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1 WEDNESDAY, OCTOBER 27, 1993, 9:00 A.M.  
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MR. DEL PIERO: Ladies and gentlemen, this hearing of the State Water Resources Control Board will come to order.  
5 Good morning. My name is Marc del Piero, Vice Chair  
6 of the Board, and I also am acting in the capacity of  
7 Hearing Officer on the matter regarding the amendment of  
8 City of Los Angeles' licenses to divert water from Mono  
9 Lake, actually to divert water from streams tributary to  
10 Mono Lake.

11 With me this morning are my four colleagues. Sitting  
12 to my immediate left is my good friend and Chairman of the  
13 State Water Resources Control Board, John Caffrey. To his  
14 immediate left is our member from San Diego, Mary Jane  
15 Forster. To my immediate right is Mr. James Stubchaer, and  
16 to my far right is Mr. John Brown.

17 This is a continuance of the evidentiary hearing on  
18 the matter of water rights licenses on Mono Lake.

19 When last we left, I believe, Mr. Roos-Collins, it  
20 was your turn to cross-examine the panel.

21 Is that correct, or did we get done with you?

22 MR. ROOS-COLLINS: I had concluded my cross-  
23 examination.

24 MR. DEL PIERO: You are finished, okay.

25 MR. ROOS-COLLINS: I would ask for an opportunity to  
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1 make a brief statement about my cross-examination.

2 MR. DEL PIERO: Now?

3 MR. ROOS-COLLINS: Yes.

4 MR. DEL PIERO: Please.

5 MR. ROOS-COLLINS: I am Richard Roos-Collins,  
6 attorney for California Trout.

7 Mr. del Piero, I am concerned there may have been a  
8 misunderstanding as to my intentions in asking questions  
9 going to whether or not the Draft EIR incorporates documents  
10 prepared by the restoration consultants.

11 So there is no misunderstanding, I want to say that I  
12 meant no criticism of the Board, or the staff or its  
13 consultant in their design or drafting of the EIR. I  
14 intended simply to demonstrate these documents are available  
15 and may be of assistance to the Board in revision of the  
16 EIR.

17 MR. DEL PIERO: Thank you very much.

18 What I did fail to do this morning, and I won't fail  
19 much longer, is to introduce our staff.

20 Sitting to my immediate front is our staff counsel  
21 for this matter, Mr. Dan Frink. Additionally, with us today  
22 are two environmental specialists, Jim Canaday and Mr. Steve  
23 Herrera; and we have a full complement of assistants today  
24 in terms of staff, and we also have staff engineers, Mr.  
25 Richard Satkowski and Mr. Hugh Smith.

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1 Good morning, gentlemen. Welcome back from the dead  
2 (laughter).

3 We had a small case of flu that ran through the staff  
4 last week.

5 Additionally, with us today is the lady to whom I  
6 answer, Alice Book, who is going to be our court reporter,  
7 and when Ms. Book says stop talking, we all stop talking  
8 until she gets the paper changed.

9 So, additionally, for those witnesses that may come  
10 before this Board today or in the course of the next several  
11 days during the process, when you begin your testimony, if  
12 you would be kind enough to announce your name clearly and  
13 spell it for the record, that will preserve the record in  
14 good stead for us.

15 Now, is Ms. Scoonover ready?

16 MS. SCOONOVER: We have no questions of this panel.

17 MR. DEL PIERO: Thank you very much.

18 Is Mr. Gipsman of the U. S. Forest Service present?

19 Erica Niebauer -- I don't see her this morning.

20 Okay. Frank Haselton. Is Mr. Haselton present?

21 MR. HASELTON: I have no questions.

22 MR. DEL PIERO: Larry Silver from the Sierra Club?

23 Anyone here from Metropolitan Water District,  
24 Regional Water Quality Control Board, U. S. Environmental  
25 Protection Agency, Air Resources Board, and the Great Basin  
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1 Air Pollution Control District?

2 MR. ONO: We won't be offering any testimony.

3 MR. DEL PIERO: Okay.

4 Mr. Frink, I guess we have no more questions of this  
5 panel.

6 MR. FRINK: I believe staff has a few questions. We  
7 will begin with Mr. Herrera's questions.

8 E X A M I N A T I O N

9 BY MR. HERRERA:

10 Q I will back up a little bit from what we did last  
11 week. Maybe some of these questions will be repetitive, but  
12 as we've used this procedure in the past, whichever member  
13 of the panel feels more qualified to answer the question may  
14 do so.

15 I believe most of these will be directed to either  
16 Phil Dunn or Bill Mitchell.

17 Have you had the opportunity, Phil, to review the  
18 Fish and Game recommendations that were submitted in August  
19 of this year, the final ones?

20 MR. DUNN: A No, I haven't reviewed those  
21 recommendations.

22 Q Do you intend to do that in preparation of the final  
23 draft?

24 A Yes.

25 Q In the Draft Environmental Impact Report, you  
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1 mentioned that the Department of Fish and Game  
2 recommendations were developed to optimize fishery  
3 conditions and we went over that a little bit. Did those  
4 preliminary reports recommend instream flows to optimize or  
5 maintain fish other than fin fish in the various streams  
6 that they were prepared for?

7 A To my knowledge, they did not.

8 Q What is your understanding of the Fish and Game  
9 report? Do they suggest or recommend in their preliminary  
10 recommendations which you have reviewed optimization flows  
11 or flows to maintain fish in good condition, or what is your  
12 understanding of those recommendations?

13 A Well, my understanding might not be that clear. As I  
14 recall, there were more words in those reports that  
15 specified optimal flows rather than keeping fish in good  
16 condition. I'm not sure that there were any recommendations  
17 that actually stated these are the flows to maintain fish in  
18 good condition, and I think in some of the documents you  
19 could even interpret it several ways, but I felt that  
20 overall the objective was to optimize fisheries to the  
21 extent possible.

22 Q In your investigations for the Draft Environmental  
23 Impact Report, did you use any other fishery studies outside  
24 of those prepared for Fish and Game or prepared for the  
25 Restoration Technical Committee?  
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1 Specifically, in our public policy statement sessions  
2 on Friday we had a gentleman indicate that he had worked on  
3 a fishery study for E.A. Associates, I believe it was in  
4 1989.

5 Do you have any knowledge of that study or any of  
6 that information?

7 A Yes, we did many other references, and let me ask Mr.  
8 Mitchell to respond in terms of using E. A.'s reports.

9 MR. MITCHELL: A There were a series of E. A.  
10 reports that were used, and based on availability, we relied  
11 on those to some extent in analyzing impacts. Most of those  
12 reports focused on fish populations and changes in fish  
13 populations over the last three or four years.

14 Q Do you recollect what stage those reports were in?  
15 Were they draft, were they finals, what was the status?

16 A These were drafts. During the EIR preparation they  
17 were labeled as drafts.

18 Q Thank you. As you are aware, there has been a  
19 tremendous amount of restoration activities going on in

20 these streams directed by the Restoration Technical  
 21 Committee.  
 22 What effect do these activities have on the instream  
 23 flow studies and the recommendations that come from that?  
 24 Do they cause any changes to those recommendations?  
 25 A The aquatic system research addressed that issue, and

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1 with respect to the existing habitat restoration efforts,  
 2 they determined through an analysis that the habitat  
 3 restoration was not significantly affecting the IFIM  
 4 results.

5 And on Rush Creek at the time of the instream flow  
 6 study, habitat restoration was not under way at that time,  
 7 although there were plans to conduct similar efforts on Rush  
 8 Creek in the future.

9 And we didn't really know at that time to what extent  
 10 that would affect the IFIM results, and so my answer is that  
 11 at the time the study was conducted, there were no major  
 12 effects on the IFIM study through habitat restoration.

13 Q Thank you. One other question. We haven't discussed  
 14 much about Mill or Wilson Creeks, and I understand that  
 15 there are some possibly ongoing studies by the Department of  
 16 Fish and Game.

17 Do you intend to utilize any of that information in  
 18 the final EIR, or how do you intend to approach those  
 19 creeks?

20 MR. DUNN: That's really taxing my memory. I believe  
 21 Mill and Wilson were not really included in our analysis,  
 22 and frankly, I can't remember the rationale for that. I  
 23 really can't recall why we did not look at those creeks.  
 24 That was a decision that was made very very early on, and  
 25 frankly, I can't recall the reasons.

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1 Q Okay, I have one other question. You did prepare the  
 2 IFIM study for the middle Owens. Could you describe the  
 3 reach of the study and who participated in that study?

4 MR. MITCHELL: A You are asking who conducted the  
 5 field work and the analysis?

6 Q Actually, who was involved in the initial  
 7 establishment of transects, this sort of thing?

8 MR. DUNN: A I will let Bill discuss the specific  
 9 reaches, but in terms of who was involved, it was kind of a  
 10 collective effort of Jones & Stokes Associates, State Board  
 11 staff, Department of Fish and Game staff and the Los Angeles  
 12 Department of Water and Power staff, in terms of study  
 13 design and selecting transects for the study.

14 MR. MITCHELL: To the stream segments that were  
 15 looked at for brown trout the primary reaches of segments  
 16 that were evaluated were segments 1 through 3 because these  
 17 areas are the primary spawning and rearing areas for brown  
 18 trout.

19 Segment 4, which extends through the lower reach of  
 20 the Owens Valley below Laws Ditch was analyzed with respect  
 21 to large mouth bass habitat requirements.

22 Q Is there any particular reason why you did not  
 23 produce any recommendations for instream flows on that?

24 Would you discuss that a little bit more, that study?

25 MR. DUNN: A Well, again, I don't feel that was our

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1 responsibility. Our responsibility was to conduct that  
 2 instream flow study and use it to evaluate the effects of  
 3 the different alternatives on middle Owens fish populations  
 4 and habitat, and we did not find any significant effects  
 5 from any of those alternatives.

6 MR. HERRERA: I believe that completes my questions.  
 7 Thank you, gentlemen.

8 EXAMINATION  
 9 by MR. SATKOWSKI:

10 Q I have one question dealing with State Water  
 11 Resources Control Board Exhibit 7, which is the DEIR Volume  
 12 I, and last week, if I remember correctly, we were  
 13 discussing or somebody was asking the question about the  
 14 differences between Table S-1 which is on page 6 of 15, and  
 15 the table farther on in the volume which is Table 3D-8, last  
 16 week I believe there was a correction made and that was that

17 on Table S-1 under the heading Significant Impacts From  
 18 Water Temperature Increases, the yes for the prediversion  
 19 condition was changed to unknown.

20 As I compared the two tables, I see some other  
 21 differences. I was wondering if you could explain those.

22 MR. DUNN: A Yes. I need to clarify that. I did  
 23 look through both of these tables and compared them when I  
 24 had more time than just at the hearing, and there are a few  
 25 differences in these tables and, in fact, there were some

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1 errors in these tables, and frankly, I am not sure how they  
 2 got in there, but they are there.

3 So, let me go through on Table S-1 which is page 6 of  
 4 15. Do you have that?

5 Q Yes.

6 A The impacts under Average Percent Change in Brown  
 7 Trout Adult Habitat where we have shown significant project  
 8 impacts and significant cumulative impacts, those  
 9 significant cumulative impacts where those checks are, those  
 10 checks should not be there, and our text explains the  
 11 rationale why they should not be there.

12 Q That's the first column you are looking at?

13 A Correct.

14 Q So the same thing would be true for Table 3D-8?

15 A That's correct, for average percent change in brown  
 16 trout adult habitat. So, these are things that we would  
 17 typically clean up for the final Environmental Impact Report  
 18 and we definitely will.

19 And then, in addition, if you look at the upper Owens  
 20 River average change in rainbow trout adult habitat, that's  
 21 the very next column on Table S-1, again, there's a list of  
 22 checks for cumulative impacts that should not be there.

23 And again, that follows for Table 3D-8. They should  
 24 not be there.

25 Q What about the water temperature column, would that

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1 be the same? Should those checks not be there for that  
 2 column also?

3 A That's correct.

4 Q And also, for the next column on significant impacts  
 5 from water quality degradation?

6 A That's correct. And part of the confusion from this  
 7 table, I think, is because you have two columns that are  
 8 percent changes and then you have got two columns that are a  
 9 more absolute question, are there significant impacts from  
 10 water temperature increases under the various alternatives  
 11 and under the prediversion condition, and we talked about --  
 12 I guess the only differences still remaining, if you look  
 13 at Table 3D-8, and under water temperatures and water  
 14 quality, those two columns on 3D-8, you see check marks  
 15 there.

16 Those should not be check marks. Those should be  
 17 asterisks.

18 Q Which signifies adverse impacts?

19 A That's correct.

20 Q What about the prediversion row on 3D-8? All the  
 21 items are labeled unknown, whereas on Table S-1 there are --  
 22 well, there are two yeses and one of them we cleared up.

23 Would the yes in the last column, which is significant  
 24 impacts from water degradation, also be unknown?

25 A Again, you are looking at the prediversion conditions

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1 and when I commented on this before, I looked back at 3D-8  
 2 and they were unknown, and I mentioned that they should be  
 3 unknown all the way across and, in fact, I thought about  
 4 that later and that's not correct.

5 Really, they should all be yeses for water  
 6 temperature and water quality because under prediversion  
 7 conditions there are significant impacts in the lower areas  
 8 of upper Owens River from water temperature increases, and  
 9 also, from water quality, and if need be, I could submit a  
 10 revised table at some point, you know, so you definitely  
 11 have it in the record.

12 MR. SATKOWSKI: That would be very useful. Thank  
 13 you.

14 MR. CANADAY: I have no questions.  
 15 MR. DEL PIERO: Mr. Smith?  
 16 MR. SMITH: No.  
 17 MR. FRINK: Staff has no further questions.  
 MR. DEL PIERO: Board members?  
 19 I have three.  
 20 EXAMINATION  
 21 by MR. DEL PIERO:  
 22 Q Mr. Stubchaer will appreciate this. Mr. Stubchaer  
 23 and I occasionally travel together and recently we have been  
 24 doing it quite a bit.  
 25 In your opinion, can one cubic foot per second in an

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1 Eastern Sierra stream sustain a fishery?  
 2 MR. DUNN: A I think one cubic foot per second could  
 3 sustain a fishery. It is not going to be an outstanding  
 4 fishery, but it could sustain a fishery.  
 5 Q I am asking this just for the record, but I think I  
 6 know the answer.  
 7 Is a fishery static?  
 8 A Very definitely no.  
 9 Q What causes it to change?  
 10 A That could be a long answer, but I will try to make  
 11 it short. The flows, the habitat characteristics, the  
 12 relationships in terms of different species of fish, changes  
 13 in water temperature, changes in food production, the  
 14 interactions of those are things that we can't fully  
 15 understand, and sometimes there can be long-term changes or  
 16 there can be an effect that is a short-term change that  
 17 affects a population for several years.

18 Q Assuming that your first statement about the one  
 19 cubic foot per second sustaining a fishery is correct, could  
 20 optimal conditions related to your second answer affect a  
 21 fishery that is maintained in a one cubic foot per second  
 22 flow that would allow it to be a significant fishery?

23 If I didn't make myself clear with that question,  
 24 tell me and I will try and rephrase it for you.

A Well, I think if one cubic foot per second is kind of

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1 an average condition, and then you take these other  
 2 potential factors affecting the fishery, certainly that  
 3 fishery could suffer significantly if the one cubic foot per  
 4 second was only there for a short time depending on the  
 5 timing of what life stages it might affect, it might be if  
 6 that was just there for several weeks or several months that  
 7 these other factors might not have as significant an effect  
 8 in terms of the cumulative effect on the population.

9 So, I think it depends on the duration of that one  
 10 cubic foot per second. If that was there all the time, one  
 11 cubic foot per second in these streams, then you certainly  
 12 have more problems than if it was only there on a temporary  
 13 basis.

14 Q Okay. Last week we had some pictures of Rush Creek,  
 15 lower Rush Creek. They were blown-up photographs. Do we  
 16 still have them?

17 MR. BIRMINGHAM: They are not here. I can have them  
 18 delivered.

19 MR. DEL PIERO: We all looked at them and I will just  
 20 rely on your memory.

21 MR. BIRMINGHAM: Those were reproductions from  
 22 testimony of Dr. Donald Chapman and Dr. Will Platts, which  
 23 is LADWP's Exhibit 1, and they will be found in that  
 24 exhibit.

25 MR. DEL PIERO: Q Do you recall the picture of lower

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1 Rush Creek that was up last week during the course of the  
 2 hearing?

3 MR. DUNN: A Right, I remember that.

4 Q It was taken in 1947. I wrote that down in my notes.  
 5 Does the delta that was exhibited in that picture  
 6 still exist? There was a significant wetland area and there  
 7 was a significant delta that went out into the lake.

8 Does that still exist in the condition that it was  
 9 exemplified in that picture?

10 A I certainly couldn't answer that question whether it

11 exists specifically.

12 Q Can anybody answer that question?

13 MR. CASADAY: A The prediversion delta of Rush  
 14 Creek?

15 Q Prediversion delta and wetlands of Rush Creek.

16 A My recollection is that much of those wetlands were  
 17 drained with lake recession and, of course, that remnant  
 18 delta isn't the delta anymore. There is a new delta formed  
 19 down at the lower lake elevation, but again, my recollection  
 20 is there's not the extent of wetlands there that existed in  
 21 1941.

22 Q Okay. When significantly saturated soils exist on a  
 23 permanent basis, is it your impression that riparian  
 24 vegetation like the riparian vegetation that historically  
 25 had been known to exist on Rush Creek or the other

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1 tributaries to Mono Lake, is it your experience that that  
 2 continues to exist in deltas that are formed by streams that  
 3 are tributary to Mono Lake in the areas that are permanently  
 4 saturated, or does a different subsystem of the environment  
 5 exist in terms of the plant life that predominates in  
 6 freshwater deltas?

7 A I guess I am having a hard time following the  
 8 question. If you could rephrase it --

9 Q We saw a number of pictures last week, some of them  
 10 represented riparian corridors. The thing that people  
 11 normally consider to be riparian corridors are corridors  
 12 where there are large trees, willows, additional other types  
 13 of trees, and in the case of Rush Creek there are pines that  
 14 have existed along there, a variety of deciduous trees also  
 15 existed besides the willows. That was not present in the  
 16 delta area.

17 The question I have for you, given a situation where  
 18 you have a delta where you have virtually continuous  
 19 saturation in terms of the soil which is by definition what  
 20 that delta is, is it common to find riparian vegetation like  
 21 what you find in an upper creek area, in an area like that?

22 A I would say no, that you have a different environment  
 23 there. Riparian vegetation, you know, does need aerated  
 24 soil in the shallow layers, so when you get into saturation  
 25 on the surface, you are going to not have riparian -- you

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1 have wetland vegetation.

2 Q Okay. So, the absence of riparian vegetation in an  
 3 area where you have a wetland is not surprising to you?

4 A That is right. It is not surprising that the  
 5 riparian corridor did not ever extend all the way to the  
 6 lakeshore itself.

7 Q Okay. One last question. There was testimony last  
 8 week as to Rush Creek having been identified as a typically  
 9 heavily fished, easily accessed Eastern Sierra stream.

10 You can't speak for the Department of Fish and Game,  
 11 but all of you have varying degrees of expertise in terms of  
 12 biological science as it relates to fishes.

13 Is it normal, whether it be the California Department  
 14 of Fish and Game or the U. S. Fish and Wildlife Service, or  
 15 whoever might be responsible for fish management, is it  
 16 normal for agencies responsible for fish management to plant  
 17 streams that are heavily utilized by fishermen for fishing  
 18 purposes?

19 MR. DUNN: A Yes, it is. That's a common practice.

20 Q Would it be abnormal if they did not?

21 A Well --

22 Q Given their ultimate responsibility in terms of  
 23 providing fishing opportunities for fishermen?

24 A Well, certainly now there is more of an emphasis on  
 25 having catch and release wild fisheries, but I don't think

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1 that was the case in prediversion conditions, and if the  
 2 public was using the stream for extensive fishing, it  
 3 certainly would be, you know, common for Fish and Game to  
 4 try to support that fishery by planting fish.

5 Q Do you know if that was the case in Rush Creek in the  
 6 last five or six decades up until full diversion?

7 If you don't know, that's okay. I will ask them when

8 they get up.  
 9 A We are not sure.  
 10 MR. DEL PIERO: Thank you.  
 11 Unless there are any other questions --  
 12 MR. BIRMINGHAM: Will there be any recross?  
 13 MR. DEL PIERO: Absolutely.  
 14 RECROSS-EXAMINATION  
 15 by MR. BIRMINGHAM:  
 16 Q I would like to follow up very briefly on some of the  
 17 questions Mr. del Piero was asking.  
 18 Isn't it correct that the Draft EIR reports that  
 19 during the decade of the thirties, which was the decade  
 20 immediately before the diversions by the Department, that  
 21 Rush Creek was planted by the Department of Fish and Game?  
 22 MR. DUNN: A Yes, that's true.  
 23 Q And doesn't the Draft EIR report that according to  
 24 personal communications from Phil Pister, Rush Creek was  
 25 planted up until the mid sixties?

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1 A I don't recall that. That could be true, but I don't  
 2 recall it off the top of my head.  
 3 Q Mr. Herrera asked you this morning questions about  
 4 Mill and Wilson Creeks, and why they were not included in  
 5 your analysis of fisheries.  
 6 Is it correct that you did not include an analysis of  
 7 Mill and Wilson Creeks because the Department of Water and  
 8 Power does not divert those streams out of the Mono Basin?  
 9 A Again, I really can't recall what the basis for that  
 10 decision was, not to include those creeks. That could be  
 11 true. I'm not sure.  
 12 Q Was it your understanding that the Department of  
 13 Water and Power does not divert those streams out of the  
 14 Mono Basin?  
 15 A I believe that's correct, to the best of my  
 16 knowledge.  
 17 Q The only streams that have been diverted out of Mono  
 18 Basin by the Department of Water and Power are Rush Creek,  
 19 Lee Vining Creek, Walker Creek and Parker Creek; is that  
 20 correct?  
 21 A I believe so, yes.  
 22 Q Following up on some questions that were asked of you  
 23 last week by Ms. Cahill, the attorney for the Department of  
 24 Fish and Game, she asked questions concerning the proposed  
 25 recommendations by the Department of Fish and Game for peak

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1 flows that were analyzed in the Draft EIR.  
 2 Do you recall those questions?  
 3 A Yes.  
 4 Q At the outset of your testimony on Thursday of last  
 5 week, you indicated, and I am reading here from the  
 6 transcript of those proceedings, you stated, and this is  
 7 from page 96 of the reporter's transcript, starting at line  
 8 20, And also, it appears that some parties have modified  
 9 their positions to some degree regarding the effects of the  
 10 high flows, and certainly, we will again consider this  
 11 information and any alternative interpretations of existing  
 12 information that could change our conclusions in the final  
 13 EIR.  
 14 Do you recall making that statement?  
 15 A Yes.  
 16 Q Now, among the parties that apparently have changed  
 17 their position is the Department of Fish and Game; is that  
 18 correct?  
 19 A It does appear that they have modified their flows,  
 20 yes.  
 21 Q And is it also correct that Woody Trihey, the  
 22 restoration technical consultant, has modified his opinion  
 23 concerning peak flows or the erosive effect of peak flows  
 24 based upon high flows in 1993?  
 25 MR. DODGE: Excuse me, Mr. del Piero. That calls for

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1 speculation.  
 2 MR. DEL PIERO: Do you know if Mr. Trihey modified  
 3 his position?  
 4 A Well, as I recall reviewing his letter, I think it's

5 -- maybe Mr. Casaday could talk about this better because it  
 6 has been a while. I only read that letter once, but I think  
 7 he essentially is putting a different cast on why he  
 8 recommended the flows, but I don't know if he has actually  
 9 asked for higher flows or not.  
 10 MR. DEL PIERO: Then, I am going to rule he doesn't  
 11 know.  
 12 MR. BIRMINGHAM: May I approach the witness?  
 13 MR. DEL PIERO: Certainly.  
 14 MR. BIRMINGHAM: Q I would like to show you a letter  
 15 dated August 30, 1993, addressed to Jim Canaday of the State  
 16 Water Resources Control Board, and ask if you have seen this  
 17 letter before?  
 18 A Yes, I have seen this letter.  
 19 Q What is the letter dated August 30, 1993, which I  
 20 have just handed to you?  
 21 A What is the letter?  
 22 Q What is the letter, just so the record will be clear?  
 23 MR. DEL PIERO: Mr. Birmingham, is that an exhibit?  
 24 MR. BIRMINGHAM: No, I believe the witness will  
 25 testify if it is comments submitted by Mr. Trihey to Mr.

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1 Canaday on the Draft EIR, so it is part of the record.  
 2 A Well, I have reviewed this letter very quickly. It  
 3 is four or five pages long. I am not sure specifically what  
 4 he is addressing in terms of the peak flows, whether he is  
 5 modifying that or not.  
 6 MR. BIRMINGHAM: We can ask Mr. Trihey that.  
 7 A I believe there's another letter I recall that was in  
 8 the testimony that essentially explained his rationale, or  
 9 expressed certain terms about how he made his  
 10 recommendation, and I'm not sure if this is it or not.  
 11 Q Finally, there were some questions by Mr. Dodge  
 12 concerning one of the statements from the Draft EIR  
 13 concerning the number of fish that existed in Rush Creek  
 14 prior to the diversions by the City of Los Angeles DWPP, and  
 15 specifically, Mr. Dodge asked about a reference in the Draft  
 16 Environmental Impact Report to a quantitative estimate based  
 17 upon 50,000 adult fish spilling from Grant Lake in 1970.  
 18 Do you recall that question?  
 19 A Yes, I remember that.  
 20 Q On page 3D-8 of the Draft Environmental Impact  
 21 Report, it states: Only one quantitative estimate of trout  
 22 populations before 1940 was made; trout population abundance  
 23 in Rush Creek before 1935 was estimated to equal the  
 24 abundance measured during the water spill from Grant Lake in  
 25 1970, when 50,000 adults were observed between the dam and

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1 Mono Lake.  
 2 Do you see the sentence which I have just read on  
 3 page 3D-8 of the Draft Environmental Impact Report?  
 4 A Yes.  
 5 Q From that, are you suggesting that in 1935, there  
 6 were 50,000 adult trout in Rush Creek?  
 7 A Again, this was Vestal's view of the population and,  
 8 you know, I think the 50,000 is certainly a very very rough  
 9 approximation of the number of fish that were there, but  
 10 that is essentially, I think, what he was concluding there.  
 11 Q Well, I would like to ask your expert opinion about  
 12 this. As I understand it, and then perhaps you can confirm  
 13 this, in 1940, prior to the diversion of water by the  
 14 Department of Water and Power, the length of Rush Creek from  
 15 Grant Lake to Mono Lake was approximately 5.5 miles; is that  
 16 correct?  
 17 A I don't specifically recall.  
 18 Q I will ask you to assume it was approximately 5.5  
 19 miles?  
 20 A All right.  
 21 Q Five point five miles is approximately 30,000 feet;  
 22 is that correct?  
 23 A Yes.  
 24 Q Now, if there were 50,000 adult trout in Rush Creek  
 25 and Rush Creek was 30,000 feet long, that would be

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1 approximately 1.7 adult trout per foot of Rush Creek; is

2 that correct?  
 3 MR. DODGE: Objection, stating facts not in evidence,  
 4 that Rush Creek was a single channel.  
 5 MR. DEL PIERO: That's true. You can go ahead and  
 6 ask those questions and get to where you want to go.  
 7 MR. BIRMINGHAM: I'm asking a hypothetical question,  
 8 Mr. del Piero. I will ask him to assume there were 30,000  
 9 feet of stream in Rush Creek.  
 10 A Okay.  
 11 MR. BIRMINGHAM: Q And that would be approximately  
 12 1.7 fish per foot of stream; is that correct?  
 13 A Yes.  
 14 Q Are you aware of any stream in which there would be  
 15 1.7 adults per foot of stream, a stream with characteristics  
 16 similar to Rush Creek?  
 17 MR. DEL PIERO: You need to clarify what  
 18 characteristics you are asking him to assume in Rush Creek.  
 19 MR. BIRMINGHAM: Q You are familiar with the way  
 20 Rush Creek appeared in 1940 based upon your review of the  
 21 historical data; is that correct?  
 22 A Correct.  
 23 Q Do you think that based upon that review that an  
 24 estimate of 1.7 adult trout per foot is a reasonable  
 25 estimate of the adult population in Rush Creek?

00025

1 A Well, I would say that certain reaches of the stream  
 2 could maintain that high a level, but overall the entire  
 3 length of stream, we are assuming 5.5 miles, I would say  
 4 that would seem to be a very high estimate.  
 5 Q And, in fact, the first several miles of the stream  
 6 were dewatered periodically because of irrigation; isn't  
 7 that correct? Here I am referring to that portion of the  
 8 stream above what is referred to as the Narrows?  
 9 A That is correct.  
 10 Q And that would affect your opinion concerning whether  
 11 or not 50,000 adult fish is a reasonable estimate?  
 12 A Yes, it would.  
 13 MR. BIRMINGHAM: Thank you. I have no further  
 14 questions.  
 15 MR. DEL PIERO: Thank you very much.  
 16 Ms. Cahill or Mr. Thomas. Good morning.  
 17 MS. CAHILL: Good morning.  
 18 RECROSS-EXAMINATION  
 19 by MS. CAHILL:  
 20 Q Just a few last questions. You were asked about the  
 21 intent of the Department of Fish and Game in its stream  
 22 evaluation reports. Did you read the cover letter by which  
 23 the Department transmitted those reports to the State Board?  
 24 MR. DUNN: A Are you referring to the August 19,  
 25 1993, versions of the reports?

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1 Q Yes.  
 2 A I do recall reviewing the letters.  
 3 Q And do you recall that in those letters the  
 4 Department said, these are the flows required to keep fish  
 5 in good condition?  
 6 A That is correct in the 1993 reports.  
 7 Q Thank you. With regard to the discussion we have had  
 8 of Mr. Vestal's characterization of Rush Creek, is it your  
 9 understanding that he said it was typical of Eastern Sierra  
 10 streams or typical of heavily fished Eastern Sierra streams?  
 11 A As I recall, it was typical of heavily fished Eastern  
 12 Sierra streams.  
 13 Q Thank you. Let's revisit one more time this Table  
 14 3D-8. I think we may have a logic and/or a semantic  
 15 difference here, but I would like to go back to Table 3D-8  
 16 to the prediversion conditions where the table says,  
 17 Unknown, and you today said you would change it to yes in  
 18 the columns on significant impacts from water temperature  
 19 increases and significant impacts of water quality  
 20 degradation.  
 21 Now, assuming that an impact is an adverse change, if  
 22 the prediversion condition was a condition of water  
 23 temperatures, then there would be no change; would there, if  
 24 -- there would be a difference between a prediversion

25 condition and an impact from the prediversion condition?  
 00027

1 A Right. What you are saying is true, and I think,  
 2 again, this Table 3D-8, the first four columns indicate  
 3 percent changes relative to; say, point of reference  
 4 condition, but then, when we get into significant impacts  
 5 from water temperatures, and also, from water quality, in  
 6 each of the alternatives from no restrictions to no  
 7 diversion, the table entries are relative to point of  
 8 reference conditions, but when we say significant impacts  
 9 from water temperature increases -- I would actually revise  
 10 that and instead of saying significant impact from water  
 11 temperature increases, say significant impacts from water  
 12 temperatures, period, and the response then would be instead  
 13 of unknown, it would be, yes, because there were impacts in  
 14 prediversion conditions from high water temperatures.  
 15 Q If prediversion is the baseline, then is there any  
 16 impact of temperature?  
 17 MR. CASADAY: A Let me help clarify that because I  
 18 had a hand in putting these tables together, and I think it  
 19 is a semantic question. I believe the last two columns  
 20 ought to say, significant problems from high water  
 21 temperatures or from water quality.  
 22 You are right, we shouldn't use the term impact there  
 23 because it confuses one, because you then ask what is the  
 24 point of reference you are using, the point of reference of  
 25 what.

00028

1 The intent of those columns is, is there a  
 2 significant problem from these factors?  
 3 Does that help?  
 4 Q Yes. I think you are describing a condition and not  
 5 an impact, and I think you and I are in agreement probably  
 6 on that.  
 7 I would just like to ask one very brief question with  
 8 regard to parker Creek, which we have not discussed very  
 9 much. On page 3D-8 of the Environmental Impact Report,  
 10 there is a statement that anglers could catch a limit of  
 11 eight- to ten-inch trout in two to three hours, and it is  
 12 attributed to one of the old-timer's recollection.  
 13 In those days, was the limit 25 fish?  
 14 MR. DUNN: A I, frankly, don't recall.  
 15 Q Mr. Mitchell, do you know?  
 16 MR. MITCHELL: A I don't recall.  
 17 Q And then, one last question: Given the fact that  
 18 there has been some restoration activity on the streams,  
 19 would you recommend that any streamflows that are  
 20 recommended should be re-evaluated in approximately ten  
 21 years or so?  
 22 MR. DUNN: A I think that would be a good idea, yes.  
 23 MR. MITCHELL: Yes, I agree.  
 24 MS. CAHILL: Thank you. We have no further  
 25 questions.

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1 MR. DEL PIERO: Mr. Dodge.  
 2 RECROSS-EXAMINATION  
 3 by MR. DODGE:  
 4 Q Just a couple of questions. You were asked about 1.7  
 5 fish per foot. Who answered that question?  
 6 MR. DUNN: A I did.  
 7 Q Let me ask you the same question: Would it be  
 8 reasonable prediversion if there were about .75 fish per  
 9 linear foot of Rush Creek?  
 10 A This is really splitting hairs.  
 11 MR. DEL PIERO: Actually, it's fish.  
 12 A I think, certainly, that would be more reasonable  
 13 than what's here because in a small stream and given the  
 14 complex characteristics of certain reaches of that creek,  
 15 you could possibly have, you know, a fairly high density of  
 16 adult fish, but, you know, the 1.7 seems high based on my  
 17 experience.  
 18 MR. DODGE: Q And again, you don't know whether were  
 19 30,000 feet of channel or 65,000 feet of channel; do you?  
 20 A Well, we were assuming in that characterization there  
 21 were 30,000 feet of linear channel.

22 Q That was hypothetical?  
 23 A That's correct.  
 24 Q I'm asking you, in fact, how many feet of channel  
 25 were there?

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1 A There would have been more than that. I don't know  
 2 the specific linear length of channel.  
 3 Q Someone told us that Mill and Wilson Creeks were not  
 4 diverted by the Department of Water and Power. Have they  
 5 been incised by the lowering of the lake?  
 6 MR. CASADAY: A My recollection is that at least one  
 7 of those has been significantly incised.  
 8 Q Which one?  
 9 A Well, I would have to look it up in the document. My  
 10 recollection is Mill, but that could be incorrect.  
 11 Q The 1947 picture, as I recall, was taken pretty close  
 12 to Mono Lake; correct?  
 13 A Yes, I believe that's true.  
 14 Q And there was a question about why there wasn't  
 15 riparian vegetation shown there. Do you recall that?  
 16 A Right.  
 17 Q Do you recall whether that particular section of Rush  
 18 Creek was recently relicted by the lowering of Mono Lake?  
 19 A That's definitely a possibility. You know, I think  
 20 any photograph or any information that we have on fish  
 21 populations or fish habitat that is that close to the lake  
 22 is certainly going to be influenced by any fluctuations in  
 23 the lake level and would not be representative of the rest  
 24 of the stream, and I think that's what Chairman del Piero  
 25 was getting at.

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1 Q My question was whether the lowering of the lake  
 2 level could have affected the riparian vegetation shown in  
 3 that picture?  
 4 A Yes, it could have.  
 5 MR. DODGE: No further questions.  
 6 MR. DEL PIERO: One point of clarification. I'm  
 7 sorry, Mr. Dodge, were you asking in regard to your question  
 8 on whether or not that area was relicted, were you asking  
 9 relationship to conditions, or were you asking relationship  
 10 to 1947 when the picture was taken?  
 11 MR. DODGE: The latter.  
 12 MR. DEL PIERO: Thank you.  
 13 Mr. Roos-Collins.  
 14 RE-CROSS-EXAMINATION  
 15 by MR. ROOS-COLLINS:  
 16 Q Do you recall Mr. Birmingham's questions this morning  
 17 about the planting of Rush Creek with hatchery trout pre-  
 18 1941?  
 19 MR. DUNN: A Yes.  
 20 Q Is it possible that Rush Creek was planted with  
 21 hatchery trout because the native fish had been caught.  
 22 MR. BIRMINGHAM: I'm going to object on the ground  
 23 the question assumes facts not in evidence. I don't believe  
 24 there were any native fish in any of these streams.  
 25 MR. ROOS-COLLINS: I withdraw the question.

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1 Q What is your understanding of the purpose for  
 2 planting Rush Creek pre-1941?  
 3 A Well, I think Rush Creek experienced fairly heavy  
 4 angling pressure even at that time, like many of the streams  
 5 do on the Eastern Sierra, and they were, in effect,  
 6 supplementing the population, making sure that there were  
 7 adequate fish for anglers to catch.  
 8 Q Thank you. Do you know whether the Department of  
 9 Fish and Game maintained a hatchery on Rush Creek pre-1941?  
 10 A I don't recall the specific years.  
 11 Q Mr. del Piero this morning asked you a question about  
 12 Figure 6 in LADWP Exhibit 1, the 1939 photograph by Eldon  
 13 Vestal, looking upstream in the vicinity of old Highway 395  
 14 on Rush Creek.  
 15 Do you recall that photograph?  
 16 A Yes.  
 17 MR. BIRMINGHAM: I have a copy of it here if the  
 18 witness would like to look at it.

19 MR. DEL PIERO: Thank you very much, Mr. Birmingham.  
 20 MR. ROOS-COLLINS: Q At the time this photograph was  
 21 taken, who held the water rights for diversion upstream of  
 22 the photograph location?  
 23 A I presume that it was LADWP, but I'm not sure  
 24 exactly. There would have been many water rights up there.  
 25 I guess I don't know the specific answer.

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1 Q As of 1939, had LADWP purchased the water rights of  
 2 Cain Irrigation Company?  
 3 A I don't know the answer, no.  
 4 MR. DEL PIERO: Does anyone on the panel know?  
 5 MR. CASADAY: Well, I should but my memory of these  
 6 three volumes is fading rapidly. I believe that they had  
 7 purchased it by that time. That is something I certainly  
 8 could look up, but we do have a chapter that addresses that  
 9 on land use. I believe by that time they had acquired  
 10 rights.  
 11 MR. ROOS-COLLINS: Q Do you recall Mr. Birmingham's  
 12 question last week about Figure 3 in LADWP Exhibit 1, which  
 13 is the photo of Rush Creek Basin on February 21, 1947?  
 14 If I may, I will approach you and show you the  
 15 photograph.  
 16 A Yes.  
 17 Q Who held title to lands depicted in Figure 3 at the  
 18 time the photograph was taken?  
 19 A I would only be guessing. I really don't know for  
 20 sure.  
 21 Q Finally, let me ask you a few follow-up questions to  
 22 Mr. Dodge's questions about the length of Rush Creek pre-  
 23 1941.  
 24 Are you familiar with Trihey & Associates' report  
 25 Past and Present Geomorphologic, Hydrologic and Vegetative

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1 Conditions on Rush Creek, dated September, 1992, Cal Trout  
 2 Exhibit 12?  
 3 A Yes, we are familiar with that.  
 4 Q Are you familiar with the pre-1941 aerial photographs  
 5 of Rush Creek contained in that report?  
 6 A I remember reviewing them a while back. I don't  
 7 know, maybe Bill recalls better than I do.  
 8 Q Are you familiar with the linear estimates by stretch  
 9 pre-1941?  
 10 A I certainly could not recall them right now.  
 11 Q So, you wouldn't disagree with Mr. Dodge's  
 12 suggestion that this report concludes that the pre-1941  
 13 length of the main and distributary channels was  
 14 approximately 65,000 feet?  
 15 MR. FRINK: Objection, the witness said he couldn't  
 16 recall.  
 17 MR. DEL PIERO: Sustained.  
 18 MR. ROOS-COLLINS: No further questions.  
 19 MR. DEL PIERO: Mr. Stevens.  
 20 MR. STEVENS: No questions.  
 21 MR. DEL PIERO: Is Mr. Gipsman here?  
 22 Ms. Niebauer has not joined us.  
 23 Mr. Haselton?  
 24 Mr. Silver from Sierra Club, is he here?  
 25 Anyone else wishing --

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1 MR. STUBCHAER: I have one question.  
 2 MR. DEL PIERO: Yes, Mr. Stubchaer.  
 3 EXAMINATION  
 4 by MR. STUBCHAER:  
 5 Q Could you make an estimate of how long it would take  
 6 for freshwater vegetation to re-establish itself along the  
 7 lower reaches of Rush Creek if it was a relicted area; that  
 8 is, after the lake subsided, and how long would it take for  
 9 the salts or whatever is in the soil to leach out and allow  
 10 freshwater riparian vegetation to come back?  
 11 MR. CASADAY: A Along the immediate vicinity of the  
 12 stream itself, relatively rapid, and there is, in fact, a  
 13 lot of willow growth occurring down in this incised corridor  
 14 along the lower stream.  
 15 Q And how many years is relatively rapid?

16 A Well, I'm trying to recall when the court ordered the  
 17 first rewatering of the streams, but by 1989, there was  
 18 extensive growth of young willows when we were there, so I  
 19 would say in just a few years, and I don't know that I could  
 20 be more explicit.  
 21 Q Is 15 years an adequate time?  
 22 A For the establishment of those seedlings, yes.  
 23 MR. STUBCHAER: Okay, thank you.  
 24 MR. DEL PIERO: Staff.  
 25 MR. FRINK: Mr. Canaday has one, I believe.

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EXAMINATION

2 by MR. CANADAY: To the best of your recollection, the  
 3 prediversion conditions of both Rush and Lee Vining Creeks,  
 4 were they single channels or were they multiple channels?  
 5 MR. DUNN: A They were multiple channels.  
 6 Q And to the best of your recollection, in 1989, which  
 7 we call kind of the point of reference, what was the  
 8 condition of Rush and Lee Vining Creeks as far as multiple  
 9 channels?  
 10 A There definitely were fewer multiple channels at that  
 11 time.  
 12 Q Was Lee Vining Creek mainly a single channel, to the  
 13 best of your recollection?  
 14 A Yes.  
 15 Q What about Rush Creek?  
 16 A I believe so.  
 17 Q You have been asked to review a photograph from LADWP  
 18 Exhibit No. 1 called Figure 3, a photo of Rush Creek, and  
 19 it's the one near the mouth, near the delta. Were the lake  
 20 at that level today, would you expect to see an incised  
 21 channel, or the channel that exists in this picture, has  
 22 that been incised because of the drop of the lake?  
 23 MR. CASADAY: A This photograph was taken in the  
 24 vicinity of the county road; is that correct?  
 25 Q I believe just below the county road.

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A Yes, that area is incised.

Q Approximately how much; do you know?

3 A At the county road, the incision is quite deep, on  
 4 the order of -- well, again, it is in the document. My  
 5 recollection is 10 to 20 feet, or something of that order.  
 6 Q So the ability to create or re-establish a condition  
 7 that looked like this photograph would be difficult because  
 8 there has been a widening of the channel and incision of  
 9 that channel?  
 10 A There definitely has been an incision of the channel  
 11 and now the stream is trying to widen the floodplain down at  
 12 the lower depth, and that floodplain where the riparian  
 13 vegetation would be expected to grow is now very narrow  
 14 compared to the earlier, the prediversion, and the higher  
 15 floodplain.

MR. CANADAY: Thank you. That's all I have.

MR. DEL PIERO: Any other questions by staff?

MR. FRINK: No.

MR. DEL PIERO: Board members have no more questions.

20 Thank you very much, gentlemen, for your time. We  
 21 appreciate it.

22 Mr. Frink, we have one more panel?

23 MR. FRINK: We have two more.

24 MR. DEL PIERO: Wishful thinking.

25 MR. FRINK: I wonder if we could suggest a five-

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1 minute recess in order to give the new panel --

2 MR. DEL PIERO: Why don't we take a ten-minute recess  
 3 and we could start with the new panel.

(Recess)

5 MR. DEL PIERO: Ladies and gentlemen, this hearing  
 6 will again come to order.

7 This panel doesn't look like the last one.

MR. FRINK: No, it's larger.

MR. DEL PIERO: Why don't you proceed, please.

10 MR. DODGE: Mr. Chairman, I have a procedural point.

11 I just learned that due to a recent development Mr. Frink  
 12 cannot be here tomorrow morning and he and I have divided up

13 the issues by subject matter, and in order to effectively  
 14 represent our clients, he really has to do it.  
 15 MR. DEL PIERO: Can he be here tomorrow afternoon?  
 16 MR. DODGE: Yes.  
 17 MR. DEL PIERO: Okay. We will make accommodations in  
 18 the schedule for him.  
 19 MR. DODGE: Thank you.  
 20 MR. DEL PIERO: If you will be kind enough to remind  
 21 me of that tomorrow morning.  
 22 Mr. Frink, do you want to introduce the next panel?  
 23 MR. FRINK: Yes, I would, Mr. del Piero.  
 24 The next group of witnesses are those who worked on  
 25 what was loosely termed the Terrestrial Resources Team.

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1 This includes witnesses on terrestrial biology, land use,  
 2 air quality, cultural resources and wildlife.

3 I don't believe any of the witnesses on the panel  
 4 have been sworn, so this would be a perfect time to  
 5 administer the oath.

6 MR. DEL PIERO: Would everyone who intends to present  
 7 evidence today please stand and raise your right hand, not  
 8 only of this panel, but everyone else.

(The witnesses were sworn.)

10 MR. FRINK: I believe we will begin with the  
 11 testimony of James Jokerst, who worked on the recreation  
 12 impact assessment for the lake fringing wetlands in the  
 13 upper Owens River.

14 MR. CASADAY: Excuse me, Dan, Mr. Jokerst worked on  
 15 the vegetation section. The recreation will be on the  
 16 social and economic panel later.

17 MR. FRINK: Okay, I'm sorry.

JAMES JOKERST,

having been sworn, testified as follows:

DIRECT EXAMINATION

21 by MR. FRINK:

22 Q Mr. Jokerst, would you state your name and place of  
 23 employment for the record?

24 A My name is James Jokerst. I am with Jones & Stokes  
 25 Associates.

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1 Q And did you prepare a document entitled Written  
 2 Testimony of James Jokerst for the Mono Basin Water Rights  
 3 Hearing?

4 A Yes, I did.

5 Q Is that the document that has been designated as  
 6 State Water Resources Control Board Exhibit 24 in this  
 7 proceeding?

8 A Yes, sir.

9 Q Your testimony indicates that you assisted in the  
 10 preparation of the Draft Environmental Impact Report for the  
 11 review of the City of Los Angeles' water diversions from the  
 12 Mono Lake Basin.

13 Would you please, briefly, summarize your education  
 14 and professional qualifications and experience that are  
 15 relevant to the work you did on the Draft EIR?

16 A I prepared the sections encompassing the lake  
 17 fringing wetlands and upper Owens River vegetation analysis.  
 18 I am a plant ecologist and botanist with a Master's degree  
 19 from the California State University at Chico. I have been  
 20 practicing as a consultant for 15 years, and I have had a  
 21 great deal of project experience, both in vegetation  
 22 description, impact assessment and relationship of  
 23 vegetation with geohydrologic and other physical factors.

24 Q Attachment A to Exhibit 24 appears to be the resume'  
 25 of James Jokerst. Is this a true and accurate summary of

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1 your professional education and experience as it relates to  
 2 the subject matter of your testimony?

3 A Yes, sir.

4 Q What portions, in particular, of the Draft EIR did  
 5 you assist in preparing?

6 A I prepared the sections dealing with what we termed  
 7 the lake fringing wetlands, wetlands that developed on the  
 8 relict lake bed and that encircled the lake prior to the  
 9 onset of diversions; and also, the upper Owens River

10 vegetation and geohydrologic assessment that encompassed the  
11 area from the portal down to the lake.

12 Q Do you affirm that SWRCB Exhibit 24 is a true and  
13 accurate summary of your testimony in this proceeding?

14 A It is with one minor exception that has recently come  
15 to light regarding the extent of prediversion wetlands on  
16 the Rush Creek delta.

17 I recently learned from Dr. Stine, who prepared a  
18 baseline report upon which I based my analysis of  
19 prediversion conditions that approximately 130 acres of  
20 terrestrial wetlands, these are not lagoons, but vegetated  
21 wetlands were omitted from the map of the prediversion  
22 conditions, and thus, in my impact assessment I did not  
23 predict the re-establishment of sufficient amounts of  
24 vegetation on the Rush Creek delta as a result of not being  
25 aware of its existence prior to diversions.

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1 This, however, if I could go on a little bit, I don't  
2 feel this would summarily chance my analysis in any way  
3 because the presence of additional wetlands on the delta  
4 under the different alternatives we analyzed would be  
5 proportionately affected roughly in the same manner by this  
6 new information, and my review of the report indicates that  
7 my conclusions regarding significant effects would not have  
8 changed as a result of that information.

9 MR. FRINK: I believe that's all the questions I have  
10 of you. Thank you very much.

11 Mr. del Piero, the next witness on this panel is Dr.  
12 Edward Beedy, who worked in the area of wildlife.

13 EDWARD CROSBY BEEDY,

14 having been sworn, testified as follows:

15 DIRECT EXAMINATION

16 by MR. FRINK:

17 Q Dr. Beedy, would you please state your name and place  
18 of employment for the record.

19 A Edward Crosby Beedy with Jones & Stokes Associates as  
20 a Wildlife Biologist, Environmental Scientist.

21 Q Did you prepare a document that is titled Written  
22 Testimony of Dr. Edward C. Beedy for the Mono Basin Water  
23 Rights Hearing?

24 A Yes, I did.

25 Q Is that the document that is designated as SWRCB

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1 Exhibit 25 in this proceeding?

2 A That is right.

3 Q Your written testimony indicates that you also  
4 assisted in preparing the Draft EIR that is under  
5 consideration this morning.

6 Would you briefly summarize your education and  
7 experience, and your professional qualifications that are  
8 relevant to the work you did in preparing the Draft EIR?

9 A I have worked as a professional wildlife biologist  
10 for Jones & Stokes for eight years and probably about seven  
11 years previous to that I did my doctorate work and master's  
12 work in the Department of Zoology, U. C. Davis. My  
13 dissertation work focused on bird distribution in the  
14 Yosemite Sierra, so at that time I did spend a lot of time,  
15 not actually doing research, but in the Mono Basin.

16 Following my dissertation work at Davis, I compiled a  
17 volume for the U. S. Forest Service on bird habitat  
18 requirements and distribution in the Sierra Nevada, and also  
19 worked on statewide projects. This is work I have done  
20 outside of the work I have done for Jones & Stokes.

21 So, I have had a lot of experience compiling and  
22 summarizing data from different sources into documents for  
23 the decision makers.

24 Q Is Attachment A to your written testimony a true and  
25 accurate summary of your professional, education and

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1 experience as it relates to the work you did on the Draft  
2 EIR?

3 A Yes, it is.

4 Q What specific portions of the Draft EIR did you  
5 assist in preparing, Dr. Beedy?

6 A I took a major role in preparing the wildlife Chapter

7 3F, and also, prepared four technical appendices, Appendix B  
8 which is just a list of scientific and common names of  
9 animals; Appendix C, which is the analysis of the California  
10 gull reproductive behavior and nesting substrate; Appendix  
11 D, which was a habitat analysis of tributary streams, lake  
12 fringing wetlands, as well as the upper Owens River area;  
13 and Appendix E, which was an analysis of all the special  
14 status species; that is, threatened and endangered and other  
15 legally protected species that potentially occur in Mono  
16 Basin, in the upper Owens River, and analysis of their  
17 habitat requirements and distribution in that area.

18 Q Did you also coordinate the preparation of any of the  
19 auxiliary reports to the Draft EIR?

20 A Yes, I did. I coordinated the preparation of the  
21 report by Dr. Martin Rubega on the foraging ecology of red-  
22 necked phalaropes to the lake; also, a report by Dr. Michael  
23 Morrison of U. S. Berkeley on the fauna of the Paoha Island;  
24 and a study conducted by Robert Crabtree and his assistant,  
25 John Shivik, on the behavior of coyotes in the vicinity of

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1 Negit Island.

2 Q Do you affirm that State Water Resources Control  
3 Board Exhibit 25 is a true and accurate summary of your  
4 testimony in this proceeding?

5 A Yes, it is.

6 Q Are there any additions or corrections you want to  
7 make at this time?

8 A Yes, there are a couple of things that have come up  
9 in my reading since the preparation of the Draft EIR that I  
10 would like to just mention now, and if people want to ask me  
11 questions about them later, they can.

12 First of all, I have come upon some field notes from  
13 Joseph Grinnell and Joe Dixon spanning the period actually  
14 from 1916 through different periods up to 1937 of their  
15 visits to Mono Lake, Long Valley, and actually, all the way  
16 down to Owens Lake, which did give me some new insight on  
17 what the vegetation around the lake looked like in the  
18 prediversion period, which I had not seen before.

19 Although I did review Dr. Grinnell's notes and Mr.  
20 Dixon's notes at length, I wasn't aware that there were  
21 additional notes from later periods, and it turned out that  
22 they actually did, at least Dr. Grinnell, did go to Mono Lake  
23 in September, I believe, of 1918, or something like that, it  
24 might have been 1917, and I did look at his observations in  
25 that period which I didn't have access to before.

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1 Another important piece of information that I didn't  
2 know at the time I prepared the Draft EIR was that coyotes  
3 were able to gain access to Java Islet at a lake elevation  
4 of 6375, and the document reported 6373, so that is a  
5 difference.

6 Mr. Jokerst mentioned the omission of the 130 or so  
7 acres of freshwater marsh habitat at the mouth of Rush Creek,  
8 and I don't know enough about and what levels that  
9 disappeared, or would reappear to really make an assessment  
10 on the effects on migratory ducks and other species that  
11 might have used that area, but that is something I would  
12 like to have some time to think about, and possibly talk to  
13 other experts about when that would occur.

14 Also, this wouldn't change my analysis in any way,  
15 but Dr. Stine's report on the hypopycnal layering of  
16 freshwater wetlands around the lake would provide more of a  
17 mechanism for some of the observations we described. Again,  
18 it wouldn't change my conclusions.

19 And finally, on the red-necked phalaropes, in Dr.  
20 Rubega's work as far as the foraging of the phalaropes of  
21 the lake, the effect that she observed was primarily the  
22 females. It turned out when she actually dissected the  
23 birds after she had conducted her experiments, that the  
24 previously published measurements on red-necked phalaropes,  
25 she could not replicate, and it turned out her analysis did

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1 not break down by males and females. There was individual  
2 variation, but both the males and females showed the same  
3 effect, so I would say it is not just females.



4 And finally, both Dr. Jehl and Dr. Rubega criticized  
5 my use of the word optimization in the Draft EIR, and I know  
6 better than that actually. Optimization has a very specific  
7 meaning in the optimal foraging literature. I think to our  
8 editors, Jones & Stokes thought the word suboptimal sounded  
9 better than less than maximal, but in truth, the word  
10 maximal is what Dr. Rubega was talking about, a mechanical  
11 limitation of foraging behavior, not an optimization, which  
12 means they could be doing as well as they could given  
13 current food densities and the environment, so it is a clear  
14 difference, and let's not use the old word anymore, and I  
15 would delete that from the Draft EIR and replace it with  
16 maximal.

17 Other than that, I think that's probably enough for  
18 now.

19 MR. FRINK: Thank you, Dr. Beedy.

20 Mr. del Piero, the next witness is Robert Sculley on  
21 air quality.

22 ROBERT D. SCULLEY,  
23 having been sworn, testified as follows:

24 DIRECT EXAMINATION

25 by MR. FRINK:

00048

1 Q Would you please state your name and place of  
2 employment.

3 A My name is Robert Duane Sculley. I work for Jones  
4 & Stokes Associates.

5 Q Did you prepare a document for this proceeding that  
6 is titled Written Testimony of Robert Sculley for Mono Basin  
7 Water Rights Hearing?

8 A Yes, I did.

9 Q And is that this document that has been designated as  
10 State Water Resources Control Board Exhibit 26?

11 A Yes, it is.

12 Q Your written testimony indicates that you also  
13 assisted in preparing the Draft EIR that we have been  
14 discussing. Would you, please, briefly summarize your  
15 education and professional qualifications relevant to your  
16 work on the Draft EIR.

17 A I have a Bachelor's Degree in Zoology and a Master's  
18 in Ecology. I have worked at Jones & Stokes Associates  
19 since 1971. I have been preparing a wide range of analyses  
20 focusing mostly on quantitative assessments and have been  
21 preparing air quality assessments for nearly 20 years now.

22 Most of my air quality work has focused on emission  
23 inventories, dispersion modeling analyses, regulatory  
24 assessments, and I have been working with a wide range of  
25 dispersion models since the late 1970s and have done a

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1 number of area source dispersion modeling studies using both  
2 the ISC model and the Caline series of models which formed  
3 the basis of the modeling code for the program that we used  
4 in the EIR.

5 Q Is Attachment A to your written testimony a true and  
6 accurate summary of your education and experience as it  
7 relates to the work you did on the Draft EIR?

8 A Yes.

9 Q And what particular portions of the Draft EIR did you  
10 assist in preparing?

11 A I prepared Chapter 3H, which is the air quality  
12 chapter, Appendix 10 in the Draft EIR, and Auxiliary Report  
13 26.

14 Q Do you affirm that State Water Resources Control  
15 Board Exhibit 26 is a true and accurate summary of your  
16 testimony in this proceeding?

17 A Yes, it is.

18 Q Is there anything else you wish to add at this point?  
19 A Not at this time?

20 MR. FRINK: Thank you very much.

21 Our next witness this morning is Dana McGowan.

22 DANA MCGOWAN,  
23 having been sworn, testified as follows:

24 DIRECT EXAMINATION

25 by MR. FRINK:

00050

1 Q Would you state your name and place of employment for  
2 the record?

3 A My name is Dana McGowan. I work for Jones & Stokes  
4 Associates.

5 Q Did you prepare a document titled Written Testimony  
6 of Dana McGowan for the Mono Basin Water Rights Hearing?  
7 A Yes, I did.

8 Q Is that the document that's been designated as State  
9 Water Resources Control Board Exhibit 27 for this  
10 proceeding?

11 A Yes, it is.

12 Q Your written testimony indicates that you also  
13 assisted in preparing the Draft EIR that we have been  
14 discussing.

15 Would you briefly summarize your education,  
16 qualifications and experience that are relevant to the work  
17 you did on the Draft EIR?

18 A I have a Bachelor's Degree in Anthropology with  
19 specialization in Archaeology. I have a Master's Degree in  
20 Anthropology with specialization on Geology.

21 I have worked for Jones & Stokes for three years.

22 Prior to that time, I worked for the Department of  
23 Transportation and the Bureau of Land Management mostly  
24 working over in the Mono Basin area on the east side of the  
25 Sierra. I have about seven years of experience in addition

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1 to the three years I worked for Jones & Stokes.

2 Q Thank you. Is Attachment A to your written testimony  
3 a true and accurate summary of your professional  
4 qualifications and experience relevant to the area of work  
5 that you did on the Draft EIR?

6 A Yes, it is.

7 Q And what particular portions of the Draft EIR did you  
8 assist in preparing?

9 A I wrote the Cultural Resources section.

10 Q Do you affirm that State Water Resources Control  
11 Board Exhibit 27 is a true and accurate summary of your  
12 testimony in this proceeding?

13 A Yes, it is, with one exception. Some information has  
14 come to light that, in fact, there may be some  
15 archaeological sites in the relicted lands. I am still  
16 gathering information on that topic and I have gotten some  
17 comments on the EIR and I am working on finding out whether  
18 or not there is additional information, whether or not  
19 archaeological materials might be located below the highest  
20 proposed lake level.

21 Q Do you have an opinion at this point as to the type  
22 of archaeological work that should be done either as a part  
23 of the stream restoration project or prior to any  
24 substantial increase in the water elevation at Mono Lake?

25 A I believe a cultural resources survey should be

00052

1 conducted and any sites found that can't be avoided should  
2 be treated so that the data that are contained in those  
3 sites would not be lost as a result of the project.

4 MR. FRINK: I believe that's all the questions of Ms.  
5 McGowan. Thank you.

6 The next witness is Roger Trott.

7 ROGER TROTT,

8 having been sworn, testified as follows:

9 DIRECT EXAMINATION

10 by MR. FRINK:

11 Q Would you please state your name and place of  
12 employment for the record, Mr. Trott.

13 A Yes. My name is Roger Trott and I work at Jones &  
14 Stokes Associates.

15 Q Did you prepare a document entitled Written Testimony  
16 of Roger Trott for the Mono Basin Water Rights Rearing?

17 A Yes, I did.

18 Q And is that the document that has been designated as  
19 State Water Resources Control Board Exhibit 33 in this  
20 proceeding?

21 A Yes, it is.

22 Q Your testimony indicates, as with the other witnesses  
23 we have heard from, that you assisted in preparing the Draft

24 EIR we have been discussing. What particular portions of  
25 the Draft EIR did you assist in preparing?

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1 A I prepared the agricultural portion of the land use  
2 section, and also, worked on portions of the economic impact  
3 analysis.

4 Q Would you, please, briefly summarize your education  
5 and professional qualifications and experience relevant to  
6 the area of work that you did for the Draft EIR?

7 A Yes. I am an agricultural economist and hold a B. A.  
8 Degree in Economics from Sonoma State University and M. S.  
9 from the University of California at Davis in Agricultural  
10 Economics, and I worked for two years for the Soil  
11 Conservation Service preparing economic studies, prior to  
12 working at Jones & Stokes. And I have worked at Jones &  
13 Stokes for the past eight years preparing agricultural  
14 studies and economic studies.

15 Q Thank you. Is Attachment A to Exhibit 33 a true and  
16 accurate summary of your professional qualifications and  
17 experience?

18 A Yes, it is.

19 Q And do you affirm that State Water Resources Control  
20 Board Exhibit 33 is a true and accurate summary of your  
21 testimony in this proceeding?

22 A Yes, with one exception. Line 4, paragraph 2, where  
23 it refers to air quality should be changed to land use.  
24 With that change, it is accurate.

25 MR. FRINK: That is all the questions I have. Thank  
00054

1 you, Mr. Trott.

2 Mr. Chairman, that is all the questions we have of  
3 the panel and they would now be available for cross-  
4 examination.

5 MR. DEL PIERO: Good.

6 MR. FRINK: I might add, and I don't know how many  
7 questions counsel for the various parties may have for Ms.  
8 McGowan, but she has indicated she has other commitments and  
9 it would be helpful if there are questions in the area of  
10 cultural resources and archaeology, to get that cross-  
11 examination early.

12 MR. DEL PIERO: I guess I need a little more  
13 information. What commitments?

14 MS. MCGOWAN: I am leaving town this weekend and my  
15 life is starting to close in on me.

16 MR. DEL PIERO: I understand about that. You are  
17 good for today and tomorrow, I assume?

18 MS. MCGOWAN: I am good for today.

19 MR. FRINK: I spoke with the attorneys for several of  
20 the parties and they indicated that at this point they  
21 didn't believe that they would have extensive questions of  
22 Ms. McGowan.

23 MR. DEL PIERO: Mr. Birmingham, do you have a number  
24 of questions for Ms. McGowan?

25 MR. BIRMINGHAM: I have no questions for Ms. McGowan.  
00055

1 MR. DEL PIERO: Okay. I assume that means you have  
2 none at this point, but you might on recess.

3 Mr. Dodge?

4 MR. FLINN: Patrick Flinn. We have five minutes  
5 worth of questions.

6 MR. DEL PIERO: And Mr. Roos-Collins?

7 MR. ROOS-COLLINS: No questions.

8 MS. CAHILL: Very few questions.

9 MR. DEL PIERO: I am going to, since you are only  
10 good for today, rather than running into a problem, if this  
11 is not inconvenient, I would like to get questioning of that  
12 one individual witness, both cross-examination and recess  
13 out of the way now on the part of all parties, unless there  
14 is a big objection to that.

15 MR. DODGE: I am wondering whether you are now  
16 accepting my suggestion that we go issue by issue?

17 MR. DEL PIERO: No, I am not, but I appreciate your  
18 giving me the opportunity to qualify that (laughter).

19 But, in order to accommodate her schedule and also  
20 make sure we don't run into any problems, that is what I am

21 going to do. So, the rest of you gentlemen can just cool  
22 your heels.

23 Mr. Birmingham.

24 MR. BIRMINGHAM: No questions.

25 MR. DEL PIERO: Ms. Cahill.

00056

1 MS. CAHILL: Mr. Thomas will ask the questions.

2 MR. DEL PIERO: All right, Mr. Thomas.

3 MR. THOMAS: Harold Thomas with the Department of  
4 Fish and Game. Given the size of the panel, we don't want  
5 to double team the panel, but the subject matter is somewhat  
6 a surprise as I thought that wildlife and terrestrial things  
7 would be handled with cultural resources.

8 I have just two or three questions.

9 CROSS-EXAMINATION

10 by MR. THOMAS:

11 Q Could you describe the nature of the cultural  
12 resources that you are finding in the relicted lands?

13 MS. MCGOWAN: A There are no recorded sites in the  
14 relicted lands. We did not do any surveys for this project.  
15 We did a record search and all the sites were above the  
16 highest proposed lake level. There has been some indication  
17 that there has been an isolated artifact here and there.  
18 There is one site on an island that would be affected by a  
19 rise in the lake level, but the question has been were  
20 people living on the relicted lands along the stream courses  
21 or anyplace else when the water was drawn down, and there's  
22 been a variety of different opinions, and like I said, I'm  
23 still working that out.

24 Q Is it logical from an archaeological perspective that  
25 there would be nobody living in the relicted lands?

00057

1 A Well, that's really the issue. The question is,  
2 would there be any reason for them to be living there if  
3 there was so little water in the stream if the lake was that  
4 low, and I have talked to probably ten different people with  
5 an opinion on this subject, and it's about 50-50 right now  
6 as to whether there are actually sites in that location and  
7 whether or not the reason why nobody has found them is that  
8 they have been sedimented over.

9 My personal feeling is that it seems a little  
10 unlikely that they are there.

11 Q It would be safe to conclude that you don't believe  
12 that this is a significant archaeological resource in the  
13 relicted land?

14 A I think it is safe to assume that the resources,  
15 should they be there, are probably going to be fairly  
16 limited, and also, going to be fairly difficult to find.  
17 And I think that the mitigation measures that you propose,  
18 if they were applied to the relicted land, which is some  
19 kind of sample survey of that land, would identify what's  
20 there.

21 MR. THOMAS: Thank you very much.

22 MR. DEL PIERO: Thank you very much.

23 Mr. Dodge of Mr. Flinn.

24 CROSS-EXAMINATION

25 by MR. FLINN:

00058

1 Q I am Patrick Flinn for the Audubon Society and Mono  
2 Lake Committee.

3 Ms. McGowan, at page 3K-14 of the Draft EIR, you  
4 refer to an egg collector's cabin on the north side of Negit  
5 Island at about 6406, and you note that the two higher lake  
6 level alternatives would result in inundation of this  
7 resource.

8 Do you recall that?

9 MS. MCGOWAN: A Yes.

10 Q And you also note that this was apparently, this  
11 cabin was apparently constructed around 1861. Do you recall  
12 that?

13 A Yes.

14 Q You are aware, are you not, or do you know one way or  
15 the other, whether or not after 1861 fluctuations in the  
16 lake level prediversion exceeded 6406?

17 A I don't know that.

18 Q If you were to assume between 1861 and the onset of  
19 diversions in 1940, the fluctuations of Mono Lake at its  
20 prediversion levels routinely inundated this site; would you  
21 have an opinion as to whether or not the higher lake level  
22 would then have an effect on this resource?

23 A The resource has not been recorded. There is no  
24 document that tells me about it, what its characteristics  
25 were originally when it was recorded. I got the information

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1 from Scott Stine. I have no opinion about what its value is  
2 one way or the other and I would need to know that before I  
3 would know what effect the rise in lake levels would have  
4 now or in the past.

5 Q But focusing on the fact that the assumption is it  
6 was routinely flooded before, you don't have an opinion one  
7 way or the other whether there would be anything negative  
8 if it is flooded again?

9 A I think that just from a general purpose standpoint,  
10 any site that is going to be flooded, if there is something  
11 of value there, that the site is significant from a legal  
12 perspective, it would not be good. It could cause an  
13 adverse impact to flood it. The fact that it is still  
14 visible and Scott was able to identify it suggests to me  
15 there is something left to gather data about, that it is  
16 worth doing something about.

17 Q One other question for you. This is also from page  
18 3K-14. At the top you refer to direct impacts and you said:  
19 indirect impacts could result from streamflows eroding  
20 streambanks and damaging or destroying buried or surface  
21 historical or ecological resources.

22 Did you have an particular buried or surface  
23 archaeological resources in mind when you noted that these  
24 indirect impacts could occur?

25 A As I said, we didn't do any survey, but I did spend

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1 four days in the Mono Basin taking a look at the recorded  
2 sites, and also, going to areas where I know there are sites  
3 that have not been recorded.

4 I only saw probably two or three sites that I could  
5 classify that I would expect I saw erosion happening,  
6 increased water erosion going to occur on sites on the edge  
7 of the streams.

8 As I said, there needs to be a survey done to  
9 determine which sites would, in fact, be affected by erosion  
10 and to plot those boundaries, and to presumably identify  
11 ways to stop that.

12 Q Can you recall now the two sites you had in mind that  
13 you just referred to?

14 A Can I look at the map?

15 MR. BIRMINGHAM: I'm going to object to the question  
16 if it is to identify the location of these sites inasmuch as  
17 CEQA prohibits the disclosure of the location of  
18 archaeological sites.

19 MR. DEL PIERO: Actually, CEQA does not prohibit  
20 disclosure. CEQA only advises that archaeological sites not  
21 necessarily be distributed in departmental documents.  
22 Archaeological sites are recorded systematically at State  
23 universities and that information is available to decision  
24 makers to determine ultimately whether or not the sites are  
25 worthy of protection.

00061

1 A I don't think these maps are going to result in  
2 disclosure of anything secret either.

3 MR. FLINN: Q This is Figure 1-3 from the Mono Basin  
4 EIR. It is the map of Rush Creek, Lee Vining, Parker and  
5 Walker, and I don't know how you want to look at this, but I  
6 will turn it over to you.

7 A Just so I am clear, this is the area where basically  
8 the project starts because this is the diversion; right?

9 Q If I could orient you, the diversion starts at Lee  
10 Vining Creek with the conduit that captures Walker, Parker  
11 and joins Grant Lake Reservoir, the impoundment of Rush  
12 Creek.

13 MR. DEL PIERO: In the interest of everyone, it would  
14 seem to me to be better if you could arrange to have that

15 picture put up on top of the table and have the witness walk  
16 over --

17 A To my understanding, Parker Creek is no longer in its  
18 original location. It was diverted and there is some  
19 problem as to where that site -- the site is a previously  
20 recorded site, but it was recorded on the old Parker creek  
21 quad which apparently shows the original location of the  
22 site relative to the creek's original location, but I will  
23 tell you where it is, kind of general where this creek is.

24 It is right in this area here.

25 MR. FLINN: Q We have got a problem identifying this

00062

1 area here for the record. I don't know the staff or  
2 Board's view about allowing the witness to mark on this or  
3 to have some sort of physical description.

4 A I can't describe it really any better than that. is  
5 that okay.

6 MR. DEL PIERO: No, it is not. Everything here has  
7 to be incorporated into the written record.

8 MR. CANADAY, can you assist in terms of geographic  
9 location?

10 MR. CANADAY: Ms. McGowan, on Parker Creek is the  
11 site you are referring to below the diversion point?

12 A Yes, it is.

13 MR. CANADAY: And it is above the Cain Ranch  
14 headquarters; is that correct?

15 A Yes, it is. Is this a road right here. I think that  
16 might be --

17 MR. CANADAY: Well, the road that goes by the  
18 diversions all the way along the conduit is here.

19 A It is right in the vicinity of the diversion.

20 MR. CANADAY: So, it would be right immediately below  
21 or near the diversion site on Parker?

22 A Right.

23 MR. DEL PIERO: Give the name of that map.

24 MR. CANADAY: That would be Figure 1-3, diverted  
25 tributary streams from Mono Basin EIR.

00063

1 MR. FLINN: Q Was there any other site, was there a  
2 second one you could locate for us at all?

3 A The second site was downstream from Highway 395 on  
4 Walker Creek. It was probably down about half a mile. I  
5 went to see about 50 sites in four days, so there's some of  
6 them kind of running together in my mind.

7 MR. FLINN: I appreciate that level of detail.

8 Thank you, I have no further questions.

9 MR. DEL PIERO: Thank you very much, Mr. Flinn.

10 MR. CANADAY: Can we clarify that a little better for  
11 the record, Mr. del Piero? Is that possible?

12 MR. DEL PIERO: Sure.

13 MR. CANADAY: The site on Walker Creek is below  
14 current 395 and above where Walker Creek is a tributary to  
15 Rush Creek; is that correct? We have Rush Creek that flows  
16 here, Walker Creek --

17 A Yes.

18 MR. CANADAY: -- goes across 395 and comes in just  
19 above the Narrows, so it is in this section here between the  
20 narrows and 395 of Walker?

21 A No, it would have been -- Where they converge is  
22 below that. It's called Rush Creek then.

23 MR. CANADAY: Yes, where Walker Creek is a tributary  
24 to Rush Creek.

25 A Yes, then it is on Rush Creek, I'm sorry. It would

00064

1 be Rush Creek because it was about a mile down from the  
2 highway, so it would be too far down. It was past the  
3 Narrows.

4 MR. CANADAY: It was below the Narrows toward the  
5 lake?

6 A Yes.

7 MR. CANADAY: So then, you are saying now that it is  
8 not Walker Creek, it is on Rush Creek?

9 A Yes. Unfortunately, I got down there from Walker  
10 Creek and I guess I didn't realize that I had gone into Rush  
11 Creek territory.

12 MR. CANADAY: So, it would be approximately a mile  
 13 downstream of the Narrows?  
 14 A About a mile, yes. I have it marked on a map, but I  
 15 didn't bring it.  
 16 MR. STUBCHAER: I thought there was testimony it was  
 17 a mile below 395.  
 18 A About a mile below 395.  
 19 MR. STUBCHAER: Now you say it is below the Narrows.  
 20 A I'm sorry, it is about a mile below 395.  
 21 MR. CANADAY: So, it is above the Narrows. If 395 is  
 22 here, the Narrows is here, Rush Creek --  
 23 MR. DEL PIERO: The problem is she walked down  
 24 Walker; is that correct?  
 25 A That's right.

00065

1 MR. DEL PIERO: You are pointing to Rush Creek and a  
 2 mile from where 395 crosses Rush Creek is above the Narrows.  
 3 A mile from where 395 crosses Walker Creek is below the  
 4 Narrows. Look at the map.  
 5 MR. CANADAY: I understand what you are saying. I am  
 6 trying to understand which creek she is now saying it is on.  
 7 MR. DEL PIERO: Why don't you point it out so we can  
 8 get it clear on the map.  
 9 A I believe it was down right in here.  
 10 MR. DEL PIERO: That's on Rush Creek below the  
 11 Narrows.  
 12 A This area right in here has eroded a lot and the  
 13 creek is pretty wide through here, and there's these  
 14 terraces and there's a recorded site there that's eroding  
 15 down into the channel.  
 16 MR. DEL PIERO: Okay, thank you.  
 17 MR. FRINK: Let the record reflect that the area the  
 18 witness designated is labeled as the bottom lands on Rush  
 19 Creek just below the Narrows.  
 20 A Can I add one thing? There are literally hundreds of  
 21 unrecorded sites. You can walk along these creeks and you  
 22 can find the ones that were previously recorded as well as  
 23 ones that are either a bigger version of the recorded site  
 24 or an unrecorded site. There's literally sites all over the  
 25 place out there.

00066

1 I am sorry I don't have the exact location of this  
 2 one site, but there are virtually, probably at least  
 3 hundreds of unrecorded sites that are out there.  
 4 MR. DEL PIERO: Thank you.  
 5 Where are we?  
 6 Mr. Roos-Collins?  
 7 MR. ROOS-COLLINS: No questions.  
 8 MR. DEL PIERO: Ms. Scoonover.  
 9 MS. SCOONOVER: No questions.  
 10 MR. DEL PIERO: Mr. Gipsman? Is he here?  
 11 MR. ONO: No.  
 12 MR. DEL PIERO: Ms. Niebauer is not here.  
 13 Anyone else have any questions? Anybody have any  
 14 recross?  
 15 MR. FRINK: Mr. Herrera had a question he wanted to  
 16 bring up.  
 17 EXAMINATION  
 18 by MR. HERRERA:  
 19 Q Ms. McGowan, are you aware of the restoration  
 20 activities that have been conducted under the direction of  
 21 the Restoration Technical Committee here for fishery  
 22 restoration work?  
 23 A I am familiar with some of that work. I haven't  
 24 actually seen it.  
 25 Q Have these activities impacted the cultural resources

00067

1 of these tributary streams?  
 2 A I don't know that for sure. I don't know what  
 3 efforts are being undertaken to prevent that from happening.  
 4 I understand there are sites along those tributaries where  
 5 that work is being conducted, but I am not aware of work  
 6 that is being done to prevent that.  
 7 Q Back in the EIR at page 3K-12, you indicated there  
 8 are numerous archaeological sites that have been recorded

9 during unsystematic surveys along Lee Vining, Parker, Walker  
 10 and Rush Creeks.  
 11 Could you maybe describe what unsystematic surveys  
 12 are?  
 13 A There is very little documentation about how the  
 14 sites were recorded. Most of them were recorded back in the  
 15 sixties by Davis. She was a professional archaeologist, but  
 16 had her own reasons for recording certain sites, and instead  
 17 of doing them systematically, maybe she walked along a  
 18 drainage and recorded some of the big ones and if there was  
 19 indication that she heard about some of the sites from the  
 20 Native Americans living in the area and recorded those  
 21 sites, so there is no indication, for example, of which  
 22 areas were surveyed and which ones weren't for the most part  
 23 for a lot of the basin.  
 24 Instead, you get an archaeological site recorded here  
 25 and there, and it is unclear how that actually happened.

00068

1 Q And you, yourself, have you surveyed any of these  
 2 tributary streams or proposed to do any surveys other than  
 3 in the future here?  
 4 A I have not proposed to do any surveys, although we  
 5 did recommend in the EIR that work be done and that a  
 6 treatment plan be developed once the areas that were going  
 7 to be restored were identified, and the recreational  
 8 alternatives, or what's going to happen to control or  
 9 develop recreation in the area, and which lake level is  
 10 selected, to develop a plan to basically survey the areas  
 11 that are going to be impacted by these activities, and then  
 12 to treat the sites that can't be avoided.  
 13 That's the recommendation in the EIR.  
 14 Q What I am getting at a little bit is we are looking  
 15 at restoration activities to the streams and it appears that  
 16 there's going to be some ongoing restoration activities, and  
 17 in the future, you recommend surveys to go along with those  
 18 activities prior to any kind of work on the streams, or  
 19 maybe you could elaborate a little on that.  
 20 A As I said, I don't know of any activities, pre-  
 21 archaeological surveys that have been done in advance of  
 22 work that's ongoing right now. Perhaps the Forest Service  
 23 is doing some of that. I don't know, but if they are, there  
 24 are lots of sites out there that are going to be affected, I  
 25 would assume, if they are working on the streambanks,

00069

1 because as I said earlier, the sites go right up to the  
 2 banks of the tributary, at least in the two locations I saw.  
 3 MR. HERRERA: Thank you. That concludes my  
 4 questions.  
 5 MR. DEL PIERO: Other questions by staff?  
 6 MR. FRINK: No.  
 7 MR. DEL PIERO: Do Board members have questions?  
 8 I have a couple.

EXAMINATION

9 by MR. DEL PIERO:  
 10 Q Just for the record, some clarification -- would you  
 11 like to distinguish in terms of the way you make your  
 12 presentation the difference between an archaeological site  
 13 as opposed to an historical site?  
 14 A We distinguish between the archaeological site and  
 15 the historical site by -- there can be archaeological sites  
 16 in --  
 17 Q Let me help you out. Would you, for example,  
 18 characterize the egg collector's cabin as an archaeological  
 19 site or an historical site?  
 20 A Actually, unfortunately, I characterized it as an  
 21 historical-archaeological site. Sometimes we get into the  
 22 situation where we --  
 23 Q Do you know Mr. Bill Hutchison?  
 24 A We were trying to make it as accessible to the public

00070

1 and not put too many words in that we think are going to  
 2 confuse the situation, and unfortunately, I think that all  
 3 archaeological sites should be called historic or  
 4 prehistoric archaeological sites, and all historic sites  
 5 should be identified as structures or railroad, or whatnot.

6 Unfortunately, that's a little unclear, I think.  
7 Q In terms of identified sites that you are aware of in  
8 terms of doing your initial review, where did you get your  
9 information?

10 A Of the egg collector's?

11 Q The recorded sites.

12 A The recorded sites came from the U. C. Riverside  
13 Information Center at the University.

14 Q The unrecorded sites, are they all -- what source did  
15 you use for those?

16 A I visited the basin and walked around.

17 Q Archaeologists do that.

18 A I also talked to quite a few people who had been in  
19 the basin and got some idea of what level of unrecorded  
20 sites we are talking about. Fortunately, a lot of our team  
21 had been looking for, you know, arrowheads for a long time,  
22 and I got kind of an idea about how much stuff is lying  
23 around there that is not in locations that have been  
24 identified.

25 Q I found one on the shore when I went out the first

00071

1 time.

2 Just one last question, for the record, can you  
3 identify what constitutes a site?

4 A Well, in California there is actually a guideline to  
5 that.

6 Q Yes, I know. That's why I am asking.

7 A It is three items in association with each other and  
8 they can be anything or it can be a single feature in an  
9 archaeological site.

10 Q Do you want to describe that in a little more detail?

11 A For example, a bedrock mortar site could just consist  
12 of milling stones where people have milled acorns and there  
13 would be holes in the rock. You wouldn't need to have any  
14 archaeological materials. You wouldn't have to have any  
15 little chips or anything like that. That could be a site  
16 all by itself. Or you could have three of any artifacts  
17 together, would be a site. That is the guideline, and it's  
18 three of anything.

19 Q An arrowhead and two burned rocks?

20 A Yes.

21 Q Indicating a campfire?

22 A Right.

23 Q Constitutes a site?

24 A Right.

25 Q I wanted to make sure that was in the record so

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1 people who might not necessarily be familiar with how sites  
2 are identified can understand that a site may, although in  
3 normal usage, may indicate something particularly  
4 substantive or significant, it doesn't necessarily.  
5 Alternatives sometimes can.

6 A Just so you know in the Mono Basin that would be  
7 considered background noise. The sites I am talking about  
8 are miles wide.

9 MR. DEL PIERO: Yes, I know that.

10 I have no other questions unless anyone else does.

11 Good. Then, you can have the rest of the afternoon.

12 We will keep you around just as long as you need to be and  
13 when you need to leave, you can depart.

14 At this point, Mr. Birmingham, why don't you begin  
15 your questions of the full panel.

16 Thank you very much.

17 MR. BIRMINGHAM: First, Mr. del Piero, I would like  
18 to state for purposes of the record, I would like to state a  
19 standing objection that the Department of Water and Power  
20 has any evidence, any admission of any evidence concerning  
21 the air quality issues that are addressed in the  
22 Environmental Impact Report. I am making a standing  
23 objection if the Hearing Officer will permit.

24 MR. DEL PIERO: That's permitted.

25 CROSS-EXAMINATION

00073

1 by MR. BIRMINGHAM:

2 Q I would like to address my first set of questions to

3 Mr. Sculley, and I have just a few.

4 Mr. Sculley, in connection with your analysis of air  
5 quality issues in Mono Basin, is it correct that you  
6 prepared an estimate of the number of exceedences of the  
7 State and Federal ambient air quality standards that would  
8 occur at different lake levels?

9 MR. SCULLEY: A Yes, I did.

10 Q And the Draft EIR air quality analysis is based upon  
11 wind erosion data that assumed that the relict lake bed or  
12 playa emits particulate matter at a uniform rate; is that  
13 correct?

14 A That is not correct. We separated the emission  
15 source areas into several categories, assigned different  
16 emission rates to them and different particle  
17 characteristics which affect subsequent transport and  
18 deposition, and result in concentrations. And we did not  
19 use the direct modeling to derive the estimate of the number  
20 of exceedences. That was a judgment made recognizing both  
21 the results of the modeling analysis and an analysis of the  
22 extent to which you get recorded exceedences versus the  
23 meteorological patterns.

24 There were some niceties to the analysis in terms of  
25 distinguishing different subareas as having different

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1 emission rates and different emission characteristics.

2 Q Well, it is correct then that different areas of the  
3 playa emit particulate matters at different rates?

4 A That is correct.

5 Q And it is correct that the rate of emission depends  
6 to a large extent on meteorological conditions?

7 A The modeling analysis necessarily used that  
8 assumption and I think we attempted to explain in the report  
9 that the way the real world works it's primarily substrate  
10 moisture and the mineralogy on the salt deposit areas that  
11 have the primary influence on the emission rate. Wind  
12 conditions come into play only when the substrate conditions  
13 are susceptible to wind erosion.

14 The model we used was not able to replicate the  
15 changes in physical conditions, so it provides an estimate  
16 of potential impacts working from the assumption that the  
17 substrate is in an erodable condition.

18 And we attempted then to extrapolate down from that  
19 level to a more realistic assessment of how frequently you  
20 might have the combination of susceptible conditions and  
21 high wind speeds.

22 Q I am not sure you answered my question. My question  
23 relates not to what the model assumes, but the actual  
24 conditions, the extent to which there will be dust events in  
25 the Mono Basin does depend to a large extent on

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1 meteorological conditions; is that right?

2 A I would put the most important factor being substrate  
3 moisture conditions followed by the mineralogy and  
4 geochemistry of the efflorescent salt deposits which may tie  
5 -- if by meteorological conditions you mean basically wind  
6 speed and direction conditions, the substrate moisture is  
7 directly related to meteorological conditions, but primarily  
8 to precipitation patterns, temperature patterns, relative  
9 humidity and evaporation conditions.

10 So, it gets all complicated in that, but far and away  
11 the first factor is really substrate moisture conditions at  
12 the surface. If it is wet, it doesn't matter how hard the  
13 wind blows, you won't get anything.

14 Q And the model, you said a few moments ago that the  
15 model analysis makes certain assumptions and one of the  
16 assumptions that the model analysis had to make was that  
17 when the wind exceeded a threshold level that there would be  
18 emissions; is that correct?

19 A That is correct.

20 Q Then, you would concur, wouldn't you, that the model  
21 analysis that you prepared would tend to overestimate the  
22 number of exceedences that would occur on average?

23 A If we had used direct modeling to try to get an  
24 estimate of the number of exceedences, that would be the  
25 case. If, for example, you tried to model one or two or

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1 three years of hourly meteorological data, you would  
2 definitely overestimate, but what we picked were 50 days of  
3 different meteorological conditions running from a day with  
4 only one hour of a high wind speed to days with up to 23  
5 hours of wind speeds to try to get a handle on how many  
6 hours of high wind conditions at what lake levels are needed  
7 to have the potential for a violation, assuming the  
8 substrates are all in erodible condition.  
9 Q When you say violates, you mean exceedences; is  
10 that right?  
11 A Exceedences.  
12 Q And on that day in which you assumed there was a one-  
13 hour wind that exceeded the threshold, the model would have  
14 predicted an exceedence; is that correct?  
15 A No, the model did not -- it depends a little bit on  
16 where you want to measure an exceedence, but basically, in  
17 my analysis of the results, I discounted a few isolated  
18 receptor points sitting on the major source areas. We  
19 looked primarily at major public use areas and at monitoring  
20 station locations, and if you look at those sorts of areas,  
21 our modeling analysis under the current lake level  
22 conditions suggest that you need a minimum of four hours of  
23 high wind speed conditions in order to get a 24-hour average  
24 PM 10 level that exceeds the federal standard.  
25 Q With respect to exceeding the State standard, isn't

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1 it correct that there will be exceedences at the State  
2 standard if the lake is raised to an elevation of the levels  
3 analyzed under the 6390 alternative?  
4 A Yes, I believe there would be.  
5 Q And there will be exceedences of the federal PM 10  
6 standard at those levels as well?  
7 A That gets into most of where the modeling analysis  
8 showed levels that were above the federal standard were  
9 basically on Paoha Island and immediately offshore, and  
10 those are essentially sitting on a major source area.  
11 Q Are you familiar with the federal Clean Air Act and  
12 the regulations promulgated to implement that act?  
13 A Yes.  
14 Q Isn't it correct that under the Clean Air Act and the  
15 models promulgated to implement that act, if a model exists  
16 -- let me state the question because I misspoke.  
17 Isn't it correct under the Clean Air Act and the  
18 regulations promulgated to implement that act, if a model  
19 acceptable to EPA predicts an exceedence of the federal FM  
20 10 standard, that that prediction can be used in determining  
21 whether or not an area is an attainment or nonattainment  
22 area?  
23 A That is correct. My understanding of the ERA  
24 guidance is that the model that you use for that does not  
25 allow you to put a receptor site on a source area.

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1 And the model that we used runs and gives us a  
2 prediction for that, and that was one of the reasons that I  
3 did not put great emphasis or consider a receptor site on a  
4 source area to be indicative of a significant problem.  
5 MR. BIRMINGHAM: Thank you.  
6 MR. DEL PIERO: Thank you.  
7 MR. BIRMINGHAM: Ms. Goldsmith will ask further  
8 questions of this panel on issues relating to birds.  
9 MR. DEL PIERO: Fine. How long do you anticipate?  
10 MS. GOLDSMITH: I certainly will go until noon. I  
11 may go beyond noon.  
12 MR. DEL PIERO: You have 11 minutes left in your  
13 initial 20, just so you know.  
14 MS. GOLDSMITH: If I run over, I would ask for  
15 additional time.  
16 MR. DEL PIERO: We will take that issue up later. I  
17 am trying to figure out a schedule. I think it is probably  
18 safe for everyone to assume we aren't going to have anyone  
19 else come before the Board before we break for lunch.  
20 MS. GOLDSMITH: That's fine.  
21 MR. DEL PIERO: Why don't you proceed.  
22 MS. GOLDSMITH: As Mr. Birmingham mentioned, I am

23 going to address the bird issue, so I presume most of my  
24 questions will be addressed to Dr. Beedy, although if anyone  
25 else has information, they may answer.

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1 CROSS-EXAMINATION  
2 by MS. GOLDSMITH:  
3 Q I would like to start out with the subject of red-  
4 necked phalaropes, which is an important issue in the EIR.  
5 One of the things that the EIR states is that current alkali  
6 fly densities cannot be assumed to be non-limiting as a food  
7 source for red-necked phalaropes; isn't that right?  
8 DR. BEEDY: A That's correct.  
9 Q Would you agree with me that such a statement implies  
10 that alkali flies might be limiting as a food source?  
11 A Yes, that's true, they may be limiting as a food  
12 source -- I mean, not limiting -- it depends on what we  
13 define as limiting. The important point made in the Draft  
14 EIR was the location of the birds, and not all areas of the  
15 lake are equally suitable for habitat.  
16 So, in those portions of the lake where the  
17 phalaropes no longer appear too frequent, I think we could  
18 assume that food could be limiting there.  
19 Certainly, other locations where the birds do seem to  
20 be surviving, there is more food there.  
21 Q So, it is not your conclusion that alkali flies may  
22 be a limitation on the red-necked phalaropes population at  
23 the lake; is that correct?  
24 A No, I didn't say that. I said that the amounts of  
25 flies at the lake appear to be within the range of

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1 elevations -- maybe we should back up and talk about what  
2 the basic distribution of the birds is first.  
3 Q What I would like to do is focus first on the  
4 population at the lake as a whole rather than the areas in  
5 which --  
6 A One way to test whether food is limiting or non-  
7 limiting for an organism, it doesn't matter whether it's a  
8 phalarope or squirrel eating pine cones. In ecology  
9 predators under a theoretical setting anyway, exhibit a  
10 functional or numerical response to prey density.  
11 A functional response is that they continue to  
12 increase their capture rate and foraging as prey densities  
13 increase up to some point where there is a satiation level,  
14 which is the functional response.  
15 The question is at Mono Lake, can we assume the birds  
16 that we observe there exhibit any kind of functional  
17 response compared to laboratory fed birds which were fed  
18 much higher prey densities.  
19 So, the question is, at the lake itself do we observe  
20 a functional response or anything approximating that. That  
21 is the point where the birds are mechanically unable to  
22 handle more food.  
23 Do you understand what I am saying?  
24 Q Well, I think so, but I am not understanding how it  
25 relates to my question.

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1 My question is, is it your conclusion that the alkali  
2 fly might be limiting the population of the red-necked  
3 phalaropes?  
4 A I think it limits the distribution of the population  
5 at the lake. That is my response.  
6 Q Is that a different answer than limiting the  
7 population at the lake?  
8 A Yes, because the population of the lake varies year  
9 to year depending on factors totally independent of the lake  
10 itself. We are talking about birds that breed all over the  
11 high Arctic. So you are asking me the number of birds  
12 actually observed there every year -- is that what you are  
13 asking me?  
14 Q Yes.  
15 A No, I think that's driven by all the kinds of factors  
16 that are not related to Mono Lake necessarily. My only  
17 point is that once they are at Mono Lake they appear to be  
18 highly localized in their foraging, and what that means in  
19 their ability to get food at different lake elevations.

20 Q Am I correct in characterizing your change from your  
 21 EIR conclusions that you mentioned --  
 22 A I haven't changed from my --  
 23 Q In your direct testimony?  
 A Oh, yes.  
 25 Q My understanding of what you said, and I'm sure you  
 00082  
 1 will correct me if I am wrong, is that upon further  
 2 consideration you now conclude that phalaropes may be  
 3 feeding optimally at Mono Lake?  
 4 A No, I said we shouldn't be using the term optimally.  
 5 They could be foraging optimally, meaning that they are  
 6 doing the best they can given current prey densities, that's  
 7 right. They are not feeding anywhere approximating maximal  
 8 densities that they are capable of foraging under laboratory  
 9 conditions with food added at much higher densities than are  
 10 currently available at Mono Lake.  
 11 So, they are not exhibiting a functional response or  
 12 association, but they could be optimizing their use of the  
 13 environment, but as I said, I am not really in a position at  
 14 this point to discuss optimization. I don't know that Dr.  
 15 Rubega in her analysis even addressed the question of  
 16 optimal foraging.  
 17 Q I guess I am not clear at this point whether you feel  
 18 alkali flies might be limiting the red-necked phalaropes  
 19 population at Mono Lake at current lake elevations?  
 20 A I think that the availability of alkali flies is  
 21 limiting the location of the birds. I think the number of  
 22 birds that come to Mono Lake, both Wilsons and red-necked,  
 23 varies year to year depending on conditions far beyond Mono  
 24 Lake, so we could have a higher or lower population one year  
 25 than the next, but what's interesting is that they all  
 00083

1 appear to be in one part of the lake which tells me that  
 2 either that's the only place in the lake that's good forage,  
 3 or it's the best place. I'm not sure which that is.  
 4 At least we are not seeing the birds all around the  
 5 lakeshore that we did at high elevations.  
 6 Q All right. Now, talking, again, not about the  
 7 visibility or location of the birds, but about the  
 8 population size, isn't it true that Dr. Rubega concluded  
 9 that currently lake levels are sufficient to support the  
 10 food requirements of the red-necked phalaropes?  
 11 A In that area, that's right, from what we can tell.  
 12 The problem we have with this data set is that nobody  
 13 really knows how long phalaropes spend at Mono Lake. We  
 14 don't have good data on what their turnover rates are at the  
 15 lake, and so, in order to talk about how they are doing, we  
 16 would really need to have marked individuals and monitor  
 17 them through a period of time and see if they are really  
 18 gaining weight or not, and we don't have that kind of data  
 19 available right now.  
 20 Q The EIR stated that at the lake's lowest historical  
 21 elevation sufficient food was apparently available to  
 22 support populations of ear grebes and phalaropes at levels  
 23 similar to the point of reference; isn't that right?  
 24 A That a correct statement in the EIR, that's right.  
 25 Q And also, that the total number of red-necked  
 00084

1 phalaropes using Mono Lake as a migratory stopover probably  
 2 has changed a little also since the early 1980s?  
 3 A As far as I can tell, there has been quite a change  
 4 in lake elevations during that period. The red-necked  
 5 phalarope, according to Dr. Jehl's most recent data,  
 6 apparently there were a lot more of them this year, a lot  
 7 fewer Wilsons, so that's data I didn't have at the time I  
 8 read the EIR. The actual numbers visiting Mono Lake is not  
 9 necessarily driven by what's at Mono Lake right now.  
 10 There's a whole lot of other factors; how well they did on  
 11 their breeding grounds, how many other lakes there are that  
 12 they stopped at in migration, and a whole range of other --  
 13 I mean in a great basin, how many wetlands are there. That  
 14 has a lot to do with how many birds you actually see at Mono  
 15 Lake.  
 16 Q Now, going to the other point, which is, I think, the

17 point that you really focused on, and that is in terms of  
 18 phalarope distribution or phalarope visibility in the  
 19 western part of the lake.  
 20 Now, Dr. Rubega suggests that the shift in phalarope  
 21 concentration from the West bay of Mono Lake to the Eastern  
 22 shore may be due to the limited food availability, that is  
 23 fly densities in the Western embayment; is that right?  
 24 A Yes.  
 25 Q And she bases that on her field observations; is that  
 00085  
 1 right?  
 2 A Yes. Her field observation of birds and also of  
 3 actual measurements that she and Dr. Herbst have taken out  
 4 in the lake to find out how many free-floating larvae there  
 5 are in the area where the phalaropes appear to be foraging  
 6 most of the time now, which is the area that had the highest  
 7 prey densities.  
 8 Also, Dr. Stine's work has shown there's a  
 9 convergence of lake-wide currents coming together  
 10 approximately that side of the lake which also would tend to  
 11 concentrate them in that part of the lake.  
 12 Q She did her field observations in 1990 and 1991 when  
 13 the lake was about elevation 6374 and 6375; isn't that  
 14 right?  
 15 A Yes -- let's see, that was '89 through what?  
 16 Q 1990 and 1991, I believe.  
 17 A Yes, '89, '90, '91 -- she started in '89. She has  
 18 field notes from '89.  
 19 Q The lake level was basically --  
 20 A In that range, that's correct.  
 21 Q And isn't it true that Dr. Jehl documented the  
 22 location of red-necked phalaropes in his 1986 paper?  
 23 A Yes, it is true.  
 24 Q I know you have got a copy because I saw it earlier,  
 25 but I would like to, with the Hearing Officer's permission,  
 00086

1 give the Board members a copy of Exhibit 40 Dr. Jehl's  
 2 testimony.  
 3 MR. BIRMINGHAM: For the record, is this LADWP's  
 4 exhibit?  
 5 MS. GOLDSMITH: Yes.  
 6 Q This is LADWP's Exhibit 40 and on page 190 of LADWP  
 7 Exhibit 40 are a series of maps of Mono Lake which are  
 8 captioned, distribution of red-necked phalaropes at Mono  
 9 Lake, California, in 1981 and 1982; is that correct?  
 10 A Yes, that's correct. I have read it. I have looked  
 11 at it.  
 12 Q The dates that are given for these maps document the  
 13 locations of the red-necked phalaropes at that time; is that  
 14 right?  
 15 A That's correct.  
 16 Q And when these maps were drawn and the observations  
 17 were made, the lake was at its lowest historical state;  
 18 isn't that right?  
 19 A Yes, it was 1981 and 1982, that is right.  
 20 Q The lake elevations were approximately 6372 and 6373?  
 21 A That's right.  
 22 Q And isn't it true that there is a substantial  
 23 distribution of red-necked phalaropes in the Western  
 24 embayment?  
 25 A Yes, I recall there were nine of the 14 dates where  
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1 there were more than half of the birds in the Western  
 2 embayment. I guess -- go ahead and finish your -- I am  
 3 anticipating your question.  
 4 Q You probably are. Wouldn't you agree from a  
 5 comparison of these data that you really cannot conclude  
 6 that the red-necked phalaropes are restricted to the eastern  
 7 part of the lake as is suggested by the EIR?  
 8 A Based on the 1981 and 1982 data, I think that would  
 9 be a correct statement. I don't have an explanation for why  
 10 the birds were where they were in 1981 and 1982. Had that  
 11 pattern repeated itself -- I, personally, remember seeing,  
 12 you know, thousands of phalaropes in the Western embayment  
 13 of the lake at higher elevations in the mid seventies, and

14 also, again in the mid eighties walking from Danburg Beach  
15 to Lee Vining Creek, or whatever.

16 I don't have a good explanation for that.

17 In Dr. Jehl's testimony -- which exhibit number would  
18 that be?

19 Q I'm not sure what the exhibit number would be.

20 A You passed it out to the people.

21 Q Exhibit 40 is the copy of this paper.

22 A Okay. He references the fact he has a dozen years of  
23 data on the distribution of phalaropes. I would point out  
24 the draft you just distributed only illustrates the data for  
25 one species for two years. I have not seen the rest of the

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1 dozen years of data. I requested it in writing and in  
2 person several times.

3 I have been to the east side of the lake with Dr.

4 Jehl with several other people, including Dr. Rubega, and  
5 the point is that during the last four years there has been  
6 a pattern, whereas there wasn't one before, and the best  
7 scientific data available suggests that it is driven by food  
8 availability or lack thereof.

9 The best scientific data we have to review suggests  
10 that this pattern, I don't think Dr. Jehl would dispute  
11 during the last four years -- I would love to see his data  
12 for the other dozen years, which as I have said, I have  
13 never seen.

14 We could discuss his trend analysis there on the lake  
15 data, if you would like to do that, which is the data  
16 presented in his testimony.

17 But, basically, we have one species for two years.

18 We do not have the full span of data that Dr. Jehl has  
19 available to look at, and all I can say is that he was one  
20 of the people that told me they are mostly in the  
21 Northeastern sector of the lake, and they have been there  
22 consistently for four years, and again, all of the data that  
23 I have had to look at suggests that food is probably the  
24 most likely explanation for that distributional pattern.

25 I haven't heard another plausible explanation.

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1 Q And you believe that is a plausible explanation  
2 despite the fact that at lower lake levels --

3 A I don't know how much food was available in 1981 and  
4 1982. You might want to ask Dr. Herbst what the  
5 availability was. That was the first time that the lake had  
6 gotten to that level. Now, in less than a decade it went  
7 down there again or very close to it. I don't know how that  
8 affects the dynamics in the lake.

9 Q Weren't there other factors you have considered that  
10 affect phalarope distribution?

11 A Yes, go ahead and maybe you can suggest some other  
12 hypothesis. I guess we have the tourist hypothesis that was  
13 promoted in Dr. Jehl's testimony. I don't consider that a  
14 plausible explanation based on what I have observed of  
15 phalaropes both at Mono Lake and everywhere else I have ever  
16 looked at them.

17 They are very tame shore birds. You can walk up within  
18 a few feet of them when they are foraging or take a boat.  
19 There have been lots of people going to south tufa for years  
20 and around the Western embayment of the lake, and if it were  
21 truly an avoidance of humans, I think that the birds  
22 probably fly a few hundred yards offshore, or not even that  
23 far, maybe 50 yards down the beach and settle down again.  
24 They are not being harassed by people at Mono Lake and there  
25 is no reason to suspect that increased visitation has caused

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1 the birds to move ten miles across the lake to the most  
2 remote part of the lake and stay there.

3 Q Do you know whether there are --

4 MR. DEL PIERO: Ms. Goldsmith, your time is up.

5 MS. GOLDSMITH: I would ask for additional time.

6 MR. DEL PIERO: How much and why?

7 MS. GOLDSMITH: I would ask for it because this is an  
8 extremely important subject dealing with Los Angeles and  
9 there's a lot of areas to question, and the EIR conclusions  
10 were based on large part on some of the conclusions relating

11 to birds.

12 I believe I have probably 15 minutes additional  
13 cross-examination.

14 MR. DEL PIERO: Fine, 15 minutes.

15 MR. BIRMINGHAM: Excuse me, for purposes of  
16 conserving our time, I wonder if the witness could be  
17 instructed to answer Ms. Goldsmith's questions and limit his  
18 response to an answer of the pending question.

19 MR. DEL PIERO: We are all going to try.

20 MS. GOLDSMITH: Q Let's turn now to sea gulls,  
21 California gulls. The DEIR did not list destruction of gull  
22 nesting on the Paoha Island as a significant environmental  
23 impact in any of the alternatives; did it?

24 A No, it didn't.

25 Q And that was because a large acreage on Negit Island

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1 will become available if the lake grows; is that right?

2 A That's correct. Well, really, at lake elevations,  
3 predictably about 6383.5, we predicted Negit Island would  
4 not be land bridged and it is basically no longer limiting.

5 Q Now, the lake has gone up and down in the last 14  
6 years and Negit has been land bridged and become an island,  
7 and become accessible again; isn't that right?

8 A That's correct.

9 Q When the lake rose in 1982 to 1984, and Negit became  
10 an island, the gulls didn't immediately move back to Negit;  
11 did they?

12 A No, I wouldn't have expected them to, but they  
13 didn't.

14 Q In fact, they didn't move back until decoys were set  
15 out on Negit Island --

16 A I don't know what the role of the decoys was. It is  
17 true they did not move back like the next year or even the  
18 next two years.

19 Q Decoys were set out; isn't that right?

20 A I wasn't present for the decoy placement. I don't  
21 know what the effect of the decoys was. I did read a paper  
22 by Shuford but I don't know what the effect of the decoys  
23 was.

24 Q Now, the EIR concluded that maintenance of Negit as  
25 an island does not appear to be crucial to the success

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1 nesting of the Mono Lake gull population; is that right?

2 A Within a narrow range, that's a true statement.

3 Q And both Dr. Winkler and Mr. Shuford have set forth  
4 the hypothesis that a substantial reduction in the  
5 productivity of the gull colony occurs whenever there is a  
6 major disruption of the nesting population; is that right?

7 A Yes.

8 Q And that's due, according to their point of view, to  
9 territorial fights and predation of the chicks and --

10 A Yes.

11 Q And, in fact, that's what happened when Negit Island  
12 was lost as a breeding site; isn't that right, that the  
13 production went down?

14 A That is correct.

15 Q I wouldn't suggest that you opine on the cause of it.

16 Now, isn't it true that 28 percent of the colony now

17 is nesting on Paoha Island?

18 A It depends on which year you look at, but that's  
19 approximately the right number.

20 Q And that these gulls would be displaced from these  
21 islands under the environmentally superior alternative that  
22 is identified in the EIR?

23 A Yes, under most elevations there would be  
24 displacement of Paoha islets, right.

25 Q And at the same time, some nesting habitat at Negit

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1 islets would be lost, too; isn't that right?

2 A That's right.

3 Q Now, isn't it true that the Paoha islets have  
4 provided excellent nesting habitat for the gulls?

5 A They certainly had high reproductive success in most  
6 years there. I would qualify that by saying that overall,  
7 you know, substantially few gulls are there. We can talk



8 about the details of Paoha, if you want me to.  
 9 Q Isn't it true that the per-egg productivity for the  
 10 species on the Paoha islets in 1990 is the highest that it  
 has ever been recorded for any colony of gulls anywhere in  
 this range?  
 13 A I couldn't say that. I haven't looked at all the  
 14 data from every colony of gulls in this range. I know that  
 15 Dr. Jehl said that, but I don't know that I have fully  
 16 reviewed that data, but that could be a true statement.  
 17 Q Dr. Jehl has studied California gulls extensively;  
 18 has he not?  
 19 A Yes, he has.  
 20 Q And throughout its range; isn't that right.  
 21 Q Yes, I believe he studied them in Wyoming, Utah and  
 22 different places.  
 23 Q And he also has dealt in historical history of the  
 24 California gulls in the Western United States?  
 25 A Yes, he has.

00094

1 Q Isn't it true that we don't have comparative data for  
 2 the nesting success of the gulls on Negit Island?  
 3 A Comparative data, well, we have data from 1976  
 4 basically, because in '79, the land bridge occurred and then  
 5 we didn't have good data for '77 and '78.  
 6 Q When I say comparative data, I mean comparative  
 7 between Negit Island and the Paoha islets.  
 8 A As far as reproductive success  
 9 Q That's correct.  
 10 A Just the '76 data would be the best data for --  
 11 Q Do we have any '76 data for Paoha islets?  
 12 A Well, the Winkler study -- the actual survey that was  
 13 done was published in '77. The survey was actually survey  
 14 was done late in the breeding season, actually around July 4  
 15 to avoid destruction of the colony.  
 16 I happened to be at Mono Lake when those surveys were  
 17 done, so there is some evidence, but you have to qualify  
 18 that by saying that it wasn't early breeding season data,  
 19 like May data, which we would be comparing it to, so we  
 20 don't have a complete data set for '76, only the knowledge  
 21 that there were, what was it, 33,000 gulls breeding on Negit  
 22 Island at that time.  
 23 Q So, we have a population?  
 24 A We have a population count and we have a late season  
 25 breeding count, or reproductive success count essentially.

00095

1 Q Isn't it also true that the brushy habitat in which  
 2 they nested on Negit in 1976 is different in type than the  
 3 habitat in which they nest anywhere else in the lake?  
 4 A Well, again, I haven't been all over the lake. I  
 5 couldn't say that. I do know that the birds nested  
 6 successfully in the greasewood habitat on Negit Island, at  
 7 least since Dawson was there in 1919. In this photographs  
 8 and description of the California gull colony --  
 9 MS. GOLDSMITH: Mr. del Piero, this is not responsive  
 10 to any question and I would like to cut it short.  
 11 MR. DEL PIERO: Go ahead and ask your question.  
 12 MS. GOLDSMITH: Q Is it different from anywhere else  
 13 in their range?  
 14 MR. DODGE: Mr. Chairman, I object. The answer was  
 15 totally responsive to the question.  
 16 A I was trying to be responsive. I'm sorry, Ms.  
 17 Goldsmith.  
 18 MR. DEL PIERO: The question was, is this similar or  
 19 dissimilar to any other nesting area within their range?  
 20 A I suspect Mono Lake is unique in the range of the  
 21 California gull in terms of the basic habitat. I can't say  
 22 whether they breed in shrub. I do know of other colonies  
 23 where they have nested in shrub habitat.  
 24 MS. GOLDSMITH: Q What are those colonies?  
 25 A There is one in Bamford (phonetic) Lake that did nest

00096

1 on shrub habitat, a shrub-dominated island, although the  
 2 birds nested in both shrubs and open areas.  
 3 Q Have you seen pictures of Bamford Lake?  
 4 A Just in that article. I have not been throughout the

5 range of the species.  
 6 Q Now, under the 6383.5 alternative in the EIR, Paoha  
 7 Islands will be inundated?  
 8 A Yes, for the most part.  
 9 Q And isn't it true they will be planed down by wave  
 10 action?  
 11 A That's my understanding from Dr. Stine's analysis.  
 12 Q As the lake declines, if it does, that they will not  
 13 re-emerge as nesting habitats?  
 14 A That is my understanding. I'm not sure.  
 15 Q So, in that case, under the 6383.5 alternative, that  
 16 habitat, which has been very successful for the birds, will  
 17 be permanently lost; isn't that right?  
 18 A Yes, that habitat would be lost.  
 19 Q Now, it is true; isn't it, that the gulls at Mono  
 20 Lake are not currently habitat limited?  
 21 A That's as of what elevation you are talking about --  
 22 my calculations in the EIR were that when Twain and Java  
 23 Islands are land bridged that they could be habitat limited,  
 24 and we know now that Java would be land bridged at 6375. It  
 25 depends which elevation you are talking about.

00097

1 Q The current elevation.  
 2 A It all depends on whether Twain is invaded by  
 3 coyotes. That's the question.  
 4 Q Dr. Jehl has identified substantial acreage on the  
 5 Paoha islets which he feels is suitable nesting habitat to  
 6 accommodate additional nesting; isn't that right?  
 7 A Yes. I have looked carefully at his maps and tried  
 8 to overlay the different years of distribution and it does  
 9 appear that they tend to breed in the same general location  
 10 year after year, and they tend to be correlated with the  
 11 substrates on the islands if you overlay those maps. There  
 12 are substantial areas, as far as I can tell, that have not  
 13 been occupied by gulls in the past.  
 14 Q You are basing your opinion on historical nesting  
 15 patterns?  
 16 A As presented by Dr. Jehl.  
 17 Q Isn't it true that the nesting population on the  
 18 Paoha islets has been increasing virtually every year since  
 19 about 1986?  
 20 A I would have to look at the data for Paoha islets.  
 21 Certainly the high year was 1992, which was much higher. I  
 22 don't know that I could say there has been a direct linear  
 23 change. I would have to look at the data to determine that.  
 24 Certainly, the last three years there have been higher  
 25 numbers of gulls appearing at the lake and all the islets

00098

1 are occupied three of the last four years.  
 2 MR. DEL PIERO: Ms. Goldsmith, I'm going to give you  
 3 an extra five minutes. You have ten left.  
 4 MS. GOLDSMITH: Is that including the five?  
 5 MR. DEL PIERO: That includes the five.  
 6 MS. GOLDSMITH: Q Now, the DEIR concluded that the  
 7 gull habitat could increase by about 330 percent if Negit is  
 8 re-established as an island.  
 9 Do you recall that?  
 10 A Yes. That doesn't mean I believe that there would be  
 11 that many gulls. It is just potential habitat. It is  
 12 suitable areas for them to nest. They may or may not.  
 13 Q The DEIR concluded there would be significant  
 14 benefits; isn't it true, from habitat which would provide  
 15 for the future expansion of the colony?  
 16 A Is your question that Negit has substantial habitat  
 17 that could provide for future expansion?  
 18 Q My question is, isn't that one of the measures that  
 19 you use for assessing the impact of lake levels on the  
 20 California gull population, the availability for future  
 21 expansion of nesting?  
 22 A Yes, that's right.  
 23 Q And so, that presumes that there is an assumption  
 24 that if the nesting habitat increased, gull population will  
 25 increase?

00099

1 A No, not necessarily. I am just saying that there is

2 plenty of room for it. I don't think it has ever been shown  
3 at Mono Lake that increasing acreage has caused an increase  
4 in the population. I don't think that we could say  
5 increased habitat areas would necessarily cause an increase  
6 in the population.

7 Q Is it your opinion that increased nesting habitat for  
8 the California gulls is an important benefit?

9 A Secure nesting habitat at Mono Lake is an important  
10 benefit for the gulls.

11 Q The question is different. The question is, is  
12 increased nesting habitat important for the gulls at Mono  
13 Lake?

14 A It certainly could be if the population increased in  
15 the future.

16 Q If the population increased in the future, do you  
17 think they would be likely to feed on alkali flies as they  
18 do at present?

19 A They forage on flies and shrimp.

20 Q And if flies are a limiting food source for other  
21 bird species, there would be a possibility that the gull  
22 population could impact either the flies or the other bird  
23 species, or both; isn't that right?

24 A I don't know. I would have to think about that. I  
25 don't know what effect the California gull would have on the  
00100

1 alkali fly. I don't know the answer to that question.

2 Q Now, in looking at the lake and what would happen as  
3 the lake level went up, did you analyze the impact on the  
4 Caspian Tern nesting habitat at Mono Lake if it goes up?

5 A Are you asking me, did I describe the Caspian Tern in  
6 the document or did I describe it in the impact analysis?

7 Q I am asking whether you considered the impact on the  
8 nesting habitat.

9 A No, I didn't.

10 Q Isn't it true that the current nesting habitat would  
11 be lost for the Caspian Tern if elevations associated with  
12 the alternatives of 6383.5 and higher?

13 A Well, the simply answer to that would be, yes, but  
14 there's a lot more to it. Do you want me to tell you?

15 MR. DEL PIERO: You have to be careful what you ask  
16 for because sometimes you get it (laughter).

17 MS. GOLDSMITH: Q How quickly can you do it?

18 A I will try to do it quickly. I will give you my  
19 basic reasons for not including it in the impact analysis.

20 Number one, the first question I would ask, does the  
21 bird have any legal protections? Is it threatened, listed  
22 at the State or Federal level? Is it a candidate for  
23 listing anywhere, or do any major resource agencies have  
24 concern about the bird?

25 If the answer to those questions is no in all cases,  
00101

1 it is not listed, not a candidate and it is not a species of  
2 special concern, the second question would be, is there a  
3 mechanism that could adversely affect the species and could  
4 that lead to some cumulative effect or population effect  
5 worldwide, or whatever?

6 We have 14 nests there or so a very small number, if  
7 the bird is not protected and not likely to be protected any  
8 time soon, you probably know it is a cosmopolitan species  
9 that occurs all over the world, Africa, Australia, all over  
10 North America, so it is not a bird that is highly localized  
11 in its distribution, and furthermore, getting to the  
12 question you asked, is there a mechanism of impact; well,  
13 prior to 1982, we know the birds were first observed in Mono  
14 Lake in '72. We don't know the breeding status at that  
15 time.

16 Winkler's group did document nesting on Twain islet  
17 and where they were nesting on Twain islet was actually  
18 quite a high platform which was probably elevated above any  
19 of the levels that we are talking about in this analysis.

20 So, we know they nested there until 1982, at which  
21 time the coyotes gained access to Twain and Java islets, and  
22 the birds shifted over to Paoha islets where they have  
23 nested ever since with variable success.

24 The population rangewise is increasing. The Gill and

25 Mewaldt papers suggested 70 percent increase in the  
00102

1 population in the Pacific states since 1960.

2 So, I would say that Mono Lake is not a key habitat  
3 area for that species. There's a long commute distance to  
4 get fish, which is the primary thing they eat. They don't  
5 eat flies and shrimp.

6 And so, basically, as far as the analysis is  
7 concerned, I didn't see any reason to highlight the Caspian  
8 Tern more than any other migratory bird that is native,  
9 robins or, you know, Western meadowlark, or whatever. They  
10 are on the same level and they are a species of concern  
11 because they are a native wild migratory bird, but not  
12 because there is any clear impact, and there is no reason to  
13 believe that if the Paoha islets were inundated at a higher  
14 elevation, the birds wouldn't simply shift back to the Negit  
15 islets.

16 You know, frankly, that's the answer.

17 Q They don't nest on the Negit islets other than Twain  
18 and Pancake?

19 A Not that I am aware of, but they certainly nest in a  
20 whole range --

21 Q Thank you. Coyotes are able to gain access across  
22 water to some of the nesting areas; aren't they?

23 A Yes.

24 Q Under the 6377-foot alternative, the EIR concluded  
25 that Twain and Java islets could be land bridged one percent  
00103

1 of the years during extreme droughts; isn't that right?

2 A Yes -- no -- was it one percent of the years? I  
3 can't remember.

4 Q It was one percent. It is 3F-70.

5 MR. DODGE: Objection on the grounds of ambiguity. I  
6 am concerned about whether we are talking about access or --

7 MS. GOLDSMITH: I will clarify that in a moment. We  
8 are not talking about physical land bridging, we are talking  
9 about access.

10 MR. DODGE: I wonder if I might finish my objection?

11 MR. DEL PIERO: Mr. Dodge is going to finish his  
12 objection. I don't think I am going to rule in his favor,  
13 so --

14 MR. DODGE: The question was ambiguous. When you use  
15 the words land bridge, I don't know whether that means  
16 coyote access or whether it means a physical bridge so they  
17 can walk across without getting their feet wet.

18 MR. DEL PIERO: Ms. Goldsmith.

19 MS. GOLDSMITH: That was a quote from 3F-71 and  
20 perhaps Dr. Beedy would like to look at it and tell us.

21 MR. DEL PIERO: Overruled, Mr. Dodge.

22 Would you be kind enough to restate the question?

23 MS. GOLDSMITH: Q Maybe I can do it a little  
24 backwards and clarify it.

25 At page 3F-70, the EIR states that the lake would  
00104

1 decline to a minimum elevation of about 6373 feet; isn't  
2 that right?

3 A Yes.

4 Q And Twain and Java islets are physically land bridged  
5 at a lower elevation; isn't that right?

6 A 6372, that is correct.

7 Q But the EIR concludes that Twain and Java islets  
8 could be land bridged about one percent of the time during  
9 extreme droughts --

10 A Physically land bridged, that is right.

11 Q Physically landbridged?

12 A Yes.

13 Q It says land bridged one percent of the years during  
14 extreme droughts, 6372. I believe that's right; isn't it?

15 (At this point, Mr. Casaday made a reply to  
16 Dr. Beedy which was inaudible.)

17 MR. BIRMINGHAM: Could I ask Mr. Casaday to speak up?  
18 I didn't hear what he said.

19 MR. DEL PIERO: Do you want to grab that microphone?

20 MR. CASADAY: Proceed with your question and I will  
21 see if I can answer.

22 MR. BIRMINGHAM: For the purposes of the record, I  
 23 wonder if we could have Mr. Casaday repeat what he said.  
 24 MR. CASADAY: A My recollection is that that data  
 25 referred to what I would call effective land bridging, which

00105

1 is not necessarily physical land bridging but accounts for  
 2 the shallow water that coyotes can cross:  
 3 MR. BIRMINGHAM: Thank you, Mr. del Piero.  
 4 MS. GOLDSMITH: A If you were told that the EIR's  
 5 drought analysis incorrectly forecast the minimum lake  
 6 levels to be one foot lower than what would actually occur;  
 7 would that affect your conclusion about the percentage of  
 8 time at which Twin and Java would be land bridged?  
 9 A No, actually it wouldn't because, as I said in my  
 10 introductory remarks, I assumed 6373 for land bridging or  
 11 actual physical crossing of the coyotes. Now we have data  
 12 from this last year that they actually crossed at 6375 due  
 13 to the fact that there was an error in the drought analysis  
 14 of one foot; we are shown that they would cross at two feet  
 15 higher than they did before.  
 16 Q Would it affect your analysis of how often Negit  
 17 Island would be effectively land bridged?  
 18 A No, my recall -- how often would Negit be land  
 19 bridged in the 6377 alternative? Do you remember what the  
 20 percentage was?  
 21 Q I believe it was two to four percent. Assume it was  
 22 two to four percent, might it affect that analysis?  
 23 A It could if there was a real change in the model  
 24 output; yes, it could.  
 25 Q Do you expect to re-evaluate that before you do the

00106

1 final EIR?  
 2 A Yes, if there is an error in the numbers in the  
 3 analysis, I would certainly take a look at those and see if  
 4 that would be likely to affect it.  
 5 MR. CASADAY: A Ms. Goldsmith, that two to four  
 6 percent of the years is an estimate for Negit and the  
 7 document you are referring to is not based on the drought  
 8 analysis, so that wouldn't be affected by the revised  
 9 drought analysis. That was part of the original analysis  
 10 based on the historic record of 50 years.  
 11 So, that has not been challenged as far as I know.  
 12 DR. BEEDY: A I guess the answer would be that if  
 13 the data for Negit Island would not change, I wouldn't  
 14 change my analysis of Twain and Java. With the new data, I  
 15 would have to say that there is certainly high potential for  
 16 land bridging at a higher elevation than I predicted in the  
 17 EIR.  
 18 Q Given the relative uncertainty about lake levels at  
 19 which terrestrial predators such as coyotes can gain access  
 20 to the various islands, and as a general proposition, isn't  
 21 the dispersion of nesting areas along many islands the best  
 22 protection against the possibility of total destruction of  
 23 the colony by coyotes?  
 24 A Again, it would all depend on the level of elevation.  
 25 Negit Island is a very large island with a lot of different

00107

1 habitats on it, and I would say your question is multiple  
 2 islands versus one large one, and I guess I would have to  
 3 see Negit Island in operation before I could really answer  
 4 that question very effectively and look at what the actual  
 5 incidence of land bridging and coyote predation was.  
 6 Because if there was a broad barrier of water between  
 7 the mainland and Negit Island, I wouldn't necessarily agree  
 8 a bunch of small islands were better than one big one.  
 9 Q So, putting all your eggs in one island --  
 10 A It wouldn't be just one island because, of course,  
 11 you can look at the dates of emergence of all the different  
 12 islands and realize there is still substantial habitat at  
 13 Negit Islands in most of the elevations. The largest one  
 4 emerged in the 1930s.  
 5 Dr. Stine can give you the exact numbers there, but  
 16 certainly, as early as 1919 they were nesting on what  
 17 appears to be the of Aloha Tahiti Island, so, you know,  
 18 there's --

19 Q I agree there's gull nesting --  
 20 A Yes, it isn't just one island, is my point. The  
 21 Paoha islets would be gone, that's right.  
 22 Q Compared with Negit, would you expect there would be  
 23 substantial numbers on the Negit islets?  
 24 A Well, all I can say is go back to 1976 when both were  
 25 available and they nested on both areas.

00108

1 Q And it's true that coyote predation on Negit provided  
 2 a major disruption of the colony; isn't that right?  
 3 A In '79.  
 4 Q Now, I would like to turn very very quickly to the  
 5 snowy plover and ask you whether or not snowy plovers are a  
 6 federal candidate or threatened and endangered species?  
 7 A Yes, they are a federal candidate. The coastal  
 8 population was the one that was actually proposed for  
 9 listing.  
 10 Q But the ones at Mono Lake are candidate species;  
 11 isn't that right?  
 12 A Yes, C-2.  
 13 Q Mono Lake holds about 11 percent of the State's  
 14 breeding population?  
 15 A Something like that, although the data from Owens  
 16 Valley -- I haven't seen any data since 1988, but as of  
 17 1988, that would be a correct statement.  
 18 Q That is what is reported at page 3F-34 of the EIR  
 19 A Yes, I think I qualified that was the data as of  
 20 1988.  
 21 Q Now, for the California gull impact assessment, you  
 22 had two objectives. The first -- I am quoting from --  
 23 A Are we talking about snowy plovers or gulls here?  
 24 Q We are talking about gulls right now. This question  
 25 relates to gulls.

00109

1 At page 3F-50, you had two objectives for California  
 2 gull impact predation methodology. The first was, estimate  
 3 the acreage of suitable gull nesting habitat available for  
 4 the Mono Lake colony under each alternative, and the second  
 5 one was to determine whether availability of suitable island  
 6 nesting habitat could potentially limit the size of the  
 7 colony under each alternative; isn't that correct?  
 8 A That's what it says there.  
 9 Q Did you do a similar analysis for snowy plover?  
 10 A Yes, we did. Actually, I took a look at what the  
 11 habitat territorial size requirements for an individual pair  
 12 were and based on Mr. Jokerst's analysis of the available  
 13 barren habitat around the lakeshore and what Mr. Page and  
 14 Mr. Shuford have told me about snowy plover breeding  
 15 requirements, we estimated the acreages with those kinds of  
 16 habitat.  
 17 Q For the existing populations; isn't that right?  
 18 A Based on the existing population. One year before  
 19 the point of reference that is the population number we  
 20 looked at.  
 21 Q But just to compare the approach for gulls and snowy  
 22 plovers, the loss of half approximately of the existing  
 23 available nesting habitat for the snowy plover, a federally  
 24 endangered species, was not considered to be significant,  
 25 while the expansion by 330 percent of the nesting habitat

00110

1 for the Crowley Lake gulls which may or may not be habitat  
 2 limited either, was considered a significant benefit; isn't  
 3 that right?  
 4 A The question again was --  
 5 Q Can you answer that yes or no?  
 6 A I could, but you know --  
 7 MR. DEL PIERO: You will.  
 8 A Yes.  
 9 MR. DEL PIERO: Thank you.  
 10 MS. GOLDSMITH: I have one last question --  
 11 MR. DEL PIERO: And then your time is up.  
 12 MS. GOLDSMITH: Q Isn't it true, California gulls  
 13 are one of the principal predators of snowy plover nests?  
 14 A They are one, probably the greatest one, but I would  
 15 have to double check that.

16 Q At page 3F-35 of the Environmental Impact Report,  
17 California gulls are identified as the primary predators of  
18 snowy plover clutches.  
19 I have no further questions.  
20 MR. BIRMINGHAM: Excuse me, I would like to make an  
21 application for an additional ten minutes of time to ask  
22 questions regarding vegetation, and the basis on which I  
23 would make that application, if the Hearing Officer wants to  
24 hear the basis, is again, we are attempting to cross-examine  
25 on a wide range of subjects on documents that cover hundreds

00111

1 of pages, and when you include the auxiliary reports,  
2 thousands of pages.  
3 The last series of questions, unfortunately took much  
4 longer than we had anticipated because of the exchanges that  
5 were going on, and I think I can ask the questions in a very  
6 short period of time, ten minutes.  
7 MR. DEL PIERO: Mr. Birmingham, normally the way this  
8 process has gone is when we have more than one attorney  
9 representing a party or group of parties, one attorney asks  
10 his or her questions and the next attorney asks his or her  
11 questions, and we don't have tag-team operations.  
12 I will grant you five minutes after lunch.  
13 And from now on, ladies and gentlemen, what I just  
14 outlined is the way it will be.  
15 MR. BIRMINGHAM: That's the way we will conduct our  
16 cross-examination in the future, Mr. del Piero.  
17 For the record, I would note, in fact, on one of the  
18 panels my learned colleagues from Morrison and Foerster  
19 engaged in that approach as well, but from now on, we will  
20 do as you say.  
21 MR. DEL PIERO: Thank you.  
22 Ladies and gentlemen, we are going to recess until  
23 1:45. (Noon recess)  
24  
25

00112

1 WEDNESDAY, OCTOBER 27, 1993, 1:45 P. M.  
2 --oOo--  
3 MR. DEL PIERO: Ladies and gentlemen, if you would  
4 take your seats, I would like to begin. This is a  
5 continuation of the hearing held this morning by the Water  
6 Resources Control Board on the matter of limiting the  
7 licenses of the City of Los Angeles Department of Water and  
8 Power to divert water from the tributary streams to Mono  
9 Lake.  
10 When last we left, Mr. Birmingham, on behalf of Los  
11 Angeles Department of Water and Power, had a few questions,  
12 about ten minutes of time to cross-examine on Fish and Game;  
13 is that correct?  
14 MR. BIRMINGHAM: On vegetation.  
15 MR. DEL PIERO: On vegetation, pardon me. I  
16 indicated at the time I was going to grant you five minutes.  
17 One of the prerogatives of being the Hearing Officer is to  
18 change your mind. After having given consideration during  
19 lunch, I will grant you ten minutes, but that's it.  
20 CROSS-EXAMINATION  
21 by MR. BIRMINGHAM:  
22 Q With that in mind, these questions are related, I  
23 believe, to Mr. Jokerst, and I believe they are all  
24 questions that can be answered yes or no, and if you would  
25 answer them yes or no, and then offer a brief explanation,

00113

1 if you think it is necessary, I would appreciate it.  
2 First, I would like to talk about the riparian  
3 wetland communities in general. The DEIR states, I believe,  
4 at page 3C-49, and I am quoting: Riparian and wetland com-  
5 munities are recognized by many State and Federal resource  
6 agencies, conservation organizations, and independent  
7 scientists as having especially high biological values.  
8 The DEIR makes that statement; is that correct  
9 MR. JOKERST: Yes, sir, that's correct. And it is  
10 important to point out that the point is that is relative to  
11 other types of habitats.  
12 Q Certainly, and that is a generally accepted position;

13 isn't it, that riparian and wetland communities have  
14 especially high biological values?  
15 A No, I think it is unsafe to make a strict  
16 generalization about that. There are notable exceptions to  
17 that. Habitats can be classified as wetland or riparian and  
18 not embody the same magnitude of values and functions that  
19 lead to that more general conclusion.  
20 Q Well, in terms of the types of riparian wetland  
21 communities that do have especially high biological values,  
22 isn't it correct that the tables at the conclusion of  
23 Chapter 3C indicate that those riparian wetland communities  
24 are more extensive under the 6377-foot alternative than  
25 under 6383.5 or 6390-foot alternatives?

00114

1 A I can only speak to my familiarity with the lake  
2 fringing wetlands; yes, that is correct.  
3 Q Is there some other member of the panel that would  
4 address that issue with respect to the types of --  
5 A I guess it would be for the riparian communities on  
6 the tributary streams.  
7 Q Who would address that?  
8 A Ken.  
9 MR. CASADAY: It would be me. Is there a standing  
10 question here? Would you repeat the question?  
11 Q Yes. We have answered the question with respect to  
12 lake fringing wetlands, but isn't it correct, for instance,  
13 if we look at Table 3C-14, it shows that the total acreage  
14 of riparian and wetland vegetation in the Mono Basin is  
15 greater under the 6377-foot alternative than under all  
16 higher lake level alternatives?  
17 MR. CASADAY: A The answer is yes with a  
18 qualification that the table you are referring to is talking  
19 now just about the riparian and wetland habitats along  
20 tributary streams, so I guess your more general answer for  
21 the whole basin, two yeses make a yes, I guess.  
22 Q So, with respect to lake fringing wetlands and  
23 wetland riparian habitat along the tributary streams, they  
24 are more extensive under the 6377-foot alternative than in  
25 any of the other higher lake alternatives?

00115

1 I think you have answered yes to those questions.  
2 A Yes, that's correct.  
3 Q Now, page 3C-31 of the Draft EIR states that: Today,  
4 the Wilson Creek delta wetland supports one of the richest  
5 assortment of plant species around the lake.  
6 That is stated on page 3C-31; isn't that correct?  
7 MR. JOKERST: A Yes, sir.  
8 Q Isn't it correct that Wilson Creek delta wetland will  
9 be inundated under the 6383.5 feet and higher lake  
10 alternatives?  
11 A I would need to refer back to a map to answer that.  
12 Q Would you please? If you don't know the answer to  
13 the question, that is an acceptable answer.  
14 A It seems to me that that is not the case, that there  
15 will still be wetlands on the Wilson Creek delta. They may  
16 not reside in the present location. There are some factors  
17 which can cause the springs and seeps feeding those wetlands  
18 to migrate upslope with the lake level.  
19 Q But the existing wetlands will be inundated; isn't  
20 that correct?  
21 A The wetlands where they presently exist will be  
22 inundated. The wetlands at Wilson Creek delta will still  
23 exist.  
24 Q But as it exists now, it will be inundated?  
25 A Everything below 6383.5, yes.

00116

1 Q The Draft EIR states that: Today, the County Park  
2 wetland supports the highest diversity of marsh and wet  
3 meadow species of Mono Lake's lake fringing wetlands.  
4 It says that; is that correct?  
5 A Yes.  
6 Now, isn't it correct that under the 6383.5 foot  
7 alternative and higher alternatives, that that County Park  
8 wetland is going to be inundated?  
9 A A major portion of it, yes, but not in its entirety.

10 Q Among the environmental effects discussed in the  
 11 DEIR, is the effect that a rising elevation will have on  
 12 wetlands at the Rush and Lee Vining Creek deltas.  
 13 The existing wetlands that are formed at those deltas  
 14 will be inundated under the 6383.5 alternative; isn't that  
 15 correct?  
 16 A Yes, that is correct.  
 17 I would also like to add that they will relocate with  
 18 the shifting lake level and reform at that new lake level.  
 19 Q Another one of the environmental effects discussed in  
 20 the Draft Environmental Impact Report is the erosive effect  
 21 of high flows, and we established earlier, I think, that is  
 22 going to be re-analyzed based upon the changing position of  
 23 the Department of Fish and Game; is that correct?  
 24 A I have to direct that to Ken.  
 25 MR. CASADAY: A Erosive effect on high flows; no, I

00117

1 don't believe that is correct. I believe -- no, I don't  
 2 believe that is correct.  
 3 My testimony was that we based our analysis of the  
 4 effects of riparian vegetation and now we are talking about  
 5 from high flows on data from the Restoration Technical  
 6 Committee. Then I reviewed, at either your request or  
 7 someone else's, a letter from the Chairman of the Technical  
 8 -- I'm not sure of the exact title, of Woody Trihey,  
 9 Chairman of the technical group of the RTC, questioning our  
 10 use of his thresholds.  
 11 I suggested that we would in the final EIR want to  
 12 ask for his opinion as to other thresholds that might be  
 13 more appropriate.  
 14 I did want to add something on my original testimony  
 15 on a matter I now find is incorrect. Either now or at some  
 16 point I would like to clarify that.  
 17 Q Maybe you could clarify it in a few moments on the  
 18 State Board's staff time.  
 19 The Draft Environmental Impact Report states: There  
 20 is an abundant distribution of willow seedlings in the lower  
 21 reach of Rush Creek.  
 22 A That's correct.  
 23 Q This abundant distribution of seedlings, when was  
 24 that portion of the Draft Environmental Impact Report  
 25 written?

00118

1 A I actually couldn't tell you that off the top of my  
 2 head.  
 3 Q It was written prior to -- let me restate the  
 4 question --  
 5 A I would say sometime in the fall of 1992.  
 6 Q So, it was written before the effects of the grazing  
 7 moratorium would have been seen in the basin; is that  
 8 correct, and by grazing moratorium, I am talking about the  
 9 1991 grazing moratorium that was imposed.  
 10 A Yes. This statement was written after the moratorium  
 11 was first imposed.  
 12 Q And the Draft Environmental Impact Report  
 13 characterizes the recovery as modest; is that correct?  
 14 A I am not sure. You would have to show me the context  
 15 of that.  
 16 Q I think if you look at 3C-25 of the Draft  
 17 Environmental Impact Report, it says that: In 1985,  
 18 continuous low flows were returned to Rush Creek to maintain  
 19 the trout population. These flows, with an absence of  
 20 scouring floods, have promoted a modest recovery of riparian  
 21 vegetation along portions of Rush Creek. Some large  
 22 cottonwoods that were severely stressed, but not dead, have  
 23 recovered much of their vigor. Many thousands of willow and  
 24 cottonwood seedlings have appeared on wetted gravel bars,  
 25 especially near the mouth of the creek.

00119

1 Now, that was written before we saw the effect of the  
 2 grazing moratorium on the recovery of riparian vegetation;  
 3 isn't that right?  
 4 MR. JOKERST: A It may be based on data gathered  
 5 prior to --  
 6 MR. CASADAY: A I don't think that I can answer that

7 that is necessarily correct. I think there is some  
 8 fuzziness here as to when that was written and how much  
 9 response had occurred at that time from the grazing  
 10 moratorium.  
 11 Q Isn't it correct that since the grazing moratorium  
 12 was imposed in 1991 when the grazing was discontinued, and  
 13 here we are referring to livestock grazing, the recovery of  
 14 riparian vegetation that occurred has been more than at a  
 15 modest rate?  
 16 A Well, I can't really answer the question. It is a  
 17 definition of modest, I suppose, is the trouble.  
 18 Q The use of the term modest in the Draft Environmental  
 19 Impact Report is troubling?  
 20 A I would say we would definitely agree with you that  
 21 there has been a response to rewatering that has been very  
 22 substantial.  
 23 Q And there has been a response from the termination of  
 24 grazing; isn't that correct?  
 25 A We did not actually evaluate that and the reason was

00120

1 that the RTC's work, which I believe that is a part of, was  
 2 something that we simply could not be assessing while we  
 3 were trying to assess the impacts of alternatives. So,  
 4 that's just not something that we systematically looked at.  
 5 I believe you should direct that question to the RTC.  
 6 Q Well, I would like to ask you to look at Figure 5  
 7 from the direct testimony of Robert Beschta, which is in  
 8 evidence, and this is a picture of Lee Vining Creek taken  
 9 from the county road, and I would ask if you have seen this  
 10 picture before?  
 11 A Didn't we have this picture up earlier in the  
 12 hearing?  
 13 Q No, I don't believe so.  
 14 A Then, I may have not have.  
 15 Q I would ask you to compare the riparian vegetation  
 16 that exists in Figure 5 with the riparian vegetation that is  
 17 depicted in Figure 6 from the testimony of Robert Beschta,  
 18 which was taken in August, 1993, according to the caption on  
 19 the picture.  
 20 I will ask you to assume that is correct. Would you  
 21 characterize the recovery of the riparian vegetation  
 22 contrasted between Figure 5 and Figure 6 as more than  
 23 modest?  
 24 A In the area covered by the photographs, assuming they  
 25 were taken at the same location, I would agree it should be

00121

1 characterized as more than modest.  
 2 Q Comparing the two photographs, unfortunately Figure 5  
 3 is a little bit fuzzy, but you can see off to the left there  
 4 is a pine tree in approximately the same location.  
 5 I would ask that you look at the figures from the  
 6 direct testimony of Dr. Beschta, which purports to be Rush  
 7 Creek at the fish hatchery taken in July of 1986.  
 8 Now, July of 1986, that is about a year after flows  
 9 were restored permanently to the streams; is that correct?  
 10 A I believe that's right.  
 11 Q Now, I would ask you to take a look at the same area  
 12 and I am referring now to Figure 4 from the direct testimony  
 13 of Dr. Beschta, and if you compare the background of the two  
 14 photographs, you can see a similar area.  
 15 I would ask if you would characterize the recovery of  
 16 the riparian vegetation that has occurred as depicted by  
 17 these two photographs as being more than modest?  
 18 A Well, I have a hard time comparing those two  
 19 pictures. I see the river channel on the 1986 picture, and  
 20 I do not see where it is on the 1993 picture. I can't  
 21 compare those two.  
 22 Q Is that because in the 1993 picture the river channel  
 23 has been obscured by the recovery of riparian vegetation?  
 24 A It may be, but it also may be that the picture is  
 25 being taken further to the west in the 1993 picture, but I

00122

1 would not question that there has been riparian recovery in  
 2 this area. I believe we say that in the Draft Environmental  
 3 Impact Report.

4 MR. DEL PIERO: Your ten minutes are up.  
 5 MR. BIRMINGHAM: With that, I will conclude my  
 6 questions and thank you very much.  
 7 MR. DEL PIERO: Mr. Birmingham, Mr. Stubchaer would  
 8 like to see the two previous pictures, the ones with the  
 9 pine trees, and, Jim, if you would hold the pictures up so  
 10 they are side by side.  
 11 EXAMINATION  
 12 by MR. STUBCHAER:  
 13 Q Where were these two taken?  
 14 MR. CASADAY: A These were taken looking downstream  
 15 from the county road.  
 16 Q Were they taken from the same location?  
 17 A I believe they were. Unfortunately -- if you look at  
 18 the background -- unfortunately, the 1991 photograph is a  
 19 little blurred, but if you look at the background the same  
 20 hills appear in the background and we will lay the  
 21 appropriate foundation to establish that they were taken  
 22 from the same location.  
 23 MR. CANADAY: This point, in my opinion, would  
 24 correspond to this point here. The focal point is a little  
 25 different.

00123

1 MR. DEL PIERO: The points in the immediate  
 2 foreground, what would you gauge the distance differential  
 3 in the picture is?  
 4 MR. SMITH: About ten feet, maybe.  
 5 MR. STUBCHAER: The clump of willows at the extreme  
 6 right of the picture, is that the same clump that you see  
 7 more towards the center of the picture in the other photo?  
 8 MR. CANADAY: I would say that this is this.  
 9 MR. BIRMINGHAM: I believe, Mr. Stubchaer, you are  
 10 referring to this?  
 11 MR. STUBCHAER: No, this one, and the one more  
 12 towards the center, which would indicate that the right-hand  
 13 picture was taken a little farther downstream than the left-  
 14 hand picture. Except for that, it's the same reach.  
 15 MR. DEL PIERO: Dr. Beschta is going to be here?  
 16 MR. BIRMINGHAM: Yes.  
 17 MR. DEL PIERO: Thank you.  
 18 Ms. Cahill.  
 19 Mr. Thomas.  
 20 MR. BIRMINGHAM: May I take a moment, Mr. del Piero,  
 21 because the question came up during lunch as to what  
 22 constitutes a tag team. I had understood that a tag team  
 23 referred to --  
 24 MR. DEL PIERO: Macho Man and --  
 25 MR. BIRMINGHAM: Unlike --

00124

1 MR. DEL PIERO: Anything less is not a tag team.  
 2 MR. BIRMINGHAM: Well, I don't watch, what is it,  
 3 Bruce -- Mr. Dodge, world wrestling --  
 4 MR. DODGE: The World Wrestling Federation is the  
 5 better of the two.  
 6 MR. DEL PIERO: I will be happy to get together with  
 7 you afterwards and compare notes.  
 8 MR. STUBCHAER: Mr. del Piero, I think that is a  
 9 legitimate question. I mean, if one attorney follows  
 10 another sequentially, is that a tag team, and if they are  
 11 separated by a lunch break or a break in the morning, is  
 12 that not a tag team?  
 13 MR. DEL PIERO: We will contemplate that during the  
 14 balance of the day and make sure we don't break in that  
 15 fashion.  
 16 Mr. Thomas.  
 17 MR. THOMAS: Thank you, Mr. Chairman.  
 18 Harold Thomas with the Department of Fish and Game.  
 19 CROSS-EXAMINATION  
 20 by MR. THOMAS:  
 21 Q Members of the panel, I am going to address my  
 22 questions to Dr. Beedy, Mr. Casaday and Dr. Jokerst, maybe  
 23 other subject matters really beyond the scope of the game  
 24 issue, Fish and Game purview.  
 25 Mr. Casaday, are you predominantly trained as

00125

1 biologist? Is your predominant experience as a geologist or  
 2 biologist?  
 3 MR. CASADAY: A Geology would be it.  
 4 Q And you have had extensive planning experience?  
 5 A That's correct.  
 6 Q And Dr. Beedy, your background is primarily avian  
 7 biology?  
 8 DR. BEEDY: A That's correct.  
 9 Q Do you have background in migratory waterfowl?  
 10 A I have never done research on migratory waterfowl,  
 11 but I have had a life-long interest in that and I'm  
 12 certainly very familiar with migratory waterfowl.  
 13 Q And you have studied migratory waterfowl in the  
 14 Eastern Sierra in the vicinity of Mono Lake?  
 15 A Yes.  
 16 Q And have you studied ducks in particular in the  
 17 vicinity of Mono Lake?  
 18 A Yes, in connection with this Draft Environmental  
 19 Impact Report primarily, that's right.  
 20 Q I wanted to ask you some questions about the argument  
 21 that we have heard this morning that now by refilling Mono  
 22 Lake we are going to be losing a number of specific  
 23 environmental features or values, so my questions will be  
 24 generally focused on those particular elements.  
 25 Before we do that, I would like to ask you, Dr.

00126

1 Beedy, to give us a brief synopsis of the biological state  
 2 of nature that was out on Mono Lake prior to the diversions,  
 3 say prior to 1930, focusing specifically on migratory  
 4 waterfowl and their existence.  
 5 DR. BEEDY: A What I know about that subject --  
 6 obviously I never saw the lake in 1930, but in the process  
 7 of working on the Draft Environmental Impact Report, I did  
 8 have occasion to review of lot of historical data, notes  
 9 from a series of field ornithologists and local residents,  
 10 and I also personally interviewed a lot of these people, at  
 11 least those that are still alive and available to talk to.  
 12 The impression I got was of a lake that in the fall,  
 13 that's what you were talking about, the migratory ducks, was  
 14 a place that attracted huge migratory duck concentrations,  
 15 estimated by Mr. Dombrowski in 1948 at up to a million  
 16 ducks, one count made, and actually, in November of 1948,  
 17 he did make six counts.  
 18 That's the only data set that I know of that was a  
 19 quantitative estimate of somebody who as a trained observer  
 20 and went out and made counts.  
 21 Q Are you familiar with anecdotal counts?  
 22 A Certainly. There have been many of those that I have  
 23 also reviewed which corroborate the number and impression of  
 24 huge numbers of ducks, and the way that these observers have  
 25 done that is to say, well, for example, I have been to the

00127

1 Klamath Basin in the concentration period and the number of  
 2 ducks I saw at Mono Lake were comparable to that and to the  
 3 Merced Refuge and Los Banos, or someplace like that.  
 4 Q And what was the habitat that was attracting the  
 5 ducks at Mono Lake in this historical period?  
 6 A Well, my understanding is that there were -- in the  
 7 Draft EIR we reported, I think, over 200 acres of brackish  
 8 and freshwater ponds and spring-fed areas that surrounded  
 9 the lakeshore in a variety of areas, and some of the most  
 10 important areas were such as the mouth of Rush Creek, around  
 11 Simon Springs, Warm Springs, what I have always called  
 12 DeChambeau Marsh, and a lot of these areas that had ponded  
 13 water away from the lakeshore are very attractive to ducks  
 14 because; number one, it gave them a place to bathe and drink  
 15 and get the saltwater off their feathers.  
 16 Also, I am told on windy days, which happen a lot at  
 17 Mono Lake, it gave them sort of a refuge away from the  
 18 lakeshore.  
 19 Q Is it true that the ducks needed these freshwater  
 20 ponds and wetlands on the shore to be attracted to Mono Lake  
 21 habitat?  
 22 A Well, that's certainly the impression I have gotten  
 23 from the observers at Mono Lake, and also, as I reported in

24 the Draft Environmental Impact Report, people who have  
25 worked in Canada in saline lakes have reported

00128

1 phenomenon that if it is very salty and no source of  
2 freshwater, the ducks, most puddle ducks are unlikely to use  
3 those kinds of lake situations, that's right.

4 Q Would you conclude that the freshwater wetlands and  
5 marshes are critical habitat to the migratory bird  
6 populations that would use Mono Lake?

7 A Yes, and I think also -- I don't know, again, I  
8 probably am going on too long here, but the other thing that  
9 I have read recently I made reference to in my opening  
10 remarks, was Dr. Stine's analysis of the hypopycnal layering  
11 and it's something I have seen myself at the mouth of Rush  
12 Creek, this freshwater floating on top of the saltwater.

13 Apparently that, in conjunction with a lot of the  
14 micro, little embayments around the lake did create  
15 additional habitats that were actually part of the lake, but  
16 had freshwater on top of them, so I wasn't aware of that,  
17 but in looking at Dr. Stine's map, it did correlate quite  
18 well with Mr. Dombrowski's map from the 1940's.

19 Q And again, we are talking about the historical  
20 prediversion sort of state of nature condition on Mono Lake?  
21 A That's right.

22 Q And a number of those wetlands are not there today?

23 A Well, the only wetlands I know of that would be  
24 categorized that way at this point, as far as having any  
25 open water, there is a little spot down there called Gull

00129

1 Bath near the mouth of Wilson Creek which does have some  
2 fresh-standing water. There's a few small canals and such.

3 Q Let me give you some other information. You  
4 testified that you are only familiar with one trained  
5 observer. Is that Mr. Dombrowski?

6 A One person who is a professional observer, yes,  
7 professionally trained biologist, who worked for the  
8 Department of Fish and Game.

9 Q Are you familiar with the condor article from 1902 by  
10 Walter Fisher?

11 A Yes, I am.

12 Q Do you consider that a credible source of pre-  
13 existing historical conditions at Mono Lake?

14 A He made some mistakes on bird identifications and a  
15 few things, but generally, it's a great article in a  
16 journal.

17 Q If I were to read a text from Mr. Fisher's  
18 description, could you verify its accuracy and consistency  
19 with your testimony in the Environmental Impact Report?

20 A Okay.

21 Q (quoting) We camped about 15 miles east of  
22 Farrington near a deserted ranch where a plentiful seepage  
23 of freshwater makes a few muddy little meadows grown up with  
24 wiry grass and is filled with little pools of water.

25 Between these meadows and the lake is a terribly wide damp-

00130

1 like sand beach behind which are longish ponds of brackish  
2 water.

3 Is that description consistent with your information  
4 about historical conditions?

5 A Yes, it is. I am trying to remember where Farrington  
6 was. Is that on the north side of the lake?

7 Q I think Farrington is somewhere near the County Park.

8 A It would be consistent, but the main ponds I'm aware  
9 of that were brackish were the sulphur ponds out near the  
10 northeast shoreline there, but certainly, that would be  
11 consistent with what I have read.

12 Q Mr. Fisher also said in his article on page 9, when  
13 dusk came on the ducks and grebes, they came nearer to land  
14 to feed and small flocks of the former flew up and down the  
15 shore until long after dark.

16 Is that behavior consistent with duck migratory  
17 waterfowl?

18 A Making night flights or dusk flights?

19 Q Dusk flights, small flocks of the former flying up  
20 and down the shore until long after dark.

21 A Yes, I would say so. That is consistent certainly.

22 Q Is it true that there were perhaps 20 species of  
23 ducks that would have utilized the historic wetlands and  
24 freshwater areas of Mono Lake?

25 A Not 20 that were common from what I can tell from

00131

1 counts, 20 that would be there certainly, some that were far  
2 more abundant than others such as the northern shoveler, but  
3 20 ducks, that's reasonable. I would have to count them up.

4 Q Would these be mainly puddle and diving ducks?

5 A Yes.

6 Q And is it true that the freshwater areas, the springs  
7 and these hypopycnal areas described by Dr. Stine are  
8 important to the habitat used by these various ducks?

9 A Yes, I think so.

10 Q Would you rate their habitat as more important than  
11 alkali flats?

12 A Yes, I think I see what you are driving at here, you  
13 know --

14 Q I'm just asking for a comparison?

15 A Yes, I would say so.

16 MR. BIRMINGHAM: May I ask for instruction that we  
17 not have counsel and the witness talking at the same time  
18 because I'm not sure that the court reporter is able to  
19 transcribe two speaking at the same time.

20 A I'm sorry. Your question was, are ponds more  
21 important to wildlife than alkali flats.

22 MR. THOMAS: I will rephrase my question.

23 Q Were the wetland areas, freshwater wetlands on the  
24 lagoons important to migratory wildlife in the Mono Basin?

25 A Yes.

00132

1 Q And was that habitat type more important than alkali  
2 flats to the migratory waterfowl using the Mono Basin in the  
3 historic period?

4 A Yes. I could go on about that, but for one thing, it  
5 wasn't alkali flats prehistoric, but given what the use is  
6 now, that's right. That would be a true statement.

7 Q And your rating system for wildlife habitat values  
8 rates alkali flats as a .01, which would be a trace value?

9 A Yes- that's correct. That's based on the species  
10 richness as a relative index, and it means --

11 Q I will ask you some questions about that in a second.

12 I would understand you would agree with the  
13 Dombrowski data that was presented in the MLC 176 exhibit;  
14 that is, the map of the Dombrowski findings?

15 A Yes, I discussed that data with people who knew  
16 Dombrowski and convinced myself he was very careful in  
17 mapping property.

18 Q And the wetland areas he identified on that map are  
19 consistent with the historic wetlands that your research has  
20 uncovered?

21 A Yes.

22 Q And consistent with evidence, field evidence, that  
23 your team has uncovered or observed?

24 A Primarily from discussions with historic references.

25 Q I want to ask you about this habitat evaluation model

00133

1 and I ask you for the reason of evaluating a conclusion  
2 provided in Mr. Casaday's direct testimony when he first  
3 laid his foundation.

4 Are you aware that Mr. Casaday has testified that the  
5 acreage of existing vegetative wetlands that have developed  
6 in the relicted land would be significantly reduced under  
7 higher lake level alternatives, particularly under the 6410  
8 lake level?

9 A Are you asking me this question?

10 Q Yes, are you aware that this is his testimony?

11 A I am sorry, could you repeat the question?

12 Q Are you aware that Mr. Casaday has testified in his  
13 direct testimony that the acreage of existing vegetative  
14 wetlands that have developed since the lands have relicted  
15 in the lake basin would be significantly reduced under the  
16 6383.5 and higher lake level alternatives, particularly  
17 under 6410?

18 A Am I aware Mr. Casaday testified to that? I wasn't  
 19 here for his testimony, so I guess I wasn't aware he had  
 20 done that.  
 21 Q Could I familiarize you with this testimony?  
 22 A Okay. (After reviewing the testimony) I think Mr.  
 23 Jokerst could probably answer this question better than I as  
 24 far as the amount that was inundated at specific elevations.  
 25 Q I want to ask you about wildlife. Is it true that

00134

1 the wildlife -- the acreage of wetland habitat has value to  
 2 ducks and other migratory waterfowl?  
 3 A The existing wetland habitat?  
 4 Q The existing wetland habitats that would be inundated  
 5 if the lake was to be raised to 6410?  
 6 A I did find ducks in some of the narrow channels,  
 7 brackish water around Simon Spring, very few ducks in any of  
 8 those habitats relative to the extent of the habitat right  
 9 now.  
 10 Q In fact, haven't you testified that most of the  
 11 habitats along the lakeshore are of very low wildlife value?  
 12 A They support very few species under current  
 13 conditions.  
 14 Q Particularly when you focus on ducks, aren't those  
 15 habitats of very low wildlife value? I can go through them  
 16 individually.  
 17 A Yes, as far as ducks are concerned -- now that  
 18 analysis -- you note there that I didn't include the ponds  
 19 and lagoons.  
 20 Q I will get to that. I would like to go through these  
 21 and for the Board members I have copies of exhibit, Table D  
 22 -- five of the EIR. I wanted to go quickly through these  
 23 habitats, in study area 2 which would be this paragraph area  
 24 and ask about some particular habitats as they apply to  
 25 ducks.

00135

1 MR. BIRMINGHAM: What table are you referring to?  
 2 MR. THOMAS: Table D-5, Appendix D.  
 3 Q Is it true that the 6,000 acres approximately, 5900  
 4 acres of alkali flats has any value to ducks, the duck  
 5 category, migratory waterfowl?  
 6 A You are just asking about alkali flats, period?  
 7 Q Which is at the bottom of your study area 2, which is  
 8 rated .01.  
 9 A Yes, that's true. The only time I have ever seen  
 10 ducks on the alkali flats is if they happen to be right next  
 11 to the lakeshore and there are ducks that will use it in  
 12 that condition.  
 13 Q Is alkali flat classified as a wetland?  
 14 A Mr. Jokerst would have to answer that question.  
 15 MR. JOKERST: A Portions of it will meet Fish and  
 16 Wildlife Service's definition of wetlands.  
 17 Q And the alkali meadow, Dr. Beedy, is the alkali  
 18 meadow valuable to the duck family of migratory waterfowl?  
 19 DR. BEEDY: A We saw very few ducks there. I think  
 20 I saw one flock of cinnamon teal in a little wet area that  
 21 had some standing water at Warm Springs, but relatively few  
 22 ducks in that alkali meadow.  
 23 Alkali meadows we defined as saltgrass; didn't we,  
 24 Jim?  
 25 MR. JOKERST: Several different phases, that was one

00136

1 of them.  
 2 DR. BEEDY: A Saltgrass would have very low use, at  
 3 least under current conditions.  
 4 Q And you have testified in the EIR they have low  
 5 wildlife value in general?  
 6 A Yes -- well, relative to other habitats, that's  
 7 right.  
 8 Q And, in fact, you rated the alkali meadow as a .12?  
 9 A That's correct.  
 10 Q And, in fact, didn't you rate irrigated meadow as the  
 11 same wildlife habitat value, .12?  
 12 A Yes, I rated it based on what I saw. It wasn't so  
 13 much the rating, it was based on our field notes of what we  
 14 recorded there.

15 Q Wildlife value of anything under .12 would be less  
 16 than an irrigated meadow?  
 17 A That's correct.  
 18 Q So, I guess we could conclude that is not terribly  
 19 valuable wildlife, .12?  
 20 A Based on the measure I used, which was species  
 21 richness, I didn't incorporate relative abundance in this  
 22 measure because it was too difficult to measure, but for  
 23 most of these species; yes, based on species richness alone,  
 24 that would be a true statement.  
 25 Q And species richness is the basis of your rating?

00137

1 A That's the basis of our rating system.  
 2 Q That's the only system we have got to go on?  
 3 A That's correct.  
 4 Q Now, the value of dry meadow, of which we have 2,397  
 5 acres --  
 6 A Yes.  
 7 Q Is quite low as well; am I correct?  
 8 MR. BIRMINGHAM: Would you read back to me the last  
 9 question and answer, please?  
 10 (The reporter read back the previous question  
 11 and answer as follows:  
 12 Q So, I guess we could conclude that is not  
 13 terribly valuable wildlife, .12?  
 14 A Based on the measure I used, which was  
 15 species richness, I didn't incorporate relative  
 16 abundance in this measure because it was too  
 17 difficult to measure, but for most of these  
 18 species; yes, based on species richness alone,  
 19 that would be a true statement.  
 20 MR. THOMAS: A Now, we have gone over alkali flat  
 21 and alkali meadows. Now I'm asking about dry meadow, its  
 22 value to migratory waterfowl.  
 23 Do you believe there is a significant value provided  
 24 to waterfowl?  
 25 A Yes. In the absence of a source of freshwater, not

00138

1 too much.  
 2 Q In fact, that would be why you rated it so low?  
 3 A I think I would say the same thing about all of these  
 4 habitats.  
 5 Q Is there any habitat on this list that you would find  
 6 particularly valuable to migratory waterfowl?  
 7 A Well, some that I expected to be --  
 8 Q Just on this list, not what you expected. Anything  
 9 on this list that you find particularly valuable to  
 10 migratory waterfowl?  
 11 A Again, it all depends on the context of it.  
 12 Q Well, given our context.  
 13 A Given the context of the east side of Mono Lake?  
 14 Q Whatever context of the areas that ducks would use?  
 15 A Well, I mean, like emergent marshes, emergent marshes  
 16 can have high value but unless, again, they have some  
 17 freshwater nearby, we rank them pretty low because we didn't  
 18 see many ducks when we were out there, in fact, very few.  
 19 MR. DEL PIERO: Time.  
 20 MR. THOMAS: Okay. An additional 20 minutes for a  
 21 number of good causes that I articulated a little earlier  
 22 today. I would try to be more on point as time is  
 23 dwindling.  
 24 MR. DEL PIERO: Twenty minutes.  
 25 MR. THOMAS: Q Could we then address the issue of

00139

1 ponds and lagoons?  
 2 A Okay.  
 3 Q There is no wildlife rating for pond and lagoon on  
 4 this chart. Am I correct?  
 5 A You are correct.  
 6 Q And the reason is you indicated there were no ponds  
 7 and lagoons to measure; is that a correct understanding?  
 8 A Yes. There was nothing relative to habitat I could  
 9 find examples of either within the Mono Basin or at Owens  
 10 River to illustrate these types of habitats, and for the  
 11 ponds and lagoons, I could not find the samples of those in



12 the current conditions.  
 13 Q And you didn't go to the professional literature and  
 14 make an assumption about the value of ponds and lagoons for  
 15 wildlife habitat?  
 16 A No, I didn't do that. I chose a narrative approach  
 17 and I chose it because the only information I had was the  
 18 use of those areas by ducks, so I chose to address that with  
 19 a narrative approach rather than trying to use a different  
 20 approach for ponds and lagoons, and all other habitat. I  
 21 thought it was more valid to acknowledge I didn't have that  
 22 kind of information.  
 23 Q Isn't it true there was a half-acre wetland pond  
 24 existing at the mouth of Wilson Creek that you could have  
 25 measured?

00140

1 A Yes. I went down there. I didn't see at the time I  
 2 was there and the times I have been there actually are quite  
 3 a few times --  
 4 Q But your methodology included plotless surveys --  
 5 A I surveyed that --  
 6 MR. DEL PIERO: Again, ask the question and try,  
 7 please, to answer it as succinctly as possible.  
 8 A Okay, I apologize. Yes.  
 9 MR. THOMAS: Q Can you restate your answer? Did you  
 10 attempt to measure the wildlife habitat?  
 11 A I attempted to measure Wilson Creek pond, but it  
 12 wasn't a large enough area to generalize about species  
 13 richness in ponds and lagoons around the lakeshore.  
 14 Q Am I correct that there were other lagoons around  
 15 Mono Lake that you could have measured?  
 16 A I'm sorry.  
 17 Q Am I correct that there were other lagoons of  
 18 freshwater that are now existing around Mono Lake?  
 19 A Well, there is some, like at DeChambeau ponds, which  
 20 are artificially created, but most of the ponds and lagoons  
 21 that once existed are now dry.  
 22 Q But there are some you could have measured?  
 23 A Aside from Wilson Creek, I can't think of any others  
 24 I could have gotten good data from.  
 25 Q Could you have gone down to Crowley Lake and measured

00141

1 the plotless test at Crowley Lake looking at waterfowl?  
 2 A I talked to Mr. Tillemans to some extent and found he  
 3 had seen high numbers of waterfowl at Crowley Lake  
 4 Reservoir. I did go down there, but I didn't do a plotless  
 5 survey there.  
 6 Q But somebody did a plotless survey there, five  
 7 patches of irrigated meadow down on the upper Owens River;  
 8 is that correct?  
 9 A Yes.  
 10 Q For purposes of illustration, would it be fair if I  
 11 assigned a hypothetical value to wetland, ponds and lagoons  
 12 in this analysis of .75 due to their high value?  
 13 A I don't know that it would be fair to do that  
 14 because, again, this is a species richness measure and part  
 15 of the main issue on the ducks, at least, was the vast  
 16 numbers that were reported which would be a different  
 17 concept, so in that case, the relative abundance would be an  
 18 important consideration.  
 19 Q Could you hypothetically assign a number based on the  
 20 existence of ducks at Crowley Lake and existence of ducks at  
 21 Wilson Creek, and the existence of ducks on the remnant  
 22 wetlands, or any other professional literature we could use  
 23 to complete this analysis?  
 24 A One could do that. It would be a different approach  
 25 than I used for all other habitats, but we could do that.

00142

1 Q Could you, for the sake of this analysis, now give me  
 2 a number?  
 3 A I would have to calculate it. I would have to go  
 4 through a species list and figure it out, and again, we are  
 5 talking -- I don't have a good picture other than a few  
 6 historic photographs of what those ponds and lagoons really  
 7 looked like, so it would be hard for me to estimate their --  
 8 Q Let's assume hypothetically that these are very

9 valuable habitats and assume hypothetically -- I know you  
 10 may not agree, that .75 is the proper rating for the value  
 11 of ponds and lagoons at Mono Lake given the scarcity of  
 12 wetland habitat, freshwater wetland habitat.  
 13 If I ran .75 using the 260 acres, would that change  
 14 your conclusion that inundation of the lake at 6410 would  
 15 destroy 605 wildlife units?  
 16 A If you used the WHI value of .75 and ran those  
 17 numbers, it would certainly change the final WHU.  
 18 Q Let me just do that hypothetically.  
 19 A It is a hypothetical calculation.  
 20 Q I understand that. Let's see what we get. At .75 we  
 21 would have 195 units. Over here we would have minus 195  
 22 and then let's assume that we take out all of these areas  
 23 that you have agreed are not of value to waterfowl, to duck  
 24 waterfowl, and isn't it true that our analysis will now  
 25 result in a negative .982 when we are considering ducks?

00143

1 A All we did --  
 2 Q We took 18.3, 1.6, 5.8, 73.4, 2.4, these are not  
 3 valuable to ducks, we eliminated them, and then we ran .75,  
 4 which is 195 wildlife units, and we ended up with a loss of  
 5 92 wildlife.  
 6 Is that a fair mathematical computation?  
 7 A Based on the .75, but you realize also --  
 8 Q That's hypothetical.  
 9 A Yes. This number also included reptiles, amphibians,  
 10 mammals and other wildlife species in addition to ducks, so  
 11 I still suspect that .75 would be an overestimate given the  
 12 fact that cottonwood-willow woodland is only .38 and it has  
 13 a lot of structure, probably has more species, not as many  
 14 individuals, that is correct, but if you want to use that  
 15 number that would be a correct calculation.  
 16 Q And if we did use that number, What the analysis  
 17 would tell us, filling the lake to 6410 would give us a  
 18 benefit of 92 wildlife units when considering ducks and  
 19 migratory waterfowl?  
 20 A Yes, using those numbers.  
 21 Q And isn't this entire numerical rating scheme skewed  
 22 by the omission of the largest single factor of value in the  
 23 wildlife habitat world?  
 24 A It's skewed by a factor, but again, I don't know how  
 25 big that factor is, and I don't know if it is fair to

00144

1 compare species for which, again, the total numbers using  
 2 the lake were in most cases the greatest indicator of the  
 3 values, rather than the number of species.  
 4 You said 20 species. That may be a correct number.  
 5 Q I am just asking you to focus on ducks?  
 6 A Right. There's no doubt that the loss of plants and  
 7 lagoons had a big effect on the ducks.  
 8 Q Are you aware that the Department of Fish and Game  
 9 did a survey this year?  
 10 A I heard some reference to it, but I don't know the  
 11 results.  
 12 Q And at the same time, that Dombrowski did his work,  
 13 we found about 900 ducks.  
 14 MR. BIRMINGHAM: Objection.  
 15 A I heard it.  
 16 MR. DEL PIERO: That's not evidence in the record.  
 17 MR. THOMAS: We will put that in on our direct.  
 18 MR. DEL PIERO: You can answer if you have heard  
 19 that.  
 20 A I don't know the exact number. I heard --  
 21 MR. DEL PIERO: Then, the answer is no.  
 22 A The answer is no.  
 23 MR. THOMAS: Q Would that be surprising given the  
 24 current conditions at Mono Lake?  
 25 MR. BIRMINGHAM: Objection, lacks foundation.

00145

1 MR. DEL PIERO: It's a hypothetical question.  
 2 A I can tell you what I have seen at Mono Lake.  
 3 MR. DEL PIERO: That's not what he is asking.  
 4 A The number is the 900 --  
 5 MR. THOMAS: Q If hypothetically, 900 ducks were

6 observed by the Department of Fish and Game, would you be  
7 surprised as an expert in migratory waterfowl?

8 A No, I would not be surprised by that.

9 MR. DODGE: Mr. Chairman, might we have a definition  
10 of tag team? Ms. Goldsmith did the bird issues and I would  
11 assume there were objections to Ms. Goldsmith --

12 MR. BIRMINGHAM: Mr. del Piero, I will assume  
13 responsibility for cross-examining the remaining panels,  
14 including recross on this panel, so there won't be any more  
15 time.

16 MR. DEL PIERO: Fine. Let's get on with it.

17 MR. THOMAS: Q I have one more line of questioning.  
18 I am going to ask you about this statement in the direct  
19 testimony that Mono Lake as it refills will provide  
20 additional duck habitat, up to 6390.

21 Do you remember that portion of the direct testimony  
22 of Mr. Casaday?

23 A I didn't hear Mr. Casaday's direct testimony. I did  
24 read it, but I don't have it.

25 Q Again, I will hand you page 13 of Mr. Casaday's

00146

1 direct, and if you could read that paragraph outlined in  
2 red, I will quickly provide an illustrative diagram?

3 A Okay.

4 MR. BIRMINGHAM: Mr. del Piero, may we ask this be  
5 marked as DFG exhibit for purposes of the record?

6 MR. DEL PIERO: Department of Fish and Game?

7 MR. THOMAS: I don't intend to offer it as a piece of  
8 evidence. I think Dr. Stine will put it in at some point,  
9 but I wanted to ask the witness --

10 MR. DEL PIERO: Before you continue, in regard to the  
11 chart that you just had, just so we keep this clear, the  
12 chart that you used -- I'm not talking about --

13 MR. THOMAS: Right, D-5.

14 MR. DEL PIERO: I think in order to make sure we have  
15 a complete record, including calculations, that's going to  
16 need to be marked.

17 MR. THOMAS: We will so mark it next in order.

18 MR. DEL PIERO: In terms of this, where are you  
19 proposing to go?

20 MR. THOMAS: I am going to ask the experts three or  
21 four questions related to this draft and conclude.

22 MR. DEL PIERO: Do you intend to introduce this?

23 MR. THOMAS: No, I don't intend to introduce it.

24 MR. DEL PIERO: This is for illustrative purposes?

25 MR. THOMAS: In light of the fact some of us need

00147

1 pictures, I thought it would be helpful to digress from  
2 words.

3 MR. DEL PIERO: Why don't you proceed.

4 MR. THOMAS: The testimony on direct by Mr. Casaday  
5 is that habitat, duck habitat, freshwater and brackish  
6 lagoon habitats will increase as we rise from a 6383 level;  
7 is that correct?

8 A Yes, that's right.

9 Q And isn't it true that as we go from lower levels to  
10 6390, that in order to refill these lagoons which existed  
11 behind the sand berms, that we are going to have to get a  
12 lake level of 6400?

13 MR. CASADAY: A Mr. Chairman, the work in this area  
14 on our team was done by Mr. Jokerst rather than Dr. Beedy.  
15 He might be a better person to answer these questions.

16 MR. DEL PIERO: Mr. Jokerst, why don't You go ahead  
17 and answer the question.

18 MR. JOKERST: Could you ask it again?

19 Q Dr. Jokerst, are you familiar with the testimony of  
20 Mr. Casaday that freshwater and brackish lagoons will  
21 increase in number and acreage as we move from the 6383  
22 alternative upwards?

23 MR. JOKERST: A Yes.

24 Q And am I correct in understanding that the text of  
25 Auxiliary Report 21 indicates that we will get no freshwater

00148

1 lagoon and marsh habitat until we get to 6400, until we get  
2 above the historic sand berms?

3 A No, sir, that is incorrect. They will not be  
4 freshwater.

5 Q Freshwater and brackish?

6 A They will be brackish. They might vary in  
7 brackishness, but they would not be freshwater lagoons.

8 Q But we would need to get to 6400 in order to get  
9 these brackish lagoons?

10 A I am not sure which lagoons you are talking about.

11 If you are talking about the lagoons on the North Mono shore  
12 lands, I agree with that statement. It also can apply --  
13 there are other lagoons at other locations on the lake.

14 Q I would ask you specifically about the lagoons at  
15 Rush, Lee Vining, Mill and DeChambeau ponds?

16 A Rush and Lee Vining Creek deltas may indeed reform  
17 lagoons at lake level above 6400 feet. We note in the EIR  
18 that is a long-term healing process, that it would not be an  
19 instantaneous event.

20 Q But we do need to get to 6400?

21 A Yes.

22 Q And the same question for Lee Vining?

23 A That's correct.

24 Q The same response.

25 A Yes, sir.

00149

1 Q We need to get to 6400.

2 A We need to get to 6400.

3 Q And for Mill Creek, in the vicinity of the mouth of  
4 Mill Creek?

5 A I am not aware there were historic lagoons on the  
6 Mill Creek delta.

7 Q And DeChambeau wetlands, those lagoons were formed  
8 between lakeshore elevations 6400 and 6412?

9 A Above that elevation we would go under water, as I  
10 understand.

11 Q And isn't it true that Auxiliary Report 21  
12 recommended 6405 to rewater the north shore lagoons?

13 A I'm not familiar with that auxiliary report per se  
14 unless it is the one I wrote. I forget the number of my  
15 report.

16 Q I have the same feeling in this proceeding that there  
17 is a lot of data?

18 A A lot of data and a lot of numbers.

19 MR. FRINK: For the record, the auxiliary report --  
20 never mind, I am not going to be able to clarify this as I  
21 thought.

22 MR. DEL PIERO: Thank you, Mr. Frink.

23 Mr. Thomas, let me point out Mr. Stubchaer takes care  
24 of the clock and you don't lose time in these comments.

25 MR. THOMAS: Q One more question of Dr. Beedy. We

00150

1 heard some testimony earlier about these predatory gulls  
2 that eat their young and apparently plovers and tern.

3 Do you believe that the benefits of the rising lake  
4 level to gulls will offset the apparent loss of habitat to  
5 gulls that was discussed earlier?

6 MR. DODGE: Objection.

7 MR. DEL PIERO: Do you want to rephrase that  
8 question?

9 MR. THOMAS: Q Did you hear some earlier testimony  
10 that the rising lake level would result in the loss of  
11 habitat for gulls at Paoha Island?

12 A Yes, I did.

13 Q Do you believe that the benefits of a rising lake  
14 level to gulls in general will offset the loss of that  
15 nesting habitat?

16 A Yes, it would. As long as Negit Island is an island,  
17 then space is no longer limiting for gulls, and I think that  
18 benefit would be offset. There's a lot more habitat and a  
19 lot more kinds of habitat.

20 MR. THOMAS: Thank you. I have no further questions,  
21 Mr. Chairman.

22 MR. DEL PIERO: Thank you very much.

23 Mr. Dodge.

24 CROSS-EXAMINATION

25 by MR. DODGE:

00151

1 Q Which one of you answered questions about riparian  
2 vegetation on tributary streams at 6377?  
3 MR. CASADAY: A Well, I must have.  
4 Q Where it was pointed out that riparian vegetation at  
5 6377 was slightly higher than it was at 6383.5?  
6 A Yes, right.  
7 Q Would you agree with me that that assumes that the  
8 channel is now dry in lower Rush Creek are not rewatered?  
9 A No, let's see -- well, the question is a projection  
10 into the future and our analysis of groundwater conditions  
11 associated with the different alternatives was that the  
12 potential riparian habitat under the 6377 alternative would  
13 be the highest of the alternatives.  
14 Whether or not all of that potential would be  
15 realized would be dependent upon watering of overflow  
16 channels perhaps and other similar actions.  
17 Q So, your analysis also included the now dry channels  
18 in lower Rush Creek?  
19 A That's right.  
20 Q And was your analysis dependent on your conclusions  
21 about the erosion of riparian vegetation that arose from  
22 high steamflows?  
23 A No, the estimate of potential riparian vegetation  
24 under the alternatives was based on the extent of shallow  
25 groundwater that we predicted through a modeling approach.

00152

1 We did not try to quantify the effect of stream bank  
2 erosion.  
3 Q Now, in terms of the recovery of riparian vegetation  
4 on the streams, I wasn't sure -- Mr. Jokerst, did you work  
5 on that, on the stream vegetation?  
6 MR. JOKERST: A Just on the upper Owens River, sir.  
7 Q But not on the tributary streams?  
8 A No, sir.  
9 Q That was done by Mr. Casaday; is that correct?  
10 MR. CASADAY: A Myself and some botanist working  
11 with me other than Mr. Jokerst.  
12 Q Was that Tim Messick?  
13 A Principally, yes.  
14 Q And I notice on Table S-2, page 1 -- are you with me?  
15 A Yes.  
16 Q S-2, page 1, that as a mitigation measure you  
17 recommend planting woody riparian vegetation where absent  
18 along the tributary streams.  
19 Do you see that, sir?  
20 A Yes, I do see that.  
21 Q And is that still your recommendation?  
22 A Yes -- well, the whole sentence, planting it along  
23 the tributary streams where absent based on testing of soil  
24 condition and groundwater depth.  
25 Q And it is true, isn't it, that on portions of

00153

1 tributary creeks, particularly Lee Vining Creek, the  
2 riparian vegetation is not recovering quickly?  
3 A There are areas, I believe, on both streams that have  
4 not recovered, and I should say along those streams, I mean  
5 on the floodplain of the streams which is sometimes some  
6 distance from the stream. There are areas that we believe  
7 have a shallow water table that are not recovering at this  
8 time.  
9 Q And where plantings are potentially useful?  
10 A Yes.  
11 Q Now, I think probably the rest of the panel, except  
12 for my examination of Dr. Beedy, can tune out. I have a  
13 series of questions about the different birds.  
14 MR. DEL PIERO: Dr. Beedy, you didn't realize how  
15 popular you are. I didn't realize it either.  
16 MR. DODGE: Q Mr. Thomas asked you about the  
17 historical situation with respect to ducks and you told him  
18 about the one census by Dombrowski and some anecdotal  
19 information.  
20 Let me focus on the anecdotal information.  
21 Approximately how many people did you talk to?  
22 DR. BEEDY: A People that I actually spoke with

23 personally would be, I guess, five or six Who were people  
24 who lived during either the great diversion or the little  
25 diversion years ago around Mono Lake that I spoke with.

00154

1 I read testimony from quite a few others.  
2 Q In terms of the number of waterfowl observed in the  
3 fall migration, was their anecdotal evidence reasonably  
4 consistent?  
5 A Yes, that is one of the things that I looked for when  
6 I evaluated the notes and interviews with these different  
7 people was, were they consistent, were there internal  
8 consistencies or obvious contradictions, and what I found  
9 was that the general trend was that everybody who had been  
10 there or was in a position to think about it, or know about  
11 it, reported pretty much the same thing.  
12 Q Now, you referred to information relating to the  
13 hypopycnal layering. Do you recall that testimony?  
14 A Yes, I do.  
15 Q Can you tell the Board what a typical hypopycnal  
16 layer is and how it relates to ducks?  
17 A I am certainly no expert in it. I did read Dr. Stine's  
18 report and my understanding of hypopycnal layer is a layer  
19 of freshwater floating on the surface, usually quite  
20 localized around the shoreline or some distance out into the  
21 lake, and the saltwater is heavier than the freshwater, so  
22 it sinks, or alternately, the freshwater is lighter so it  
23 floats on the surface and it functions in much the same way  
24 that the freshwater pond would, except it was out in the  
25 lake, which provides the bird a source of water that they

00155

1 can drink and bathe in, and get the salty water off their  
2 feathers.  
3 So, its importance to them for the access to  
4 freshwater appears to be a general need of migratory puddle  
5 ducks, among the experts I have spoken to.  
6 Q So, you would say a hypopycnal layer means a layer on  
7 Mono Lake?  
8 A Or any other lake, as a freshwater layer floating on  
9 a saline layer, is my understanding of it.  
10 Q Now, I think when you were responding to questions by  
11 Mr. Frink, you indicated that this was new information, but  
12 it didn't substantially change your conclusions. I tried to  
13 write that testimony down. I am not sure I got it all, but  
14 let me ask you, this hypopycnal layer described by Dr.  
15 Stine, as I understand your testimony, it would provide an  
16 additional duck habitat; is that correct?  
17 A Yes, it would. That's my understanding of it.  
18 Q Are you able to quantify that in any respect?  
19 A Dr. Stine's report is the only attempt I have seen to  
20 do that. I personally am not in a position to quantify it,  
21 no.  
22 Q Let me ask you to turn to the present and ask you how  
23 much of the prediversion duck habitat that's described in  
24 the DEIR as supplemented by what you told us today about the  
25 hypopycnal layer, how much of that habitat exists today?

00156

1 A In terms of the ponded layer, I think there's about  
2 half an acre at the mouth of Rush Creek -- excuse me, Wilson  
3 Creek, compared to several hundred acres, at least 260 acres  
4 if you add the 133 acres of freshwater habitat, it would be  
5 a small fraction.  
6 I haven't actually calculated it out. I could if you  
7 are interested in having me do that.  
8 As far as the hypopycnal layer, I do know that out at  
9 the mouth of Rush Creek you can go out in a boat and see the  
10 freshwater floating on the surface since they have been  
11 releasing water down Rush Creek, so there is some of that  
12 habitat there, but my impression is that much of this  
13 hypopycnal layer was done by springs around the lakeshore  
14 which are no longer flowing.  
15 It would be, again, a small fraction of the  
16 prediversion extent of that habitat.  
17 Q Let me turn to the California gull. Now, do you  
18 recall questions to the effect that approximately 28 percent  
19 of the California gull nests are on Paoha Islands?

20 A Yes, I do.  
 21 Q Now, these Paoha Islands are shown on Figure 1-2 that  
 22 are right in here?  
 23 A That's correct.  
 24 Q For how long have gulls been nesting on the Paoha  
 25 Islands?

00157

1 A My understanding is the gulls first made it to the  
 2 Paoha Islands in 1979, approximately coincident when Negit  
 3 Island was first accessible to mainland predators, and then  
 4 they moved over to the Paoha islets, some of them.  
 5 Q So, they moved over there recently as a result of  
 6 receding lake levels; correct?  
 7 A Presumably.  
 8 Q Now, do you remember Ms. Goldsmith asking you whether  
 9 this habitat would be basically inundated at 6383.5  
 10 elevation?  
 11 A Yes, I do.  
 12 Q Now, let me ask you whether the Paoha Islands habitat  
 13 for California gulls would also be inundated at the proposed  
 14 DWP Management Plan?  
 15 MR. BIRMINGHAM: Objection, lacks foundation.  
 16 MR. DODGE: Q Have you looked at Mr. Hasencamp's  
 17 testimony?  
 18 A I've not looked at Mr. Hasencamp's testimony.  
 19 Q Let me ask you to look at Section 2, page 42, which I  
 20 will represent to you, and I want you to assume this is the  
 21 projected lake elevations over the years under the DWP  
 22 Management Plan.  
 23 A You are looking at Figure 3 in Mr. Hasencamp's  
 24 testimony?  
 25 Q Yes. Now this says maximum lake elevation 6383.5

00158

1 feet. Now, let me ask you to assume under the DWP proposed  
 2 Management Plan the maximum elevation of Mono Lake is  
 3 6383.5. I ask you to assume that.  
 4 What effect would that lake level have on the Paoha  
 5 islets gull nesting colony?  
 6 A At that elevation, it is my understanding that with  
 7 the erosive forces that are likely to occur, Paoha islets  
 8 would be inundated and substantially eroded and probably  
 9 wouldn't provide much habitat for nesting gulls at the  
 10 highest elevation there.  
 11 Q Now, if the nesting on the Paoha islets were no  
 12 longer possible as a result of some decision by this Board  
 13 pursuant to whoever's management plan, if the Paoha islets  
 14 became unavailable due to high Mono Lake levels, I take it  
 15 from your answer to Mr. Thomas, that you believe that Negit  
 16 Island shown here would provide sufficient habitat for the  
 17 displaced birds; is that correct?  
 18 A That certainly is what our calculation showed and  
 19 what the historical data has shown.  
 20 Q In fact, on July 4, 1976, Negit Island held  
 21 approximately 33,000 nesting California gulls; correct?  
 22 A That's right. That's my understanding.  
 23 Q I think you testified that that was in comparison to  
 24 the later analysis, that was a late count; is that correct?  
 25 A Yes. It was done later than most of the other nest

00159

1 counts had been done to avoid disturbing nesting gulls.  
 2 Q In fact, the nesting counts have been done by the  
 3 Point Reyes Observatory; isn't that correct?  
 4 A Yes, since 1983, I believe.  
 5 Q And their nest counts are done in May; is that  
 6 correct?  
 7 A Yes, usually late May. It depends on the -- it  
 8 varies a week or a month or so either direction, depending  
 9 on what the stage of the nesting is.  
 10 Q In 1976, assuming there were 33,000 nesting gulls on  
 11 July 4, would you have expected there to have been a  
 12 higher number in May of 1976?  
 13 A I would have expected a higher number of birds  
 14 settling there, not all of which would have necessarily been  
 15 successfully nesting. So the early season count, or at  
 16 least this May count would give you a higher total number of

17 birds, of breeding adults.  
 18 Q By July 4, if you will, the unsuccessful nesters have  
 19 fled the coop; is that what you are saying?  
 20 A Gone somewhere else or maybe they are hanging around  
 21 the lake, but they are not necessarily associated with the  
 22 nesting colony if they are not going to breed at that point.  
 23 Q Now, while we have this Figure 1-2 in front of us, I  
 24 think we can all see that Paoha Island is by far the largest  
 25 island in Mono Lake.

00160

1 Do you have an opinion as to whether Paoha Island has  
 2 a potential for nesting areas for the California gull?  
 3 A Opinion only. I have read quite carefully the  
 4 accounts and field notes from people such as Jessup Dixon  
 5 and William Dawson, who visited Mono Lake in 1916 and 1919  
 6 respectively, both of whom reported nesting gulls on Paoha  
 7 Island; the two locations I am familiar with were two long  
 8 obsidian ridges that came off the north side of the island,  
 9 and then, of course, the embayment on the south side, the  
 10 southeast corner of the island there was another colony.  
 11 So, I know that historically they did nest there, but  
 12 both of those sites are now at least half a mile or more --  
 13 I have to look at a map to say exactly but some substantial  
 14 distance from the lakeshore in terms of lateral distance,  
 15 and also, probably 40 feet or more above the current lake  
 16 level.  
 17 Dawson's photographs in birds of California show very  
 18 clearly the birds are down right next to the water on the  
 19 obsidian ridges, and also, in the bay colony, the lagoon  
 20 colony, I believe.  
 21 Q Isn't it true, Paoha Island has not been used for  
 22 many years as a nesting area for California gulls?  
 23 A Wally McPherson reported to me that they nested there  
 24 until about the mid 1920's in small numbers and that's the  
 25 last time I heard of any nesting on Paoha, so it would be

00161

1 about 70 years.  
 2 Q Is one of the reasons for that, that there are  
 3 resident coyotes on Paoha Island?  
 4 A I believe so. They are all over the island.  
 5 MR. DODGE: Mr. Chairman, any time you want to take a  
 6 break, it is fine with me.  
 7 MR. DEL PIERO: Is that a request?  
 8 MR. DODGE: No.  
 9 MR. DEL PIERO: Why don't you finish up in four  
 10 minutes and we will break.  
 11 MR. DODGE: Q This new information that you got in  
 12 1993, now this related to Java Island?  
 13 A That is Java islet.  
 14 Q In 1993, when Mono Lake was at 6375, Java was invaded  
 15 by coyotes; correct?  
 16 A Yes.  
 17 Q And Java islet land bridges to the mainland at 6372;  
 18 correct?  
 19 A Yes.  
 20 Q Now, based on that information, do you believe that  
 21 Twain islet is potentially susceptible to predation at 6375?  
 22 A I do, but I don't have direct evidence for it other  
 23 than that they do land bridge at the same elevation, 6372,  
 24 Twain and Java islets. Once the coyotes get to Java, it is  
 25 about 120 meters from there to Twain, and it is about a

00162

1 meter or so deep, the water.  
 2 The deepest doesn't seem very deep. I have been over  
 3 it in a boat.  
 4 What I am comparing this to are data from waterfowl  
 5 breeding up in Northern California, and also, in the midwest  
 6 where people have looked at coyotes going after waterfowl on  
 7 islands, and what they have shown in those studies is that  
 8 somewhere between 170 meters and at least around a meter  
 9 deep, the two studies differed, but that gives you some  
 10 range of how much water and how deep it's got to be to deter  
 11 coyotes from crossing over to go to waterfowl nests.  
 12 Waterfowl is a different prey type, but the predator  
 13 is the same. I would expect behavior to be the same, so it

14 seems to me that 120 meters at a meter or less deep probably  
 15 would not be enough to keep coyotes off Twain, especially  
 16 given the fact that half the gulls are there.  
 17 Q You say half the gulls are there?  
 18 A Half the nesting gulls are there.  
 19 Q In the last two years --  
 20 A The last two or three years, over 15,000 nests.  
 21 Q Now, let me ask you about Negit Island. It's true;  
 22 isn't it, that few, if any, gulls have successfully nested  
 23 on Negit Island in the past three years?  
 24 A Yes. Some have tried, but they have not been very  
 25 successful.

00163

1 Q Because Negit Island is physically land bridged at  
 2 6375; correct?  
 3 A Yes.  
 4 Q Now, let me ask you about the managed level of 6377  
 5 as described in the DEIR. Now, I think you said in response  
 6 to questions today that Negit was going to be land bridged  
 7 two to four percent of the time.  
 8 Was that your testimony, or it was going to be  
 9 endangered two to four percent of the time?  
 10 A I think we reported the two- to four-percent time  
 11 that it would be -- I can't remember what we said, Ken. I  
 12 would like to be accurate about it. This is an important  
 13 point. Do you remember what was said on that?  
 14 MR. CASADAY: A Well, I said, I believe, the last  
 15 time it was effectively land bridged; that is to say,  
 16 shallow water that coyotes could cross.  
 17 Q And my question to you, sir, is in light of the  
 18 information you received this year about coyotes invading  
 19 Java, do you feel that two to four percent should be  
 20 increased?  
 21 DR. BEEDY: A I don't know. The difference is  
 22 because there is really quite a short swim from Negit  
 23 peninsula to Java islet. And if you create a fairly shallow  
 24 water that's really a wide barrier between the mainland  
 25 Negit Island and trap the coyotes off Negit, I don't know

00164

1 condition.  
 2 Q Mr. Casaday said this morning, I believe it was, the  
 3 two to four percent is independent of any drought  
 4 conditions; isn't that correct?  
 5 DR. BEEDY: A Yes.  
 6 Q So that Negit Island becomes unavailable a certain  
 7 percentage of the time at the 6377 managed elevation quite  
 8 apart from any drought?  
 9 A Yes, I guess it would be two to four percent of the  
 10 time, that would be true.  
 11 Q Unless those numbers were changed by recent  
 12 information?  
 13 A And Ms. Goldsmith mentioned there was an error in the  
 14 drought analysis, so these numbers could change, but  
 15 certainly the 6377 is the number you have to be concerned  
 16 about. When it gets that low or lower, then you are likely  
 17 to have land bridging or land access by coyotes.  
 18 MR. DODGE: That is all I have on the gulls.  
 19 MR. DEL PIERO: Good. We'll take a break and come  
 20 back at 3:30.  
 21 (Recess)  
 22 MR. DEL PIERO: Ladies and gentlemen, if you would be  
 23 kind enough to take your chairs, we will continue.  
 24 Mr. Dodge, when last we left you were going to  
 25 explain why you needed 20 more minutes.

00165

1 that I would necessarily assume that two to four percent was  
 2 the wrong number.  
 3 I would like to see the model data again. I couldn't  
 4 answer that question for you.  
 5 Q Okay, as between the managed lake levels described in  
 6 the DEIR, 6377 and 6383.5, assuming the protection of Negit  
 7 Island is thought to be a good idea, I want you to make that  
 8 assumption, which of the two managed lake levels is the  
 9 minimum in your view to protect Negit Island?  
 10 A Well, I would say 6383.5, and the reason for that is

11 that -- as I discussed earlier in my testimony this morning,  
 12 it isn't like a water faucet or something you turned on and  
 13 off. If there's disruption and invasion of the island, it  
 14 is going to take a period of years, I don't know how many  
 15 years, before the gulls re-establish themselves on that  
 16 island.  
 17 So, you might have actual land bridging two to four  
 18 percent of the time, but the actual effect of the land  
 19 bridge could last a lot longer than that. It could be the  
 20 gulls would avoid the island for along period of time.  
 21 Q Let me ask you the last California gull question and  
 22 then we can take a break, Mr. Chairman, if it is all right.  
 23 If you look at Table S-1, page 9, in the left-hand  
 24 column you see a percent change in potential gull nesting  
 25 capacity.

00166

1 Under 6377 you have plus 440. Do you see that?  
 2 A Yes.  
 3 Q And I am right that you are assuming that at 6377  
 4 that Negit Island is available to the gulls for nesting;  
 5 correct?  
 6 A Yes, that plus 440 assumes it is always an island.  
 7 It assumes it is always an island. That is the island  
 8 condition. It is an island. That is the maximum lake  
 9 elevation. There would be maximum nesting substrate  
 10 available for that elevation.  
 11 Q As you have told us, Negit Island is not always  
 12 available at the 6377 managed elevation?  
 13 A No, it is not.  
 14 Q So, that plus 440 could be misread by the reader?  
 15 A I think we need to be careful in the final document  
 16 to reference the fact that under drought conditions there  
 17 could be land bridging there and that that isn't necessarily  
 18 a stable number.  
 19 If it were and if it always stayed an island, which  
 20 it could do on the 6377 without any drought effects, then  
 21 that would be the maximum.  
 22 The fact is we do have droughts sometimes.  
 23 MR. CASADAY: A May I point out that table does  
 24 acknowledge through the use of asterisks there is a  
 25 significant impact and that is referring to the drought

00167

1 MR. DODGE: I need 20 more minutes for the same  
 2 reason that other counsel needed a full hour.  
 3 MR. DEL PIERO: That's a likely explanation.  
 4 MR. DODGE: I am going to do it in less than 20  
 5 minutes. I do have one more series of questions on the  
 6 gulls that I neglected to ask.  
 7 Q Looking at Mr. Hasencamp's testimony again on page  
 8 42, and again, I will ask you to assume that this does  
 9 represent simulated, as it says in the title, simulated Mono  
 10 Lake elevation under the LADWP Management Plan. We talked  
 11 about the high points of that, sir.  
 12 You also see that it drops twice to approximately  
 13 6375 feet?  
 14 DR. BEEDY: A Yes, I do see that.  
 15 Q And also, in the text you see under the drought  
 16 situation, the lake can go as low as 6373.3.  
 17 A Yes, I see that.  
 18 Q Now we talked about the potential effect on Paoha  
 19 Island nesting areas on the high points.  
 20 Are there also problems regarding Negit Island and  
 21 Twain islet at the low points of the proposed DWP management  
 22 level?  
 23 A Certainly, and at this minimum lake that's reported  
 24 here, 6374.6, Negit Island would be accessible to coyotes,  
 25 so that would be a definite problem, and based on the

00168

1 numbers that I just gave you on the coyotes in response to  
 2 waterfowl, I would say that it's a good chance that  
 3 certainly Java and Twain islets would also be vulnerable to  
 4 coyote invasion.  
 5 Q I have just a few questions on the Caspian tern. I  
 6 think in response to questions by Ms. Goldsmith, you said  
 7 there were approximately ten nesting pairs.

8 Do you recall that testimony?  
 9 A I believe I said there were up to 14 and I think in  
 10 Winkler's study he reported 15 pairs or something along  
 11 those lines.  
 12 Q Dr. Winkler found these Caspian terns on Twain in  
 13 1976; correct?  
 14 A That's correct.  
 15 Q They might have been there nesting earlier than that?  
 16 A I have two pieces of evidence on that. The Jurek  
 17 paper of 1972 reported, a survey, wasn't actually a paper,  
 18 it was an unpublished survey, and he reported them in August  
 19 of '72 and we can't assume they were breeding, but they were  
 20 certainly there in '72. I don't know whether there was an  
 21 error in the paper or not, but Gill and Mewaldt's paper in  
 22 the Auk of 1983, they reported 14 Caspian terns banded in  
 23 Mono Lake between 1960 and 1961. It may be an error in  
 24 their data table because I have never heard the reference.  
 25 I guess I could call the breeding bird laboratory and

00169

1 ask who may have banded those birds, but if that's true,  
 2 they were there as early as the sixties.  
 3 Q I believe you testified there were driven off Twain  
 4 in 1982 by low lake levels; is that correct?  
 5 A Yes, they left Twain in 1982 and relocated to the  
 6 Paoha Islands.  
 7 Q Now, is it your belief that if Mono Lake were ordered  
 8 to a higher level that the Caspian tern, if they lost their  
 9 Paoha Island habitat, could return to Twain islet?  
 10 A As I testified this morning, the portion of Twain  
 11 islet, as I understand it, where they nested before is quite  
 12 a high terrace on Twain islet, which would be above most of  
 13 the alternatives that we have been discussing.  
 14 The other point that I think I failed to mention this  
 15 morning is if you look at the territory requirements, they  
 16 tend to nest in very dense colonies. The average territory  
 17 size per Caspian tern is 1.5 square meters, a little over 15  
 18 square feet, so you have 14 or 15 nests you are talking  
 19 about in an area of 200 square feet, maybe 10 by 20 feet  
 20 would accommodate, an area as big as right in front of us,  
 21 would be enough land to accommodate that many nests.  
 22 So, we are not talking about a large area and they  
 23 are very adaptable in their choice of nesting substrate.  
 24 Q When you told Ms. Goldsmith that at 6383.5 habitat  
 25 for the Caspian tern would be lost, what you meant by that

00170

1 was that the particular habitat on Paoha islet would be  
 2 lost, not that the habitat at Mono Lake would be lost?  
 3 A That's correct. The way you phrased the question,  
 4 would it be true the existing habitat on Paoha islet would  
 5 be lost, is a true statement.  
 6 Would the attractiveness of Mono Lake for that  
 7 species be affected by that, my answer to that is probably  
 8 not.  
 9 Q A few questions about the snowy plover. As I  
 10 understand, they nest on alkali flats; correct?  
 11 A Also barren habitats of a variety of types, pumice  
 12 plains, very barren habitats. It doesn't have to be alkali.  
 13 Q And for the existing population of snowy plover at  
 14 Mono Lake, does the 6410 managed alternative provide  
 15 sufficient nesting habitat?  
 16 A My calculations, based on Mr. Page's estimates of  
 17 territory size, suggests that at the 6410-foot alternative,  
 18 there would be enough habitat available to accommodate the  
 19 point of reference or 1988 population that was the most  
 20 recent population.  
 21 At that point, I did not predict that they would be  
 22 space limited at 6410.  
 23 Q At 6410 feet, are there any potential advantages to  
 24 the snowy plover?  
 25 A Well, that depends on something I don't have the

00171

1 answer to, and that is how much invertebrate productivity  
 2 there would be because it is a balanced thing. They need  
 3 the open habitat. They also need a rich source of food  
 4 insects, and if we assume that the Fisher paper that was

5 referenced earlier today, had some photographs of the lake  
 6 at about that elevation which shows substantially more  
 7 alkali flies than are there now.  
 8 If this were the case, then certainly that advantage,  
 9 I would expect to be more than counterbalancing for the loss  
 10 of the habitat, the open habitat.  
 11 Q So, what your testimony is, is that if there is at  
 12 6410 feet better lake productivity in terms of food for the  
 13 birds, that would potentially be an advantage?  
 14 A If that's true. I am basing that on historic  
 15 photographs, I don't think our analysis -- I don't think we  
 16 came to a conclusion on that, but based on that information.  
 17 Q Let me ask you a couple of questions about the  
 18 phalaropes. Now, you have told us that in the past four  
 19 years they have shifted to the eastern side of the lake; is  
 20 that correct?  
 21 A Yes, that's correct. Since 1988, possibly earlier  
 22 than that, but I can only document it with field notes and  
 23 data sheets since 1989.  
 24 Q Is that over here on the Warm Springs area on this  
 25 map?

00172

1 A Where I have seen them is closer to the Sulphur Pond  
 2 area, up in that general location, northeastern shoreline,  
 3 and they move around in that vicinity to some extent.  
 4 Q And you and Ms. Goldsmith were talking about the  
 5 proposition that these birds were no longer in the western  
 6 embayment. Do you recall that testimony?  
 7 A Yes, I do.  
 8 Q I had no idea what you were referring to. What is  
 9 the western embayment?  
 10 A Essentially it's the area west of Negit Island, Paoha  
 11 Island to the County Park, the shrimp boat dock, the marina,  
 12 the whole western shoreline basically from Black Point  
 13 around to South Tufa.  
 14 Q The whole western shoreline being that portion  
 15 immediately adjacent to Highway 395?  
 16 A I would say it would be a bigger area than that. I  
 17 would go all the way from behind Black Point, not just the  
 18 area along 395, but that would be part of it.  
 19 Q Would you agree with me that the western embayment  
 20 area is the area that for the past few years has been most  
 21 heavily visited by tourists?  
 22 A I am not a recreation expert, but that is certainly  
 23 where I have seen the most tourists.  
 24 Q Now, you told Ms. Goldsmith that you felt that the  
 25 distribution of phalaropes that you had observed related to

00173

1 food availability.  
 2 Do you recall that testimony?  
 3 A Yes, I do.  
 4 Q Can you tell us whether or not in your view the food  
 5 availability is related to lake elevation?  
 6 A Only that there's a correlation, again, we don't have  
 7 a perfect natural experiment we have done here; that is,  
 8 running that lake at multiple elevations and examining the  
 9 responses of the phalaropes at the whole range of  
 10 elevations.  
 11 Basing it on the observations of Dr. Rubega that they  
 12 are foraging at less than maximal levels, and also, that  
 13 between the elevations of, say, 6385 and 6372, I can't  
 14 remember the exact elevations, but that is the biggest drop  
 15 in the amount of hard substrate that is inundated, which is  
 16 the pupation for the alkali fly, the primary prey species.  
 17 When you look at the graphs, the biggest drop is the  
 18 point where you get the biggest change in productivity  
 19 overall.  
 20 Q Now, you have told us that you asked for data from  
 21 Dr. Jehl on distribution, not only of the red-necked  
 22 phalaropes, but also, Wilson phalaropes.  
 23 A Yes, I did.  
 24 Q And I took it from your testimony you hadn't received  
 25 that data?

00174

1 A No, I have still never seen that data.

2 Q Did he refuse to send it to you or he simply failed  
3 to do so?  
4 A I guess he just failed to do so. I asked him for it  
5 and I wrote a letter and asked for it.  
6 This is the dozen years of data he refers to in his  
7 direct testimony, because the data he presented here are the  
8 same data he published in his 1986 article. This is two  
9 years of that data on red-necked phalaropes.  
10 Q Relating to 1981 and 1982.  
11 A For that species, but the other subsequent ten years,  
12 or whatever, and other species data I have never seen.  
13 Q Okay. The last line of questions, sir -- I would  
14 like you to refer to Table S-1, page 3.  
15 Do you have it there, sir?  
16 A Yes, I do.  
17 Q Now, you say as Mono Lake rises there's less  
18 vegetated wetland; correct?  
19 A Yes, that's correct.  
20 Q And as Mono Lake rises, there are more lagoons;  
21 correct?  
22 A Yes, although I would say those lagoons as a general  
23 term, that I would say more open, water away from the lake.  
24 It may be ponds or lagoons, and they would be different in  
25 shape and size and water quality, but that's true.

00175

1 Q Now, let me ask you to look at page 3F-76.  
2 Do you have that, sir?  
3 A I can find it real quick.  
4 Q And if you will go to 3F-74, it says: Impacts and  
5 mitigation measures for the 6383.5-foot alternative, and  
6 then on page 3F-76, I would like you to look at the second  
7 paragraph.  
8 Do you see that?  
9 A It starts out, After a period of years, approximately  
10 six acres of whatever --  
11 Q Six acres of freshwater ponds would also form at the  
12 Rush Creek delta under this alternative, and that's also  
13 reflected on Table S-1, page 3; correct?  
14 A Yes.  
15 Q Okay, and then it goes on to say: Adverse effects of  
16 inundating low-value lakeshore habitats would be more than  
17 offset by the recreation of important new sources of water  
18 around the lakeshore; significant effects on wildlife are  
19 nor expected.  
20 Do you see that, sir?  
21 A Yes, I do.  
22 Q Now, is this an effort at 6383.5 to try to calculate  
23 the wildlife impacts of the decrease in vegetative wetlands  
24 at higher lake elevations vis-a-vis the increase of lagoons  
25 at higher lake levels?

00176

1 A It's an attempt to make a qualitative balancing or  
2 comparison. As I have testified to Mr. Thomas, I didn't  
3 feel I was able to do a quantitative analysis on the value  
4 of those ponds.  
5 Q And looking at Table D-5, which you and Mr. Thomas  
6 discussed, Table D-5 attempts to give some assessment of the  
7 wildlife values of the various types of the Mono Lake  
8 shoreline?  
9 A Yes, it does, except for lagoons and ponds.  
10 Q And am I right that if you look at Table D-5 again,  
11 under the final column, change, WHU's, it shows basically  
12 605.9 WHU's lost in a comparison of prediversion and 1991;  
13 correct?  
14 A No, actually, that's a gain on that one. What I am  
15 saying, I couldn't calculate the ponds and lagoons, so  
16 that's not part of the equation and what happened, you have  
17 gone from prediversion to 1991 and you increase the acreage  
18 of vegetative habitat substantially by thousands of acres,  
19 and even at low WHU values, that still converts out to a  
20 600, whatever, I can't read that number, 605.9.  
21 Q And if I am reading it correctly, the great majority  
22 of that is represented by dry meadows and alkali meadows; is  
23 that right?  
24 A That's correct, yes.

25 Q Which have a WHI value in each case of .12; is that  
00177

1 right?  
2 A A .12, yes, that is correct.  
3 Q Why is that, sir?  
4 A Well, I saw two or three species. I spent days and  
5 days walking around out there and I saw coyote tracks and  
6 horned larks and a few gulls fly over. So, there was hardly  
7 any use -- it's expressed by the total species richness  
8 observed in that habitat divided by species observed  
9 elsewhere in the Mono Basin, and it came out to 100 WHI  
10 value. That's how that number was calculated.  
11 Q Going back to the reasonably large numbers, dry  
12 meadow and alkali meadow, can you describe to the Board what  
13 sort of habitat we are talking about?  
14 A Yes. The dry meadow, as I recall, was largely  
15 saltgrass, very dry saline soils, and the alkali meadow had  
16 a higher plant diversity.  
17 I think maybe Mr. Jokerst could probably give you  
18 better information about what would be out there than I  
19 could, if you would like him to answer that part of the  
20 question.  
21 Q If he wants to contribute.  
22 MR. JOKERST: A Certainly, dry meadows supported a  
23 very low number of plant species and oftentimes very low  
24 plant cover. They weren't entirely restricted to saline  
25 alkali areas, but to some extent there was a pretty large

00178

1 correlation between the two.  
2 Plant cover was generally very low in the dry  
3 meadows, and it's a very low-growing type of vegetation.  
4 The alkali meadows were distinguished from the dry meadows  
5 on the basis of having higher salinity and alkalinity in the  
6 substrate, and a water table that approached or was at the  
7 surface for a significant part of the growing season.  
8 As Ken said, the plant species richness was higher,  
9 there were more plant species and the habitat vegetative  
10 cover was generally complete in the alkali habitat, although  
11 there would be an occasional salty barren stand of  
12 vegetation standing slightly higher off the ground.  
13 Q Okay. Last question, sir. I didn't see any  
14 calculation of the loss of Long Valley wetlands due to the  
15 creation of Crowley Reservoir. Did you, in fact, make such  
16 a calculation?  
17 DR. BEEDY: A I wasn't aware of it when I wrote the  
18 DEIR. I didn't know there were 2400 acres of wetlands. I  
19 have to admit that. I learned that from reading, I believe,  
20 Dr. Stine's direct testimony and I have not looked into  
21 that.  
22 I do know that the current lake, Crowley Reservoir  
23 wetlands of at least the western shoreline have quite high  
24 values for wildlife.  
25 The only information I have got on that 2400 acres

00179

1 was Dr. Grinell's trip there in 1937, where he described  
2 some of his observations from a train going by. He did talk  
3 about it. That's the only information I have got on what  
4 they look like.  
5 MR. CASADAY: A May I add for purposes of our  
6 analysis we assumed that point of reference conditions  
7 included the previous creation of Lake Crowley Reservoir.  
8 MR. JOKERST: A Our analysis assumed that the  
9 facilities associated with the DWP project were already in  
10 place at the time that we characterized change from  
11 prediversion to point of reference; therefore, the impacts  
12 associated with Lake Crowley had already occurred and were not  
13 within the scope of our analysis based on the sidebar we were  
14 given  
15 by the Board.  
16 Q Is this Dr. Grinell the same one who wrote a big fat  
17 book on the wildlife of Yosemite valley?  
18 DR. BEEDY: A It's the same Dr. Grinell that wrote a  
19 bunch of big fat books. He wrote Animal Life in Yosemite,  
20 he wrote Distribution of the Birds of California with Dr.  
21 Alden Miller. He was one of the best known and most

21 respected field biologists of his time.

22 Q Thank you.

23 MR. DEL PIERO: Time is up.

24 MR. DODGE: I have no further questions.

25 MR. DEL PIERO: Thank you.

00180

1 Mr. Roos-Collins.

2 Ms. Scoonover, do you anticipate asking questions of  
3 this panel?

4 MS. SCOONOVER: No, I don't, Mr. del Piero.

5 CROSS-EXAMINATION  
6 by MR. ROOS-COLLINS:

7 Q Good afternoon. My first line of questions concerns  
8 vegetation along the tributaries to Mono Lake, so this line  
9 of questions is for you, Mr. Casaday.

10 MR. CASADAY: All right.

11 Q In the Draft EIR, page 3F-45, the second paragraph,  
12 it is estimated that the extent of mature cottonwood willow  
13 forest had been reduced by almost 93 percent on Lee Vining  
14 Creek, and more than 97 percent on Rush Creek.

15 Is that to say that during the period 1941 to 1989,  
16 there was a near total elimination of mature cottonwood-  
17 willow woodland along those tributaries?

18 A That's correct.

19 Q And on pages 3F-46 and 3F-47, you discuss losses of  
20 other types of riparian vegetation along these tributaries;  
21 is that correct?

22 A Yes.

23 Q Would you characterize those losses as substantial?

24 A Yes.

25 Q Let me turn back to Chapter 3C, specifically page 3C-

00181

1 21. Under the section Tributary Streams, you discuss the  
2 causes for the loss of riparian vegetation along the  
3 tributary streams.

4 A Yes.

5 Q Is it your opinion that the loss of riparian  
6 vegetation between 1941 and 1989 was largely related to the  
7 operations of the Los Angeles Department of Water and Power  
8 water supply system?

9 A Yes.

10 Q You discussed with Mr. Birmingham Figure 6 from the  
11 direct testimony of Dr. Beschta showing Lee Vining Creek  
12 looking to Mono Lake from the County Road crossing in August  
13 of 1993.

14 Do you recall those questions and your answers?

15 A I believe so.

16 Q How does the riparian vegetation depicted in Figure 6  
17 compare with the vegetation that existed before 1941 at that  
18 same location?

19 A Well, I can't answer that looking at the photograph.

20 To answer that, we would compare the image -- we compared  
21 the images on aerial photographs for those two periods and  
22 we did have aerial photography in the prediversion  
23 condition.

24 Looking at the County Road crossing -- I'm sorry,

25 these are in Appendix P, I believe. The prediversion

00182

1 riparian vegetation on Lee Vining Creek around the County  
2 Road is shown on Figure P-78.

3 The photograph is looking downstream from the County  
4 Road. On the aerial photographs we saw continuous mature  
5 cottonwood-willow forest downstream of the County Road in  
6 the prediversion period on the order of 300 feet wide.

7 In the point of reference condition immediately  
8 downstream we see some barren areas. We see some great  
9 basin scrub, we see actually quite a mosaic of what I would  
10 call fragmented habitat. We don't have mature cottonwood  
11 forests except for some patches, and we don't have the width  
12 that we had before.

13 As I said, we have some unvegetated and some xeric or  
14 some great basin scrub habitat as well.

15 Q Mr. Casaday, please turn to Table 3C-14, which you  
16 previously discussed with Mr. Birmingham.

17 A All right.

18 Q Focusing on the far right-hand column, does that  
19 column show that under the alternatives considered in this  
20 Draft EIR you did not expect to recover the prediversion  
21 riparian vegetation in the conceivable future?

22 A That is correct. It shows a minimum and maximum  
23 estimate and the maximum estimate even shows a shortfall of  
24 some 20 percent of the original extent of riparian acreage  
25 even over the long term.

00183

1 Q By the way, do those percentages correspond to a  
2 particular point in the future?

3 A No, they do not. They would be considered  
4 potentially riparian based on the presence of groundwater  
5 primarily, so those would be over the long term.

6 Q Do you remember Mr. del Piero's question this morning  
7 about the fishery which might be maintained by one cubic  
8 foot per second flow in a hypothetical stream?

9 A Yes, I do.

10 Q If there were a one cfs flow in the Lee Vining Creek  
11 at site, what riparian vegetation would you expect to be  
12 there?

13 A I believe we did comment on this somewhere in the  
14 document. Generally, if there is flow in the stream  
15 continuous to the lake, the water table, the induced water  
16 table in the adjacent riparian zone would not be depressed.  
17 However, when you get down to a one cubic foot per second  
18 flow in the channel, the water is not filling the channel  
19 from bank to bank, and most likely in that case you would  
20 start to see the water table declining in the near shore  
21 area.

22 Q In fact, wouldn't you expect a limited flow like one  
23 cubic foot per second to produce a riparian vegetation  
24 similar to that which existed between 1941 and 1989?

25 A Well, not necessarily. Between '41 and '81 there was

00184

1 -- well, I am not sure what the answer to that is.

2 MR. DEL PIERO: Mr. Roos-Collins, you may be able to  
3 get an answer if you specify a shorter period of time.

4 MR. ROOS-COLLINS: Mr. del Piero, it's a hypothetical  
5 question.

6 MR. DEL PIERO: The time line you identified is  
7 longer than I have been alive.

8 A If I could briefly correct what I said about that  
9 last column of numbers on Table 3C-14 earlier to Mr. Dodge.  
10 He asked me if that included the effects of watering a  
11 secondary channel and I may have said mistakenly, yes.

12 In fact, it does not. It assumes water simply in the  
13 main channel.

14 MR. ROOS-COLLINS: Q So Table 3C-14 assumes existing  
15 channels only?

16 A That is correct.

17 Q It assumes that currently dry channels are not  
18 reopened; is that correct?

19 A That's correct.

20 Q If currently dry channels were reopened, would that  
21 have an effect on your conclusion as to which alternative  
22 would produce the most riparian vegetation?

23 A If those channels were rewatered continuously through  
24 the growing season, then a higher water table would be  
25 induced along those channels, and in some locations those

00185

1 channels are across areas that would not have a high water  
2 table from the main channel itself.

3 Now, our finding was, however, if you only turn water  
4 into these channels for a period during snowmelt and then do  
5 not sustain flow through them throughout the summer, the  
6 water table will decline back fairly rapidly to what you  
7 might call the main water table supported by the main  
8 channel, so it would depend on whether the flow is sustained  
9 or not.

10 Q Let's discuss Table 3C-14 further, assuming that we  
11 maintain existing channels and do not rewater currently dry  
12 channels.

13 As I understand Table 3C-14, it supports the  
14 conclusion that a lake level with a lower flow regime would



15 result in more riparian vegetation than certainly lake  
 16 levels with higher flow regimes; is that correct?  
 17 A That's correct. Although I suppose I would first say  
 18 we are getting very similar answers among the alternatives  
 19 here where there's not a strong trend in the upper direction  
 20 with lower lake levels.  
 21 Q Do you have an opinion based on botanical factors  
 22 where less water might produce more vegetation than shown in  
 23 Table 3C-14?  
 24 A Yes, there are two effects there, the effect of the  
 25 higher streamflows to raise the water table and increase the

00186

1 area of riparian vegetation, but it is countered by the  
 2 effects of actual flooding of a fair acreage of riparian  
 3 vegetation down near the mouth of these incised streams, and  
 4 as it turns out, it's slightly more than compensated by the  
 5 flooding effect, so, for this reason, the net effect is  
 6 actually the flooding slightly outweighs the increase that  
 7 you would expect at the higher lake levels.

8 Q Did erosion or incision of the channels figure into  
 9 your conclusion that the 6377-foot alternative would have  
 10 more riparian vegetation than the 6383.5 alternative?

11 A Again, the conclusions represented by these numbers  
 12 in this Table 3C-14.

13 Q Right.

14 A I'm sorry, the question again was, did channel  
 15 incision play a major role here.

16 Q Yes.

17 A Yes, the channel incision, in fact, brings about both  
 18 of these effects. The channel incision first tends to lower  
 19 the water table in adjacent riparian areas and thereby cause  
 20 them to convert to sagebrush scrub, and thereby diminish the  
 21 extent of riparian vegetation.

22 At the same time, down in the very lowest reaches the  
 23 channel incision is so great that the raising of the lake  
 24 level floods that incised channel and floods out the  
 25 recovering vegetation in that area.

00187

1 Q Let me ask you now to turn to page 3C-39,  
 2 specifically the last sentence on that page where it says:  
 3 Additional incision would both remove riparian vegetation  
 4 and cause lowering of adjacent water tables.

5 Is this the effect you were just describing?

6 A Well, this is the first effect. Additional incision  
 7 would cause the lowering of water tables. As it actually  
 8 happened, it would tend to cause some direct losses of  
 9 riparian vegetation from erosion, bank erosion.

10 Q Let's turn to page 3C-40, where you discuss bank  
 11 erosion. The first paragraph discusses the potential for  
 12 such erosion. The final sentence in that paragraph says:  
 13 Thresholds estimated by the Restoration Planning Team can be  
 14 used.

15 Are you saying there that you used the thresholds  
 16 estimated by the Restoration Planning Team to come to the  
 17 conclusion that you have reached about the erosion potential  
 18 associated with each lake level?

19 A Well, yes. I believe that is what we are saying  
 20 there. We did use it, yes.

21 Q Do you recall last Thursday you and I discussed Mr.  
 22 Trihey's August 30, 1993, comment letter to Mr. Canaday  
 23 where he addressed thresholds for erosion?

24 A Yes.

25 Q Have you read that letter since our discussion last

00188

1 week?

2 A Yes, I have, and I believe I misstated or gave him  
 3 some erroneous response to earlier questions now that I have  
 4 seen it.

5 Q Could you please correct your earlier responses?

6 A Sure. Well, there were a couple of items. One  
 7 question was, did Jones & Stokes rely entirely on the RTC  
 8 flow thresholds for assessing potential for stream-bank  
 9 damage under the alternatives.

10 I answered that yes. I should have qualified that.

11 We also did a few other things. We compared those

12 thresholds given to us by Mr. Woody Trihey to other data we  
 13 had. Specifically, Dr. Stine had expressed an opinion  
 14 earlier that Rush Creek was stable to about 350 cubic feet  
 15 per second, but perhaps not beyond. And that corroborated  
 16 Mr. Trihey's recommendation for Rush Creek.

17 We also observed Rush and Lee Vining Creeks in the  
 18 field, and it ran 160 to 180 cubic feet per second and felt  
 19 that these channels were very stable at these flows. So, we  
 20 believe that the threshold certainly should be above those  
 21 numbers.

22 We observed Parker and Walker Creeks when they were  
 23 rewatered, and in one period we observed excessive erosion.  
 24 I believe it was in Parker Creek, and those flows were  
 25 adjusted over a period of days, and we concluded through

00189

1 that experience that flows of about 21 cubic feet per second  
 2 for Parker and 14 cubic feet per second for Walker were  
 3 about the maximum that should be passed through there.

4 And again, that generally corroborated Mr. Trihey's  
 5 recommendation for Parker where he said 20 to 25 cubic feet  
 6 per second, and for Walker where he said 15. That's very  
 7 close to what we said.

8 So, we did, therefore, from that information, judge  
 9 the RTC values as reasonable.

10 I also would like to address Mr. Trihey's letter  
 11 specifically. He said we misunderstood his statement on  
 12 behalf of the RTC about thresholds, and then he went on to  
 13 state that he gave these numbers to us as flows that should  
 14 not be exceeded during the early years of restoration to  
 15 prevent erosion of non-vegetated stream banks.

16 That was exactly the criteria we were seeking, so I  
 17 have to correct the record and say that there was, in fact,  
 18 no misunderstanding. That is exactly what we understood  
 19 those values to be.

20 He does go on in his letter to talk about  
 21 catastrophic damage might require higher stream thresholds  
 22 where the bed topography is altered. This isn't well  
 23 defined, but we would agree that channel evulsions that is  
 24 where the channel quite rapidly shifts to a new location,  
 25 that kind of instability would indeed require higher

00190

1 thresholds, but we did not attempt to evaluate those  
 2 catastrophic thresholds. We were after exactly the  
 3 thresholds Mr. Trihey provided us.

4 Q Mr. Casaday, is it your understanding that under the  
 5 1990 injunction in the Mono Lake cases no diversions have  
 6 occurred nor are occurring today?

7 A Except, I guess, that one period where there was an  
 8 IFIM study in the upper Owens River -- for the most part,  
 9 yes.

10 Q Would it be fair to say then that the flow regimes  
 11 today are higher than would be expected under the 6383 or  
 12 6390 alternatives?

13 A Yes, if you acknowledge the variability from year to  
 14 year, that is to say, if we went on for a long time like  
 15 this, the average over a long term, yes.

16 Q Acknowledging that variability?

17 A Yes.

18 Q Have you visited Lee Vining and Rush Creeks in the  
 19 past year?

20 A Yes, I have.

21 Q Have you seen evidence of significant channel erosion  
 22 during those visits?

23 A I have not actually surveyed the channel -- I should  
 24 say I have not been in the past year to these streams for  
 25 purposes of evaluating their stability. I have only been in

00191

1 the general area for other reasons.

2 Q Have you discussed with Mr. Trihey the conclusion in  
 3 Table 3C-14 that the 6377 lake level would result in more  
 4 riparian vegetation than higher lake levels?

5 A Have I discussed this with Mr. Trihey? No.

6 Q Let me pursue a different topic for Mr. Trott.  
 7 Specifically, water rights which are addressed in Chapter 3G  
 8 of the Draft EIR.

9 Did you write the section of Chapter 3G that  
 10 addresses water rights in the Mono Basin?  
 11 MR. TROTT: A No, I did not.  
 12 MR. CASADAY: This is my fault. Mr. Trott addressed  
 13 the agricultural aspects of the land use. The other aspect  
 14 I addressed with the help of some of my staff, who are not  
 15 here.  
 16 Q Mr. Casaday, then, you will suffer some further  
 17 questions which I will put to you.  
 18 MR. DEL PIERO: Your time is up. Unfortunately, our  
 19 beeper disappeared with Mr. Stubchaer.  
 20 MR. ROOS-COLLINS: I request additional time for the  
 21 reasons stated previously by Mr. Birmingham.  
 22 MR. DEL PIERO: I will point out two things. At the  
 23 end of ten minutes, we are going to have to take a break  
 24 because I have to make a phone call; and secondly, Mr.  
 25 Birmingham, I don't know that it is possible for you to bill

00192

1 everybody else in terms of your explanation as to why you  
 2 need additional time, but I would submit it anyway.  
 3 MR. BIRMINGHAM: Mr. del Piero, I will submit that it  
 4 is ultimately going to end up on DWP's desk anyway.  
 5 MR. ROOS-COLLINS: Mr. del Piero, I will so  
 6 stipulate.  
 7 MR. DEL PIERO: Noted.  
 8 Why don't you proceed.  
 9 MR. ROOS-COLLINS: Page 3G-11, the second paragraph  
 10 states: From 1974 to 1989, the annual export by Los Angeles  
 11 Department of Water and Power averaged 83,000 acre-feet of  
 12 water from the Mono Basin.  
 13 Is that your opinion?  
 14 MR. CASADAY: A Yes.  
 15 Q Let's turn to page 3G-5, the second and third  
 16 paragraphs. Do those paragraphs state that the diversion  
 17 from Rush and Lee Vining Creeks and their tributaries before  
 18 1941 averaged between 30,000 and 49,000 acre-feet a year?  
 19 A Actually now here we are in the section on  
 20 agriculture which Mr. Trott provided, but I could probably  
 21 answer the question.  
 22 We are adding the numbers in this paragraph up?  
 23 Q The last sentence in the first full paragraph states:  
 24 An estimated 30,000 acre-feet of water was used annually  
 25 from the four tributary streams, and then in the next

00193

1 paragraph it is stated that the average might have been  
 2 49,000 acre-feet a year, somewhat higher than the previous  
 3 paragraphs estimate.  
 4 MR. TROTT: A That's what it says, yes.  
 5 Q This isn't a trick question. I am just trying to  
 6 understand your conclusion about the average diversion pre-  
 7 1941 from these tributaries. My understanding is that the  
 8 diversion from 1930 to 1941 averaged between 30 to 49  
 9 thousand acre-feet; is that correct?  
 10 A Yes, I believe it averaged around 30,000. It could  
 11 have gone as high as 49,000 according to what we know.  
 12 Q And that is substantially less than the average  
 13 diversion which occurred between 1974 and 1989; is that  
 14 correct?  
 15 A The average diversion for what purpose?  
 16 Q Los Angeles Department of Water and Power.  
 17 A For irrigation or for other purposes?  
 18 Q For all purposes.  
 19 A Back to Ken.  
 20 MR. CASADAY: A Would this be substantially less  
 21 than total diversions; yes.  
 22 Q We just discussed the average diversion from 1974 to  
 23 1989 was 83,000 acre-feet, and here on page 3G-5, it is  
 24 stated that the pre-1941 diversion averaged between 30,000  
 25 and 49,000 acre-feet.

00194

1 A Right.  
 2 Q That's substantially less.  
 3 A Yes.  
 4 Q Of the diversion pre-1941, did some water return to  
 5 the streams?

6 A Certainly.  
 7 MR. FRINK: I have a point of clarification, Mr.  
 8 Roos-Collins. I believe the 83,000 acre-foot per year  
 9 diversion that you referred to was a per-year export from  
 10 the Mono Basin.  
 11 In addition to that, I believe there was some in-  
 12 basin diversion during the period that the City of Los  
 13 Angeles has been exporting water, so I am not sure we are  
 14 comparing apples and apples.  
 15 MR. ROOS-COLLINS: Mr. Frink, I appreciate that  
 16 clarification.  
 17 Q Would it be fair to say then that the average  
 18 diversion from 1974 through 1989 by the Los Angeles  
 19 Department of Water and Power exceeded 83,000 acre-feet a  
 20 year for all purposes?  
 21 A Yes.  
 22 Q Now, let's return to the subject of return flow pre-  
 23 1941, and turn to page 3C-5, the paragraph which begins,  
 24 Conversely, substantial spreading of irrigation waters...  
 25 A Yes.

00195

1 Q And then, it goes on to state: Large amounts of the  
 2 water distributed over the highly permeable Pumice Valley  
 3 turned to Rush Creek in natural springs located along the  
 4 base of the high bluffs on the east side of the Rush Creek  
 5 bottom lands.  
 6 And then, it goes on to describe other natural  
 7 things; is that correct?  
 8 A Yes.  
 9 Q Would it be fair to conclude then that the net loss  
 10 pre-1941 as a result of irrigation diversions was  
 11 substantially less than the 30,000 to 49,000 acre-feet  
 12 because some of that diversion returned to the streams?  
 13 A That's correct.  
 14 Q Finally, Mr. Jokerst, I have a question for you about  
 15 vegetation in the upper Owens River. Do you have an opinion  
 16 about how Los Angeles' exports of Mono Basin water beginning  
 17 in 1941 affected riparian vegetation below East Portal?  
 18 MR. JOKERST: A Could you clarify what you mean by  
 19 riparian vegetation? Would that be woody, herbaceous, or  
 20 both?  
 21 Q Both.  
 22 A Yes, I do.  
 23 Q And what is that opinion?  
 24 A That there was an effect and that the geomorphic  
 25 changes induced by the higher streamflows did cause bank

00196

1 erosion and relocations of bank channels which may have  
 2 resulted in both changes in the amounts and relative  
 3 proportions of the various riparian habitats there.  
 4 The net effect, however, may have been negligible as  
 5 there would have been gains where channels were abandoned.  
 6 Q Thank you.  
 7 Mr. del Piero, how much time do I have left in my  
 8 ten-minute addition?  
 9 MR. BROWN: Three.  
 10 MR. ROOS-COLLINS: Mr. Casaday, we are not quite done  
 11 then. Let's return to water rights, and specifically, let's  
 12 discuss the predecessor water rights which Los Angeles  
 13 acquired before it obtained the permits in June, 1940, which  
 14 became the licenses which are the subject of this  
 15 proceeding.  
 16 Are you with me so far?  
 17 MR. CASADAY: A I believe so.  
 18 Q Is it your understanding that Los Angeles DWP before  
 19 1941 acquired the water rights which had previously been  
 20 used for the irrigation diversion of 30,000 to 49,000 acre-  
 21 feet a year?  
 22 A Yes, I believe that's correct, although I am not sure  
 23 that we can give you an exact chronology of when each  
 24 element of that total amount was acquired.  
 25 Q But it is your general understanding?

00197

1 A Yes.  
 2 Q And Los Angeles DWP holds those predecessor rights

3 today; is that correct?

4 A That's my understanding, yes.

5 MR. ROOS-COLLINS: Thank you. No further questions.

6 MR. DEL PIERO: Thank you very much.

7 As I indicated, I am going to break right now,  
probably take not more than five minutes, so why don't we  
9 just plan on starting again at 4:30.

10 Ladies and gentlemen, I just want to say that it is  
11 my intent to try and finish this panel today, and I see  
12 heads on the panel nodding vigorously, so that they can be  
13 released and we can start again tomorrow.

14 Additionally, Mr. Birmingham, in terms of the way in  
15 which you propose to present the witnesses on behalf of Los  
16 Angeles DWP, I would appreciate it very much knowing how you  
17 would intend to present those witnesses because of the  
18 number of witnesses you have to present, and in order to  
19 make sure that all of the parties that might wish to cross-  
20 examine them are here in a timely fashion, so it doesn't  
21 hold up the process.

22 If you could indicate that, I would appreciate it  
23 also.

24 We are in recess for ten minutes.

25 (Recess)

00198

1 MR. DEL PIERO: Okay, if all of you will take your  
2 seats, we will continue. Where were we?

3 MR. DODGE: Mr. Roos-Collins had finished.

4 MR. DEL PIERO: Ms. Scoonover says she has no  
5 questions.

6 MS. SCOONOVER: That's true.

7 MR. DEL PIERO: Mr. Gipsman is not here.

8 Anyone else interested in cross-examining?

9 MR. FRINK: Staff has some questions on redirect.

10 MR. DEL PIERO: Go ahead.

11 MR. FRINK: Thank you, Mr. del Piero.

12 REDIRECT EXAMINATION

13 by MR. FRINK:

Q My first question is for Mr. Casaday. Just a few  
minutes ago before the break, you responded to a question  
16 from Mr. Roos-Collins about the water rights that the City  
17 of Los Angeles had acquired or may have acquired at the time  
18 it purchased property in the Mono Basin.

19 Do you recall that question?

20 MR. CASADAY: A Yes.

21 Q Mr. Roos-Collins went on to ask you if you believe  
22 that the City of Los Angeles would still hold those water  
23 rights that existed or that attached to the land it  
24 purchased in the Mono Basin, and I believe you responded  
25 that; yes, that you think the City would still hold those

00199

1 rights; is that correct?

2 A I believe I did say that, yes.

3 Q Mr. Casaday, did Jones & Stokes have any reason to do  
4 an analysis of the current status of the water rights that  
5 attached to the property that the City of Los Angeles  
6 purchased in the Mono Basin with the exception of the  
7 appropriate water rights that are under consideration in  
8 this hearing?

9 A No, we did not do that analysis.

10 Q So, the only water rights that you have looked at  
11 specifically from a water rights standpoint are the ones  
12 that are covered by the licenses that the Board is presently  
13 examining; is that correct?

14 A Yes, that is correct.

15 Q Okay, thank you.

16 I did have just a clarification for the record. Mr.

Jokerst, Mr. Thomas asked you the question about Auxiliary  
18 Report No. 5, and at the time you weren't certain about the  
19 numbering of the Auxiliary Reports.

20 I was looking back through the list of exhibits and  
my understanding is the Auxiliary Report that you prepared  
is titled, Lake Fringing Wetland Vegetation and Substrate  
23 Classification Description and Mapping; is that correct?

24 MR. JOKERST: That's one of two Auxiliary Reports  
25 that I authored, yes.

00200

1 Q Do you recall the name of the other one?

2 A Something to do with the geohydrology of lake  
3 fringing wetlands. I couldn't recite the exact title right  
4 now.

5 MR. FRINK: From that we can identify the records.

6 That's all the questions I have.

7 I believe other staff have questions.

8 MR. HERRERA: I will let Jim go first.

9 EXAMINATION

10 by MR. CANADAY:

11 Q I would like to start with Mr. Sculley on air  
12 quality. Just for the record, could you briefly describe  
13 what you mean by PM 10?

14 MR. SCULLEY: A PM 10 is suspended particulate  
15 matter that falls within a range of size that can be inhaled  
16 into the lower respiratory tract. In general, that consists  
17 of sizes that are smaller than 50 microns in aerodynamic  
18 diameter which is not a physical size measurement, but a  
19 measure of settling behavior.

20 It's a fractional sampling, so it is not a 100  
21 percent measure of any particular size range except in the  
22 very small sizes, and it basically goes from essentially 100  
23 percent collection at a one micron size range to close to  
24 zero somewhere below 50 microns, and will depend somewhat on  
25 the instrument that is being used. Fifty percent of the

00201

1 mass that is the 10 micron size range will be collected.

2 It's hard to explain the terminology of aerodynamics  
3 diameter without getting fairly involved.

4 Q Based on your review of the modeling done, what are  
5 the primary source areas around Mono Lake?

6 A The primary source areas are located basically along  
7 the north and eastern shore of the lake. It's largely  
8 efflorescent salt deposits and some of the other barren  
9 substrates which are a mixture of fine sand, silts, some  
10 lake-bed clays, and on Paoha Island on the western shore of  
11 the lake there's an area that geologic literature makes  
12 reference to as diatomaceous sediments.

13 There are many small patches of open areas that are  
14 potential wind-erosion sources scattered in other areas, but  
15 the main areas are generally below the 6390-foot contour  
16 down towards the lakeshore and extending eastward from the  
17 Black Point area, extending around the lake down towards the  
18 Simon Spring area.

19 Q When you looked at the area of potential or possible  
20 mitigation options of the source areas, what was your  
21 conclusion?

22 A Our conclusion was that no one had identified any  
23 measure that we considered to be a feasible measure short of  
24 raising the lake level.

25 There have been a number of measures proposed in the

00202

1 Owens Valley area that involve all sorts of physical  
2 construction activity which run into complications in the  
3 management of the scenic area, and then you have problems of  
4 physical access and the physical size of the area.

5 Basically, we weren't able to identify anything that  
6 looked like a practical feasible measure that would be  
7 consistent with management of the scenic area.

8 Q Has your opinion changed since preparation of the  
9 EIR?

10 A No, it has not.

11 Q Mr. Casaday, I would like to get some clarification  
12 maybe just for me. I hope it is not just for me, but you  
13 undertook an analysis of different lake levels and the  
14 effects of those lake levels on access by terrestrial  
15 predators to some of the nesting sites of the California  
16 gulls; is that correct?

17 MR. CASADAY: A Yes.

18 Q And I thought I heard earlier testimony suggesting  
19 that there's new information on what types of physical  
20 impediments or water depths may preclude coyotes access or  
21 not preclude coyote access to these islands, so I am trying  
22 to combine the two based on the drought scenarios that you

23 had predicted in the EIR, and I believe it is new information  
24 on the terrestrial predators' ability to cross certain  
25 distances and depths.

00203

1 How would that change your conclusions in the EIR, or  
2 would it?

3 A Well, I should first say that we actually haven't sat  
4 down to do that yet, but I can indicate a direction of  
5 change, and I can maybe at the same time clarify some  
6 earlier testimony here about this particular alternative,  
7 the 6377-foot alternative where this issue seems to be very  
8 important.

9 In fact, I believe either Dr. Beedy or I misstated  
10 some of the information in the EIR on this same issue.

11 On page 3F-71 we state two problems during droughts  
12 for California gull nesting habitats. We stated that Negit  
13 Island could be effectively land bridged in two to four  
14 percent of the years under this alternative and cause  
15 disruption of gull nesting.

16 Now, the confusion may be a matter of the drought  
17 evaluations. That phenomena would occur during what we call  
18 a normal drought which was not the more rare extreme drought  
19 that we also analyzed. A normal drought is within the data  
20 set that was used under LAAMP for all the simulations, and  
21 that assessment hasn't been challenged in terms of its  
22 drought assessment; so the information there, in other  
23 words, the conclusion that Negit Island would land bridge  
24 two to four percent of the time, this probability would not  
25 diminish even with the error found in the drought analysis.

00204

1 Now, the drought analysis error applies to what you  
2 might call the hundred-year drought, or what we consider to  
3 be about the one-percent event.

4 As you recall, the testimony was that we had over-  
5 estimated the fall of the lake by about a foot. Now, under  
6 the 6377-foot alternative, we had concluded that Twain and  
7 Java Islets, and this is something other than Negit Island,  
8 these are two islets, that they could be land bridged during  
9 these extreme droughts, again, about one percent of the  
10 years.

11 Now, this conclusion was brought into question  
12 because we have now acknowledged an error in the  
13 overestimate in that extreme drought analysis.

14 However, this is a long explanation and I hope I can  
15 bring this out clearly, while we have realized there was an  
16 error affecting our conclusion about Twin and Java land  
17 bridging, this does not affect Negit Island land bridging.

18 We also have been made aware that our assumption  
19 about the depth of water at which a coyote would cross was  
20 probably not appropriate. We had assumed a coyote could  
21 cross, I believe, and Dr. Beedy might correct me if I am  
22 wrong, I believe it was .7 to about 1.7 meter depth.

23 The evidence that Dr. Beedy referred to this summer  
24 was that coyotes crossed a deeper expanse of water, although  
25 it was perhaps not a long expanse. So, to make a long story

00205

1 short, the conclusion about Twain and Java being land  
2 bridged under this 6377-foot alternative during an extreme  
3 drought, will probably change.

4 It may, in fact, turn out that the land bridging is  
5 more frequent than we had stated in the Draft EIR given the  
6 ability of coyotes to cross deeper waters, notwithstanding  
7 the fact that we overestimated the depth or the fall of the  
8 lake by a foot, but the ability of the coyotes to cross the  
9 shallow water may more than compensate for the error.

10 As far as the earlier conclusion that during the so-  
11 called normal droughts, the more frequent drought periods,  
12 where Negit Island land bridges, there was no error there.  
13 Again, the ability of coyotes to cross deeper water may mean  
14 again that that estimate should be increased. In other  
15 words, the effect would be more frequent than we said, so I  
16 believe that the situation of the 6377-foot alternative will  
17 include probably more frequent episodes of disruption of  
18 gull colonization than stated in the Draft EIR, if you  
19 follow me, and I am very sorry if you didn't.

20 Q Yes, I did.

21 Dr. Beedy, you testified that there were coyotes on  
22 Paoha Island.

23 DR. BEEDY: A That is correct, Mr. Canaday.

24 Q How did they get there?

25 A I don't know. I know they tried to trap them over

00206

1 there. I do have one piece of evidence from Tom Murphy. He  
2 observed a coyote swimming between Negit and Paoha Island  
3 several years ago. He actually saw a coyote out in the  
4 water, but that is about a quarter of a mile.

5 So, that's actually a longer distance and deeper  
6 distance than we reported here, so apparently they do have  
7 the ability and this is based on some published studies of  
8 waterfowl. It is the only evidence I could get and I did  
9 cite the Murphy observation in the Draft EIR.

10 Q Dr. Beedy, on the snowy plover, you stated it is a  
11 candidate 2 species?

12 A Yes, I did.

13 Q Did you consult with the Fish and Wildlife Service  
14 relative to their concerns about the status of that species?

15 A There was some official correspondence. I did not  
16 talk directly to the Fish and Wildlife Service. I did talk  
17 to people who have done research on this, Gary Page and Mr.  
18 Shuford, but principally with Mr. Page.

19 Q Did you describe to him lake level alternatives or  
20 scenarios?

21 A Yes, I tried to.

22 Q Did he express any concern to you about these  
23 particular habitats?

24 A Well, his general impression was that it is true that  
25 as the lake level is increased we do inundate potential

00207

1 nesting habitat. The question is at what point would that  
2 become limiting for the point of reference population.

3 He did not express a great concern when I told him  
4 the numbers and the calculations we have made -- he did not  
5 express a great concern about the loss of habitat. He did  
6 say that as the lake's elevation increased, it is likely  
7 there would be more springs and seeps forming out in the  
8 eastern part of the lake which would attract insects, which  
9 probably would provide new sources of food for snowy plovers  
10 which probably would increase their habitat.

11 As some habitat is lost, there would be an increase  
12 in food supply and he didn't speculate as to where that  
13 equation would come out.

14 The conclusion that there was sufficient habitat at  
15 6410 was based on the geographic information system analysis  
16 as far as the habitats. That's where those acreage numbers  
17 came from, not Mr. Page.

18 Q There were earlier questions of you about acreages of  
19 certain kinds of habitats, and some of those questions  
20 related to wetlands or riparian type habitats.

21 A Yes.

22 Q And would it be fair to say that not all acres of  
23 wetted land habitats are of the same value?

24 A Oh, certainly, that would be a fair statement.

25 Q And can you describe reasons why they might not be of

00208

1 equal value, one acre of habitat here versus one acre of  
2 habitat there?

3 A Mr. Canaday, are we comparing lake marsh habitat to,  
4 say, riparian habitat?

5 Q No, we are saying a lake fringing wetland of  
6 prediversion value or prediversion conditions versus a lake  
7 fringing Wetland of post-diversion scenarios.

8 The first question would be, are they necessarily the  
9 same value?

10 A My answer to that is they probably are not the same  
11 value.

12 Q And some reasons they may not be?

13 A Okay. I testified earlier today that I felt probably  
14 the first order of effect, the most important factor was the  
15 presence of the freshwater and brackish water lake fringing  
16 wetlands, and these not only provide bird and other-wildlife

17 a source of freshwater for drinking and bathing, but also,  
 18 to roost on and get away from the high wave action of the  
 19 lake which happens almost every afternoon I have been out  
 20 there. It is pretty windy and this would be an opportunity  
 1 for birds to get away from that.  
 22 So the cover values of cattails or tules, or whatever  
 23 could be similar no matter what, but it's the association,  
 24 the mosaic of freshwater, brackish water, open-ponded areas.  
 25 What you have got out there now are vast areas of

00209

1 quite uniform looking habitat. When you get out there,  
 2 there's either sedge meadows and around Simon Springs is a  
 3 good example, I spent a lot of time walking there, or dense  
 4 cattail associations, and there is some water. It's kind of  
 5 moist when you walk around, but you don't find big open  
 6 areas, and that's the real trigger there, the thing that the  
 7 birds really seem to be focusing on - and where I did see  
 8 birds, blackbirds, was a little small pond areas I  
 9 mentioned, the small channels that seemed to go out through  
 10 the marshes there, and I did find a few ducks sometimes.

11 MR. CANADAY: That's all I have. Thank you.

12 MR. DEL PIERO: Mr. Herrera.

EXAMINATION

14 by MR. HERRERA:

15 Q I just have a couple of brief questions. I believe  
 16 this is directed to Mr. Jokerst, or whoever can answer it.

17 Earlier there was a question involving the upper  
 18 Owens River in which you stated there was the addition of  
 19 water by LADWP had caused erosion problems or to the  
 20 riparian vegetation, and I believe some breakdown of the  
 21 banks to that effect.

22 Do you have any knowledge or can you expand a little  
 23 bit on what those were that those conditions started to  
 24 occur? Do you have any ideas?

25 MR. JOKERST: A There are two sources of information

00210

1 upon which to base that. As stated in the EIR, I talked  
 2 with most of the landowners on the upper Owens River, owners  
 3 or managers, and they, at the time we were gathering  
 4 information for the EIR, they pretty uniformly agreed that  
 5 flows in exceedence of 300 cubic feet per second were  
 6 damaging and of great concern to them, and they were quite  
 7 happy to see the temporary cap on flows instituted because  
 8 of that concern.

9 The Fish and Game study prepared by EBASCO that came  
 10 out nearly at the same time that the DEIR came out, provides  
 11 additional evidence that has a more scientific basis,  
 12 stating that at flows in exceedence of 250 cubic feet per  
 13 second there are locations within the floodplain where the  
 14 creek will go out of bank and flood low terraces adjacent to  
 15 the creek, and this can induce both the erosion of habitat  
 16 adjacent to the creek channel, and it can also cause creek  
 17 channels to relocate and abandon the prior locations.

18 In the process you either result in a net loss of  
 19 habitat if you are eroding the creek bank and essentially  
 20 eating away at it, or you are causing a relocation of the  
 21 habitat where the creek channel jumps over here. You have  
 22 eliminated that habitat, but you provide a new area for  
 23 habitat to recolonize and redevelop.

24 And those were the mechanisms by which I was  
 25 inferring there would be effects on vegetation.

00211

1 We have also noticed that there has been a  
 2 diminishment in the extent of willow scrub vegetation on the  
 3 upper Owens River.

4 When we look at the aerial photos taken just after  
 5 the onset of flow augmentation associated with the DWP  
 6 project and compare those to point-of-reference photos, we  
 7 note a large number of willow stands that previously existed  
 8 along the edge of the river, have since been eliminated.

9 Some of these correspond with locations that EBASCO has  
 10 indicated were eliminated through the process of erosion.

11 It's likely, it's possible that livestock grazing  
 12 works in conjunction with flow augmentation to bring about  
 13 that diminishment and extent of the willow scrub.

14 MR. CASADAY: A I just wanted to add, Mr. Herrera,  
 15 based on Mr. Jokerst's conversations about the 300 cfs  
 16 damaging flow thresholds, and at the advice of your staff,  
 17 we decided to pose that as a condition in LAAMP, as you will  
 18 recall on export volumes, 300 cubic feet per second, so that  
 19 we wouldn't be creating alternatives that unnecessarily  
 20 damaged the upper Owens River.

21 Q Now, I am assuming we will go back and utilize the  
 22 Fish and Game recommendation of 200 cubic feet per second in  
 23 future analysis here with the EIR?

24 A That is what we offered to do, right.

25 Q Thank you. I have one last question here to add. In  
 00212

1 your evaluation of the waterfowl populations at pre-1941  
 2 scenarios, did you evaluate or look at the effects of some  
 3 of the sport or marketing-type hunting effects on waterfowl,  
 4 or what effect that may have had on populations or location  
 5 of populations in the Mono Basin?

6 DR. BEEDY: A Mr. Herrera, I didn't have enough  
 7 information to make that kind of determination based on  
 8 existing data; although I can tell you there was  
 9 substantial, call it market hunting or not, but it was the  
 10 major recreational activity certainly, and people talked  
 11 about the only bag limit being how many ducks you wanted to  
 12 carry, and so there was a substantial amount of that going  
 13 on.

14 As far as how that influenced the ducks at the lake,  
 15 I really don't have any way to judge that at this point.

16 I know that Mr. Dombrowski's ponds that he watered  
 17 with water from Rush Creek clearly got high levels of use  
 18 and they were hunted regularly, so my impression is there is  
 19 probably a fair amount of turnover and the birds just kept  
 20 coming in there because it was one of the main sources of  
 21 freshwater around there. I have heard that from other  
 22 people.

23 I also heard anecdotal information from Kent  
 24 DeChambeau. He told me when he was a boy out there, that  
 25 the ponds on the family ranch, that you could basically just

00213

1 sit there and shoot ducks and they still kept coming. It  
 2 was the only place to sit down and that there were just so  
 3 many ducks. They just kept coming. That's what I heard.

4 MR. HERRERA: That concludes my questioning. Thank  
 5 you.

6 MR. BIRMINGHAM: Would the reporter mark that place  
 7 in the transcript, please.

8 MR. BROWN: Yes.

9 Go ahead. Any other questions by staff?

10 MR. FRINK: I think Mr. Smith has a question.

EXAMINATION

12 by MR. SMITH:

13 Q I would like to address this to anyone on the panel  
 14 that wants to answer.

15 There was a lot of talk about habitat loss and  
 16 habitat gain in the testimony. We also heard about the  
 17 endangered species, the snowy plover that had lost 50  
 18 percent, or would with higher lake levels lose 50 percent.

19 Throughout the Draft EIR there is mention of the fact  
 20 that all the way from 6377, 6383.5, 6390 and 6410, there  
 21 would be very little loss and that the effect on snowy  
 22 plover would be identical for those described for the 6377-  
 23 foot alternative.

24 Could you please clarify exactly what apparently are  
 25 contradictory statements here, losing 50 percent and the EIR

00214

1 is saying something different?

2 DR. BEEDY: A What I said -- I was the person who  
 3 read that, was not that there wasn't a loss of potential  
 4 habitat as the lake level increased. That's pretty much  
 5 self-evident.

6 The question is, would there be a population effect.

7 That is, would there be a point in that spectrum of  
 8 elevations which suddenly potentially the habitat for snowy  
 9 plover would be limited.

10 Now, that was based on the calculations of how much

11 barren habitat there would be within a reasonable distance,  
 12 say, half a mile or more, or less maybe, of the lakeshore,  
 13 although snowy plovers don't always necessarily nest near  
 14 water, they often do.  
 15 And it wasn't until I got to the no-diversion  
 16 alternative that the lake would rise to a point -- there  
 17 were several calculations. I assumed about 15 acres times  
 18 the 1988 population, and we do have some evidence that these  
 19 kinds of lake transgressions and regressions are something  
 20 that the snowy plover can tolerate.  
 21 Basically, Mr. Page and his associates did studies in  
 22 the late seventies, went back again in the late eighties  
 23 after that period of lake increase and decrease, and the  
 24 populations, according to the accuracy of his census method  
 25 had not changed in that period of time.

00215

1 So, I guess what I am saying it's not a population  
 2 effect. There's lots of alkali flat sandy areas that  
 3 would be covered, but would have an effect on snowy plovers.

4 Based on that calculation, I would say not, and the  
 5 Fish and Wildlife Service, I believe, and the Forest Service  
 6 undertook a similar analysis of the same data and made the  
 7 same conclusion.

8 MR. SMITH: Thank you.

9 A The no diversion, I want to make that clear, I did  
 10 find an effect. With the no diversion, as far as we can  
 11 tell, that habitat could become limiting, and that may be  
 12 one of the reasons that Dr. Grinnell and Joseph Dixon didn't  
 13 report the snowy plover at Mono Lake when they visited it in  
 14 the nineteen teens and whatever.

15 As far as I can tell from reading their notes, they  
 16 never visited the east side of the lake, so it's  
 17 problematical that they looked in the right areas or not,  
 18 but again, it is likely the population was lower there at  
 19 that point because the lake had been up at 6428 feet as  
 20 recently as 1919.

21 MR. SMITH: Thank you.

22 MR. FRINK: Staff has no other questions.

23 MR. DEL PIERO: Any questions by Board members?  
 24 I have got three. Let me ask, is there any recross?  
 25 One recross.

00216

1 MR. DODGE: I have about two minutes.

2 EXAMINATION

3 by MR. DEL PIERO:

4 Q Two questions, the same question, different areas.

5 How old are the wetlands at Wilson Creek?

6 MR. JOKERST: A That, unfortunately, is out of my  
 7 study area. I will pass the mike.

8 MR. CASADAY: A The same as passing the buck as far  
 9 as I can see.

10 MR. JOKERST: A Oh, Wilson Creek, excuse me. What  
 11 portion of the creek are you referring to?

12 Q The ones that are closest to the existing lake.

13 A There is a tremendous amount of -- well, relative to  
 14 a lot of wetlands on that Mono Lake shoreline, there's a lot  
 15 of freshwater moving through the Wilson Creek delta towards  
 16 the lake which increases the speed with which the salty lake  
 17 bed sediments can be leached and induce the re-establishment  
 18 of vegetation.

19 And I suspect that the habitats nearest to the lake  
 20 are very young because the lake had risen and fallen in the  
 21 recent past. I am not quite sure what the dates are.

22 Q In the seventies, how high did the lake get?

23 DR. BEEDY: A About 6382.

24 MR. JOKERST: A Between 6382 and where we are now,  
 25 which is around 6374, I would say that those habitats are

00217

1 essentially contemporary as they have become exposed. Maybe  
 2 there's a two- to five-year time lag between when they  
 3 became exposed and the vegetation established.

4 Q At the County Park, how old are they?

5 A Likewise, about the same. The same process is at  
 6 work there.

7 Q You testified --

8 A Could I add one more brief thing?

9 Q Yes.

10 A There are portions of wetlands at both sides that  
 11 have been there for quite a long time.

12 Q Were those two wetland areas historical wetlands?

13 A Yes, sir.

14 Q You indicated that a portion of the alkali flats, at  
 15 least a portion of it, could be considered a wetland; is  
 16 that true?

17 A Yes, sir, according to the definition that the U. S.  
 18 Fish and Wildlife Service uses. Other regulatory  
 19 definitions may not include those as wetlands.

20 Q Is that the same definition used by the Army Corps of  
 21 Engineers?

22 A No, it is not.

23 Q Do you want to explain the difference? You and I may  
 24 be the only two in the room that know the difference.

25 A Well, maybe only you.

00218

1 Q Go ahead.

2 A The Corps of Engineers requires that you have  
 3 positive indicators above three parameters to consider a  
 4 site a wetland in the Corps' jurisdiction. You must have a  
 5 prevalence of hydrophytic vegetation, water-loving plants,  
 6 in other words; you must have wetland hydrology and you must  
 7 have hydric soil.

8 The Fish and Wildlife Service, in contrast, requires  
 9 that you only have positive indicators of one of those three  
 10 parameters to consider a site a wetland. For that reason,  
 11 large portions of the alkali flat qualify under the Fish and  
 12 Wildlife Service as a wetland because the water table is out  
 13 or near the surface for a substantial portion of the year.

14 Q Other than that, it meets no other requirement for  
 15 wetland?

16 A There are small areas on the alkali flat where we are  
 17 seeing some vegetation established and in the broadest sense  
 18 those might meet Corps regulatory requirements.

19 Q These are hydrophytic?

20 A Yes, sir, very limited, and the vegetation is very  
 21 sparse where that is occurring.

22 Q Was that area historically wet?

23 A Historically prior to --

24 Q Historically.

25 A It was under the lake, so, therefore, it would meet

00219

1 Fish and Wildlife Service's definition as a wetland, not the  
 2 Corps, because there would be no vegetation.

3 MR. DEL PIERO: I just wanted to get that all  
 4 clarified so we knew exactly what we were talking about in  
 5 terms of definition.

6 Okay, recross, Mr. Birmingham.

7 RE-CROSS-EXAMINATION

8 by MR. BIRMINGHAM:

9 Q First, I would like to talk about birds, and the  
 10 Western snowy plover and we want to be specific that we are  
 11 talking about the inland Western snowy plover, which you  
 12 said is a candidate species for listing under the Endangered  
 13 Species Act; is that correct?

14 DR. BEEDY: A Yes, category 2.

15 Q I'm going to ask you assume hypothetically the  
 16 Western snowy plover is listed as either a threatened or  
 17 endangered species.

18 Isn't it correct that raising the lake level would  
 19 then constitute a take of that species under the Endangered  
 20 Species Act?

21 MR. DODGE: A Objection, calls for a legal  
 22 conclusion.

23 MR. DEL PIERO: I'm afraid that's true.

24 A Am I not to answer the question?

25 MR. DEL PIERO: You don't have to answer that

00220

1 question.

2 MR. BIRMINGHAM: Q Are you familiar with what  
 3 constitutes a take under the Endangered Species Act?

4 A Yes, as defined in Section 9 of the Act, I am

5 familiar with what the take is.  
 6 Q Is it your understanding that destruction of habitat  
 7 constitutes a take?  
 8 MR. DODGE: Same objection.  
 9 MR. DEL PIERO: He is familiar with the section.  
 10 Go ahead and answer the question. The question was,  
 11 is it your understanding?  
 12 A Is it my understanding that --  
 13 MR. BIRMINGHAM: Q That the destruction of habitat  
 14 of endangered species constitutes a take under the  
 15 Endangered Species Act?  
 16 A Yes, under the Federal Act, that would be a true  
 17 statement. Under the State Act, I don't think you can get a  
 18 take for just -- you have to have a carcass in hand under  
 19 the State Act.  
 20 Q Under the Federal Act, is that not true?  
 21 A I don't know.  
 22 MR. DEL PIERO: Whether it is true or not, he is  
 23 asking what your understanding is. You are answering in  
 24 your capacity as a non-lawyer.  
 25 A I will say that is what my understanding is.

00221

1 MR. DEL PIERO: This is the appropriate time for you  
 2 to respond as succinctly as possible. I have asked you to  
 3 do that before and I am asking you again.  
 4 MR. BIRMINGHAM: Q In response to my question, you  
 5 referred to both the Federal Endangered Species Act and the  
 6 State Endangered Species Act. My questions are limited to  
 7 the Federal Endangered Species Act.  
 8 And it has been your testimony that it is your  
 9 understanding that under the Federal Endangered Species Act  
 10 destruction of habitat of endangered species constitutes a  
 11 take?  
 12 A That's my understanding.  
 13 Q And in order to lawfully take a species under the  
 14 Endangered Species Act, it is necessary to have either an  
 15 incidental take permit under Section 7 or Section 10 of the  
 16 Act; is that your understanding?  
 17 A Yes, that's my understanding.  
 18 Q So, if the snowy plover becomes listed, in order to  
 19 raise the lake and destroy any of its potential nesting  
 20 habitats, it will be necessary to obtain an incidental take  
 21 permit?  
 22 MR. DODGE: Objection. That does call for a legal  
 23 conclusion.  
 24 MR. DEL PIERO: You can stop when there is an  
 25 objection.

00222

1 The answer is that the objection is going to be  
 2 sustained. Okay.  
 3 MR. BIRMINGHAM: If you don't know the answer to any  
 4 of my questions, it is perfectly okay for you to say, I  
 5 don't know the answer, and I would prefer that as opposed to  
 6 a speculation.  
 7 Q Let's talk about ducks. Now, in response to a  
 8 question by Mr. Thomas, you said you did not include in your  
 9 analysis of habitat values the area around DeChambeau Creek,  
 10 and I believe you said you didn't include it because that  
 11 was artificially maintained.  
 12 Is that your testimony?  
 13 A I am trying to recall whether we included DeChambeau  
 14 Pond as part of the existing lakeshore.  
 15 MR. DEL PIERO: Do you know?  
 16 A I don't know.  
 17 MR. DEL PIERO: Who knows?  
 18 MR. JOKERST: A I do.  
 19 MR. DEL PIERO: Answer the question.  
 20 A May I check the map to confirm briefly?  
 21 MR. DEL PIERO: Certainly.  
 22 A No, we did not.  
 23 MR. DEL PIERO: Proceed.  
 24 MR. BIRMINGHAM: Q Was it your answer, Dr. Beedy,  
 25 that you did not because those ponds were artificially

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1 maintained?

2 MR. DEL PIERO: Do you know the answer?  
 3 DR. BEEDY: A I don't know the answer to that, why  
 4 we did not include that.  
 5 MR. DEL PIERO: Did you do that work?  
 6 A I didn't do the mapping.  
 7 MR. DEL PIERO: The questions are appropriate to be  
 8 directed to the wetlands --  
 9 MR. BIRMINGHAM: I believe, Mr. del Piero, Dr. Beedy  
 10 responded to Mr. Thomas's questions in this area.  
 11 Q I will ask for purposes of the record, did you  
 12 respond to Mr. Thomas's questions in this area? Again, the  
 13 correct response would have been apparently you don't know  
 14 as opposed to the answers that you gave him.  
 15 MR. THOMAS: Objection. It was Mr. Jokerst.  
 16 MR. DEL PIERO: Mr. Birmingham, that's an  
 17 inappropriate question.  
 18 MR. BIRMINGHAM: Q I will direct the questions to  
 19 Mr. Jokerst if Mr. Thomas represents that was the individual  
 20 who responded to the question.  
 21 MR. JOKERST: A Could you restate the question,  
 22 please?  
 23 Q Is it correct that you did not include the DeChambeau  
 24 ponds in your analysis of existing habitats because they are  
 25 artificially maintained?

00224

1 A No, that's not correct.  
 2 Q Isn't it correct that the ponds that were near Rush  
 3 Creek in -- excuse me, apparently there was a conference. I  
 4 wonder if I could ask what the conference was about.  
 5 A I was elaborating on why that area was excluded from  
 6 the study. I would be happy to share that.  
 7 Q Go ahead.  
 8 A The principal reason is that the DeChambeau ponds  
 9 were located outside of the region that could be affected by  
 10 rise or fall of the lake level under the alternatives that  
 11 we analyzed. That's the simplest explanation.  
 12 Q Isn't it correct that the ponds that existed near  
 13 Rush Creek prior to DWP's diversions, that served as duck  
 14 habitat were artificially maintained?  
 15 A Are you referring to the Dombrowski ponds?  
 16 Q Yes, I am.  
 17 A Yes, those were artificially maintained.  
 18 Q Isn't it correct that approximately 48 percent of the  
 19 ducks nested at those artificially maintained ponds?  
 20 DR. BEEDY: A I don't have good data on duck  
 21 nesting. I don't have that data available. I don't have  
 22 good data on duck nesting. I don't have that data  
 23 available. I don't recall Mr. Dombrowski publishing or  
 24 representing the nest counts.  
 25 Q In response to a question that was asked of you by

00225

1 staff, that I asked the reporter to mark, I wonder if we  
 2 could go back and ask the reporter to read the question and  
 3 answer that I asked to be marked?  
 4 MR. DEL PIERO: Certainly.  
 5 (The reporter read the requested question and  
 6 answer:  
 7 Question: Thank you. I have one last question  
 8 here to add. In your evaluation of the  
 9 waterfowl populations at pre-1941 scenarios,  
 10 did you evaluate or look at the effects of some  
 11 of the sport or marketing-type hunting effects  
 12 on waterfowl, or what effect that may have had  
 13 on populations or location of populations in  
 14 the Mono Basin?  
 15 DR. BEEDY: A Mr. Herrera, I didn't have  
 16 enough information to make that kind of  
 17 determination based on existing data; although  
 18 I can tell you there was substantial, call it  
 19 market hunting or not, but it was the major  
 20 recreational activity certainly, and people  
 21 talked about the only bag limit being how many  
 22 ducks you wanted to carry, and so there was a  
 23 substantial amount of that going on.  
 24 As far as how that influenced the ducks at

25 the lake, I really don't have any way to judge 00226

1 that at this point.  
 2 I know that Mr. Dombrowski's ponds that he  
 3 watered with water from Rush Creek clearly got  
 4 high levels of use and they were hunted  
 5 regularly, so my impression is there is  
 6 probably a fair amount of turnover and the  
 7 birds just kept coming in there because it was  
 8 one of the main sources of freshwater around  
 9 there. I have heard that from other people.  
 10 I also heard anecdotal information from Kent  
 11 DeChambeau. He told me when he was a boy out  
 12 there, that the ponds on the family ranch, that  
 13 you could basically just sit there and shoot  
 14 ducks and they still kept coming. It was the  
 15 only place to sit down and that there were just  
 16 so many ducks. They just kept coming. That's  
 17 what I heard.)  
 18 MR. BIRMINGHAM: I believe in the answer that we just  
 19 had read back you referred to anecdotal information; is that  
 20 correct?  
 21 A Yes, personal recollections from people rather than a  
 22 published source.  
 23 Q And it is correct; isn't it, that that anecdotal  
 24 information that we just recited and reread evidences one of  
 25 the problems with anecdotal information, and that is it may

00227

1 not be accurate.  
 2 A I don't know where you get that conclusion.  
 3 Q You said Mr. Kent DeChambeau told you that you could  
 4 hunt on his family ponds and the birds would just keep  
 5 coming in, and I believe your words were because it was the  
 6 only place to sit down.  
 7 Now, we know that the DeChambeau ponds were not the  
 8 only place to sit down, and when you said sit down, I  
 9 presume you meant it is not the only place for ducks to sit  
 10 down in the Mono Basin.  
 11 Isn't that correct?  
 12 A I didn't mean to imply that. You may have inferred  
 13 that from what I said. What I did say was that according to  
 14 his recollections, and I did interview DeChambeau  
 15 personally, and I have seen ducks in these kinds of  
 16 densities myself, so he talked about the fact that there was  
 17 really literally no open water space in the ponds even  
 18 though he was actively hunting there; and when he was  
 19 hunting, ducks would continue to come to these ponds.  
 20 And I didn't mean to imply they were the only source  
 21 of duck habitat around the lake. That would certainly be an  
 22 incorrect statement. I, perhaps, mis-implied that.  
 23 Obviously, we talked about other habitats around the  
 24 lakeshore that had similar duck use.  
 25 Q So, Mr. DeChambeau didn't tell you it was the only

00228

1 place for them to sit down?  
 2 A No, I think that was my inference that I made there.  
 3 I am just saying that that was the place -- in that  
 4 localized area there were some small ponds. If you go down  
 5 there, there's some ponds there and that's essentially where  
 6 the birds were.  
 7 Q Some of the anecdotal information that you relied on  
 8 in analyzing ducks in the prediversion period was that  
 9 people could bag their limit with one shot.  
 10 Is that reported in the Draft EIR?  
 11 A Yes, it was, Mr. Birmingham.  
 12 Q What was the limit.  
 13 Q Well, again, I referred to the limit as something --  
 14 I don't know at what time, whether it be the thirties or  
 15 forties, my recollection was somewhere around 20 birds.  
 16 Q Do you think it is reasonable that regardless of the  
 17 abundance of ducks that you could bag 20 birds with one  
 18 shot?  
 19 A Yes, I do. I have actually seen my grandfather in  
 20 the early fifties shoot -- I don't know if he got 20, but he  
 21 got 18 ducks in one shot.

22 MR. DEL PIERO: Fish and Game are winning in the  
 23 back.  
 24 A There might have been no limit, I don't know.  
 25 MR. BIRMINGHAM: The statute of limitations has run. 00229

1 You don't need to worry.  
 2 MR. DEL PIERO: There are tears falling near the back  
 3 door.  
 4 MR. BIRMINGHAM: Q And perhaps the reason there  
 5 aren't as many ducks today as there were in the thirties,  
 6 and forties and fifties is because people were shooting 18  
 7 of them in one shot.  
 8 Is that possible?  
 9 A I think there was certainly a problem of people  
 10 taking more ducks than they could probably use. My  
 11 grandfather might have been one of those guys.  
 12 Q Well, we have established culpability.  
 13 Early on in your testimony concerning ducks and use  
 14 of freshwater habitat around Mono Lake as it exists today,  
 15 you referred to the ponds, I believe, at DeChambeau Creek;  
 16 is that correct?  
 17 A Not at DeChambeau Creek. It would have been -- I  
 18 guess DeChambeau Creek does flow near there. I was talking  
 19 on the ranch headquarters. It's where the buildings are,  
 20 there are some ponds.  
 21 Q And I believe you said that was the only open water  
 22 that you were aware of as it exists at Mono Lake today?  
 23 A No. I mentioned also that there is some open water  
 24 at the mouth of Wilson Creek, about a half-acre, and I don't  
 25 know the size of the DeChambeau ponds, but they are there.

00230

1 Q Isn't it correct that currently today, there's a  
 2 freshwater pond at the mouth of Lee Vining Creek?  
 3 A You would have to direct that question to Mr.  
 4 Jokerst. If there is one, it is not very large.  
 5 Q Mr. Jokerst, isn't it correct there is a freshwater  
 6 pond at the mouth of Lee Vining Creek?  
 7 MR. JOKERST: A I'm not aware of a pond at the mouth  
 8 of Lee Vining Creek unless you are referring to the actual  
 9 creek channel itself and the embayment that is formed where  
 10 the creek channel enters the lake. That would be the only  
 11 one I would be aware of, but nothing that sits adjacent to  
 12 the channel.  
 13 Q So you are not aware of any pond that is adjacent to  
 14 the stream channel on Lee Vining Creek?  
 15 A No, sir.  
 16 Q With respect to this Table D-5 indices, acreages and  
 17 wildlife habitat values under prediversion and 1991  
 18 conditions, Mr. Thomas asked you a number of questions about  
 19 this Table D-5. In fact, on the blow-up that's been marked  
 20 next in order by the Department of Fish and Game, he placed  
 21 some writing on the table.  
 22 Now, in response to some questions, I believe that  
 23 Was you, Dr. Beedy -- in response to some questions  
 24 concerning wildlife habitat unit values, you said that the  
 25 basis of -- let me go to my notes for a moment and kind of

00231

1 find it.  
 2 You said that the species richness was the basis of  
 3 the rating system for different lake levels; is that  
 4 correct?  
 5 DR. BEEDY: A It was the basis for calculating WHI  
 6 values.  
 7 Q When you say species richness, what do you mean by  
 8 that?  
 9 A What I mean by that is the number of species observed  
 10 in a habitat.  
 11 Q The different species?  
 12 A Different species ranging from mammals to birds.  
 13 Q And the more species, the higher the value?  
 14 A Yes. What we did in terms of this calculation, we  
 15 took the total species observed in the study area and then  
 16 made a fraction out of, let's say cottonwood-willow, what  
 17 proportion of those were seen in the cottonwood-Willows, and  
 18 that's the WHI value. So, a higher number of species would



19 indicate a higher WHI value, that's correct.  
 20 Q Earlier when you were answering Ms. Goldsmith's  
 21 questions about Caspian terns, you were talking about terns  
 22 weren't analyzed for a variety of reasons. Apparently  
 species richness doesn't apply to terns?  
 23 A They were included in this analysis. You can look in  
 24 the table, I guess it's -- this Table D-4. I'm pretty sure

00232

1 we had the Caspian tern on there. Yes, about halfway down  
 2 the page on page 2 of 5 you will see Caspian tern was  
 3 indicated as one of the species.

4 Q So, notwithstanding your earlier answers to the  
 5 questions by Ms. Goldsmith is species richness and  
 6 presence of Caspian terns is important for the analysis of  
 7 wildlife habitat unit values, you would concur, wouldn't  
 8 you, that the analysis of rising lake levels on the habitat  
 9 of that species is something that might be analyzed in an  
 10 Environmental Impact Report that evaluates the impacts of  
 11 different lake levels?

12 A As I testified to Ms. Goldsmith, I wouldn't agree  
 13 with that statement because there was no basis for including  
 14 it. It is important in terms of overall analysis, but if we  
 15 are going to do that, then we would probably have to analyze  
 16 every species on the table.

17 Q Again, you said the Caspian terns weren't analyzed be-  
 18 cause Caspian Terns are not limited in their range; is that correct?

19 A That is one of the reasons.

20 Q Isn't that true of California gulls?

21 A California gulls have a much more restricted breeding  
 22 distribution through the Western United States, basically in  
 23 Canada, whereas, the Caspian tern literally breeds all over  
 24 the world, so there is a difference there, and also, the  
 25 California gull species is of special concern.

00233

1 Q My question is, the California gull, it is not  
 2 limited by its habitat, is it, currently throughout its  
 3 range?

A I am not sure what you mean by the question.

5 Q Isn't it correct that since the 1940's, California  
 6 gulls have been expanding their population throughout the  
 7 Western continent of North America and, in fact, new  
 8 colonies have been established?

9 A Yes, that is a true statement.

10 Q And isn't it correct that in some places California  
 11 gulls are considered a nuisance to such a degree that there  
 12 are State programs to eliminate birds?

13 A I believe that they are hazed off certain,  
 14 particularly wintering populations. That's where they tend  
 15 to be most concentrated. They are not only California  
 16 gulls, but also, the white-headed gulls, or most of them  
 17 during that period.

18 But that's generally true, that they have increased  
 19 their range. In cases they are a problem.

20 Q And, in fact, the State of Utah has a program to  
 21 reduce the population of California gulls at the Great Salt  
 22 Lake; isn't that correct?

23 A I wasn't aware of that program.

24 Q Now, while we are talking about California gulls we  
 25 have had lots of questions about the effect of rising lake

00234

1 levels and lowering lake levels. Let's just talk about  
 2 What's happened.

3 Since 1979, Mono Lake has been below elevation 6375  
 4 for a good percentage of the time; isn't that correct?

5 A It depends on which year. Certainly we can look at  
 6 the chart, but that's certainly true in many years.

7 Q Well, in 1979, isn't it correct that the level of  
 8 Mono Lake was below elevation 6375?

9 A Let me look at the chart here. Yes, that appears to  
 10 be true from the chart.

11 Q The same thing is true with respect to 1980, '81 and  
 12 '82; isn't that correct?

13 A Yes.

14 Q The level of Mono Lake was below 6375 and then in  
 15 1983, the level of Mono Lake rose above elevation 6375 and

16 it remained above elevation 6375 until 1990; is that  
 17 correct?

18 A Yes.

19 Q And since 1990, the elevation of Mono Lake has been  
 20 below elevation 6375?

21 A Yes, since 1990.

22 Q Now, during that time from 1979 through the present  
 23 time, 1993, the breeding population of gulls at Mono Lake  
 24 has remained stable or has increased; isn't that correct?

25 A The number of total adults has, but that's an

00235

1 incomplete analysis of the question.

2 Q Well, my question is during the period of time from  
 3 1979 through 1993, the population of California gulls has  
 4 remained stable or has increased; isn't that correct?

5 MR. DODGE: Mr. Chairman, as I have listened, this is  
 6 all well beyond the cross-examination of any of us, and I  
 7 don't think this is proper recross-examination.

8 MR. DEL PIERO: Mr. Birmingham.

9 MR. BIRMINGHAM: Mr. Dodge went into this area to a  
 10 significant degree and I think it certainly relates to  
 11 questions that were asked of this witness by Mr. Dodge.

12 MR. DEL PIERO: Mr. Dodge.

13 MR. DODGE: I respectfully disagree. I didn't ask  
 14 any questions about the population of breeding gulls from  
 15 1979 to 1993. It is beyond the scope of cross-examination.

16 MR. FRINK: Mr. del Piero, the Board's regulations  
 17 allow for cross-examining a witness on any matters within  
 18 his knowledge rather than whether it was within the scope of  
 19 direct examination or not.

20 MR. DEL PIERO: Thank you very much, Mr. Frink.

21 MR. BIRMINGHAM: Thank you, Mr. Frink.

22 MR. DODGE: Thank you very much.

23 MR. BIRMINGHAM: This will be my last question.

24 Q Isn't it correct that since 1979, the population of  
 25 California ducks at Mono Lake, breeding gulls, has remained

00236

1 stable or has increased?

2 A That's a true statement, restricted to the adult  
 3 gulls, that's right.

4 Q I'm about to violate some fundamental rules on cross-  
 5 examination and I want Mr. Pollak to pay attention, in fact,  
 6 I want Mr. Pollak not to pay attention.

7 I've got some questions about your personal history.

8 I don't know the answer to them, so I am violating a  
 9 fundamental rule.

10 MR. DEL PIERO: This is in regard to his professional  
 11 expertise?

12 MR. BIRMINGHAM: His personal experience, Mr. del  
 13 Piero.

14 MR. DEL PIERO: Okay. I want to be sure you don't get  
 15 too far afield.

16 MR. BIRMINGHAM: No, we won't.

17 Q You indicated you were present in the Mono Basin in  
 18 the mid seventies when gull counts were taking place. I  
 19 believe you referred specifically to 1976; is that correct?

20 MR. POLLAK: A Yes, that is a true statement. I  
 21 didn't live there then, but I was there visiting.

22 Q You were visiting there. During the period of the  
 23 late seventies, how frequently did you visit Mono Lake?

24 A Five or six times a summer.

25 Q Do you know an individual or did you know an

00237

1 individual by the name of David Gaines?

2 A Oh, yes.

3 Q Did you have a personal relationship with Mr. Gaines?

4 A I knew David professionally and I knew him as someone  
 5 that was -- all of the people that enjoy birds, we knew each  
 6 other.

7 Q Would it surprise you if someone in the Owens  
 8 Valley or the Mono Lake area, Eastern Sierra, described you  
 9 as a very good friend of Mr. Gaines?

10 MR. DEL PIERO: Excuse me, Mr. Birmingham, I want you  
 11 to tell me what relevance that has before that question is  
 12 answered. It better be a real good answer.

13 MR. BIRMINGHAM: It has to do with personal bias or  
14 lack of objectivity, and goes to the witness's objectivity,  
15 Mr. del Piero, and again --  
16 MR. DEL PIERO: Mr. Birmingham, I have afforded you a  
17 lot of latitude, but not that much latitude, so let's move  
18 on to a different topic.  
19 MR. BIRMINGHAM: I will withdraw the question.  
20 Q There was testimony, I believe it was Mr. Jokerst,  
21 about lake fringing lagoons. Is that correct, Mr. Jokerst?  
22 MR. JOKERST: A Yes, sir.  
23 Q And the lake fringing lagoons -- let me state it  
24 differently. Isn't it correct that there currently are lake  
25 fringing lagoons that are forming around Mono Lake?

00238

1 A Yes, sir.  
2 Q And at the existing level of Mono Lake, isn't it  
3 correct that those lake fringing lagoons will continue to  
4 expand in size?  
5 A You said at the present. Could you repeat that part  
6 again?  
7 Q At its current elevation, isn't it correct that the  
8 lake fringing lagoons that are forming will continue to  
9 expand in size?  
10 A I don't agree with that statement.  
11 Q Do you know approximately how many acres of lake  
12 fringing lagoons exist at the lake at its current elevation?  
13 A We recorded in the EIR at the point of reference  
14 condition about one acre of lake fringing lagoon. This  
15 excluded lagoons that were ephemeral, highly intermittent,  
16 and only included lagoons that from our judgment were  
17 perennial in their duration on an annual basis.  
18 Q Finally, I would like to talk a little bit about  
19 vegetation and I guess these questions --  
20 A Could I expand a tiny bit on that previous statement?  
21 Q If you would like to.  
22 A I appreciate that.  
23 There are littoral embankments, banks that have  
24 formed on the shoreline, and above the current lake level  
25 that can trap rainfall and runoff that is moving toward the

00239

1 lake, and at certain times of the year -- let me add, these  
2 are typically very narrow impoundments where the water will  
3 be trapped as it is flowing downhill towards the lake.  
4 These same features can intercept groundwater when  
5 the groundwater levels are high enough. These features only  
6 impound water on a very ephemeral basis and they are highly  
7 tied to the climate that either results in precipitation or  
8 temporary elevation of groundwater levels.  
9 They are very small features. They are very narrow  
10 and they are very ephemeral, and thus, we didn't include  
11 them. We didn't want them -- it would be apples and oranges  
12 to include them in the assessment and analyze them on the  
13 same basis as the larger more permanent lagoons.  
14 Q Mr. Casaday, I believe that Mr. Roos-Collins asked  
15 you some questions regarding vegetation and in particular,  
16 he referred to Figure 6 from the direct testimony of Robert  
17 Beschta, and in response to the question you compared aerial  
18 photos taken in the early forties with maps that you had  
19 prepared at the point of reference which was 1989; is that  
20 correct?  
21 MR. CASADAY: A That's correct.  
22 Q Now, the aerial photos that you referred to with  
23 respect to prediversion conditions were photos that  
24 depicted, and I believe you said a mature cottonwood forest  
25 approximately 300 feet in width; is that correct?

00240

1 A That's correct.  
2 Q Now, you were not able to determine from that aerial  
3 photo the condition of the understory at the time the photo  
4 was taken; is that correct?  
5 A Not entirely. The understory underneath the canopy  
6 of a large tree; no.  
7 Q By understory, we are talking about the vegetation  
8 close to the ground; is that right?  
9 A Right. Some of that would be visible in an aerial

10 photo, but certainly, not all of it.  
11 MR. DEL PIERO: Mr. Birmingham, one more question and  
12 your time is up.  
13 MR. BIRMINGHAM: May I extend that to two, Mr. del  
14 Piero?  
15 MR. DEL PIERO: Yes.  
16 MR. BIRMINGHAM: Q Isn't it correct that prior to  
17 the diversions by the City of Los Angeles or during the  
18 period prior to diversions, there were 200,000 sheep that  
19 grazed in the Mono Basin on an annual basis?  
20 A I can't recall the number, but I know there was a  
21 substantial amount.  
22 Q Perhaps the author of the land use section could  
23 respond to that question better.  
24 MR. TROTT: A I believe at times there were. I  
25 don't know exactly when.

00241

1 Q Now the Draft EIR concluded with respect to the upper  
2 Owens Valley, and here I am referring to page 3C-48, this is  
3 the upper Owens Valley as opposed to the Mono Basin,  
4 livestock probably play an important role in the steady  
5 decline and extent of willow scrub in the upper Owens River  
6 area also because they trample and consume seedlings and  
7 mature plants.  
8 Now, if there were 200,000 sheep grazing in the Mono  
9 Basin, couldn't the same observation be made about the  
10 effect of livestock grazing on seedlings and mature plants?  
11 A They undoubtedly had some impact on the vegetation.  
12 MR. BIRMINGHAM: Thank you.  
13 MR. DEL PIERO: Thank you very much.  
14 Mr. Thomas.  
15 MR. THOMAS: In light of the hour, we will pass.  
16 MR. DEL PIERO: Okay. Mr. Dodge.  
17 MR. DODGE: Will Mr. Casaday be on tomorrow's panel?  
18 MR. FRINK: Yes, he will.  
19 MR. DODGE: I have two minutes of questions on  
20 vegetation, but I would just as soon ask them tomorrow.  
21 MR. THOMAS: Same for us, one question.  
22 MR. ROOS-COLLINS: Same approach.  
23 MR. DEL PIERO: Ms. Scoonover.  
24 MS. SCOONOVER: No questions.  
25 MR. DEL PIERO: Unless I hear from someone else --

00242

1 staff, anything?  
2 Mr. Canaday, before everybody starts jumping up and  
3 taking off, you need to go over the December dates that have  
4 been identified for continuance of the hearing.  
5 Everybody needs to pay attention to this for their  
6 schedules, please.  
7 MS. CAHILL: Mr. del Piero, Mr. Birmingham hasn't set  
8 forth the order of his witnesses.  
9 MR. DEL PIERO: I'm going to get to that.  
10 MR. CANADAY: The following dates have been set or  
11 calendared for continuation of this particular hearing.  
12 This is for the month of December. We would be  
13 starting on Thursday, the 2nd, continuing on Friday the 3rd.  
14 The next dates are the following week on Monday the 6th,  
15 Tuesday the 7th, Wednesday the 8th until 3:00 p.m. These  
16 are the only dates we have officially calendared.  
17 There may be alternate dates or additional dates  
18 depending on Mr. del Piero's schedule for Monday the 13th  
19 and Tuesday the 14th.  
20 MR. DEL PIERO: If we aren't done by then --  
21 MR. CANADAY: I'm hanging stockings up here.  
22 MR. DEL PIERO: And all wear a beard and red hat.  
23 Okay. Mr. Birmingham.  
24 MR. BIRMINGHAM: Yes, Mr. del Piero, my order of  
25 presentation is based on a couple of assumptions that I will

00243

1 articulate, if I may.  
2 The first is that we will begin our presentation  
3 tomorrow. I hope that is the case.  
4 MR. DEL PIERO: I think that is probably a fair  
5 assumption. Tomorrow afternoon, I would assume would be the  
6 most likely, after the last panel.

7 MR. BIRMINGHAM: In that event, the order of  
 8 witnesses would be as follows:  
 9 First, we will present a panel of witnesses that  
 10 consists of Donald Chapman and William Platts.  
 11 We will then present the testimony of David Hanson,  
 12 Thomas Hardy and Emil Morhardt.  
 13 And then finally, with respect to stream issues, Dr.  
 14 Robert Beschta.  
 15 We have a number of witnesses who will testify on  
 16 like issues and I presume this will start based on the  
 17 assumption we will complete our stream testimony tomorrow  
 18 and Friday, and commencing on December 8, we would have Dr.  
 19 John Melak testify. Dr. Melak is a professor at U. C. Santa  
 20 Barbara.  
 21 I am just informed that Dr. Melak is not available on  
 22 Monday because he has commitments at the University of  
 23 California, Santa Barbara, where he is a professor.  
 24 MR. DEL PIERO: When is he available?  
 25 MR. BIRMINGHAM: Tuesday.

00244

1 MR. DEL PIERO: Tuesday, the 9th.  
 2 MR. BIRMINGHAM: We will begin with Dr. Jehl, then  
 3 Dr. Kimmerer, and then probably assuming that takes us to  
 4 Tuesday, D. Melak, Brian Tillemans, John Pinsonnault, and  
 5 then Dr. Joseph Fedoruk.  
 6 We would then have the testimony, it would be a panel  
 7 of Michael Deas, William Hasencamp and Dr. Richard Carson,  
 8 and Dr. William Wade.  
 9 And then, a panel of Gerald Gewe and Bruce Kuebler.  
 10 And then, a panel of Allan McFarlane, Michael  
 11 Webster, and Arthur Tenako.  
 12 And that would complete the presentation of our  
 13 evidence.  
 14 You may have gathered from the number of witnesses  
 15 that it is likely that we will request more than two hours  
 16 to present our case in chief, but it is our hope that most  
 17 of these witnesses can complete an oral summary of their  
 18 testimony in less than 20 minutes. We will ask for  
 19 additional time with respect to a few of them.  
 20 MR. DEL PIERO: Okay. Let me point out, ladies and  
 21 gentlemen, on Friday of this week it may be necessary for us  
 22 to break somewhat early in the afternoon. I am attempting  
 23 to try and work it out, but I may have an appointment in a  
 24 different part of the state at 5:30 in the afternoon, so I  
 25 am going to see what I can do in terms of airplane

00245

1 accommodations. If it doesn't work out, we may have to  
 2 break somewhat early in the afternoon on Friday, which is  
 3 one of those things, unfortunately.  
 4 I will know by tomorrow, so you all can at least have  
 5 one day's advance notice in terms of arranging your  
 6 schedules.  
 7 Yes, sir, Mr. Roos-Collins.  
 8 MR. ROOS-COLLINS: Since I watch the Gladiator show,  
 9 I don't know what a tag team means. Would you explain that  
 10 to me?  
 11 MR. DEL PIERO: The way I would like this conducted  
 12 is, unless someone requests in advance, rather than having  
 13 various attorneys back and forth; if one attorney is  
 14 supposed to be taking on one particular area in terms of  
 15 cross-examination of a panel, I would appreciate it if they  
 16 would get all their questions out up front, and then if  
 17 another attorney has a different area in terms of the panel,  
 18 I would appreciate it if they got all their questions asked,  
 19 and then, if there are questions that are appropriate for  
 20 recross, they are asked during recross as opposed to going  
 21 for cross-examination.  
 22 I think that's about as clear as I can be.  
 23 MR. ROOS-COLLINS: That's very clear.  
 24 MR. DEL PIERO: Other than that, ladies and  
 25 gentlemen, we will look forward to seeing you tomorrow

00246

1 morning at nine o'clock, same time, same station.  
 2 (Evening recess)  
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1 Public Hearing  
 2 STATE WATER RESOURCES CONTROL BOARD  
 3 DIVISION OF WATER RIGHTS  
 4 STATE OF CALIFORNIA  
 5  
 6 --oOo--  
 7  
 8 Subject: Amendment of City of Los Angeles'  
 9 Water Rights Licenses for Division of Water  
 10 from Streams that are Tributary to Mono Lake  
 11  
 12 --oOo--  
 13  
 14 Held in  
 15 Resources Building  
 16 Sacramento, California  
 17  
 18 --oOo--  
 19  
 20 Wednesday, October 27, 1993  
 21 9:00 a.m.  
 22 VOLUME VI  
 23  
 24  
 25

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1  
 2 APPEARANCES  
 3 Board Members:  
 4 MARC DEL PIERO, Hearing Officer  
 5 JAMES STUBCHAER  
 6 MARY JANE FURESTER  
 7 JOHN BROWN  
 8 JOHN CAFFREY  
 9 Staff:  
 10 DAN FRINK, Counsel  
 11 JAMES CANADY, Environmental Specialist  
 12 STEVE HERRERA, Environmental Specialist  
 13 RICHARD SATKOWSKI, Engineer  
 14 HUGH SMITH, Engineer  
 15  
 16  
 17  
 18  
 19  
 20  
 21  
 22  
 23  
 24  
 25

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1  
2 Counsel and representations:  
3 THOMAS W. BIRMINGHAM and JANET GOLDSMITH  
4 Attorneys at Law  
5 400 Capitol Mall, 27th Floor  
6 Sacramento, California 95814-4417  
7 representing City of Los Angeles and  
8 Los Angeles Department of Water and Power  
9 JAN STEVENS and MARY SCOONOVER  
10 Assistant Attorney General  
11 1515 K Street  
12 Sacramento, California 95819  
13 representing State Lands Commission and  
14 Department of Parks and Recreation  
15 HAROLD THOMAS, Staff Counsel  
16 Department of Fish and Game  
17 and  
18 VIRGINIA CAHILL  
19 Attorney at Law  
20 555 Capitol Mall, Suite 950  
21 Sacramento, California 95814  
22 representing Department of Fish and Game  
23 JACK GIPSMAN  
24 Office of General Counsel  
25 U. S. Department of Agriculture

00000

1  
2 211 Main Street, Suite 1060  
3 San Francisco, California 94105-1924  
4 representing U. S. Forest Service  
5 BRUCE DODGE  
6 Attorney at Law  
7 755 Page Mill Road  
8 Palo Alto, California 94304  
9 and  
10 PATRICK FLINN  
11 Attorney at Law  
12 345 California street,  
13 San Francisco, California 94104  
14 representing the National Audubon Society  
15 and the Mono Lake Basin  
16 Counsel and Representations continued:  
17 RICHARD ROOS-COLLINS and CYNTHIA KOEHLER  
18 Attorneys at Law  
19 114 Sansome Street, Suite 1200  
20 San Francisco, California 94104  
21 representing California Trout  
22  
23  
24  
25

00000

1  
2 ERICA NIEBAUER  
3 Assistant Regional Solicitor  
4 Office of the Solicitor  
5 Pacific Southwest Region  
6 2800 Cottage Way  
7 Sacramento, California 95825  
8 representing U. S. Fish and Wildlife Service  
9 FRANK HASELTON  
10 Attorney at Law  
11 P. O. Box Drawer 4687  
12 Anaheim, California 92803  
13 representing Haselton Associates and John Arcularius  
14 VICTOR GLEASON  
15 Attorney at Law  
16 1111 Sunset Boulevard  
17 Box 54153  
18 Los Angeles, California 90054-0153  
19 representing Metropolitan Water District  
20 LAURENS SILVER  
21 Sierra Club Legal Defense Fund  
22 180 Montgomery Street, Suite 1400  
23 San Francisco, California 94104-4209

24 representing The Sierra Club  
25 --oOo-- 00000

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