
 10 MR. DEAS: A Yes.
 11 Q When did that take place?

12 A It is hard to remember right now. I believe, correct
 13 me if I'm wrong, Bill, early 1993 or late 1992.
 14 Q Who was on that working group?
 15 A The Department of Water and Power totally.
 16 Q Did you invite any other parties to be a part of that
 17 group?
 18 A No.
 19 Q Why not?
 20 A It was a model for the Department of Water and Power,
 21 and we felt we had enough people in-house to develop the
 22 model.
 23 Q What are the changes that you have recently made to
 24 LAASM?
 25 MR. HASENCAMP: A There are a couple of additions to

00100

1 the LAASM model from what was submitted on September 22. One
 2 is the ability to limit the maximum flow in the Upper Owens
 3 River, and the second is to allow a certain amount of export
 4 during the transition period from the starting lake level to
 5 the target lake level.

6 Q Those are the only two changes that you made with the
 7 model you introduced in the hearing?

8 A Yes.

9 Q Do you plan to present this revised model as a
 10 rebuttal testimony or exhibit?

11 A Yes.

12 Q Mr. Hasencamp, I have questions about your Management
 13 Plan, and for the most part, I was going to refer to Exhibit
 14 83, which was the summary. Do you have a copy of that in
 15 front of you?

16 A I don't, and as I said earlier, that's not part of my
 17 testimony.

18 MR. FRINK: I wonder, Mr. Del Piero, in order that our
 19 record is clear on this, I know that Mono Lake Management
 20 Plan has been labeled as LADWP 83. Mr. Birmingham, I wasn't
 21 clear from your comments, but does the Department of Water
 22 and Power intend to offer the brochure describing the Mono
 23 Lake Management Plan as an exhibit?

24 MR. BIRMINGHAM: No.

25 MR. FRINK: There has been a good deal of discussion

00101

1 about it, and in order that our record is clear, I would
 2 propose, then, that it be designated and offered into
 3 evidence as Staff Exhibit Number 35.

4 MR. DEL PIERO: Fine. If the staff hadn't made that
 5 recommendation, I was going to. I have one question before
 6 we continue with questions. Mr. Birmingham, how many copies
 7 of this did you make?

8 MR. BIRMINGHAM: I don't know the answer to that.

9 MR. DEL PIERO: Mr. Hasencamp, do you know how many
 10 copies of this have been made?

11 MR. HASENCAMP: A No.

12 MR. DEL PIERO: Thousands?

13 A I think probably a thousand or more.

14 MR. DEL PIERO: Let me ask you this question: The
 15 General Manager of the Department of Water and Power, that
 16 individual works for the governing board; is that true?

17 A Yes.

18 MR. DEL PIERO: Is he not hired by them, or is he
 19 appointed by the mayor?

20 MR. BIRMINGHAM: Excuse me, Kenneth Downey is here,
 21 and he is not a witness, but he is the expert in all of these
 22 issues, and I know that the Hearing Officer had similar
 23 questions at the Public Policy Hearing in Los Angeles, and I
 24 wonder if maybe we couldn't ask Mr. Downey, not to testify,
 25 but as a legal representative of the City, to answer these

00102

1 questions.

2 MR. DEL PIERO: Let me just ask Mr. Hasencamp, do you
 3 know, sir?

4 A Who the General Manager is appointed by?

5 MR. DEL PIERO: Yes.

6 A I'm not positive.

7 MR. DEL PIERO: Do you suspect?

8 A Yes.

9 MR. DEL PIERO: Who do you think?

10 A The mayor.

11 MR. DEL PIERO: Is the General Manager authorized to
 12 approve documents like the Mono Lake Management Plan in his
 13 capacity of General Manager of the agency?

14 A I would imagine he is.
 15 MR. DEL PIERO: Do you believe that to be the case?
 16 A Well, the Assistant General Manager is the one who
 17 brought them to the hearing in Sacramento.
 18 MR. DEL PIERO: I'm sorry.
 19 A It was the Assistant General Manager of the water
 20 system who presented this document at the public policy
 21 meeting.
 22 MR. DEL PIERO: I understand that, and that's not the
 23 question I am asking. The question I am asking is, is the
 24 General Manager authorized in his capacity as the chief
 25 executive officer of the Los Angeles Department of Water and

00103

1 Power to approve documents like this?

2 A I would imagine he is.

3 MR. DEL PIERO: Thank you. Please proceed, Mr.
 4 Satkowski. That will be entered into the record as a staff
 5 exhibit.

6 MR. DODGE: We will offer Department of Water and
 7 Power Exhibit 80.

8 MR. DEL PIERO: It's in. Let's keep moving.

9 MR. SATKOWSKI: Q I guess Staff Exhibit 35, which is
 10 the summary of the Los Angeles Water Management Plan under
 11 the title, Mono Basin, says, "Operations will be determined
 12 on a monthly basis rather than on April 1st of each year, and
 13 we'll use monthly buffer levels to insure that a level of
 14 6,374.6 feet is not reached during periods of prolonged
 15 drought.

16 Q What do you define as a buffer level?

17 A A level with no diversions allowed below.

18 Q Is that different than a target elevation?

19 A It can be considered a target elevation.

20 Q On page 41 of your testimony, you list the monthly
 21 Mono Lake buffer levels in feet for your proposed Management
 22 Plan; is that correct?

23 A Yes.

24 Q If the Board were to choose a different buffer level
 25 or target elevation such as 6383.5 or 6390, for example,

00104

1 would you propose that the Board use monthly buffer levels?

2 A Yes.

3 Q And I notice on Table C, page 41, that the buffer
 4 levels change by month. There is a fraction on the end of
 5 these values, April 6376.3; May 6376.4; and these same
 6 fractions are also shown on page 28, I guess, of Mr. Deas'
 7 testimony. Would you recommend that the Board, if they were
 8 to establish monthly buffer levels, use these same specified
 9 monthly fluctuation components and attach them to the end of
 10 the target elevation such as 6390?

11 A Well, it depends on the lake level. The higher the
 12 lake level, the less range you would need in your buffer
 13 fluctuations. But a similar pattern I would recommend to the
 14 Board to use.

15 Q You say you believe that values like this might be
 16 used, but they might fluctuate less than the ones shown here?

17 A Yes.

18 Q Also on this summary, it talks about the fish flow
 19 releases and the periodic flushing flows. I think you
 20 testified earlier that these were 150 cfs for ten days; is
 21 that correct on Lee Vining Creek?

22 A Yes, every other year.

23 Q Every other year?

24 A Yes, and those are the minimum flushing flows.

25 Q During which period during the year would these flows
 occur, or does it matter?

00105

2 A Well, in our model we assume they occur in June, but
 3 in reality it would depend on when the runoff occurs. So,
 4 there would be some flexibility on when the actual flows
 5 would occur.

6 Q Is Los Angeles proposing that the Board require that
 7 these be implemented in June?

8 A No, because they are not practical in June for certain
 9 years. There would be a range of time when they would be
 10 occurring.

11 Judge Finney's order said it would occur sometime
 12 between May 1 and July 1, so a range like that would probably
 13 be a better idea than a given month.

14 Q And would the same apply for Rush Creek?

15 A Yes, although on Rush Creek there is a lot more

16 flexibility on the timing of the flows because it is behind
17 the reservoir.
18 Q At the bottom of the page when it talks about Lee
19 Vining Creek and Grant Lake Reservoir spills, it says: With
20 improved planning and the reduced conduit flows, spills will
21 be minimized.
22 Can you explain what you mean by improved planning?
23 A Well, I think we have a new tool with the LAASM
24 operations model that would help us, and we have got more
25 experience having gone through the 80s, the wet period of the

00106

1 early 80s, so that we can, if we had a repeat of those
2 periods, reduce the spills that we have seen in the past.
3 Q So, you are by this statement saying you will use the
4 LAAMP model to help model the system better?
5 A Yes.
6 Q Under the heading, Long Valley Reservoir, it says:
7 LADWP will maintain appropriate reservoir levels for
8 recreation, fisheries, and power production. Storage targets
9 will also incorporate required flows in the Owens River gorge
10 and below Pleasant Valley Dam.
11 I believe there were a few questions about this
12 yesterday. What do you mean by "appropriate reservoir
13 levels"?
14 A Well, when the final Owens gorge flows are determined,
15 that will affect our ability to operate Crowley Reservoir, so
16 we will try to anticipate when the flows would be required
17 and make sure that the reservoir then is high enough so when
18 those large flow releases are required, it won't drop down
19 too far.
20 Q Are you making any recommendations to the Board as to
21 what they may want to put in a permit term for reservoir
22 levels at Crowley Lake?
23 A No.
24 Q In the development of the LAAMP model, various runoff
25 fraction triggers were used for different target elevations.

00107

1 Are you familiar with that?
2 A Target elevations of Mono Lake?
3 Q Yes.
4 A Yes, I am.
5 Q What they essentially are is a percentage of runoff
6 that will be allowed when the lake level reaches a certain
7 elevation for different year types. If the Board were to set
8 a target elevation or set target elevation criteria, do you
9 have any recommendations as to what runoff fraction triggers
10 the Board would want to use in this proceeding?
11 A Well, I am not recommending using that type of
12 analysis. The LAASM analysis is a monthly analysis that
13 looks at where the level is much as a thermostat; for
14 example, in a room, if it gets a little warm, you cool it
15 off; if it gets cold, you heat it up, and this is done
16 monthly throughout the years, rather than at 8:00 in the
17 morning finding out it is a little warm, so let's set the air
18 conditioning for the day not being able to adjust it until
19 8:00 o'clock the next morning. It creates a little wider
20 fluctuation than if you have a level you are trying to
21 protect each month.
22 Q Is it your recommendation that the Board ought to use
23 the regime that's in LAASM if the Board sets target elevation
24 criteria?
25 A Yes, or something similar.

00108

1 Q If the Board were to set stream flow requirements that
2 varied by water year type, do you have any recommendations
3 for the Board as to how they may want to determine the water
4 year classifications for the streams in the Mono Basin?
5 A Well, one of the difficulties is that on April 1 a
6 runoff forecast is produced, but there's still a potential
7 for a heavy amount of precipitation in April, so the range of
8 error in the April 1 forecast is sufficiently large that it
9 is difficult to make a cutoff point because you might
10 forecast an above-normal year, and then if April turns out to
11 be very dry, the year might actually be below normal, so I
12 don't have any recommendations on how to classify that. My
13 only recommendation is that it not be tied in directly to the
14 April 1 forecast, but may be a May forecast or something
15 later when more data is known and less uncertainty exists.
16 Q Would you recommend that forecasts start even earlier,
17 maybe February or March?

18 A Well, forecasts do start earlier. Our first forecast
19 is February 1, but again, again the range of error that much
20 earlier is extremely large.
21 Q Which month would you recommend that the Board use to
22 set the final year type determination?
23 A Well, our final runoff forecast is in May, and that's
24 the most accurate, but there is a drawback because you're one
25 month into the runoff year. So, I don't have a

00109

1 recommendation other than that there's a flexibility allowed
2 to make changes for unforeseen hydrologic conditions.
3 Q When developing hydrologic classifications for the
4 Mono Basin, would you recommend that the Board use some sort
5 of unimpaired flow values in order to come out with some sort
6 of index and then look at the various indices that may come
7 up every year and then subdivide those in the season into
8 different classifications?
9 A That is one way it could be done, and that sounds
10 reasonable.
11 Q In Exhibit LADWP 55, which is entitled, Runoff
12 Forecast Model for the Mono Basin, Owens Valley, what stream
13 criteria did you use? Did you use unimpaired flow?
14 A Yes.
15 Q What other elements did you use to come up with your
16 model?
17 A Well, when we develop a forecast model, we use the
18 snow survey results which are done at the beginning of each
19 month. We use the precipitation data throughout the winter.
20 We use the antecedent stream flow, and then we use the
21 forecast precipitation throughout the remainder of the
22 period. If we are forecasting on April 1, we assume median
23 precipitation after the date of forecast.
24 Q If the Board were to set stream flow criteria based on
25 three different year types, a dry, a normal, and a wet, do

00110

1 you have any recommendations as to how the Board may want to
2 subdivide these criteria to develop these year types, for
3 example, would you recommend that the Board use 50 percent
4 probability exceedence to define what a normal year is, or a
5 range of probability exceedences?
6 A That's certainly a way of doing it. It depends, of
7 course, on what you're trying to model and for reservoirs and
8 streams and other conditions, you could define it
9 differently. Maybe a dry year for one type of resource has a
10 much larger range of possibilities when other things are more
11 drought tolerant, and so a dry year could be more
12 restrictive.
13 Q Do you have any specific proposals for determining
14 what a dry year is?
15 A Not at this time.
16 Q I have one last question that is actually about LADWP
17 Exhibit 87 which was discussed yesterday, which is a
18 projected annual Mono Basin projected water cost.
19 A Yes.
20 Q Do you have that in front of you?
21 A Yes.
22 Q I have a quick clarification question. In the third
23 column under Equilibrium Period, it shows 9600 acre-feet for
24 the LADWP Management Plan. How long is that equilibrium
25 period that you used to come out with the average of 9600

00111

1 acre-feet?
2 A The whole analysis was a 52-year analysis, and the
3 first 16 years were the transition period, so the remaining
4 36 years represent the equilibrium period.
5 MR. SATKOWSKI: Okay, thank you.
6 MR. DEL PIERO: Mr. Smith.
7 EXAMINATION
8 by MR. SMITH:
9 Q Mr. Deas, a couple of quick questions about LAASM and
10 LAAMP. What features of the L. A. system can be simulated
11 with LAASM that can't be simulated with LAAMP.
12 MR. DEAS: A I will start at the Mono Basin and come
13 down. I would like to talk about Grant Lake Reservoir first.
14 This is going to take a couple of minutes. In Grant Lake
15 Reservoir there are three ways for water to leave the
16 reservoir. It can go through the Grant outlet, and at that
17 point there are two options. The water could either be
18 diverted down Mono Gate 1 or can be exported out of the
19 basin, or it can spill over the spillway, neglecting any

20 seepage or evaporation. Those are the three ways water
21 usually leaves the reservoir in quantity.
22 In the LAASM model we operate at a Grant Lake
23 Reservoir storage target and try to maintain a realistic
24 storage per month that would essentially reflect the
25 capturing of snow melt runoff in the spring and summer and

00112

1 then exporting or releasing that water in the fall and
2 winter.
3 And the method which we use to control the reservoir
4 storage is accounting for fish releases, Mono Lake releases
5 and export, is operational releases through Mono Gate Number
6 1, so in addition to the lake release, if you have a lot of
7 water and fish release, you may operationally release
8 additional water so you don't spill Grant Lake Reservoir
9 because spill conditions are uncontrolled and undesirable.
10 LAASM reflects that control.
11 LAAMP does not use Mono Gate Number 1 for operation of
12 spills, for example. And as the reservoirs rise quickly in a
13 large runoff year, instead of releasing water in a controlled
14 manner through Mono Gate 1 and avoiding the spill, there are
15 instances where the reservoir rises to capacity and spills in
16 an uncontrolled manner.
17 Backing up to the reservoir now, LAASM takes into
18 account previous year and current year hydrologic conditions
19 in setting their targets. That is because wet years can
20 impact conditions of the system in a subsequent year. So,
21 Long Valley and Grant Lake reservoirs have nine sets of
22 reservoir targets, that is, one target for a wet year
23 followed by a wet year, preceded by a wet year, a target for
24 a wet year preceded by a normal year, a target preceded by a
25 wet year preceded by a dry year, normal normal normal dry, et

00113

1 cetera. And that way we have the proper response and
2 flexibility of the reservoirs to handle a situation where you
3 have wet followed by wet.
4 Q And that's different in LAAMP. They do have reservoir
5 targets that reflect current year hydrologic conditions but
6 not the previous year.

7 As we move down the system, Ms. Scoonover, I believe,
8 asked me a conceptual example of LAAMP, and I mentioned Mono
9 Basin exports. LAAMP currently doesn't look down system,
10 LAASM does look to determine if it can store water in Lake
11 Crowley or Convict. The capacities for LAASM have been
12 reviewed and incorporated properly into the models so we
13 don't have the problem of the reservoir storing extra water,
14 we don't have the capacity problem of Pleasant Valley outflow
15 or Tinemaha Reservoir outflow.

16 These are things I discussed earlier. We operate Mono
17 Lake differently. That is, instead of having a range or
18 trigger levels as LAAMP does, we have a single buffer level
19 which varies through the months of the year, and we export
20 once fish releases and lake releases have been met according
21 to that buffer level as long as Grant Lake Reservoir is at
22 its storage target.

23 LAAMP in comparison with operations at Mono Lake and
24 trigger levels requires a release to Mono Lake initially and
25 then no exports can occur until the lake release is met.

00114

1 As a result, there is often no export out of Mono
2 Basin for the first four or five or six months of the year as
3 water is flowing into Mono Lake to meet the annual lake
4 release requirement. Subsequent to that being met, in the
5 later months of the year, water is exported out of the basin.

6 In LAASM, by employing this fluctuating buffer which
7 essentially very roughly follows the natural fluctuation of
8 Mono Lake, it allows export and releases to the lake to occur
9 concurrently throughout the year so you don't have this no
10 export period and a no lake release period or just a fish
11 release.

12 Other differences include calculated transit loss in
13 the Owens Valley, Mono Basin, calculated miscellaneous
14 losses.

15 Because different amounts of water in the system
16 create different transit loss, it is important to understand
17 that as you have higher lake alternatives and Mono Lake gets
18 higher and higher, and less water is in the system, you have
19 less transit loss.

20 LAAMP uses a constant transit loss, and so some
21 alternatives overstate the transit loss.

22 There's several others if you want me to continue.
23 Q No, that's fine. Another general question for either
24 of you, could the Mono Lake Management Plan be accurately
25 simulated by LAAMP?

00115

1 MR. HASENCAMP: A Not by the LAAMP version that was
2 used for the Draft EIR.

3 Q Why not?

4 A Well, because the releases in the Mono Lake are quite
5 a bit different. LAAMP has varying export quantities
6 depending on the height of the lake above the target and the
7 L. A. model is a little different in that respect. And just
8 the pattern of the flows in the streams are quite a bit
9 different.

10 Q A question for you, Mr. Deas, what percentage of the
11 Owens Valley export is the 19,000 that you are saying is the
12 transit loss that you were talking about in your revised
13 testimony? Do you know what percentage that is?

14 MR. DEAS: A No, it was a recent discovery, and we
15 haven't had a chance to look at that.

16 Q Would a figure of 20,000 be accurate?

17 MR. HASENCAMP: A Are you asking the average export?
18 Q Just the average ball park figures.

19 A Our average from 1971 until 1986 before there were any
20 restrictions was 490,000 acre-feet and 91,000 came from the
21 Mono Basin, so about 400,000 came from the Owens Basin.

22 Q Well then, just by quick calculation, this 19,000

23 would probably be something under 5 percent?

24 A Yes, about right.

25 Q And then that would be well within the range you were

00116

1 saying about the accuracy of the model, Mr. Deas?

2 MR. DEAS: A Yes, when I stated that range, I am
3 assuming the model is formulated correctly. You had the
4 opportunity to make it as accurate as possible. Simply
5 because someone states or it is documented that you can have
6 an error of 15 percent, if you could have an error of 1
7 percent, it is much better.

8 Q You make a pretty strong statement here on page 2 of
9 Section 1: The LAAMP model documentation is severely
10 deficient, and you say there is no Mono Lake water balance
11 error analysis. Have you read Appendix A, the Mono Lake
12 water balance?

13 A The Draft EIR?

14 Q Yes.

15 A I have some time ago.

16 Q So, it is your testimony that there is absolutely no
17 water balancing error analysis in that document?

18 A There is a graph of historic versus calculated Mono
19 Lake surface elevation. I believe they ran the model through
20 the historic and compared the two, and the reason I don't
21 consider that adequate is because by putting 10,000 acre-feet
22 in Mono Lake at 6370, it changes the lake, let's say X
23 amount. If I put 10,000 in Mono Lake at 6420, it changes it
24 much less. An effective error analysis in determining like
25 that one, comparing historical to Mono Lake level, I would

00117

1 have compared Mono Lake volume. That's probably a more
2 representative number. It wouldn't be impacted so much by
3 the elevation of the lake.

4 Q Mr. Hasencamp, on your Table B, I refer you to the
5 Owens River below East Portal. You have your averages, your
6 minimums, your maximums, and then in eight months your
7 recommendations on the maximums are very close to the
8 maximums recommended by the Department of Fish and Game and
9 the ranchers in the Upper Owens. Are you aware of four
10 months where you have 304, 375, 346, and 338, which are well
11 above the maximums represented by the Department of Fish and
12 Game and by the ranchers?

13 MR. HASENCAMP: A Yes.

14 Q Have you talked to the Department of Fish and Game
15 about these higher flows?

16 A No. These are very rare events, and we would consider
17 putting a different maximum in there if evidence warranted
18 it.

19 Q Have you talked to the ranchers up there about these
20 higher flows?

21 A No, I haven't.

22 Q Are You aware of what the average Owens River flow is
23 right above East Portal?

24 A Not exactly.
 25 Q So, you don't know whether the average that's

00118
 1 reflected right below is anywhere close to the average right
 2 above East Portal?
 3 A Well, the average year is certainly much higher than
 4 the average --
 5 Q Why is that the case?
 6 A Well, because this includes an average of 46,300
 7 acre-feet of export, so if you were to convert this cfs to
 8 acre-feet and subtract 46,300, then you would have the
 9 average acre-feet --
 10 Q So, it doesn't reflect exports?
 11 A Yes, it does.
 12 MR. SMITH: That's all.
 13 MR. DEL PIERO: Mr. Herrera.
 14 EXAMINATION

15 by MR. HERRERA
 16 Q MR. Hasencamp, I need to go back, and we have
 17 discussed a number of fish flows, fish numbers, or
 18 maintenance of fish minimum flows on all these streams, and I
 19 just would like to revisit one by one and get a little
 20 clarification on how you use these numbers in the LAASM
 21 model, and let's start with Lee Vining. I understand there
 22 are some minimum flows there that were suggested by various
 23 parties hired by the Los Angeles Department of Water and
 24 Power in consultation with your staff; is that correct?
 25 MR. HASENCAMP: A I am not sure how they came up with

00119
 1 their recommendations, but we based our Management Plan on
 2 the recommendation of the experts that have testified at this
 3 hearing.
 4 Q What is the flow recommendation for Lee Vining Creek?
 5 You can look at your table there.
 6 A The minimum flows are 25 cfs April through September,
 7 15 cfs October through March, with a fish flushing flow every
 8 other year.
 9 Q And what is that minimum flushing flow?
 10 A Well, that is the value of water that is equivalent to
 11 150 cfs for 10 days plus a ramping increase of 25 percent
 12 every eight hours on the rising limb and 25 percent every 24
 13 hours on the descending limb.
 14 Q And I believe you testified earlier that those were
 15 provided to you by Dr. Orton; is that correct?
 16 A Yes, that's true.
 17 Q And Dr. Orton is a member of your staff?
 18 A No, he is a fisheries biologist who is a consultant of
 19 the Department of Water and Power.
 20 Q He was hired to provide those numbers to you?
 21 A No, he was hired to assist the Department in issues
 22 relating to fisheries biology.
 23 Q But he did provide those numbers to you for LAAMP. We
 24 did hear testimony from other experts here earlier that also
 25 reiterated some of those numbers, but I don't recollect them

00120
 1 providing a flushing flow number.
 2 A No, they did not provide a flushing flow number, but
 3 more the criterion and pattern.
 4 Q And that other pattern, as you put it, was to mimic
 5 the natural flow dynamics of the stream. Could you explain
 6 to me the criteria, how you would mimic the flows taking the
 7 exact same events, maybe 10 percent less or 20 percent less
 8 of the actual stream flow, or how do you mimic that at some
 9 flow level below the natural flow? How does the model
 10 capture that?
 11 A Well, it mimics in that the practical flows in those
 12 streams are highest in June and July and lower in the rest of
 13 the year. Each individual year does not mimic what the flows
 14 are in that creek in any year, but for the systems in
 15 general, the flows are highest when the flows had
 16 historically been the highest.
 17 Q Again, I'm a little bit, bear with me, confused.
 18 Let's stick with Lee Vining as an example. In Lee Vining
 19 there are controls upstream that you have to deal with, but
 20 the flows as they arrive at the LADWP diversion, during a
 21 month in any given year, you are mimicking the flows that
 22 arrive there below your diversion. Is that what you are
 23 attempting to do, is mimic those flows at some level -- Let
 24 me go a little further, at some level less than the flows
 25 that arrive at that diversion?

00121
 1 A Yes, not every year. I think that our experts have
 2 testified that flushing flows are not required every year,
 3 but years when flushing flows or higher flows are released,
 4 they mimic the hydrograph.
 5 Q Are you mimicking the natural flows below flushing
 6 flows in other months, or is the model attempting to mimic
 7 those flows?
 8 A Mimic the --
 9 Q Let me see if I can clarify this a little bit. What I
 10 am getting at is if you are attempting to mimic the flows of
 11 a stream channel and yet allow for some level of diversion,
 12 what I am getting at is how much, what is the criteria for
 13 that mimic? Are you allowing 10 percent diversion and then
 14 mimicking the flow, 20 percent diversion mimicking the flow,
 15 or are you maintaining it at a minimum flow and diverting
 16 everything, but mimicking that minimum flow or less? I don't
 17 understand how you are mimicking the flow, I guess.
 18 A Well, when there's a release required for lake level
 19 purposes, then that would at Lee Vining Creek just let the
 20 stream go. If we know that the lake is below, like currently
 21 it is below the Management Plan's diversion level, so all the
 22 stream flow would go down, and it would be exactly the
 23 natural hydrograph. Then when the flows were to be, started
 24 to be picked off for diversion, then you would release the
 25 minimum flows on certain years. In other years when it is

00122
 1 time to flush, you would flush them when the runoff were to
 2 peak.
 3 Q What you are saying, then, you would attempt to
 4 operate that at near minimum flows most of the time, then?
 5 A Not most of the time because most of the time lake
 6 level releases will be required.
 7 Q That are higher than the minimum flows?
 8 A Yes.
 9 Q That you recommended earlier?
 10 A Yes.
 11 Q Let's move on to -- I'll begin with Parker and Walker
 12 creeks. The flows that are recommended for those that are
 13 used in the LAASM model are not court-ordered flows?
 14 A Well, for Parker and Walker creek, the Plan diverts .
 15 under those into the conduit, so it would just be --
 16 Q In your discussion on irrigation, you used the fish
 17 flows, fish maintenance flows, for Parker and Walker creeks.
 18 A Well, we assumed for the model run a flow. We just
 19 assumed the judge's orders. When ever flows are required for
 20 Walker and Parker creeks, then we would irrigate whatever is
 21 on top of that. We are not recommending to the Board flows
 22 for Walker and Parker creeks.
 23 Q I understand that. I am trying to understand how the
 24 model reacts to the amount of water used for irrigation.
 25 A Well, it attempts to use the historic amount of

00123
 1 irrigation which is about 1100 acre-feet off Parker Creek,
 2 and irrigation is in the summer season from April through
 3 September. If there was water above the 9 cfs at Parker
 4 Creek, then the model will allow irrigation to take place.
 5 If there is not 9 cfs in Parker Creek, then your irrigation
 6 would not take place.
 7 Q Again, did Dr. Orton and his group, or the group of
 8 consultants provide any kind of minimum flow recommendations
 9 or suggestions to you for Parker and Walker creeks?
 10 A No.
 11 Q I think we have pretty well discussed Rush Creek, and
 12 I want to go on down the system to the Upper Owens. In the
 13 Upper Owens, there has been a discussion about these large
 14 flows in excess of 200 or 300 cfs. Earlier Mr. Deas talked
 15 about the problems with the model looking at dam safety
 16 problems, essentially with overflowing or causing a reservoir
 17 to spill, that didn't have the ability to react to that.
 18 Does the model take into account what would happen with the
 19 larger flows if you were required to export flows or the
 20 model said to take these flows out, to the effect on the
 21 Upper Owens stream, for example? Let's say the model
 22 indicated that you got 350 cfs, do you export, or maybe
 23 that's not a good idea for the Upper Owens, as you put it
 24 earlier. Does it look at those kinds of problems?
 25 A It looks at the Crowley Lake capacity and downstream
 00124
 1 capacity. It doesn't look at the Upper Owens more than at

2 375 cfs capacity.
 3 Q It has a capacity of 375?
 4 A That's right. But the new version has a
 5 user-specified cap, and any cap we put in the model can be
 6 rerun.
 7 Q And I have one other question, below the Owens River,
 8 below Pleasant Valley, you indicated that you believed there
 9 was a 200 cfs minimum requirement there. Can you tell me
 10 where that 200 cfs requirement came from or whose requirement
 11 that is?
 12 A Well, it ranges with months, and I don't offhand know
 13 what the minimum was, but I spoke with the General Operator
 14 who operates the Pleasant Valley outflow, and he said that is
 15 his -- I used his guidelines, and he does work with Fish and
 16 Game on determining what flows are allowed in the Middle
 17 Owens River.
 18 Q But you don't know whether that's a Fish and Game
 19 requirement for minimum flow or just an operational minimum
 20 flow?
 21 A Well, it is more than operational, but I don't know
 22 that it's Fish and Game's requirement.
 23 Q But to your knowledge, then, there is no Fish and Game
 24 requirement below Pleasant Valley?
 25 A No, I understand there is an agreement, an informal
 00125

1 agreement, but I don't know of any specific requirements.
 2 Q And did your experts provide any recommendations for
 3 minimum flows through Pleasant Valley?
 4 A No, they did not.
 5 MR. HERRERA: That concludes my questions.
 6 MR. DEL PIERO: Mr. Canaday.

EXAMINATION

8 by MR. CANADAY
 9 Q Mr. Deas, have you read the entire Environmental
 10 Impact Report?
 11 MR. DEAS: A No.
 12 Q Do you have any experience in preparing environmental
 13 documents that deal with very specific environmental analyses
 14 besides hydrology?
 15 A No, I don't.
 16 Q Earlier in your testimony you stated that, in fact, in
 17 part of your criticism of the LAAMP model, you described the
 18 logic path of developing models, and you described an element
 19 of that is peer review; correct?
 20 A I don't recall. I'm sorry.
 21 Q Let's assume that you did, that you discussed the
 22 importance of peer review of a model. I believe you
 23 testified earlier that LAASM has only been reviewed in-house;
 24 is that correct?
 25 A No, I think I added something to that. I mentioned
 00126

1 certain portions of it were reviewed by other parties.
 2 Q Any party to the proceedings besides the LADWP in this
 3 room?
 4 A No.
 5 Q One other of the logic path that you described was
 6 that it is important to have repeatability; is that correct?
 7 A Yes.
 8 Q You also stated that this model, the LAASM model, was
 9 not user friendly; is that correct?
 10 A It is not like Microsoft Windows.
 11 Q Well, in a comparison would you say LAASM -- You've
 12 already said LAASM is not user friendly, would you say LAAMP
 13 is more user friendly?
 14 A Slightly.
 15 Q Wouldn't it be a goal of whatever model you use,
 16 particularly in a public trust decision, that would allow the
 17 interested public to be able to use the model and analyze the
 18 decision or the information being presented?
 19 A Yes.
 20 Q Are you aware of any written and published rule
 21 curves, operational rule curves, for Grant Lake Reservoir and
 22 Crowley Reservoir?
 23 A No.
 24 Q Mr. Hasencamp.
 25 MR. HASENCAMP: A No.
 00127

1 Q So, these reservoirs up until the development of
 2 LAASM, have no written or published operational criteria?
 3 A Not any formal ones.

4 Q So, the flexibility that you talk about in part is a
 5 flexibility that is a day-to-day decision by the immediate
 6 operator in contact with the Bishop office?
 7 A No, not really. The operations are planned for the
 8 year beginning on April 1, but the ability to change the plan
 9 on a day-to-day basis occurs after that, yes.
 10 Q But there's no operational criteria that a third party
 11 could understand how or predict how that reservoir is going
 12 to be operated?
 13 A No, not really.
 14 Q I would like to pursue for a moment the development of
 15 the Los Angeles alternative. Was it your testimony that you
 16 conferred with fisheries experts to get the required minimum
 17 stream flows?
 18 A Yes, it was.
 19 Q And you consulted with other Mono experts to get their
 20 recommendations as well?
 21 A Recommendations on --
 22 Q What other kinds of recommendations did you receive
 23 from Mono experts?
 24 A Well --
 25 MR. BIRMINGHAM: I'm going to pose an objection and
 00128

1 instruct the witness to answer the question based only upon
 2 those individual experts who have been designated as experts
 3 in this proceeding. Otherwise, the question calls for
 4 material protected by attorney/client.
 5 MR. DODGE: There were two elements of what he said,
 6 an objection and an instruction. An objection is proper, but
 7 certainly I don't think an instruction is proper.
 8 MR. BIRMINGHAM: Mr. Dodge is correct. I will
 9 interpose an objection and ask the Hearing Officer to make
 10 such an instruction.
 11 MR. DEL PIERO: I might be so inclined to make such an
 12 instruction if I have a sense as to whether Mr. Hasencamp had
 13 been a party to privileged information, but I don't know
 14 that. Has he been?
 15 MR. BIRMINGHAM: Mr. Hasencamp has been an employee of
 16 the Department of Water and Power and has been involved in
 17 meetings with attorneys and consultants acting under the
 18 direction of the attorneys who are experts.
 19 MR. DEL PIERO: Ms. Book, would you be kind enough to
 20 read the question back.
 21 (The reporter read the question as follows.)
 22 Q What other kind of recommendations did
 23 you receive from Mono experts?
 24 MR. DEL PIERO: Mr. Hasencamp, do you know what the
 25 privileged information is?
 00129

1 A I have an idea.
 2 MR. DEL PIERO: The concern I have -- Why don't we do
 3 this --
 4 MR. BIRMINGHAM: I will withdraw the objection.
 5 MR. DEL PIERO: Mr. Canaday, why don't you get more
 6 specific.
 7 MR. CANADAY: I will get more specific.
 8 MR. DEL PIERO: I'm going to overrule the objection,
 9 but I appreciate your withdrawing that question, and you can
 10 get a little more specific, because I don't want to run into
 11 a problem, and at the same time I don't want to sit here and
 12 explain to Mr. Hasencamp what privileged information is.
 13 MR. DODGE: I want to say for the record, if there is
 14 some input that went into the Department of Water Power's
 15 Management Plan, that Management Plan is out in the open now,
 16 and I think everyone is entitled to know the basis for it.
 17 MR. DEL PIERO: I understand that, and everyone is
 18 entitled to understand the basis for it. The concern I have
 19 got, and frankly, Mr. Birmingham, I am at a loss, because I
 20 don't know what you are referring to, and I am somewhat
 21 reluctant to cause a problem here. That is why I'm asking
 22 Mr. Canaday to restate his question. Go ahead, sir.
 23 MR. CANADAY: I don't know whether I should feel
 24 honored or hang my head. I seem to be able to get a rise out
 25 of Mr. Birmingham every time I have the mike.
 00130

1 MR. BIRMINGHAM: It's not every time, this is only the
 2 second time, Mr. Canaday.
 3 MR. CANADAY: Q Mr. Hasencamp, you relied in part on
 4 the professional guidance by Mr. Orton; didn't you?
 5 A Yes.

6 Q Was Dr. Orton presented here to provide testimony
7 based on his recommendations?
8 A No, he was not.
9 Q I'm trying to understand how the lake level was
10 achieved in your alternative. I take it that you took the
11 fish flow recommendations from the experts, put those into
12 LAASM, and pushed the button, and 6377 came out; is that
13 correct?
14 A No. The fish flows alone would drop the lake to 6370
15 in one of our runs, so additional water was necessary to
16 maintain a level closer to 6377.
17 Q So 6377, therefore, was a chosen target before LAASM
18 was run; is that correct?
19 A They were probably developed simultaneously, but LAASM
20 did not choose 6377; 6377 was put into LAASM.
21 Q So, the Department chose 6377; correct?
22 A Yes.
23 Q Looking at possible conditions that the Board could
24 establish in their order, there will likely need to be
25 measures or devices on the streams to insure compliance with

00131

1 whatever conditions streamwise are adopted by the Board. On
2 Rush Creek you have a measuring device where Mono Gate 1
3 enters into the natural channel of Rush Creek: is that
4 correct?
5 A Yes.
6 Q Are you proposing measuring devices anywhere else on
7 Rush Creek below that point?
8 A Not to my knowledge.
9 Q So, if it was found necessary, and you testified to
10 the importance of additional flow from Parker and Walker to
11 Lower Rush Creek, do you think it would be beneficial to have
12 a flow device somewhere downstream of the narrows?
13 A I don't see the need for one. There could be some
14 benefit from it, I suppose. I am not aware of any.
15 Q Your plan hasn't dealt with any public access
16 questions at all. I asked a question early on to, I believe,
17 Dr. Beschta about public access to some of the stream
18 corridors. Are you aware of any problems with limiting
19 access to the stream course?
20 A No, I am not.
21 Q Are you aware of any native Californian or Native
22 American water rights within the Mono Basin?
23 A No, I am not.
24 Q Are you aware of pending applications submitted to
25 this Board to appropriate water from Lee Vining Creek by the

00132

1 U. S. Forest Service and the City of Lee Vining?
2 A No, I am not.
3 Q Does the L. A. Alternative take into account any
4 future riparian claims by other parties than the Department?
5 A No, it doesn't.
6 Q Mr. Deas, in your response to, I believe, a question
7 by Mr. Smith, you went to the Mono Basin and moved through
8 the system describing what you perceived to be some problems
9 with LAAMP; is that correct?
10 MR. DEAS: A I think his question was the difference
11 between LAAMP and LAASM.
12 Q Now, you have looked at their October 18 letter today,
13 is that correct?
14 A Just glanced at it this morning.
15 Q Are you aware that the examples that you used in your
16 response concerning the differences, that the October 18
17 letter responds to some of those differences?
18 A I am a little confused about your question. Could you
19 state it again?
20 Q You identified some differences between LAASM and
21 LAAMP, and the October 18 letter describes changes, and I
22 will call them enhancements to LAAMP, and you have looked at
23 that letter. the enhancement identified in that letter
24 responsive to some of the criticisms that you described, or
25 the differences you described to Mr. Smith?

00133

1 A They were responsive to some of the differences.
2 Q Mr. Hasencamp, you testified earlier to the amount of
3 water that is potentially to be diverted from Parker Creek
4 for irrigation in-basin uses.
5 MR. HASENCAMP: A Yes, I did.
6 Q And that was approximately 1,000 acre-feet?
7 A A little more.

8 Q A little more than a thousand acre-feet, and that is
9 in the Upper Parker watershed?
10 A Yes, above the Lee Vining conduit.
11 Q And the purpose of that irrigation would be to do
12 what?
13 A Well, provide grazing habitat or grazing land for some
14 sheep companies in the area.
15 Q And those pastures are leased by LADWP to those sheep
16 concerns?
17 A Yes, that's true.
18 Q And that is on an annual basis?
19 A Average annual basis, yes.
20 Q I mean, are the leases on a year-to-year basis; do you
21 know?
22 A I don't know.
23 Q But that is a decision that the Department of Water
24 and Power makes, whether to lease that land or not; is that
25 correct?

00134

1 A Yes, that is correct.
2 Q Mr. Hasencamp, you stated in your testimony that
3 summer water was the most valuable water, is that correct, to
4 LADWP supply system?
5 A Yes, it has a higher value.
6 Q And how is that measured, higher economically or --
7 A Well, the demand is higher in summer, and so the more
8 water that you can supply during the high demand period, it
9 is more efficient and also less costly than to buy
10 replacement sources.
11 Q Typically on LADWP's leased land, when is the
12 irrigation season?
13 A Begins in April and runs through September.
14 Q And I believe you testified earlier that the
15 irrigation used in the Mono Basin was a little over a
16 thousand acre-feet; correct?
17 A Historically, it had been 9,000, and under the plan it
18 would be reduced to 3,000, 1,000 off Parker, and then there's
19 about a thousand off the South and East Parker which are not
20 part of this proceedings.
21 Q But if that water wasn't used, is that water that
22 ultimately could flow to Los Angeles?
23 A Not all 3,000, but 2,000 roughly.
24 Q And then I believe in response to one of my questions
25 earlier, or questions, you said that approximately 20 to

00135

1 25 thousand acre feet could be used in the Upper Owens on leased
2 land; is that correct?
3 A Yes, that's correct.
4 Q And I believe to a question today on Owens Valley, you
5 stated approximately 100,000 acre-feet was used in irrigation
6 there.
7 A 100,000 is the total Lower and Upper. I believe it is
8 closer to 80,000 in the Lower and 20,000 in the Upper, and
9 again that's applied.
10 Q That's applied during the summer; is that correct?
11 A Yes.
12 Q Normally during the summer?
13 A Applied in the summer, and much of it comes back into
14 the system.
15 Q Do you know how much, what percentage?
16 A I don't.
17 Q Half? You have no idea, then?
18 A In the Long Valley area, it could be a significant
19 amount, up to half.
20 Q And the timing of that. do you know when that comes
21 back? Is it within the irrigation season?
22 A Yes.
23 Q Do you know what would be in the Owens, the Lower
24 Owens?
25 A The Lower Owens is irrigated all year, parts of it,

00136

1 but I don't know how much returns.
2 MR. CANADAY: That's all I have. Thank you.
3 MR. DEL PIERO: Mr. Birmingham, redirect? I would
4 point out for everybody's benefit, it is ten minutes to 1:00,
5 ladies and gentlemen.
6 MR. BIRMINGHAM: Judge Finney should come to this
7 proceeding and see how much of an effect a very limited
8 amount of time for cross-examination has on the length of the
9 proceeding.

10 MR. DEL PIERO: Some people said I cause people to
 11 have nosebleeds around here. I don't know if that's true or
 12 not.
 13 MR. HERRERA: We could certainly loan the judge our
 14 watch.
 15 MR. DEL PIERO: Proceed, Mr. Birmingham.
 16 REDIRECT EXAMINATION
 17 by MR. BIRMINGHAM:
 18 Q I will start with the most recent first. Mr. Deas,
 19 Mr. Canaday, who just left the room, asked you to guess about
 20 the user friendliness of LASSM versus LAAMP. Do you recall
 21 that?
 22 MR. DEAS: A Yes.
 23 Q Either of you can answer this question. Do you know
 24 if it was necessary for Jones and Stokes to train any members
 25 of the State Resources Control Board staff in the operation

00137

1 of LAAMP?
 2 A I believe that would be appropriate.
 3 Q My question is, did it happen?
 4 MR. HASENCAMP: A Yes, it did.
 5 Q Could you describe that for us, Mr. Hasencamp?
 6 A Well, I believe that Dr. Brown spent some time with
 7 Mr. Smith and Mr. Herrera training them on how to use the
 8 LAAMP model.
 9 Q Was it necessary for the Department of Water and Power
 10 to approve a supplemental contract with Jones and Stokes for
 11 Dr. Brown to perform that training?
 12 A Yes, it was.
 13 Q Do you recall approximately how much was required in
 14 terms of money for Dr. Brown to provide the training for the
 15 State Board staff members so the State Board staff engineers
 16 could use LAAMP?
 17 A I believe it was somewhere in the neighborhood of
 18 eight thousand dollars.
 19 Q Mr. Deas, do you think you could train members of the
 20 State Board staff in the operation of LAASM?
 21 MR. DEAS: A Yes.
 22 Q So, what you said yesterday in your testimony, that it
 23 was an in-house document and required some expertise, that
 24 didn't mean that you couldn't train somebody on the State
 25 Board staff to operate LAASM?

00138

1 A That is correct.
 2 Q I would like to go to this chalk board, and my first
 3 question is going to be addressed to you, Mr. Deas, because
 4 Mr. Dodge asked you a question about the eight-year drought
 5 analysis, and he asked you about the conclusion of a
 6 6.01-foot drop in elevation versus what you calculated should
 7 be a 4.6-foot drop in elevation as the result of the
 8 eight-year drought; is that correct?
 9 MR. DEAS: A Yes.
 10 Q Now, isn't it correct that upon consideration of the
 11 comments made by the Department of Water and Power that Jones
 12 and Stokes acknowledged that this 6.01-foot estimate was, in
 13 fact, incorrect?
 14 A Yes.
 15 Q And you were present during the presentation of the
 16 State Board's staff case when the consultant acknowledged
 17 that this was an incorrect calculation?
 18 A I was.
 19 Q Now, Mr. Hasencamp, I would like to ask you some
 20 questions about the examination of Mr. Dodge. Mr. Dodge
 21 asked you some questions about comparing the predictions of
 22 LAASM with what actually happened, and he asked you to
 23 compare the elevation of Mono Lake in June of 1989 with what
 24 actually occurred in December of '92; is that correct?
 25 MR. HASENCAMP: A Yes.

00139

1 Q Now, as I recall from your testimony yesterday, you
 2 said that during the year the lake fluctuates in elevation:
 3 is that right?
 4 A Yes, it does.
 5 Q And that elevation in fluctuation is illustrated by
 6 Figure 4; is that correct?
 7 A Yes, it is.
 8 Q So, isn't it correct that typically the lake level in
 9 June of any given year is higher than the lake level in
 10 December of any given year?
 11 A Yes, it is.

12 Q So, if you wanted to compare what existed in 1989 with
 13 what existed in 1992, a more accurate comparison would be to
 14 compare what existed in June of 1989 with what existed in
 15 June of 1992; isn't that right?
 16 A That's correct.
 17 Q What was the elevation of Mono Lake in June of 1992?
 18 A It was about 6374.4, plus or minus a tenth.
 19 Q So, the actual change between 1989 and 1992 wasn't the
 20 3.3 feet Mr. Dodge mentioned, it was, in fact, closer to 2.3
 21 feet; isn't that correct?
 22 A Yes.
 23 Q Because in order to compare different lake levels, we
 24 would want to use the same month of different years?
 25 A Yes, that's true.

00140

1 Q Now, Mr. Hasencamp, Mr. Dodge asked some questions
 2 about this chart, National Audubon Society and Mono Lake
 3 Committee Exhibit 229, and he asked you questions about
 4 whether or not during the period represented in this exhibit
 5 the Department of Water and Power was attempting to mimic the
 6 natural hydrograph. Do you remember those questions?
 7 A Yes, I do.
 8 Q Now, isn't it correct, and I have got the order here
 9 now if you would like to review it, but isn't it correct --
 10 In fact, I'm going to ask you to review it. I would like to
 11 show you what has been marked for identification as National
 12 Audubon Society/Mono Lake Committee Exhibit 9 which purports
 13 to be a preliminary injunction filed April 17, 1991, and
 14 specifically, I am going to ask you to refer to paragraph 2B
 15 of that preliminary injunction. Does that preliminary
 16 injunction, which I will represent to you is related to lake
 17 level, specify a maximum flow in Rush Creek?
 18 A Yes, it does.
 19 Q What is that maximum flow?
 20 A 165 cfs.
 21 Q Now, is it your understanding that the Department of
 22 Water and Power has operated its facilities in the Mono Basin
 23 to comply with the orders of the El Dorado County Superior
 24 Court in this proceeding?
 25 A Yes.

00141

1 Q And is it your understanding that the maximum flow
 2 that occurred during the June/July period of 1993 was a
 3 maximum to comply with the order of Judge Finney?
 4 A Yes.
 5 Q Have you reviewed a legal document like the National
 6 Audubon Society/Mono Lake Committee Exhibit 9 before, I mean
 7 just the form of it?
 8 A Yes.
 9 Q Now, is it your understanding that when a group of
 10 owners or a law firm presents a document for submittal to a
 11 court, they put the name and their address in the upper
 12 left-hand corner of the document?
 13 A Yes.
 14 Q And that represents that they prepared that document?
 15 A Yes, that's my understanding.
 16 Q Now, the National Audubon Society/Mono Lake Committee
 17 Exhibit 9, which is the preliminary injunction order, does it
 18 indicate which law firm prepared that document?
 19 A Yes, it does.
 20 Q What does that document state with respect to who
 21 prepared the form of the order?
 22 A F. Bruce Dodge, Patrick J. Flinn, Brian Wilson of
 23 Morrison & Foerster.
 24 Q And it's your understanding those are the attorneys
 25 for the National Audubon Society/Mono Lake Committee?

00142

1 A At least two of them.
 2 Q Now I'll put this exhibit to bed.
 3 There was never an attempt to mimic the natural
 4 hydrograph during the period of 1993 in Rush Creek; isn't
 5 that right?
 6 A That's right.
 7 Q It was to comply with the order that was prepared for
 8 Judge Finney's signature by Morrison & Foerster?
 9 MR. DODGE: Objection, this assumes an either/or
 10 situation.
 11 MR. DEL PIERO: I'm going to sustain the objection.
 12 If you wish to get to it another way, Mr. Birmingham, I think
 13 you can.

14 MR. BIRMINGHAM: Q Mr. Hasencamp, do you know why the
15 Department of Water and Power limited its releases from Mono
16 Gate 1 to 165 cfs during the summer of 1993?
17 A Yes.
18 Q What was that?
19 A To comply with the court order that you had suggested.
20 Q Now, I don't remember who it was, maybe it was Mr.
21 Dodge, asked you questions about the EBASCO study on Parker
22 and Walker creeks and whether or not you were aware of any
23 problems that existed with the channels of Parker and Walker.
24 Do you remember those questions?
25 A Yes, I do.

00143

1 Q Do you know how the channels through which water from
2 Parker and Walker creek flows were designated?
3 A I am not sure I understand.
4 Q It is not a very good question. Prior to 1989, isn't
5 it correct that Walker and Parker creeks were dry?
6 A Below the conduit, yes.
7 Q And the channel of Walker and Parker creeks were in a
8 degraded condition; is that correct?
9 A Yes.
10 Q And in order for water to flow through a channel as
11 opposed to just flowing out over the surface below the
12 conduit, was it necessary for a channel to be constructed for
13 Walker and Parker creeks?
14 A Yes, it was.
15 Q And was someone hired to go out and designate where
16 that channel should be constructed?
17 A I believe so.
18 Q Do you know who that was?
19 A No, I don't.
20 Q When Dr. Stine gets here, I will ask Dr. Stine. Mr.
21 Deas, yesterday you stated with respect to the LAAMP model,
22 and you reiterated this, you repeated it, you said when the
23 sub-routine Not Enough is in effect under the LAAMP model,
24 first demand is satisfied by looking at Haiwee; is that
25 correct?

00144

1 MR. DEAS: A Tinemaha and Haiwee.
2 Q And then demand is satisfied by looking at Mono Basin;
3 is that correct?
4 A Yes.
5 Q And then the demand is satisfied by looking at Crowley
6 Reservoir?
7 A Yes.
8 Q And you said several times that was a problem; is that
9 correct?
10 A It was a concern with that, yes.
11 Q What?
12 A We discussed earlier the Mono Lake release scheme
13 requires that all of the lake releases be met prior to export
14 from the Mono Basin. Thus, when you reach priority two in
15 the sub-routine entitled Not Enough, in essence you are
16 looking for more water in the system.
17 First you look at Tinemaha and Haiwee. If you cannot
18 export from Mono Basin because your lake releases have not
19 been met yet, then you move to Crowley, you do not increase
20 storage, and then you subsequently take Crowley to a minimum,
21 and finally, if there are consecutive dry years, you would
22 reduce Owens uses pumping.
23 The problem is, if you look at the output from, I
24 think any of the elevation alternatives, especially the
25 higher ones, 6390, for example, the Mono Lake release is

00145

1 quite sizeable and takes several months. It may take through
2 August or September and sometimes -- I will just leave it at
3 that.
4 During that period from April to September, no export
5 can occur. Those are higher periods of demand, and during
6 that period essentially the Owens Valley gets taxed because
7 the logic cannot go to the Mono Basin and export water.
8 One of the corrections I mentioned is exporting
9 concurrent with the lake releases would put that problem to
10 rest.
11 Q Now, this morning you responded to some changes, you
12 or Mr. Hasencamp responded, to changes to LAASM had recently
13 been made. One of you mentioned that in your direct
14 testimony; is that correct?
15 MR. HASENCAMP: A Yes.

16 Q Why were changes to LAASM made after it was submitted
17 to the State Water Resources Control Board as LADWP Exhibit
18 52, et seq?
19 A By request from the State Board staff.
20 Q The State Board staff asked you to modify LAASM in
21 some respect?
22 A Yes.
23 Q Did they tell you why they were asking you to modify
24 LAASM?
25 A Yes.

00146

1 Q What did the State Board staff tell you?
2 A Well, they asked if there was an option for the Upper
3 Owens River flows, and we said no, and they said that would
4 be helpful to have that; and secondly, is their ability to
5 export water during the transition phase, and I said no, and
6 they said, I think that would be a good idea to have that.
7 Q And you have submitted those changes to the State
8 Water Resources Control Board staff?
9 A We will shortly. We have not done it yet.
10 MR. BIRMINGHAM: And when those changes are submitted
11 to the State Board staff we will also submit them to all the
12 other parties, Mr. Del Piero.
13 Q Finally, let's talk about peaking flows, flushing
14 flows, as I think you referred to them in the Management
15 Plan. There's been some examination on this issue, and I was
16 left with the impression from the comments that you made
17 yesterday, Mr. Hasencamp, that you just pulled those flushing
18 flows right out of the air. Did you just willy nilly select
19 those flushing flows?
20 MR. HASENCAMP: A No, I did not.
21 Q How did you go about developing the flushing flows
22 that are included in the Management Plan?
23 A Well, I had a discussion with Dr. Orton, who had
24 discussed the concept with Dr. Beschta, and then Dr. Orton
25 and I came up with the flows.

00147

1 Q Now the ramping with respect to these flows, Ms.
2 Cahill asked you yesterday whether or not it was consistent
3 with what was proposed in the article by Mr. Hill, Dr.
4 Platts, and Dr. Beschta, and I believe you stated that it was
5 not consistent, but that Dr. Beschta had said the 10 percent
6 ramping criteria identified in that article wouldn't
7 necessarily be applicable to the Eastern Sierra streams. Was
8 that your testimony?
9 A Yes.
10 Q Do you know if in developing the ramping flows that
11 are contained in the LADWP management proposal, if Dr. Orton
12 referred to the Department of Fish and Game criteria on
13 ramping flows in the Eastern Sierra?
14 A He referred to flows that were in the preliminary
15 injunction. I don't know if those are part of Fish and
16 Game's recommendation or not.
17 Q Ms. Cahill asked about whether or not the duration of
18 these flushing flows was less than the duration of the flows
19 ordered by the court, and I believe it was your testimony at
20 that time the duration was shorter; is that correct?
21 A Yes, it was.
22 Q And can you please explain to us why the Department of
23 Water and Power's Management Plan proposes flushing flows of
24 a duration which is shorter than the duration ordered by the
25 court in the preliminary injunction?

00148

1 A Dr. Beschta testified that the 30-day duration was not
2 necessary for the flushing flows, just a peak with a
3 descending limb, a peak of a few days would be satisfactory.
4 Q And he testified to that. Did the Department of Water
5 and Power consult with Dr. Beschta about the appropriate
6 duration of the flushing flows before he drafted the
7 proposal?
8 A Yes.
9 Q Then Ms. Cahill asked about whether there were minimum
10 flows based on wet, normal, or dry year criteria under the
11 LADWP Management Plan, and you stated that there were not
12 wet, normal, and dry year criteria. Was that your testimony?
13 A Yes.
14 Q In reality under the DWP Management Plan, will there
15 be higher flows in Rush and Lee Vining creeks in wet years
16 than in dry years?
17 A Yes, there would be.

18 Q Would you explain why?
 19 A Well, Parker and Walker creeks come into the lower
 20 half of Rush Creek, and, of course, in the wetter years more
 21 water would go down those creeks. Additionally, wet year
 22 operation releases require release of water down both of the
 23 two creeks, so that would happen in wetter years, and
 24 releases for Mono Lake level maintenance, generally more
 25 water is released in wetter years, and less in drier years.

00149

1 MR. BIRMINGHAM: I have no further questions.
 2 MR. DEL PIERO: We are going to take five minutes.
 3 (Recess.)
 4 MR. DEL PIERO: This hearing will again come to order.
 5 Ms. Cahill.
 6 MS. CAHILL: I am mindful of the clock. Our goal is
 7 to be out of here by 2:00 o'clock, with everyone finished.
 8 MR. DEL PIERO: That's right.
 9 MS. CAHILL: This will be a bit scatter shot as a
 10 result.

RECCROSS EXAMINATION

11 by MS. CAHILL:
 12 Q Mr. Hasencamp, can you tell me what the minimum
 13 storage in Crowley Lake is under LAASM?
 14 MR. HASENCAMP: A The simulation we ran is close to
 15 80,000 acre-feet.
 16 Q And what is the maximum Mono Gate 1 controlled spill
 17 in cubic feet per second under LAASM?
 18 A 350 cfs.
 19 Q And that is greater, is it not, than the capacity of
 20 the return ditch in its current condition?
 21 A Yes, in its current condition.
 22 Q Is Mono Gate manually or automatically operated?
 23 A Manually.
 24 Q And so, did you anticipate under LAASM that there

00150

1 would be someone manually changing the outflow each day?
 2 A Under the DWP Management Plan we would manually change
 3 it, but not every day, but certainly we have people in the
 4 Mono Basin whose job is to change flows. When we request
 5 changes to flows, they will change the flows.
 6 Q Does the Department of Water and Power plan to remove
 7 any fish and sediment barriers that current exist at the
 8 diversions on Walker and Parker creeks once it no longer will
 9 divert from those streams?
 10 A I am not aware of plans.
 11 Q I think your Table D shows that the average diversion
 12 from the Mono Basin under the Los Angeles Management Plan is
 13 45,000, plus a little, acre-feet per year. What is the
 14 maximum diversion in any one year under the plan, under your
 15 simulation?
 16 A Well, referring to Figure 9, it looks to me like it is
 17 about 110,000 acre-feet, plus or minus a thousand.
 18 Q And can you tell me what the percentage taken? You
 19 indicate there's a 37 percent average export. Can you give a
 20 ball park estimate of what the percentages of export are in
 21 dry years if you define dry years as the driest 20 percent?
 22 A I would say the export is probably closer to 10
 23 percent or less in the driest years.
 24 Q There was some discussion in response to questions by,
 25 I believe, Mr. Canaday, with regard to the irrigation in the

00151

1 Eastern Sierra. The 20,000 acre-feet that are diverted in
 2 Long Valley, I think you testified some of that returns to
 3 the system. Is that surface flow return?
 4 A Both surface and subsurface.
 5 Q And with regard to the total of approximately 100,000
 6 acre-feet from Owens Valley and Long Valley combined, does
 7 that include the tributaries to Crowley Lake, including
 8 Mammoth Creek and Convict Creek itself?
 9 A Yes, it does.
 10 Q And is the Department attempting to implement
 11 agricultural water conservation measures with regard to the
 12 irrigation water used in the Owens Valley?
 13 A Well, it is really not necessary, because if more
 14 water is put on the land than the land can absorb, then it
 15 does return back to the system. There's no plan to attempt
 16 to conserve that.
 17 Q And there was water quality differences between
 18 agricultural return flow and water that's not yet been
 19 diverted from the stream?

20 A I imagine there is.
 21 MS. CAHILL: Thank you.
 22 MR. DEL PIERO: Thank you very much, Ms. Cahill. Mr.
 23 Dodge.
 24 MR. DODGE: I'm going to be very brief today.
 25 ////

00152

RECCROSS EXAMINATION

1 by MR. DODGE:
 2 Q Mr. Hasencamp, now we are talking about real life here
 3 in 1989 and 1992, talking about the level of Mono Lake on
 4 April 1, 1989, and you pointed out that 15,000 acre-feet of
 5 water were exported during that time period between April 1,
 6 1989 and Judge Finney's injunction; correct?
 7 MR. HASENCAMP: A I said about that.
 8 Q About 15,000.
 9 A It could be a little more.
 10 Q And that's water that had it not been exported would
 11 have gone to Mono Lake and would have ameliorated the
 12 decline; correct?
 13 A Yes.
 14 Q And isn't it also true, sir, that your Figure 4, your
 15 six-year drought analysis, that that also assumes a certain
 16 amount of export?
 17 A It assumes a certain amount of export. It also
 18 assumes that 1987, the first year, is following the wet year
 19 of 86, so there is a lot of storage in this Grant Lake
 20 reservoir.
 21 Q How much export is assumed in Figure 4?
 22 A I don't know.
 23 Q Do you recall it is 11,000 acre-feet?
 24 A I don't recall that.

00153

1 Q Does that sound about right or wrong, or you have no
 2 recollection?
 3 A Sounds like it could be reasonable.
 4 Q Now just for purposes of the analysis, assume it is
 5 11,000, that's 4,000 acre-feet difference; correct?
 6 A Yes.
 7 Q Would you agree with me that that represents less than
 8 one inch change in Mono Lake?
 9 A Yes.
 10 Q Two more areas of questions, and then I will sit down.
 11 I am totally confused on this peer review of LAASM, although
 12 the one I know for sure is any document you have to review LAASM:
 13 you're going to share with us, but who conducted the peer
 14 review of the LAASM or the portions of LAASM that were peer
 15 reviewed?
 16 A A professor from UCLA.
 17 Q What is his name or her name?
 18 A I can't remember.
 19 Q So, it was a third party. I was a little unclear
 20 about your testimony. It was a third party that did this
 21 review?
 22 A Yes, he reviewed the statistical equations in LAASM.
 23 Q When did this review take place?
 24 A Over the summer of 1993.
 25 Q Is there any other review under process or

00154

1 contemplated?
 2 A Well, I'm sure Mr. Foerster is reviewing it, but --
 3 Q Commissioned by the Department of Water and Power?
 4 A Outside of this hearing, no, there is none.
 5 Q Last question. you really brought back fond memories
 6 in response to someone's questions, I believe Mr. Canaday.
 7 You talked about irrigation, and you said historically
 8 approximately 9,000 acre-feet had been used for irrigation in
 9 the Mono Basin, and under the Department's plan, it would be
 10 approximately 3,000 acre-feet, 2,000 of which potentially
 11 could be exported. Is that basically correct?
 12 A Two thousand could be used for other uses. If there
 13 was capacity to export them, then it could be exported, but
 14 other times it would have to be released to Mono Lake.
 15 Q As the potential for export to Los Angeles?
 16 A Yes.
 17 Q Two thousand acre-foot?
 18 A Yes.
 19 Q Now, when we went through this equation in the spring
 20 of 1990, it turned out, as I recall, that 10,000 acre-feet
 21 was being used for irrigation, and it was under a lease to a

22 sheep rancher which provided gross rentals to the Department
23 of 30,000 dollars. Does that sound right to you
24 historically?
25 A I don't know.

00155

1 Q Well, we used that to argue that Los Angeles was
2 putting the value of its own water at three dollars per
3 acre-foot. Now, my question to you, sir, is do you know what
4 the gross revenues are for the 3,000 acre-feet that you
5 proposed to use for irrigation?

6 A No, I don't.

7 Q Do you know whether it is approximately three dollars
8 per acre-foot?

9 A I don't know.

10 MR. DODGE: Thank you. That's all I have.

11 MR. DEL PIERO: Thank you very much, Mr. Dodge. Ms.
12 Koehler.

RECRUSS EXAMINATION

13 by MS. KOEHLER:

14 Q Mr. Hasencamp, this morning I asked Mr. Deas a series
15 of questions about the process of the development of the
16 initial model, and at that I would ask you some of those
17 questions to see if we can clarify the record. Is it correct
18 that Board staff did ask Los Angeles to develop a model
19 simulating the Los Angeles Aqueduct system?

20 MR. HASENCAMP: A Yes.

21 Q And did Los Angeles agree to do so?

22 A Yes.

23 Q And did Los Angeles then attempt to do so?

24 A Yes.

00156

1 Q Were you involved in that modeling effort?

2 A Yes, I was.

3 Q Did Los Angeles provide an initial model to the Board
4 staff?

5 A Yes, they did.

6 Q And did the Board staff decline to use that model?

7 A Yes, they did.

8 Q And did they provide you with reasons for that
9 decision?

10 A Yes, they did.

11 Q Was the lack of flexibility in the initial model
12 prepared by the Department of Water Resources one of those
13 reasons?

14 A The Department of Water Resources did not prepare the
15 model.

16 Q I'm sorry, I am going too fast. Was the lack of
17 flexibility in the model prepared by L. A. one of the reasons
18 for not using that model?

19 A That was one of the reasons stated.

20 Q Is it correct that the original model was the basis
21 for preparing LAASM?

22 A All of the data that was used for the original model
23 was used, some of the concepts were used, but we also brought
24 in Mr. Deas at that point and some other staff to assist us.

25 Q Would you say that LAASM is conceptually similar to

00157

1 that initial model or conceptually different?

2 A I would say portions of it are conceptually the same,
3 but there were some major revisions made in the Mono Basin
4 portion.

5 Q Can LAASM simulate the alternatives in the Draft EIR?

6 A It can simulate them to a certain extent. Of course,
7 any operational curves that are specific to the LAAMP model
8 can't be used in the LAASM model.

9 Q Does LAASM have the ability to -- Well, let me move on
10 to something else. Is LAASM capable of simulating the
11 California Department of Fish and Game flows?

12 A Yes, it is.

13 Q Are you aware that those flows vary by year type,
14 water year type?

15 A Yes, I am.

16 Q And didn't you testify earlier that LAASM does not
17 provide for variation by year type?

18 A No, I did not. I testified that the Los Angeles
19 Department of Water and Power Management Plan does not vary
20 flow by year type, but, in fact, LAASM has an option that you
21 can vary the flows by year type.

22 MS. KOEHLER: Thank you.

23 MR. DEL PIERO: Thank you very much. Ms. Scoonover.

24 MS. SCOONOVER: I have no further questions of this
25 panel.

00158

1 MR. DEL PIERO: Thank you very much. Anyone else?

2 Mr. Frink.

EXAMINATION

3 by MR. FRINK:

4 Q One quick one, I hope. Mr. Hasencamp, just so I am
5 clear on this, under the criteria proposed in the Mono Lake
6 Management Plan, does the Department of Water and Power plan
7 any irrigation from Rush and Lee Vining creeks?

8 A Gibbs Creek is a tributary to Lee Vining Creek, and it
9 does plan to irrigate off Gibbs Creek.

10 Q And approximately how much water would be diverted?

11 A I believe in the neighborhood of 700 acre-feet a year.

12 MR. FRINK: That's all the questions I have.

13 MR. HERRERA: I have one question.

14 MR. DEL PIERO: Mr. Herrera.

EXAMINATION

15 by MR. HERRERA:

16 Q Earlier I asked you questions about Dr. Orton's input
17 to the model. Is there anywhere in your documentation that
18 his recommendations for the model are presented?

19 MR. HASENCAMP: A No, there is not.

20 Q Do you intend to present them?

21 A Yes, we will on our rebuttal testimony or other
22 avenues.

23 MR. BIRMINGHAM: If the State Board staff would like

00159

1 to have Dr. Orton here, I presume they could ask us, and we
2 would produce him in the State Board staff's rebuttal case,
3 if that's an appropriate procedure.

4 MR. HERRERA: That concludes my questions. Thank you.

5 MR. DEL PIERO: Mr. Canaday.

EXAMINATION

6 by MR. CANADAY:

7 Q LAASM is capable of producing mostly stream flow
8 frequency distribution curves; is that correct?

9 MR. HASENCAMP: A The output from that can be put
10 into a statistical package to produce that, yes.

11 Q Have you produced that yet?

12 A No.

13 Q So, the LADWP recommendation is not based on frequency
14 distribution curves for instream flows?

15 A No, it is not.

16 MR. CANADAY: I would request that we ultimately get
17 that information then.

18 MR. BIRMINGHAM: We will produce it.

19 MR. CANADAY: Q Mr. Deas or Mr. Hasencamp, either
20 one, is it your understanding that currently enhancement or
21 corrections are being made to the LAAMP model?

22 A Yes, that's correct.

23 Q And have corrections or enhancements been made with
24 the LAASM model or are being made to the LAASM model?

00160

1 A Options were added to the model.

2 Q Do you call that enhancement?

3 A You might call it enhancement.

4 Q It's my understanding that a goal is that there will
5 be comparative model runs once LAAMP has been enhanced or
6 changes have been made. Is that your understanding?

7 A Yes. Mr. Satkowski has asked us to make some comparison
8 runs when the new LAAMP is complete, and we will do that for
9 him.

10 Q And that information will be shared with the other
11 parties?

12 A Yes, it will.

13 MR. CANADAY: Thank you.

14 MR. DEL PIERO: Thank you. I have a couple of
15 questions now, and then. Mr. Birmingham, you can prepare to
16 make an offer.

EXAMINATION

17 by MR. DEL PIERO:

18 Q Mr. Deas, other than employees or individuals in the
19 contract with the Los Angeles Department of Water and Power,
20 who else knows how to run LAASM?

21 MR. DEAS: A Maybe some of the parties here who have
22 received it, have tried it, but I don't know of anyone.

23 Q No one other than those people I mentioned. Mr.

24 Hasencamp, one last follow-up question on the Mono Lake

00161

1 Management Plan -- Has the General Manager of the district
2 authorized any changes to the statements that are
3 incorporated in it?
4 MR. HASENCAMP: A The General Manager of the
5 Department of Water and Power?
6 Q Yes.
7 A Not that I am aware of.
8 Q Thank you. Mr. Deas --
9 MR. BIRMINGHAM: Excuse me, Mr. Del Piero, may I ask
10 one additional question?
11 MR. DEL PIERO: Sure.
12 MR. BIRMINGHAM: Whether or not Mr. Hasencamp is aware
13 if the General Manager reviewed what is now Board Exhibit 35.
14 MR. DEL PIERO: I'm sorry, I didn't understand.
15 MR. BIRMINGHAM: It is difficult to object to one of
16 your questions.
17 MR. DEL PIERO: You can do it. It is okay. Kevin
18 O'Brien does it regularly on the Big Bear. (Laughter.)
19 MR. BIRMINGHAM: I think the last question assumes
20 that the General Manager has reviewed State Board staff
21 Exhibit 35.
22 MR. DEL PIERO: There is testimony in the record, and
23 I don't recall if it was Mr. Hasencamp, I think it was Mr.
24 Hasencamp, testified this had been approved by the General
25 Manager of the District.

00162

1 MR. BIRMINGHAM: Your question to him was, does the
2 General Manager have authority to approve this kind of
3 document. In fact, I meant to ask him if he knows if the
4 General Manager did on my redirect.
5 MR. DEL PIERO: Well, I will ask it.
6 Q Has the General Manager approved this, to your
7 knowledge?
8 A No.
9 Q Who authorized its distribution, to your knowledge?
10 A The Assistant General Manager, who is in charge of the
11 water system.
12 Q Is the Assistant General Manager in charge of the
13 water system delegated that responsibility by the General
14 Manager?
15 A Yes, I believe so.
16 Q This is a question for Mr. Deas. Mr. Deas, and I
17 would lay an appropriate foundation for this, are you
18 familiar with a computer model known as DWRSIM?
19 A I've heard of it.
20 Q Do you know much about it?
21 A No, I don't.
22 Q Do you know anything about it?
23 A I know it has been applied in surface water problems
24 here and there.
25 Q Are you capable of telling me in your estimation which

00163

1 is the more complex model, LAASM or DWRSIM?
2 A I'm sorry, I don't know the basis for DWRSIM.
3 Q That's fine. Mr. Hasencamp, in the spring of 1992, a
4 copy of the original LAAMP model was presented to the Los
5 Angeles Department of Water and Power staff. That was your
6 statement, I believe. I want to make sure that's correct.
7 Is that correct?
8 MR. HASENCAMP: A The very first version of LAAMP was
9 the summer of 91. A second version was in the spring of 92.
10 Q And your testimony was that no one commented on that
11 after it was received; is that correct?
12 A No one commented to the State Board until the comment
13 period was due, so the comments were made on it in August of
14 1993.
15 Q Fine. But in the spring of 1992 or within a few
16 months, not a year later, but within a few months, no one
17 commented on that either to the State Board or the
18 consultants?
19 A No.
20 Q Who would have been responsible for doing that
21 analysis? Who was the copy of LAAMP delivered to for
22 analysis?
23 A I don't know that it was delivered for analysis. It
24 was distributed to the parties.
25 Q Who was the person who did the original analysis on it

00164

1 in the summer of 1991?

2 A My supervisor and I were.
3 Q And who is your supervisor?
4 A Gavin Covert.
5 Q And then in the spring of 1992, would it have been
6 delivered to the same two people?
7 A Yes.
8 Q A question for either one of you gentlemen: Can LAASM
9 be utilized to evaluate power production impacts on the
10 system?
11 A It can by looking at the acre-foot flows at certain
12 places. There is not a specific power generation impacts
13 component of the model.
14 Q But it can?
15 A Yes.
16 Q Has that capability been used to evaluate the
17 potential impact on power production at the Mono Lake
18 Management Plan?
19 A No, it has not.
20 MR. DEL PIERO: That's all I have. Mr. Birmingham, do
21 you want to make an offer?
22 MR. BIRMINGHAM: Thank you, Mr. Del Piero. At this
23 time the Department of Water and Power would offer into
24 evidence LADWP Exhibits 9 through 82 and 84 through 88.
25 MR. DEL PIERO: Any objection?

00165

1 MR. SMITH: We are skipping 83. Just to make it
2 clear, that's the Management Plan.
3 MR. DEL PIERO: It's been introduced already.
4 MR. HERRERA: Okay.
5 MR. DEL PIERO: Any objection by any of the parties?
6 MR. CAHILL: No objection.
7 MS. SCOONOVER: No objection.
8 MR. DEL PIERO: Ms. Koehler.
9 MS. KOEHLER: We have no objection.
10 MR. DODGE: No objection.
11 MR. DEL PIERO: So ordered.
12 MS. CAHILL: Mr. Del Piero, since we are talking
13 exhibits, at the conclusion of Mr. Vestal's deposition, the
14 parties stipulated that we would rely on the videotape and
15 the accompanying deposition and also on Mr. Vestal's prior
16 deposition and testimony, and so if the other parties don't
17 object, I would like, since all the parties have those
18 documents, to save on the enormous cost, I propose to offer
19 two copies to the Board staff and use them as exhibits by
20 reference.
21 MR. DEL PIERO: Any objection?
22 MR. BIRMINGHAM: No objection.
23 MR. DEL PIERO: There being no objection, they will be
24 so ordered.
25 MR. BIRMINGHAM: There are a couple of housekeeping

00166

1 items I would like to bring up. You will recall there have
2 been several questions about what we referred to as the
3 Orange Paper by Dr. Hardy in his testimony.
4 MR. DEL PIERO: Has he sent it?
5 MR. BIRMINGHAM: He has not sent it. The last time I
6 spoke to him about it, he said one of his graduate students
7 has walked away with it, and when they find out which
8 graduate student, and as soon as he has located him, he is
9 going to send it. We'll copy it and distribute it.
10 As I recall, Dr. Li, who is a Department of Fish and
11 Game designated witness, was the individual who told us what
12 the number of it was when Dr. Hardy was testifying, and he
13 may have a copy of it.
14 MR. DEL PIERO: Do we know that, Ms. Cahill, whether
15 Dr. Li has a copy?
16 MR. CAHILL: I believe he has a copy.
17 MR. DEL PIERO: Would you be kind enough to -- Yes,
18 sir.
19 MR. GARY SMITH: There was some question about the
20 number. It was Number 21 or 26. Dr. Li has each of those,
21 if I can find the proper number, we can make that available.
22 MR. DEL PIERO: Mr. Smith, if you would be kind enough
23 to make that available to Mr. Canaday and impose on our
24 duplication folks again to make copies for those who don't
25 have them, then we can remedy that problem and tell him next

00167

1 time he comes to California, he owes us -- Do you have an
2 objection to that procedure?
3 MR. BIRMINGHAM: None. I delivered to the State Board

4 staff my only copy of some other documents which Dr. Hardy
5 referred to during his testimony, and I said they were my
6 copy with my work product, and I needed to have those
7 returned to me so I can prepare to cross-examine the
8 Department of Fish and Game.

9 MR. SMITH: I will get them for you as soon as we
10 leave here.

11 MR. BIRMINGHAM: Finally, there are a few exhibits
12 which have not been admitted into evidence, but the State
13 Board has yet to receive ten copies. Mr. Smith gave me a
14 list of those yesterday, and as soon as I have all ten copies
15 of them, they were slides of Dr. Jehl's testimony, some
16 photographs, and we are still working on getting those copies
17 for you.

18 MR. DEL PIERO: Okay.

19 MR. BIRMINGHAM: Those are my housekeeping items.

20 MR. DEL PIERO: Ms. Cahill.

21 MS. CAHILL: To make the record complete, these are the
22 new exhibits that are coming in by reference -- DFG 137.
23 Deposition of Elden H. Vestal, January 11, 1990, Volume I,
24 relating to National Audubon Society and Mono Lake Committee
25 versus the State Water Resources Control Board, Sacramento
00168

1 Superior Court Number 336712, DFG 138, Deposition of Elden H.
2 Vestal, March 1, 1990, Volume II, relating to the same case;
3 DFG 139, Elden H. Vestal testimony from reporter's transcript
4 of proceedings May 1 and 2, 1990, relating to Mono water
5 rights cases, El Dorado County Superior Court Judicial
6 Council Coordination Proceeding Number 2284; and DFG 140,
7 Elden H. Vestal's testimony from reporter's transcript of
8 proceedings, May 3 and 4, 1990, relating to Mono water rights
9 cases, El Dorado County Superior Court, Judicial Coordination
10 Council Proceeding Number 2284.

11 MR. DEL PIERO: Any objection?

12 MR. SMITH: Just a little point of order here, Ms.
13 Cahill. You have formerly introduced DFG 137 as a report on
14 sanitary investigation of tributaries and mountain streams
15 emptying into the Owens River.

16 MR. CAHILL: Why don't we renumber that one as 141.

17 MR. SMITH: As 141.

18 MR. BIRMINGHAM: While Ms. Cahill is at the podium, I
19 wonder if she could identify her order of witnesses for
20 presentation next week?

21 MS. CAHILL: At least initially it is our intent to
22 present first Dr. Stine with regard to his declaration that
23 related to the historical conditions on fisheries. He will
24 be followed by Daryl Wong with the Department, and he will be
25 followed by a panel of experts on the Rush and Lee Vining
00169

1 creek stream evaluation study.

2 MR. DEL PIERO: Folks, I don't mean to point out the
3 obvious, but --

4 MR. DODGE: I have a 30-second item.

5 MR. DEL PIERO: I figured you did. I do want to say
6 that the degree of flexibility we are going to have in terms
7 of ending early is going to start dropping off as time
8 becomes short. I really have no great desire to go into the
9 week between Christmas and New Year's, but I will if we
10 aren't done because I have promised the other four Board
11 members I am going to be finished by the first of the year,
12 so if people are not really enthusiastic about that idea,
13 then it would be better if you give up a few evenings before
14 Christmas in order that you don't have to give up New Year's
15 Eve. Mr. Dodge, did you have something to talk about?

16 MR. DODGE: Yes. Now that Mr. Vestal has apparently
17 come in, I would offer into evidence the National Audubon
18 Society/Mono Lake Committee Exhibit 1AB, testimony of Elden
19 Vestal--Waterfowl and National Audubon/Mono Lake Committee
20 Exhibit 1A, 1AA, testimony of Elden Vestal on fisheries,
21 which is also Cal-Trout 5.

22 MR. DEL PIERO: Any objection?

23 MR. BIRMINGHAM: None.

24 MR. DEL PIERO: So ordered. Anything else? Ms.
25 Koehler.

00170

1 MS. KOEHLER: Mr. and myself are both
2 supposed to be back east the week before Christmas. Is there
3 going to be any flexibility during -- I know you've got the
4 three days of hearing scheduled that week --

5 MR. DEL PIERO: We are scheduled through the 22nd.

6 MS. KOEHLER: Yes, and he and I both are supposed to
7 be out of town for some of those days. I don't know if other
8 people have similar types of scheduling, but it would be
9 useful for us to know if those are hard and fast.

10 MR. DEL PIERO: Those are hard and fast days.

11 MS. CAHILL: Because Ms. Koehler was confused, I want
12 to clarify for everyone, she said only three panels. That
13 was the first dream.

14 MR. DEL PIERO: I wasn't confused. Anything else?
15 Mr. Canaday.

16 MR. CANADAY: Mr. Del Piero, at the same time the
17 Department of Water and Power was offering to have
18 reproductions made of the 26, 18, or whatever it was, at the
19 same time we offered to reproduce two other documents. We
20 have done so. They are available. If it is the wish of the
21 parties, if they choose to have them today, or if they choose
22 to wait and get them with the other documents, we will
23 accommodate either way.

24 MR. DEL PIERO: Where are they?

25 MR. CANADAY: Upstairs.

00171

1 MR. DEL PIERO: Unless someone has an overwhelming
2 desire to have them --

3 MR. BIRMINGHAM: Those are the documents I provided
4 Mr. Smith which I need to have returned to me for preparation
5 --

6 MR. SMITH: Excuse me for interrupting, but this is a
7 different question, whether we want to have a distribution of
8 all that stuff. You are going to get your stuff anyway.

9 MS. CAHILL: We would like a copy of those. I would
10 like to clarify whether anyone really wants the orange
11 report. We want it, and if it turns out we already have it,
12 Mr. Birmingham's witness has it, does anyone else need the
13 orange report?

14 MR. DEL PIERO: We don't have the document.

15 MR. SMITH: We need it.

16 MR. DEL PIERO: Yes, Ms. Cahill. Mr. Canaday.

17 MR. CANADAY: I'm going to secure this room, and if
18 there are things that you would like to leave here for our
19 beginning on Monday, you can do so. This room will not be
20 used by any other party, so you don't have to carry
21 everything out over the weekend, but I would appreciate,
22 however, that you take care of your cups, your garbage, so
23 on.

24 A point of information to the people who are flying
25 over tomorrow morning, what airport are you intending to land
00172

1 at?

2 MR. DODGE: I'm told Lee Vining.

3 MR. CANADAY: I was just informed, just setting up
4 some logistical things over there, they are having problems
5 with fog in the morning. Is an alternative Mammoth Lakes?

6 MR. DODGE: Yes.

7 MR. CANADAY: You might want to consider --

8 MR. DEL PIERO: What hotel are we staying at?

9 MR. CANADAY: At June Lake Motel.

10 MR. DEL PIERO: As I recall, we don't have phones in
11 our rooms?

12 MR. CANADAY: No, we have a red phone in your room.

13 MR. DEL PIERO: If there is a problem, we need to know
14 about it in terms of our arrival.

15 MR. CANADAY: I was trying to provide them a hint to
16 maybe provide the ground transportation in case they need to
17 go to Mammoth in the morning, so we can get them there.

18 MR. DEL PIERO: Is there car rental service at Mammoth
19 Airport?

20 MR. DODGE: I would remind everyone that my canoe
21 person is going to be here at 8:30 on Monday morning and
22 start off, and Mr. Birmingham has all weekend to prepare for
23 this.

24 MR. DEL PIERO: I would point out Mr. Dodge arranged
25 to have her paddle all weekend.

00173

1 MR. BIRMINGHAM: Very kind of him. I expect to have
2 at least two hours of questions.

3 MR. DEL PIERO: Ladies and gentlemen, have a safe trip
4 over.

5 MR. CANADAY: We would like to thank the staff of the
6 Department of Water and Power. They have handled themselves
7 professionally, and we appreciate their coming here and

8 providing testimony.
9 MR. DEL PIERO: Thank you very much. You have a safe
10 trip over the hill. Ladies and gentlemen, see you tomorrow
11 morning.
12 (Evening recess.)
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