

00001

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

THURSDAY, OCTOBER 28, 1993, 9:00 A.M.

--oOo--

MR. DEL PIERO: Ladies and gentlemen, this hearing of the State Water Resources Control Board will again come to order. This is a continuation of the hearing regarding the Amendment to the City of Los Angeles' Water Rights Licenses for the Diversion of Water From Creeks Tributary to Mono Lake.

When we broke last night, we had just finished with the one panel and we are getting ready to call the fourth panel of individuals on behalf of Jones and Stokes, the contract firm that prepared the Environmental Impact Report.

Before I begin, anyone wishing to present testimony today, would you please rise and raise your right hand if you have not been previously sworn.

(Witnesses were sworn.)

MR. DEL PIERO: All right, Mr. Frink.

MR. FRINK: Yes, Mr. Del Piero and members of the Board, we will begin this morning with our fourth and last group of witnesses who assisted in preparing the Draft Environmental Impact Report, or prepared information that was used in the Draft Environmental Impact Report.

These witnesses are the ones who worked on topics that were loosely grouped together under the heading of socio-economics. They involved the evaluation of recreation, evaluation of impacts of the various alternatives on the Los

00002

1 Angeles Water Supply, impacts on power generation, the chapter  
2 on economic assessment of visual resources and assessments of  
3 resource impacts.

4 The witnesses includes Thomas Wegge, who served as team  
5 leader, Thomas Packard, Dr. Nicholas Dennis, Edward Timothy  
6 Rimpo, David Larsen, and Dr. Michael Hanemann. Also,  
7 available to respond to cross-examination or further cross-  
8 examination are two earlier witnesses who have testified in  
9 previous days of the proceeding, Mr. Ken Casaday and Roger  
10 Trott.

11 We will begin this morning with the testimony of Thomas  
12 Wegge.

13 THOMAS WEGGE,  
14 having been sworn, testified as follows.

15 DIRECT EXAMINATION

16 BY MR. FRINK:

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

19 MR. DEL PIERO: Before you begin, this is a new panel,  
20 and when you state your name, I would appreciate it if you  
21 could spell it so the court reporter gets a clear and complete  
22 record.

23 MR. WEGGE: A My name is Thomas Wegge, W-e-g-g-e. I  
24 am with Jones and Stokes Associates.

25 MR. FRINK: Q And you were just sworn; correct?

00003

1 A Yes, I was.

2 Q Did you prepare a document that is entitled, Written  
3 Testimony of Thomas Wegge, for the Mono Basin Water Rights  
4 Hearing?

5 A Yes, I did.

6 Q Is this the document that has been designated as State  
7 Water Resources Control Board Exhibit 28 in this proceeding?

8 A Yes, it is.

9 Q Mr. Wegge, could you please describe your role in  
10 preparing the Draft EIR and identify the portions of the Draft  
11 EIR that you assisted in preparing.

12 A Yes. I served as the Technical Team Leader for all of  
13 the socio-economic topics, including visual resources,  
14 recreation, power supply, water supply, and the economics  
15 chapter, and I directly assisted in the preparation of the  
16 water supply and economics chapter, and also the recreation.  
17 I also participated in the development of Appendix X, the  
18 economics chapter, and reviewed Appendix, whatever the  
19 recreation is. W.

20 Q Could you give us a brief summary of your education and  
21 professional qualifications and experience that are relevant  
22 to the work that you did on the draft EIR?

23 A Certainly. I have a Bachelor of Arts degree in urban  
24 studies from the University of Southern California, and a  
25 Master of Science degree in environmental economics from the

00004

1 California State University at Fullerton. I am Associate  
2 Principal and Senior Economics at Jones and Stones Associates,  
3 where I worked for the past 14 years.

4 Over this time, I have directed and prepared recreation  
5 and economics studies on a variety of projects including an  
6 analysis of recreation and economic effects related to water  
7 marketing for the Central Valley project, the preparation of  
8 an economic impact study on sport fishing in Alaska.

9 I have prepared a socio-economic impact study for the  
10 State Water Board on the proposed in-stream flow program. I  
11 have also recently prepared an analysis of costs and benefits  
12 of EPA's proposed water quality standards for the San  
13 Francisco Bay Delta.

14 Q Is Attachment A to SWRCB Exhibit 28 a true and accurate  
15 summary of your professional qualifications and experience?

16 A Yes, it is.

17 Q Would you affirm that SWRCB 28 is a true and accurate  
18 summary of your testimony in this proceeding?

19 A Yes, it is.

20 Q Are there any additions or corrections that you wish to  
21 make in your testimony at this time?

22 A Not at this time, no.

23 Q Thank you very much, Mr. Wegge.

24 Our next witness is Thomas Packard.

25 ///

00005

1                               THOMAS PACKARD,  
2     having been sworn, testified as follows.

3                               DIRECT EXAMINATION

4     BY MR. FRINK:

5     Q           Mr. Packard, could you please state your name and place  
6     of employment?

7     A           My name is Thomas Packard, P-a-c-k-a-r-d, and I work for  
8     a firm in San Francisco called EDAW, and I have been employed  
9     there for the last eight and a half years.

10    Q           Did you prepare a document that is entitled, Written  
11    Testimony of Thomas Packard, for the Mono Basin Water Rights  
12    hearings?

13    A           Yes, I did.

14    Q           And is that the document that has been designated as  
15    SWRCB Exhibit 29 in this proceeding?

16    A           It is.

17    Q           Your testimony indicates that you assisted in providing  
18    information for the Draft EIR. Would you please summarize  
19    your professional education and experience relevant to the  
20    area or areas that you worked in with regard to the Draft EIR?

21    A           Yes. I hold a Bachelor degree in landscape  
22    architecture from the University of Illinois. I also  
23    completed two years of graduate study at the University of  
24    Illinois in landscaping architecture and my last eight and a  
25    half years of professional experience with EDAW has been

00006

1 specifically in the realm of assessment of visual impacts  
2 related to a variety of projects, many of which include water  
3 resource features.

4 Q And what was the role that you played and your employer,  
5 EDAW, with regard to the preparation of the environmental  
6 impact report?

7 A We conducted a study of the visual impacts of the project  
8 alternatives and submitted a report on those impacts. We also  
9 prepared Auxiliary Report Number 24, I believe.

10 Q Were you involved in the preparation of Appendix V on  
11 visual resources?

12 A We provided information that was used to prepare Appendix  
13 V.

14 Q And EDAW, then, served as a subcontractor to Jones and  
15 Stokes?

16 A That is correct?

17 Q In the preparation of the Draft Environmental Impact  
18 Report?

19 A Yes, sir.

20 Q Is Attachment A to Exhibit 29 a true and accurate summary  
21 of your professional qualifications and experience relative to  
22 the work you did on the Draft EIR?

23 A Yes, it is.

24 Q And do you affirm that SWRCB Exhibit 29 is a true and  
25 accurate summary of your testimony in this proceeding?

00007

1 A Yes, it is.

2 Q Are there any additions or corrections that you wish to  
3 make in your testimony?

4 A There is an exception I wish to point out. In my written  
5 testimony, I affirm that the resources section of the Draft  
6 EIR represents the conclusions and results that were reached  
7 by EDAW as part of our studies. The exception in that regard  
8 would be the criteria used for assessing significance as it  
9 relates to tufa and also the significance of impacts related  
10 to the 6390 alternative.

11 Q Would you explain that in a little more detail, the  
12 changes that you would suggest regarding the criteria for  
13 evaluating the significance in the case of tufa?

14 A In the EDAW report, the criteria that was used was more  
15 related to a complete or near complete loss of tufa with  
16 respect to significant adverse impacts, and therefore, since  
17 the 6390 alternative does not meet that criteria, the EDAW  
18 report did not assess impacts of the 6390 alternative as being  
19 significantly adverse.

20 Q Just so we are clear on this, the significant criteria  
21 that EDAW used requires more of a submersion of tufa than the  
22 criteria that was ultimately used in the Draft EIR; is that  
23 correct?

24 A That is correct.

25 Q And you mentioned one other area, I believe, and maybe

00008

1 I misunderstood you, was there another area you were  
2 suggesting a change in, or was it related to the first one?

3 A It's related to that.

4 Q Okay. Thank you very much, Mr. Packard. Our next  
5 witness is Dr. Nicholas Dennis.

6 NICHOLAS DENNIS  
7 having been sworn, testified as follows.

8 DIRECT EXAMINATION

9 BY MR. FRINK:

10 Q Dr. Dennis, would you please state your name and place of  
11 employment?

12 A MY name is Nicholas Dennis, D-e-n-n-i-s. I work for  
13 Jones and Stokes Associates.

14 Q Did you prepare a document entitled, Written Testimony of  
15 Nicholas Dennis, for the Mono Basin Water Rights Hearing?

16 A Yes.

17 Q And is that the document that is designated as State  
18 Water Resources Control Board Exhibit 30 in this proceeding?

19 A Yes.

20 Q What portions of the Draft EIR did you assist in  
21 preparing or provide information for?

22 A I was responsible for preparing the chapter on recreation  
23 impacts and for preparing Appendix W which reports results of  
24 surveys that were used to collect information on those  
25 impacts.



00009

1 Q Could you give us a brief oral summary of your  
2 professional qualifications and experience that are relevant  
3 to the work you did for the Draft Eir?

4 A Yes. I have a PhD in forest economics from the  
5 University of California at Berkeley, a Bachelor's and  
6 Master's degree of science and forestry from the University of  
7 Wisconsin, Madison. Prior to working at Jones and Stokes  
8 Associates, I consulted with the California Department of  
9 Forestry on preparing a statewide recreation opportunity  
10 assessment for forest and rangelands. Since working at Jones  
11 and Stokes, I have analyzed recreation use opportunities and  
12 impacts on several water resource related projects, including  
13 the Delta wetlands project and the proposed Los Vaqueros  
14 Reservoir project.

15 Q Is Attachment A to the State Water Resources Control  
16 Board Exhibit 30 a true and accurate summary of your  
17 professional education and experience regarding the work you  
18 did on this project?

19 A Yes.

20 Q And do you affirm that the State Water Resources Control  
21 Board Exhibit 30 is a true and accurate summary of your  
22 testimony in this proceeding?

23 A Yes.

24 Q Are there any additions or corrections you wish to make?

25 A No.

00010

1 Q Thank you, Dr. Dennis.  
2 Our next witness is Mr. Edward Rimpo.  
3 EDWARD T. RIMPO,  
4 having been sworn, testified as follows.

5 DIRECT EXAMINATION

6 BY MR. FRINK:

7 Q Mr. Rimpo, would you please state your name and place of  
8 employment?

9 A My name is Edward Rimpo, R-i-m-p-o, and I am employed  
10 with Jones and Stokes Associates.

11 Q Did you prepare a document that is titled, Written  
12 Testimony of Edward Timothy Rimpo, for the Mono Basin Water  
13 Rights Hearing?

14 A Yes, I did.

15 Q And is that the document that has been designated as  
16 State Water Resources Control Board Exhibit 31 in this  
17 hearing?

18 A Yes, it is.

19 Q What portions of the Draft EIR did you assist in  
20 preparing or provide information for?

21 A I was primarily involved in preparing portions of the  
22 water supply chapter, which is Chapter 3-L.

23 Q Could you give us a brief oral summary of your  
24 professional qualifications and experience that relate to the  
25 area of work you did on the Draft EIR?

00011

1 A I received my BA degree from the University of Virginia  
2 and an MS degree, also, in economics from Colorado State  
3 University, and since that time, I have been involved in  
4 preparing economic studies, analyses of air quality  
5 regulations, and cost-benefit studies.

6 Q Is Attachment A to State Water Resources Control Board  
7 Exhibit 31 a true and accurate summary of your professional  
8 education and experience?

9 A Yes, it is.

10 Q Do you affirm that State Water Resources Control Board  
11 Exhibit 31 is a true and accurate summary of your testimony in  
12 this proceeding?

13 A Yes, I do.

14 Q Are there any additions or corrections that you wish to  
15 make?

16 A Not at this time.

17 Q Thank you very much, sir.

18 The next witness is David Larsen.

19 DAVID LARSEN,

20 having been sworn, testified as follows.

21 DIRECT EXAMINATION

22 BY MR. FRINK:

23 Q Would you please state your name and place of employment?

24 A My name is David Larsen, L-a-r-s-e-n. I am employed by  
25 Resource Management International here in Sacramento.

00012

1 Q Did you prepare a document that is titled, Written  
2 Testimony of David Larsen, for the Mono Basin Water Rights  
3 Hearing?

4 A Yes, I did.

5 Q Is that the document that has been designated SWRCB  
6 Exhibit 32 in this proceeding?

7 A Yes, it is.

8 Q What portions of the Draft EIR did you assist in  
9 preparing or provide information for, Mr. Larsen?

10 A Our primary involvement in the preparation of the  
11 environmental impact report had to deal with the power  
12 generation topic area, which is Chapter 3-M of the report.

13 Q Did RMI serve as a subcontractor to Jones and Stokes in  
14 this project?

15 A Yes, we did.

16 Q Could you give us a brief oral summary of your  
17 professional education and experience regarding the subject  
18 and work that you did for the Draft EIR?

19 A Yes. I graduated from South Dakota State University in  
20 1970 with a Bachelor of Science in electrical engineering. I  
21 have been with RMI about seven and a half years. Prior to  
22 that time I worked for the Electric Power Cooperative in  
23 Arizona where I was responsible for both the resource and  
24 transmission planning efforts for the cooperative.

25 Since joining RMI, I have continued in that vein, in both

00013

1 the generation, resource, and transmission planning areas and  
2 have performed power supply studies for RMI's clients  
3 throughout the United States, including --

4 Q Would you move the mike a little closer?

5 A Sure.

6 Q I don't pick up sounds very well.

7 A Since joining RMI, I have continued to be involved in  
8 both resource and transmission planning activities working for  
9 clients throughout the country including Nevada, California,  
10 and Arizona. That's pretty much it.

11 Q Is Attachment A to State Water Resources Control Board  
12 Exhibit 32 a true and accurate summary of your professional  
13 education and experience?

14 A Yes, it is.

15 Q And do you affirm that State Water Resources Control  
16 Board Exhibit 32 is a true and accurate summary of your  
17 testimony in this proceeding?

18 A Yes, I do.

19 Q Are there any additions or corrections you wish to make?

20 A No, there isn't.

21 Q Thank you very much, sir. I believe that our last new  
22 witness, if I am not losing count here, is Dr. Michael  
23 Hanemann.

24 MICHAEL HANEMANN,  
25 Having been sworn, testified as follows:

00014

1 DIRECT EXAMINATION

2 BY MR. FRINK:

3 Q Dr. Hanemann, would you please state your name and place  
4 of employment?

5 A My name is William Michael Hanemann, H-a-n -e-m-a-n-n,  
6 and I am a professor in the Department of Agriculture in  
7 resource economics at U.C. Berkeley.

8 Q Did you prepare a document that is titled, Written  
9 Testimony of W. Michael Hanemann?

10 A Yes.

11 Q And is that the document that has been designated as  
12 SWRCB Exhibit 34 in this proceeding?

13 A Yes.

14 Q What portions of the Draft EIR did you provide  
15 information for?

16 A I worked on part of the water supply and the public trust  
17 resources and that's parts of Chapter 3-L and 3-M and Appendix  
18 X, and I also wrote an auxiliary report which, I believe, is  
19 Number 27.

20 Q Could you give us a brief oral summary of your  
21 professional qualifications and experience in the area of work  
22 that you did for the draft EIR?

23 A My field is environmental economics and resource  
24 economics. I have taught a course on water resource economics  
25 et Berkeley for more than a decade, and I have an

00015

1 undergraduate degree in economics, philosophy, and politics  
2 from Oxford University, a Master's degree in economics from  
3 London School of Economics, and then a PhD from Harvard in  
4 economics.

5 I had the privilege of serving as the Board's economist  
6 in 1987 in its analysis of regulating drainage discharges to  
7 the San Joaquin River. I worked with the Board staff, with  
8 Rich Satkowski and Jerry Johns, and then, in 1987, you engaged  
9 me as the staff economist for the first part of the Bay-Delta  
10 hearings and I served through the end of 1989 and wrote the  
11 economic analysis and the staff report that came out five  
12 years ago at the end of 1988.

13 I have continued to conduct research to advise -- I was  
14 involved in the negotiations of the Memorandum of  
15 Understanding on urban conservation. In March 1992, I was  
16 asked to serve as the technical advisor to Mayor Bradley's  
17 Blue Ribbon Committee on Water Rights that was set up to  
18 examine Los Angeles water rights structure.

19 I should add that I have been asked, in the last month,  
20 to play a similar role with regard to the Metropolitan Water  
21 District, which set up a Blue Ribbon Citizen's Committee to  
22 examine its water rights and expansion policies, and I had the  
23 pleasure of meeting with them for two days last week.

24 Q Is Attachment A to SWRCB Exhibit 34 a true and accurate  
25 summary of your professional education and experience?

00016

1 A Yes.

2 Q And do you affirm that SWRCB Exhibit 34 is a true and  
3 accurate summary of your testimony in this proceeding today?

4 A Yes.

5 Q Are there any additions or corrections that you wish to  
6 make?

7 A No.

8 MR. FRINK: Mr. Hearing Officer, that concludes our  
9 presentation of these witnesses on direct examination, and  
10 these six gentlemen, as well as Mr. Trott and Mr. Casaday will  
11 be available to respond to cross-examination.

12 MR. DEL PIERO: Thank you very much, Mr. Frink. Mr.  
13 Birmingham.

14 MR. BIRMINGHAM: Today we are going to start with the  
15 better half of the tag team, Janet Goldsmith.

16 MR. DEL PIERO: Good morning, Ms. Goldsmith.

17 MS. GOLDSMITH: Good morning, Mr. Del Piero.

18 MR. DEL PIERO: Good morning. Mr. Dodge.

19 MR. DODGE: Good morning. You indicated you would know  
20 your schedule this morning.

21 MR. DEL PIERO: I will actually know it around 11:00  
22 o'clock, I promise you. I have not forgotten. I have pinned  
23 it up.

24 CROSS EXAMINATION

25 BY MS. GOLDSMITH:



00017

1 Q I would like to address my questions to Dr. Hanemann with  
2 regard to the public trust evaluation that was drawn.

3 My understanding is that the public trust evaluation that  
4 was done was a result of a survey at which respondents were  
5 asked to provide answers concerning three different lake  
6 levels that were identified to them?

7 DR. HANEMANN: Yes.

8 Q Actually, they were given information for no diversion.

9 Would you agree with me that the results of that  
10 contingent valuation survey show that there are very large  
11 benefits received by the public in preserving the ecosystem at  
12 Mono Lake?

13 A I agree.

14 Q Would you agree that the public trust benefits associated  
15 with raising the lake level much above the level that would  
16 guarantee that preservation tends not to be as great, or  
17 eventually to decline?

18 A I agree.

19 Q Now, concerning the survey, the respondents were asked  
20 about scenarios at the lake, and particularly elevations were  
21 identified with those scenarios. Would You agree with me that  
22 if the descriptions of those lake elevations, in fact, matched  
23 a different lake elevation, that the responses ought to be  
24 associated with the lake elevation that, in fact, matched the  
25 description?

00018

1 MR. WEGGE: Excuse me, just a procedural matter here. We  
2 have discussed many of the issues that may be coming up today  
3 and this happens to be one of the issues that I was going to  
4 take the first stab at if that's all right.

5 Q That's fine with me.

6 MR. WEGGE: A I agree that -- maybe you could repeat the  
7 question. I want to make sure I am agreeing with the right  
8 question.

9 MR. DEL PIERO: I think he agreed to allow you to repeat  
10 the question.

11 MS. GOLDSMITH: Perhaps the court reporter could read it  
12 back. I am not sure I can repeat it.

13 (The reporter read the question as follows.)

14 "Q Now, concerning the survey, the respondents were  
15 asked about scenarios at the lake and particularly lake  
16 elevations were identified with those scenarios. Would  
17 you agree with me that if the descriptions of those lake  
18 elevations, in fact, matched a different lake elevation,  
19 that the responses ought to be associated with the lake  
20 elevation that, in fact, matched the description."

21 MR. WEGGE: A I would agree to that if it matched  
22 perfectly another lake level.

23 Q Would you agree that if there were elements of  
24 differences that it would be a judgment call as to at what  
25 lake elevation, the lake elevation actually was described to

00019

1 the respondents?

2 A I am not sure what the question is exactly.

3 Q The question is that if the lake as described to the  
4 respondents did not exactly match the lake elevations  
5 identified to them, that then you would need to make an  
6 adjustment which would be a judgment on your part as to what  
7 lake elevation actually most closely matched the description?

8 A I would agree that we would need to make an adjustment to  
9 account for differences in some of the environmental  
10 attributes that were described, but the problem is that there  
11 were many attributes, and it would probably have to be a  
12 judgment call as to which alternative it most closely  
13 matches.

14 Q Would you agree with me that this matching should be done  
15 relatively at the end of the process where all the comments  
16 have come in and been assessed as to what precisely the  
17 impacts will be at particular elevations?

18 A In response to that, I would say ideally you wouldn't  
19 have to make this adjustment but because of the fact that we  
20 developed the surveys long before the impact analysis was  
21 done, we had to use the best information available at the  
22 time.

23 I would agree that in now going back and realizing that  
24 the way we describe some of the environmental conditions  
25 wasn't precisely what we described in the survey, that we

00020

1 would have to look at whether the values that we received for  
2 a particular program or alternative most closely matched that  
3 program or alternative. Does that answer your question?

4 Q I am not sure. Let me try it again.

5 Would you agree you would want to wait until after all  
6 the information had been gathered before you attempted to make  
7 that kind of adjustment?

8 A Yes.

9 Q I thought you would. Now, the contingent evaluation  
10 survey, as presented in the Environmental Impact Report,  
11 concluded that the highest public benefit was associated with  
12 the lake level that was identified as 6390, I believe.

13 DR. HANEMANN: A That's correct.

14 Q That's Program B as identified in the survey?

15 A That's correct.

16 Q Now, assuming that a significant number of tufa towers  
17 would be toppled or covered at lake elevations associated with  
18 lake Alternative 6383.5, and given that a large number of the  
19 respondents were concerned with the negative effects of higher  
20 lake levels on tufa, isn't it more likely that the lake level  
21 at which there are maximum public trust benefits would lie  
22 between Program A, which is 6375, as identified, and B, which  
23 is 6390, as identified?

24 A No, it is not. I could illustrate that if you like with  
25 some transparencies which explain that.

00021

1 Q Is that accepting the assumption that the tufa towers  
2 would be --

3 A Yes, it is.

4 Q Now, Dr. Hanemann, in your written testimony, not the EIR  
5 -- largely in the EIR the survey asked the respondents to  
6 assume that they would be paying for these benefits over 20  
7 years; is that right?

8 A Yes.

9 Q Then, in your testimony, your response to comments that  
10 were made was that perhaps giving face value to these  
11 payments over 20 years was not realistic, and I believe that  
12 you stated that within a reasonable range, discounting of the  
13 willingness to pay values wouldn't have made a difference in  
14 what was determined to be the economically optimal lake level?

15 A I made that statement.

16 Q And this was because you found that the economically  
17 optimal lake level was insensitive to any substantial  
18 discounting of marginal benefits even as much as 70 to 80  
19 percent; is that right?

20 A Yes.

21 Q Dr. Carson, who is a witness for LA Department of Water  
22 and Power, went through the exercise of placing confidence  
23 bounds on the willingness to pay. I think it was 9 dollars,  
24 59 cents, for going from Program A to Program B, 6390, and I  
25 didn't notice in your testimony any disagreement with that

00022

1 exercise.

2 A Richard Carson, who is a colleague and a former student  
3 of mine. established two things, he established that the  
4 difference between Programs A and B was statistically  
5 significant, and he also established a confidence interval  
6 around that difference.

7 And the low end of that confidence gives you a small  
8 difference, and the high end of the confidence gives you a  
9 large difference.

10 But in the comments presented, he emphasized the first  
11 point and said if you were at the low end of the confidence,  
12 it would be very small, and that's true, but the opposite  
13 statement is equally true, if you are at the high end of the  
14 confidence interval, it would be substantially larger.

15 Q Do you have any reason to doubt the validity of those  
16 confidences?

17 A There are two or three ways of generating confidence,  
18 three ways, and Richard used one of them. They are all  
19 demanding because this is a complicated model and it is a  
20 substantial amount of work to develop confidence intervals.

21 I have no reason to doubt Richard's competence or his  
22 ability in measuring the confidence interval one way. I just  
23 wanted to point out there are other ways of doing it. He  
24 hasn't done it. I haven't been able to do it, but I have no  
25 idea whether they would show a substantially different result,

00023

1 but I am happy, I am confident with his analysis using the  
2 methodology that he employed.

3 Q Now, with regard to your statement that the economically  
4 optimal lake level is insensitive to substantial discounting of  
5 the marginal benefits, even to the point of reducing them by  
6 as much as 70 to 80 percent, would that statement necessarily  
7 be true at the lower boundary of the confidence intervals that  
8 Richard Carson calculated?

9 A No, it wouldn't, but an even stronger statement would be  
10 true at the higher bounds of confidence intervals. That's why  
11 I looked at the midpoint in my testimony.

12 Q Would the statement necessarily be true if the cost of  
13 the lost Mono Basin water to Southern California has been  
14 significantly underestimated?

15 A No, the statement would be wrong if the costs were  
16 underestimated, and it would be way too conservative if the  
17 costs were overestimated as some of the new evidence suggests.

18 Q Now, if the maximum public trust benefits were determined  
19 eventually to lie somewhere between Program A and Program B,  
20 would that statement necessarily be true?

21 A That's a tautology. You say if the optimal were found to  
22 be between Program A and B. That only arises if there is an  
23 error in the estimates of marginal benefits and marginal  
24 costs, so obviously your statement is sort of tautological.  
25 If there is an error, we looked at benefits and costs. If we

00024

1 are wrong in either of them, it will move around, what's the  
2 optimal lake level. If the benefits are too high or the costs  
3 are too low, then the optimal lake level would be lower than  
4 we recommended, and conversely in the upper direction.

5 Q Now, if the economic considerations had included  
6 consideration of the cost of adverse environmental effects  
7 elsewhere in California, such as in the Bay-Delta system or in  
8 the San Joaquin Valley, wouldn't inclusion of those costs tend  
9 to move the lake to a lower level?

10 MR. WEGGE: A Maybe I can respond to that.

11 Q A Yes or no would be fine.

12 A Yes.

13 Q And if the supply side developments such as limitations on  
14 Metropolitan Water District supply due to pumping  
15 restrictions, for example, associated with protection of the  
16 Delta smelt and winter-run chinook salmon increased the cost  
17 of water or shortages to Metropolitan Water District, wouldn't  
18 that tend to increase the cost of water and move the economic  
19 balancing of lake level to a lower level?

20 DR. HANEMANN: A The answer is yes, but I must also  
21 point out that new information regarding Metropolitan and  
22 referring specifically to Tim Quinn's testimony which points  
23 out that in Met's plan, it is now assumed they will be able to  
24 run the Colorado aqueduct at 1.2 million acre-foot capacity  
25 into the future, not as a guaranteed result, not if there is



00025

1 a nuclear war or major accident, but with luck, with the  
2 Board's assistance, water marketing will make it possible to  
3 run the Colorado aqueduct at capacity rather than at 600,000  
4 acre-feet, which they have assumed before. That pushes things  
5 in the other direction.

6 In other words, if the adverse developments that we  
7 didn't anticipate, our costs are too low, and if that  
8 development is a beneficial development, then our costs are  
9 too high.

10 MS. GOLDSMITH: Thank you. I look forward to seeing the  
11 revision.

12 CROSS-EXAMINATION

13 BY MR. BIRMINGHAM:

14 Q I have a few questions that relate to power supply. The  
15 Draft EIR reports did not consist of the environmental effects  
16 of replacing of power that will not be generated as a result  
17 of restricting diversions of the Mono Basin with power  
18 generated from burning fossil fuels; is that correct?

19 MR. LARSEN: A The analysis reflected the level of  
20 emissions, as the emission levels would change. It did not  
21 reflect assigning costs to those emissions, that is correct.

22 Q And it is correct that the power that is lost as a result  
23 of restricting DWP's ability to divert water out of the Mono  
24 Basin will be replaced with power generated by burning fossil  
25 fuels?

00026

1 A It's probably true, the majority of it would be, that's  
2 correct.

3 Q And there are negative environmental consequences or  
4 effects associated with increased consumption of fossil fuel;  
5 is that correct?

6 A I expect in some people's minds, there is, yes.

7 Q And isn't it correct that fossil fuel that will be burned  
8 to generate electricity will be burned in what has been  
9 designated as a non-attainment area by the EPA?

10 A Which particular area are you talking about?

11 Q The South Coast region.

12 A Depends upon which one of the particular alternatives you  
13 would be looking at. In some of the alternatives, the amount  
14 of additional energy that is produced in the Los Angeles Basin  
15 is fairly significant as a portion of the total that has to  
16 be made up. In other cases, it's a little bit less.

17 Q Ms. Goldsmith asked Dr. Hanemann a few questions that  
18 related to water supply. I have a few additional questions  
19 that I don't believe will necessarily be directed at Dr.  
20 Hanemann. The EIR assumes that Metropolitan Water District  
21 will be able to replace water that is needed as the result of  
22 a reduction of diversions out of Mono Basin; is that correct?

23 DR. HANEMANN: A It assumes that Los Angeles would be  
24 able to take water from Metropolitan and it allows for the  
25 indirect impact on Metropolitan's other customers who have to

00027

1 give up the water that Los Angeles takes.

2 Q And it's correct, isn't it, that there is some  
3 uncertainty about Metropolitan's ability to replace that  
4 water?

5 A Yes. Looking to the future, demands can change in many  
6 ways, supply can change in many ways. I must say that a year  
7 makes a difference. We did this just about a year ago, and  
8 the situation has changed considerably in the direction of  
9 greater confidence that Metropolitan and Southern California  
10 will be able to make up these supplies with a lower impact  
11 than we had assumed in our analysis, economic analysis.

12 Q Your response assumes there will be additional water  
13 available as a result of water transfers; is that correct?

14 A Yes.

15 Q In the last year, isn't it also correct there have been  
16 events which cause greater uncertainty, for instance, isn't it  
17 correct that in the last year there has been at least one  
18 species in the Bay-Delta which has been listed as a threatened  
19 species, and that restrictions imposed by the National Marine  
20 Fisheries Services on operation of the State's Water Project  
21 creates uncertainty concerning Metropolitan's ability to  
22 supply DWP with water?

23 A That's true, but the transfers I was thinking of were in  
24 the Colorado River system. That is, the major change is  
25 Metropolitan's statement now that it is relatively confident

00028

1 of water transfers in the Colorado Region, so that it could  
2 run its aqueduct at capacity.

3 Q Does the Environmental Impact report analyze the effects  
4 of those transfers?

5 A No -- I don't know if Thomas wants to comment.

6 MR. WEGGE: A No, those transfers were identified as a  
7 potential mitigation for the significant adverse impacts on  
8 water supplies.

9 Q Included as one of the potential mitigation measures were  
10 transfers authorized by HR 429; is that correct?

11 A That's correct.

12 Q HR 429 authorizes the transfer of water from the Central  
13 Valley Project to areas outside of the service area of the  
14 Central Valley Project; is that correct?

15 A That's correct.

16 Q If transfers are made from the San Joaquin Valley, it is  
17 likely, isn't it, that there will be increased reliance on  
18 groundwater as a source of water for irrigation in the San  
19 Joaquin Valley?

20 MR. ROOS-COLLINS: Objection, calls for speculation as to  
21 the particulars of the transaction.

22 MR. DEL PIERO: I am going to overrule the objection.  
23 The fact of the matter is that under HR 429, water transfers  
24 that are subject to the approval of this Board have to make a  
25 showing that there's available groundwater and that no over

00029

1 drafting is going to be taking place, so you can go ahead and  
2 answer that question.

3 The transfer of surface-delivered water would, in fact,  
4 result in reliance on groundwater, it has to be approved by  
5 this Board that no adverse impact on the groundwater basin is  
6 going to be taking place because of the transfer, so go ahead  
7 and answer the question.

8 MR. WEGGE: A I will defer to Dr. Hanemann.

9 DR. HANEMANN: A I think the direct answer has been  
10 given.

11 MR. DEL PIERO: Except I'm not under oath.

12 (Laughter.)

13 A That's a real problem.

14 MR. DEL PIERO: Only for everyone else.

15 (Laughter.)

16 A The point I want to make is two things. The California  
17 water system is interconnected, and so what happens with Mono  
18 Lake relates to what happens with the Central Valley  
19 Improvement Act, with the Bay-Delta, with the Colorado River.  
20 Two constraints -- one is these things are unfolding through  
21 time and we have to do the analysis at one point in time and  
22 it is now a year later.

23 The other is since the Board needs to make a decision on  
24 the extent to which it wants to bundle everything together and  
25 have one overall study of all the aspects of the California

00030

1 water system, or whether one looks at them sequentially.

2 MR. DEL PIERO: I would encourage you to try to answer  
3 Mr. Birmingham's question, is it reasonable to assume that in  
4 the event there is a transfer pursuant to HR 429 from the  
5 Central Valley Project, that groundwater would, in fact, be  
6 used to replace surface water?

7 A I think it is certainly possible that many of the  
8 provisions of HR 429 will affect the use of groundwater.

9 MR. BIRMINGHAM: Q Is it correct that transfer of  
10 surface water from the San Joaquin Valley pursuant to HR 429  
11 may have economic consequences in the San Joaquin Valley?

12 A Yes. The recent analysis that Rand Corporation released  
13 on the water bank shows economic consequences went in both  
14 directions. That is to say, the reduction in farm activity  
15 was negative, but the infusion of wealth had a positive  
16 effect, so there will be an effect. I don't know what the net  
17 effect is.

18 Q With respect to replacement of water supplies, the Draft  
19 EIR assumes that water reclamation projects in Southern  
20 California will be available by specified dates; is that  
21 correct?

22 A Yes.

23 Q If those water reclamation projects are delayed, that  
24 will increase DWP's reliance on Metropolitan Water District  
25 for replacement supplies; isn't that correct?

00031

1 A Yes, but I want to add one qualification. In some parts  
2 of the analysis we used the cost of reclamation and the high  
3 end of that was 800 hundred dollars an acre-foot as a proxy  
4 for supply measures that would be taken which might not  
5 actually involve reclamation, and indeed might be cheaper. We  
6 just wanted a conservative figure for replacement water, and  
7 we used 800 dollars in that role.

8 Q A few moments ago, Dr. Hanemann, you made a statement in  
9 response to a comment made by the hearing officer, and you  
10 indicated that in California, our water systems are  
11 interconnected; is that correct?

12 A Yes.

13 Q So, you would concur that the reduction of conversions  
14 out of the Mono Basin is likely to have an effect in the  
15 Sacramento-San Joaquin River, Bay-Delta?

16 A To the extent that the system is constrained and there is  
17 a shortage of water, when you take water from any one source,  
18 you will have an effect on the others. But, I want to enter  
19 a qualification. The new planning that's taking place in  
20 Metropolitan and elsewhere after the drought is revealing  
21 signs of considerably more local supplies from reclamation,  
22 conjunctive use of groundwater, than was anticipated a year  
23 ago or two or three years ago. That doesn't mean that  
24 California isn't going to be short of water anymore, but the  
25 extent to which there are significant external impacts, I

00032

1 think -- let me put it this way, I am more optimistic now than  
2 I was a year ago.

3 Q The project that you just described in Met's planning  
4 relates to future water supplies, isn't that correct?

5 A Yes.

6 Q In the short term, isn't it correct that there are  
7 several limitations to the availability of water in  
8 California?

9 A If that's a statement about this year, I don't know that  
10 that's correct. The Colorado aqueduct, I believe, is running  
11 at capacity. There's quite a lot of water in the system. The  
12 drought has had an after-effect in depressing demand. I think  
13 it will go away, but whether it goes away in two years or five  
14 years or seven years, I don't know, and so the short-term  
15 situation, I think, isn't as tight as it might have been.

16 MR. DEL PIERO: You have two minutes.

17 MR. BIRMINGHAM: Q I will move on and ask questions  
18 about visual resources. In the Draft EIR the chapter on  
19 visual resources states that the public judges tufa towers,  
20 visually conspicuous birds, and sand tufa to be the most  
21 important positive elements relative to scenic qualities in  
22 the Mono Basin. Is that correct?

23 MR. PACKARD: Yes, the document does state that.

24 Q And one of the conclusions in the visual resources  
25 chapter as it is currently drafted or written in the Draft EIR



00033

1 is that 6383.5 or under that, the levels associated with that  
2 lake level alternative, sand tufa would experience no change  
3 relative to the point of diversion. That's the way it is  
4 currently drafted; isn't it?

5 A Yes.

6 Q Now, based upon new information, we now know that under  
7 the 6383.5 alternative, sand tufa at Mono Lake will be  
8 destroyed; isn't that correct?

9 A That's correct.

10 Q So, with respect to Table 3 I-6 in the Draft  
11 Environmental Impact Report, it will be necessary to add under  
12 the 8383.5 alternative, it will be necessary to add a C  
13 postscript to that alternative to indicate that all sand tufa  
14 will be destroyed under that alternative?

15 A That would be correct.

16 MR. DEL PIERO: Excuse me, one question, does that  
17 include sand tufa that is not exposed?

18 A I did not prepare the analysis of the direct effects on  
19 sand tufa. That analysis was conducted by Dr. Scott Stine.

20 MR. DEL PIERO: Do you know the answer to my question?

21 A I could not say for certain.

22 MR. DEL PIERO: Pardon me for interrupting.

23 MR. BIRMINGHAM: Q In terms of visual resources, which  
24 is the chapter that you prepared or participated in; is that  
25 correct?

00034

1 A Yes.

2 Q The only sand tufa which adds to the visual resources of  
3 the lake are those sand tufa which are exposed?

4 A That is true.

5 Q Now, the Environmental Impact Report's criteria for  
6 significant adverse impacts on scenic quality with respect to  
7 toppling or inundating tufa was 10 percent? Is that correct?

8 A As stated in the EIR, that is correct.

9 Q Now, you indicated in your summary of your written  
10 testimony that EDAW used a different criteria to determine  
11 significant effects; is that correct?

12 A That is correct.

13 Q And you made Jones and Stokes, the Environmental Impact  
14 Report consultants, aware of the criteria that EDAW used in  
15 determining significant effects?

16 A That is correct.

17 Q And Jones and Stokes chose to use the 10 percent  
18 criteria?

19 A That appears to be the case.

20 MR. BIRMINGHAM: I don't think I have any further  
21 questions. Thank you very much.

22 MR. DEL PIERO: Thank you, Mr. Birmingham. Mr. Thomas.  
23 Ms. Cahill.

24 MR. THOMAS: Mr. Del Piero, we would propose to split the  
25 panel, Ms. Cahill handling some of them, myself some of the

00035

1 others.

2 MR. DEL PIERO: Who is on first?

3 MS. CAHILL: I am.

4 CROSS-EXAMINATION

5 BY MS. CAHILL:

6 Q Given that this is the last panel of the Jones and Stokes  
7 team, I have a few questions that are relatively general.

8 The EIR considers a number of alternatives and is it  
9 true, Mr. Casaday, that the no-restriction alternative cannot  
10 meet the project's objectives?

11 MR. CASADAY: A That's correct.

12 Q With regard to the other alternatives, isn't the 6372-  
13 foot alternative feasible?

14 A Yes.

15 Q Is the 6377 alternative feasible?

16 A Yes.

17 Q Is the 6383.5 alternative feasible?

18 A Yes.

19 Q Is the 6390 alternative feasible?

20 A Yes.

21 Q Is the 6410 alternative feasible?

22 A Yes.

23 Q Does your, and this is basically to the whole panel,  
24 Table S-1, page 15 in the summary concludes that the greatest  
25 net economic benefits occur at the 6390 alternative. Mr.

00036

1 Casaday, is that your opinion?

2 A That's what we reported, yes. That isn't my opinion --  
3 I guess I don't have an opinion.

4 Q Should I address this to another member of the panel?  
5 Does the panel agree that is the point at which there is the  
6 greatest net economic benefit?

7 MR. WEGGE: A Yes.

8 DR. HANEMANN: I would add, based on the information that  
9 we had at the time.

10 Q And at the 6410 alternative, would Los Angeles be able to  
11 replace the water it could no longer export from the Mono  
12 Basin?

13 A The answer is yes. The question is the cost of the  
14 replacement, and that's indicated in our analysis.

15 MS. CAHILL: Thank you. Now. Mr. Thomas has a few  
16 questions.

17 CROSS-EXAMINATION

18 BY MR. THOMAS:

19 Q Just a clean-up question for Mr. Casaday on habitat. Mr.  
20 Casaday, the Environmental Impact Report at 3C-67 to 3C-74 --  
21 will you turn to that section?

22 MR. CASADAY: A Yes.

23 Q The 3C-67 indicates under the 6377 alternative, that  
24 there will be a 1 to 32 percent increase in riparian  
25 vegetation under that alternative. Am I correct?

00037

- 1 A Yes.
- 2 Q And turning to page 3C-70 under the 6383.5 alternative,  
3 the report indicates that there will be a negative 1 to plus  
4 32 percent gain of riparian vegetation and a 3 to 18 percent  
5 gain of wetland and meadow vegetation under that alternative;  
6 is that correct?
- 7 A Yes.
- 8 Q Both alternatives involve a gain of tributary riparian  
9 vegetation; is that correct?
- 10 A Yes.
- 11 Q And if we turn to the 6390 alternative at 3C-73, your  
12 report indicates that there will be a negative 2 to plus 30  
13 gain of riparian vegetation and 48 percent gain in meadow and  
14 wetland vegetation; is that correct?
- 15 A Yes, and I guess I misspoke myself on the last, or  
16 answered incorrectly on the last question where we give a  
17 range of the negative number, that means there is a possible  
18 loss.
- 19 Q And isn't it true in parentheses you say a loss of this  
20 magnitude is not significant, after that?
- 21 A Yes.
- 22 Q At both 3C-70 and 3C-73?
- 23 A Yes.
- 24 Q So, on each of those three alternatives there is a net  
25 gain of tributary riparian vegetation; is that correct,

00038

1 according to your report?  
2 A Well, I prefer to look at the summary table.  
3 Q I'm asking you about --  
4 A Which three alternatives, the ones we just discussed?  
5 Q 6373, 6383.5 and 6390.  
6 A Well, I believe -- the change from the point of  
7 reference, is that the question?  
8 Q I'm asking you, does your report at the pages I have  
9 indicated show a net gain of riparian vegetation?  
10 A Well, again, the range of estimates, the ones that have  
11 a negative number allow for the fact that there could be a  
12 slight loss. Now, the midpoint of those ranges are all  
13 positive.  
14 Q And isn't it true that each of the meadow and wetland  
15 vegetations in those alternatives provide for significant  
16 increases? You can go through them if you like, isn't it true  
17 6377 had a 17 percent increase? I didn't intend these to be  
18 trick questions. I'm trying to get the facts and the  
19 progression of how we get to your results.  
20 A Yes, that's correct.  
21 Q And at 3C-70 you have 3 to 18 percent of meadow and  
22 wetland vegetation increase.  
23 A That's correct.  
24 Q And at 6390 you have a 48 percent increase?  
25 A Yes.