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01 PUBLIC HEARING  
02 STATE WATER RESOURCES CONTROL BOARD  
03 DIVISION OF WATER RIGHTS  
04 STATE OF CALIFORNIA

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08 SUBJECT: AMENDMENT OF CITY OF LOS ANGELES' WATER RIGHT  
09 LICENSES FOR DIVERSION OF WATER FROM STREAMS THAT ARE  
10 TRIBUTARY TO MONO LAKE

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14 Held in  
15 Resources Building  
16 Sacramento, California  
17 Friday, January 14, 1994

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19 VOLUME XXXII

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23 Reported by: Kelsey Davenport Anglin, RPR,  
24 CM, CSR No. 8553

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01 BOARD MEMBERS

02

03 MARC DEL PIERO  
04 JOHN CAFFREY  
05 JAMES STUBCHAER  
06 JOHN W. BROWN  
07 MARY JANE FORSTER

08

09

10 STAFF MEMBERS

11

12 DAN FRINK, Counsel  
13 JAMES CANADAY, Environmental Specialist  
14 STEVE HERRERA, Environmental Specialist  
15 RICHARD SATKOWSKI, Engineer  
16 HUGH SMITH, Engineer

17

17

18

18

19

19

20

20

21

21

22

22

23

23

24

24  
25  
25  
0003  
01  
01 COUNSEL AND OTHERS  
02  
02 For the U.S. Fish and Wildlife Service:  
03  
03 ERIKA NIEBAUER  
04 Assistant Regular Solicitor  
04 Office of Solicitor  
05 Pacific Southwest Region  
05 2800 Cottage Way  
06 Sacramento, California 95825  
06  
07 For the Sierra Club:  
07  
08 LARRY SILVER:  
08  
09 For California Department of Fish and Game:  
09  
10 HAL THOMAS  
10 VIRGINIA CAHILL  
11 McDonough, Holland & Allen  
11 555 Capitol Mall, Suite 950  
12 Sacramento, California 95814  
12  
13 For the U.S. Forest Service:  
13  
14 JACK GIPSMAN  
14 Office of General Counsel  
15 U.S. Department of Agriculture  
15  
16 For the National Audubon Society and Mono Lake  
16 Committee:  
17  
17 BRUCE DODGE  
18 PATRICK FLINN  
18 Attorneys at Law  
19 755 Page Mill Road  
19 Palo Alto, California 94304  
20  
20  
21 For California Trout:  
21  
22 RICHARD ROOS-COLLINS  
22 CYNTHIA KOEHLER  
23 Attorneys at Law  
23 114 Sansome Street, Suite 1200  
24 San Francisco, California 94104  
24  
25 For the City of LA and LA DWP:  
25  
0004  
01 THOMAS W. BIRMINGHAM  
01 JANET GOLDSMITH  
02 Attorneys at Law  
02 Kronick, Moskovitz, Tiedemann & Girard  
03 400 Capitol Mall, 27th Floor

03 Sacramento, California 95814  
04  
04 For State Lands Commission, Department of Parks and  
05 Recreation:  
05  
06 MARY SCOONOVER  
06 Assistant Attorney General  
07 1515 K Street  
07 Sacramento, California 95814  
08  
08 For Meter Water District of Southern California and  
09 LA MWD:  
09  
10 VICTOR GLEASON  
10 Attorney at Law  
11 1111 Sunset Boulevard  
11 Los Angeles, California 90050-0153  
12  
12 FRANK HASELTON  
13 Haselton Associates  
13  
14 JOHN ARCULARIUS  
14  
15 For the California Air Resources Board:  
15  
16 OFFICER OF LEGAL AFFAIRS  
16 2020 L Street  
17 Sacramento, California 95814  
17 BY: KIRK C. OLIVER, Senior Staff Counsel  
18  
18 For the Great Basin Unified Air Pollution Control  
19 District:  
19  
20 PAUL BRUCE, District Counsel  
20  
21  
21  
22  
22  
23  
23  
24  
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01                                   SACRAMENTO, CALIFORNIA

02                                   FRIDAY, JANUARY 14, 1993, 8:30 A.M.

03                                   ---o0o---

04                   HEARING OFFICER DEL PIERO: Mr. Birmingham? Good

05 morning, Mr. Birmingham.

06                   MR. BIRMINGHAM: Good morning.

07                   HEARING OFFICER DEL PIERO: Good morning, Ladies

08 and Gentlemen.

09                   MR. BIRMINGHAM: I was wiping the sleep out of my

10 eyes.

11                   HEARING OFFICER DEL PIERO: I know. You've got

12 new hobbies.

13                   MR. BIRMINGHAM: That, too.

14                   HEARING OFFICER DEL PIERO: Ladies and Gentlemen,

15 this is the continuation of the ongoing hearing by the

16 State Water Resources Control Board regarding the

17 amendment of the City of Los Angeles' water rights

18 licenses on tributaries to Mono Lake.

19                   My name is Marc Del Piero. I'm Vice-Chairman of

20 the State Water Resources Control Board, and I'm acting

21 in the capacity as Hearing Officer for the proceedings.

22 Today is -- what is the date today, Mr. Canaday?

23 January --

24                   MR. BIRMINGHAM: 14th.

25                   HEARING OFFICER DEL PIERO: -- 14th today. A day

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01 of changes outside of this hearing room. The

02 Sacramento Union's last day of publication, and the

03 morning after the first time the Sacramento Kings have

04 won in a very long time. Actually beat the Hornets, I  
05 understand.

06 MR. CANADAY: Yes, they did. Convincingly.

07 HEARING OFFICER DEL PIERO: I heard the crowd  
08 enjoyed it immensely. Is that true?

09 MR. CANADAY: True.

10 HEARING OFFICER DEL PIERO: Were you one of those?

11 MR. CANADAY: Yes, Sir.

12 HEARING OFFICER DEL PIERO: Good morning,  
13 Mr. Birmingham. How are you, Sir?

14 MR. BIRMINGHAM: I'm fine, thank you,  
15 Mr. Del Piero.

16 HEARING OFFICER DEL PIERO: Are you ready to go?

17 MR. BIRMINGHAM: Well, we are ready to go, but  
18 there are a couple of matters that I wanted to discuss  
19 before we start with testimony this morning.

20 Yesterday, Ms. Scoonover moved for the  
21 introduction of SLC and DPR 5, Mono Lake viewpoint by  
22 Ranger David Carle. The book is a series of essays  
23 that were written by Ranger Carle and many of the  
24 essays contain opinions that Ranger Carle is not  
25 qualified to express. However, the Hearing Officer has  
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01 previously indicated, correctly, that there are many  
02 opinions in the record that the individuals stating  
03 those opinions probably were unqualified to state, and  
04 Ranger Carle's qualifications are in the record. So we  
05 would have no objection to the introduction of this  
06 exhibit.

07 HEARING OFFICER DEL PIERO: Thank you very much,  
08 Mr. Birmingham, and I will then, unless hearing any  
09 other comments in regard to that matter, order that  
10 entered into the record.

11 The number, Mr. Smith?

12 MR. SMITH: It's SLC and DPR No. 5.

13 HEARING OFFICER DEL PIERO: No. 5.

14 MR. DODGE: We don't object to its admissibility,  
15 either, although I must say that I suspect there are a  
16 lot of inadmissible materials in it, but we don't  
17 object.

18 HEARING OFFICER DEL PIERO: Thank you. Thank you  
19 very much.

20 (SLC/DPR Exhibit No. 5 was  
21 admitted into evidence.)

22 MR. BIRMINGHAM: A second matter. We had  
23 indicated yesterday that George Barnes would be  
24 available to testify today. We are informed that  
25 Mr. Barnes is available, but Dave Anderson, who is a  
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01 Deputy Staff Counsel, a member of the staff counsel at  
02 DWR who is responsible for the Bay-Delta proceedings,  
03 or at least the department's participation in the  
04 Bay-Delta proceedings, has indicated that he might not  
05 be available today, and he wants to be here when  
06 Mr. Barnes testifies. Mr. Barnes was subpoenaed to  
07 appear and Mr. --

08 MS. CAHILL: I'm sorry. I had trouble yesterday,  
09 for some reason, hearing.

10 HEARING OFFICER DEL PIERO: Maybe they aren't  
11 pulled down.

12 MR. BIRMINGHAM: I will state it again. Dave  
13 Anderson, who is the attorney for DWR responsible for  
14 the Bay-Delta proceedings and the attorney who's  
15 principally involved with Mr. Barnes' work, is not  
16 available or has indicated he may not be available  
17 today. We have arranged to talk to him at nine  
18 o'clock, and --

19 HEARING OFFICER DEL PIERO: You want to break at  
20 nine?

21 MR. BIRMINGHAM: No. We do not want to break at  
22 nine. We'll just go out and make a telephone call, but  
23 we'll have a better idea about Mr. Barnes'  
24 availability. I think, in any event, with the  
25 witnesses we have, we will fill up the day whether  
0010 Mr. Barnes is available or not.

01 HEARING OFFICER DEL PIERO: Fine.

02 MR. BIRMINGHAM: A third, final matter is that  
03 yesterday during Dr. Hardy's testimony, he indicated  
04 the tables that were attached to his testimony  
05 contained a column that had been moved from the  
06 right-hand side of the page to the left-hand side of  
07 the page. We have corrected tables here this morning  
08 for the Board and for any parties who are interested.  
09 Thank you.

10 HEARING OFFICER DEL PIERO: Thank you very much.  
11 If you could see to it, Mr. Birmingham, that those are  
12 distributed, I'd appreciate it.

13 MR. BIRMINGHAM: And, actually -- I'm sorry. One  
14 fourth item. Mr. Tillemans is here today, but the work  
15 that he did was primarily in support of Dr. Beschta's  
16 testimony, so we wondered if it would be possible to  
17 have him come back and be cross-examined at the time  
18 that Dr. Beschta's here on the 24th.

19 MR. DODGE: I have some questions today for  
20 Mr. Tillemans.

21 HEARING OFFICER DEL PIERO: In relationship to  
22 those issues?

23 MR. DODGE: In relationship to the work he did.  
24 Nothing --

0011 HEARING OFFICER DEL PIERO: Mr. Birmingham, do you  
01 have a problem with that at this point?

02 MR. BIRMINGHAM: The work that Mr. Tillemans did  
03 was --

04 HEARING OFFICER DEL PIERO: He did the field  
05 survey work.

06 MR. BIRMINGHAM: He did the field survey work  
07 under the direction of Dr. Beschta. To the extent  
08 there are questions about that work, I think it would  
09 be more appropriate if both Dr. Beschta and  
10 Mr. Tillemans were examined at the same time because  
11 Mr. Tillemans did that work at the direction of  
12 Dr. Beschta and took direction from Dr. Beschta.

13 HEARING OFFICER DEL PIERO: Is there a particular  
14 reason why you prefer to do that examination today as  
15 opposed to later when Dr. Beschta is here?

16 MR. DODGE: It relates simply to the work that he  
17 did, and I'd like to get the answers today. For  
18 example, he's got a depth survey. Depending on the  
19

20 answers, we may do a depth survey. I don't know.  
21 HEARING OFFICER DEL PIERO: How long do you  
22 anticipate -- how many questions do you anticipate  
23 having of him?  
24 MR. DODGE: Five minutes.  
25 MR. BIRMINGHAM: Well, Mr. Tillemans --

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01 HEARING OFFICER DEL PIERO: I think we'll -- if it  
02 goes beyond the scope of the work Mr. Tillemans does,  
03 I'll ask that Mr. Dodge refrain from asking those  
04 questions. If it relates to the work Mr. Tillemans  
05 did, I think I'm going to allow him to ask those  
06 examination questions.

07 MR. BIRMINGHAM: Thank you.

08 HEARING OFFICER DEL PIERO: Ms. Cahill? Good  
09 morning.

10 MS. CAHILL: Good morning. I had understood that  
11 this morning we were going to be questioning Dr. Orton  
12 and Dr. Platts. I did not understand that  
13 Mr. Hasencamp was going to be questioned today. It was  
14 my understanding that he was next week sometime, and  
15 I'm not prepared to do that.

16 MR. BIRMINGHAM: Mr. Hasencamp is here, and he  
17 will be available at any time whenever Ms. Cahill is  
18 ready.

19 HEARING OFFICER DEL PIERO: As I recall,  
20 Mr. Birmingham, you did indicate that Mr. Hasencamp was  
21 going to be on -- was it not next week or the 24th?

22 MR. BIRMINGHAM: He's going to be on with the  
23 panel that talks about LAAMP and LAASM, which will be  
24 next week. He will also be available on the 24th when  
25 Dr. Beschta is here --

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01 HEARING OFFICER DEL PIERO: Fine. Then we don't  
02 have a problem

03 MS. CAHILL: I just didn't want to waive any  
04 rights to examine him because I have not prepared that.

05 HEARING OFFICER DEL PIERO: That's fine.

06 MS. CAHILL: Let me start with --

07 MR. BIRMINGHAM: Excuse me. I am misinformed.  
08 Mr. Hasencamp tells me that he is sitting at the table  
09 today only in the event a question comes up where he  
10 assists other members of the panel, but he does not  
11 expect to be cross-examined generally today.

12 HEARING OFFICER DEL PIERO: That's good because  
13 that was my understanding, also. I understood he was  
14 going to be on later.

15 MS. CAHILL: Thank you.

16 CROSS-EXAMINATION BY MS. CAHILL

17 Q Good morning, Dr. Orton.

18 A BY DR. ORTON: Good morning.

19 Q Dr. Orton, are you a geomorphologist?

20 A I have training in that subject.

21 Q Do you have a degree in it?

22 A I do not.

23 Q And are you a hydrologist?

24 A Same answer, I have training. I do not have a  
25 degree.

0014

01 Q Have you ever developed and presented

02 flushing-flow recommendations in any other proceeding?  
03 A I have not.  
04 Q Have you ever developed flushing-flow  
05 recommendations on any other stream?  
06 A Can you -- recommendations that were implemented  
07 or --  
08 Q Well, start -- if you even made them. Have you  
09 developed flushing-flow recommendations and recommended  
10 them to anyone?  
11 A Yes. Within the department -- within the  
12 department, yes.  
13 Q And then were those actually, then, presented to  
14 any state or local agency?  
15 A Not to my knowledge.  
16 Q Have you taken the Fish and Wildlife Service's  
17 IFIM decision-making training? I understand they have  
18 a particular course that relates to decision making.  
19 A Is that IF 200?  
20 Q No.  
21 A Then I have not. I may have taken a similar  
22 course, which is IF 200.  
23 Q With regard to your testimony on the first page --  
24 I'm sorry, on Page 2, you indicate that your role in  
25 the development of the L.A. DWP management plan  
0015  
01 flushing flows was to advise L.A. DWP of the relevant  
02 biological information for each of the elements that  
03 you listed, which were frequency, magnitude, duration,  
04 and timing. You provided, then, biological  
05 information; is that right?  
06 A Biological. I also provided hydrologic  
07 information and geologic or geomorphic information that  
08 had a biological component to it.  
09 Q And what was the source of the hydrological  
10 information?  
11 A Well, a variety of sources; primarily, L.A. DWP  
12 hydro records. My analyses of those records. Aerial  
13 photographs from 1940, 1929 of the Mono Basin. The  
14 existing record, for example, statements by Mr. Vestal  
15 from 1940.  
16 Q What was the source of the geological information?  
17 A Aerial photographs. My own observations of the  
18 streams. The results of the population studies that  
19 were conducted by the city, and others.  
20 Q That's geological information?  
21 A I mentioned earlier that some of this information  
22 has a biological component, and you can infer some  
23 geomorphic information from fish population data.  
24 Q Did you take into account the Beak report?  
25 A I did.  
0016  
01 Q And did you take into account the Trihey work?  
02 A Could you be more specific? The answer is I did.  
03 Q What is the magnitude of the flushing flow in the  
04 L.A. DWP management plan?  
05 A I'd have to have those numbers in front of me.  
06 Q Can you get them?  
07 A BY MR. HASENCAMP: Yeah. They were 150 cfs.  
08 Q Is it true, Dr. Orton, that you recommended the  
09 specific flushing-flow numbers to L.A. DWP?



10 A BY DR. ORTON: That's a difficult question. Maybe  
11 I'll -- the numbers that you find --

12 Q It shouldn't be.

13 A Well, the numbers that you find on the L.A. DWP  
14 management plan, some of those numbers match with  
15 recommendations that I made and some do not.

16 Q Well, then, I think we do need to explore this.  
17 What numbers did you recommend? Do you have with you  
18 or elsewhere the numbers that you provided to L.A. DWP?

19 A I think I know those, yes.

20 Q And what are they?

21 A Well, there's a variety of numbers. One of the  
22 problems that we dealt with is that there's not a  
23 single number in any of these cases. For example, on  
24 Rush Creek, the flushing flows capable of mobilizing  
25 fines depends on what fines you wish to mobilize. I

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01 advised DWP -- I identified a number for them, if you  
02 would, of approximately 95 cfs, was my best estimate of  
03 flows that would mobilize fines in relatively  
04 uncompacted gravels.

05 On the other hand, the majority of gravels in Rush  
06 Creek are firmly compacted, and I advised them that,  
07 based on hydrologic information I reviewed, that flows  
08 on the order of 268 to 358, I believe, were capable of  
09 mobilizing those flows.

10 Q Okay. So, then, to translate that --

11 A Or those fines.

12 Q If the Board were to translate your recommendation  
13 into a flushing-flow requirement, what is your  
14 recommendation for flushing flows? What amount and how  
15 often? What recommendations did you give to L.A. DWP  
16 to put into their management plan? Actually, I changed  
17 the question. Let me rephrase it and ask the second  
18 one.

19 What specific numbers in what months and how  
20 frequently did you give to L.A. DWP to put into the  
21 management plan?

22 A Okay. Well, element by element, I guess --  
23 overall I -- first off, what I told them was that in  
24 Rush Creek, flushing flows may not be necessary.

25 Q At all?

0018

01 A Not at all. I told them that it may not be  
02 necessary for the period of record that I had  
03 reviewed. For example, in Rush Creek from 1986, when  
04 the last high-flow event came through, it was a very  
05 large high-flow event, until recently, fish populations  
06 have done very well. For a large portion of that time,  
07 up to about 1989, flows have been very constant, about  
08 19 cfs. The fish populations show no indication of  
09 being adversely affected by those relatively constant  
10 flows.

11 Q Dr. Orton, I don't believe you're answering my  
12 question. The L.A. DWP management plan is a model.  
13 And the model has to input certain flushing flows.  
14 Now, those -- Mr. Hasencamp told me that he got the  
15 flushing-flow numbers from you, and you're now telling  
16 me that not all your recommendations were taken.

17 But first of all, I need to know what your

18 recommendations were. What numbers did you input into  
19 your model for flushing flows?  
20 MR. BIRMINGHAM: Objection.  
21 MR. HASENCAMP: If I could --  
22 HEARING OFFICER DEL PIERO: The nature of the  
23 objection?  
24 MR. BIRMINGHAM: The nature of the objection is  
25 that the question is compound, and it assumes facts not  
0019 in evidence.  
01 HEARING OFFICER DEL PIERO: The assumption?  
02 MR. BIRMINGHAM: The assumption -- she just  
03 referred to "your model." I don't believe that there's  
04 any evidence that Dr. Orton has a model which he used.  
05 He said he reviewed different data, but there's no  
06 testimony regarding a model.  
07 MS. CAHILL: I will clarify that --  
08 HEARING OFFICER DEL PIERO: Excuse me. I'm going  
09 to sustain your objection. This is the second time,  
10 however, that Ms. Cahill has asked this question. Even  
11 though I'm sustaining your objection, I'm going to ask  
12 the Court Reporter to go back to the original question  
13 that she asked because the original question that she  
14 asked was neither compound nor was it ambiguous nor did  
15 it assume facts not in evidence, and it was not  
16 answered. And she attempted to restate because she  
17 didn't get an answer the first time.  
18 So in order to move this along within the time  
19 lines that I have given everybody, I'm going to ask the  
20 Reporter to read that first question back.  
21 MR. BIRMINGHAM: And then may we have an  
22 instruction to Dr. Orton just to answer the question as  
23 read back, Mr. Del Piero?  
24 HEARING OFFICER DEL PIERO: Certainly.  
0020 MR. BIRMINGHAM: Thank you.  
01 (Whereupon the record was read by the Reporter.)  
02 Q BY MS. CAHILL: Why don't we start with what are  
03 they? What were the numbers that you provided to L.A.  
04 DWP?  
05 A BY MR. HASENCAMP: Dr. Orton and I sat down, and he  
06 gave me the analysis. It was not a situation where he  
07 gave me these concrete numbers to use, but it was a  
08 discussion. He said, "These were the things to  
09 accomplish and these are the ranges of values and  
10 numbers that would accomplish that." So when we  
11 incorporated flushing flows in our management plan, it  
12 was a management decision based on the expert opinion  
13 of Dr. Orton and his association with Dr. Beschta.  
14 Q Mr. Hasencamp, are you saying, then, that you made  
15 the management decision? Who made the management  
16 decision?  
17 A I did.  
18 Q And what concrete numbers did you have from  
19 Dr. Orton to arrive at that decision?  
20 A We had many discussions. This is several months  
21 ago. And he said a minimum range, a minimum flow, a  
22 minimum flush of around 95, as he had said earlier,  
23 accomplishes one thing and another flow accomplishes  
24 another thing, and I said, "Well, let's look at the  
25

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01 hydrology. Let's look at the water available," and  
02 then we came to a consensus of would these flows meet  
03 the criteria that are sufficient, in his opinion? He  
04 said that they were.

05 Q Okay. Now, Dr. Orton, you said earlier, I  
06 believe, that not all of your recommendations were  
07 taken. Is that right?

08 A BY DR. ORTON: Correct. I need to clarify --

09 MR. BIRMINGHAM: Excuse me. I'm still not sure we  
10 have an answer to the question what were the numbers  
11 and I don't know if Ms. Cahill's still interested in  
12 having that information, but that was the question that  
13 was asked.

14 MS. CAHILL: Let's start --

15 HEARING OFFICER DEL PIERO: I think she started  
16 again.

17 Q BY MS. CAHILL: Let's start with Dr. Orton.

18 In addition to just generally discussing with  
19 Mr. Hasencamp, did you give him specific flow numbers  
20 with specific frequencies?

21 A BY DR. ORTON: I did.

22 Q And what are those flows and frequencies?

23 A Okay. I need to clarify something, and what I  
24 need to clarify is are you asking me for every number I  
25 gave him in the course of our conversations, or are you

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01 asking him the numbers that are in the L.A. DWP  
02 management plan?

03 Q Well, I'm trying to get at both, I think. I can't  
04 explore the reasonableness of your numbers unless I  
05 know what they are.

06 A Okay.

07 HEARING OFFICER DEL PIERO: Ms. Cahill, you still  
08 haven't gotten an answer to the last question.

09 Dr. Orton, do you recall what the last question  
10 was?

11 DR. ORTON: Yes, I do.

12 HEARING OFFICER DEL PIERO: You want to try and  
13 answer it?

14 DR. ORTON: Yes, I would.

15 HEARING OFFICER DEL PIERO: Fine.

16 DR. ORTON: In conversations with Mr. Hasencamp --  
17 and I'll go through this element by element --  
18 frequency of the flows, for example, I told him that if  
19 he wanted to mobilize the concrete compacted and  
20 cemented gravels in Rush Creek, the frequency of flows  
21 would be on the order of once per decade. I told him  
22 that those flows may not come around once per decade.  
23 They might be flows that are 5- to 25-year events  
24 based on the 19 -- this was based on the 1986 event.

25 I told him with respect to the duration of that

0023

01 flow, I told him that historically the duration of the  
02 1986 event was months. I also told him that it was  
03 months because they used the Grant Reservoir to  
04 supplement what was coming down, and that hydrograph --  
05 you could not get that hydrograph until you had a  
06 comparable year.

07 Q BY MS. CAHILL: So you didn't recommend --

08 MR. BIRMINGHAM: Excuse me. Ms. Cahill asked a  
09 question about numbers. Dr. Orton is trying to answer  
10 a question about numbers. He has yet to get to the  
11 numbers, and if she wants that information, then I  
12 think she should let him finish the answer. I still  
13 haven't heard the numbers, and I think Dr. Orton ought  
14 to be given a chance to answer the question.

15 HEARING OFFICER DEL PIERO: Dr. Orton, I thought  
16 you had completed the answer.

17 DR. ORTON: For that element, yes.

18 HEARING OFFICER DEL PIERO: Do you have more?

19 DR. ORTON: Well, yes, there's other elements.

20 HEARING OFFICER DEL PIERO: Please proceed, then,  
21 Sir.

22 DR. ORTON: Maybe I mentioned this, but that  
23 event, that flow event in 1986, ranged from about 258  
24 cfs on up to about 354 cfs. I gave Mr. Hasencamp that  
25 range of numbers. I told him that all I knew was that  
0024

01 those flows probably mobilized the compacted gravels in  
02 Rush Creek.

03 Q BY MS. CAHILL: Actually, let's take this in pieces.  
04 Mr. Hasencamp, did you input into the model some  
05 flushing-flow requirement based on that information  
06 from Dr. Orton?

07 A BY MR. HASENCAMP: I inputted into the model all of  
08 his recommendations. I didn't take one aspect,  
09 piecemeal, and try 50 different runs. I said, "What is  
10 it that we want to accomplish by these flushing and  
11 channel-maintenance flows," discussed it with him and  
12 came up with the 150 cfs.

13 Q But not a specific particular month, particular  
14 frequency?

15 A Yes, a frequency of every other year.

16 Q Every other year for which of those two flows that  
17 he just described?

18 A BY DR. ORTON: I need to -- may I intervene here?  
19 Those two flows, again, had the specific purpose  
20 of mobilizing compacted gravels in Rush Creek. I also  
21 discussed with him flows that would be, in my opinion,  
22 capable of mobilizing uncompacted gravels in Rush  
23 Creek.

24 I told him that -- all I told him was those were  
25 the flows that would probably mobilize those gravels,  
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01 and there was another discussion on whether you needed  
02 to mobilize those gravels from a biological  
03 perspective.

04 Q Okay. So the actual determination of which  
05 numbers to input into the model was made by you,  
06 Mr. Hasencamp; is that correct?

07 A BY MR. HASENCAMP: Yes, it was.

08 Q You are not a hydrologist?

09 A Yes, I am.

10 Q Yes, you are. You are a hydrologist but -- that  
11 was the wrong question. You are not a geomorphologist.

12 HEARING OFFICER DEL PIERO: The wrong question,  
13 but the right answer.

14 (Laughter.)

15 MS. CAHILL: Indeed.

16 MR. HASENCAMP: I'm not a geomorphologist, but I  
17 relied, again, on experts. I didn't just come up with  
18 some numbers that would work in our plan, but I  
19 consulted with Dr. Orton. And these numbers, these  
20 flushing flows, we ran it by other experts on the  
21 panel.

22 Q BY MS. CAHILL: And were you using impaired or  
23 natural hydrologic flow records in determining the  
24 flushing flows?

25 A BY MR. HASENCAMP: I used all the records, impaired,  
0026 unimpaired, actual, natural. We have several different  
01 flow records for each creek.

02 Q There really is no way that we can track your  
03 decision-making process, is there?

04 MR. BIRMINGHAM: Objection, argumentative.

05 Q BY MS. CAHILL: Is there any way?

06 HEARING OFFICER DEL PIERO: Why don't you restate  
07 the question? I'm going to sustain the objection, but  
08 I'm interested in the answer, so --

09 Q BY MS. CAHILL: Is there any way we could track your  
10 decision-making process, which hydrologic information  
11 you took into account and how it resulted in the flows  
12 that you input into the management plan?

13 A BY MR. HASENCAMP: Well, I didn't write down all of  
14 my thoughts throughout the process, but generally, I  
15 consulted with the biologists. I looked at the  
16 hydrologic records. I looked at other recommendations  
17 in the past. I took all that into account and came up  
18 with a flushing-flow regime, went back to the  
19 biologist, checked the hydrologic records again, got  
20 approval from the different experts, and then went  
21 ahead and put them into management.

22 Q One last question, I think, for you, Dr. Orton.  
23 Your testimony says, with regard to the duration of  
24 flushing flows, that you had, quote, no input on this

0027 element, unquote; is that correct?

01 A BY DR. ORTON: Not completely. I think the statement  
02 goes on -- yeah, it continues, I had no input on  
03 settlement except to note that long periods of high  
04 flows would have biological consequences. In this  
05 case, long periods of high flows would probably result  
06 in a net loss of uncompacted gravels in both creeks.  
07 So when I saw their duration -- when I saw their  
08 duration figures, I was asked to comment on all the  
09 figures, and --

10 Q And what do you consider to be a long period of  
11 flow?

12 A Well, for example, in Rush Creek, after the flows  
13 in 19 -- I'll answer the question, then I'll explain.  
14 A long period of flow would be on the order of anywhere  
15 from three weeks to months. Months being, say, six to  
16 nine months. Both of those numbers, three weeks and  
17 six to nine months relate to information that I had in  
18 my possession.

19 The six to nine months for Rush Creek relates to  
20 the period of time the flows were increased in 1990  
21 from 19 cfs on up to a range of -- up to 100. In fact,  
22 this is the record I relied on in 1990, flows of 100  
23

24 for several months. Those flows apparently removed a  
25 lot of uncompacted gravels in the creeks.

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01 On Lee Vining Creek, flows in 1989 were brought up  
02 from 5 cfs to about 32 by the end of the year, and then  
03 the following year, they're raised further to peak at  
04 about 52. I informed them that those flows also  
05 appeared to have adverse effects on the population.  
06 So, again, I was giving them brackets of time.

07 Q Okay. With regard to short-term flushing flows,  
08 you did not make any recommendations. You had no input  
09 on the element of flushing flows with regard to  
10 duration for shorter periods of time. There are --

11 A I don't recall -- I don't think so. I don't  
12 remember.

13 Q Okay.

14 A I told Mr. Hasencamp that he should speak with  
15 Dr. Beschta and others, because the concept here is  
16 that you can have a short duration flushing flow and  
17 accomplish the same things as a longer period of time.  
18 What part of the hydrograph, what slice of that you  
19 wish to take is, I think, more in the expertise of  
20 Dr. Beschta, Dr. Platts. And that's how I advised him.

21 Q Mr. Hasencamp, I believe you told me that you had  
22 gotten input from Dr. Orton on the flushing flows that  
23 went into the management plan. I believe you told me  
24 that the amount of water might provide a particular  
25 flushing flow for a ten-day period. That ten days

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01 would not have come from

02 Dr. Orton; is that right?

03 A BY MR. HASENCAMP: He did not give me a figure of ten  
04 days, but after the number was derived, I went back and  
05 checked with him again. He, then, did approve, from  
06 his knowledge, that ten days was sufficient.

07 Q Let me turn over to Dr. Platts and the Upper Owens  
08 River. Dr. Platts, I am assuming that you had reviewed  
09 the EBASCO report on the Upper Owens River; is that  
10 right?

11 A BY DR. PLATTS: That's right.

12 Q The Upper Owens River is primarily a spring-fed  
13 river; is it not?

14 A Would you define "primarily"? Do you want me to  
15 answer just based on what I think?

16 Q Yes. Or define --

17 MR. BIRMINGHAM: Excuse me. If Dr. Platts doesn't  
18 understand what Ms. Cahill means by "primarily," I  
19 would object on the grounds it's ambiguous. If he  
20 understands what she means, I would withdraw my  
21 objection.

22 HEARING OFFICER DEL PIERO: Do you understand,  
23 Dr. Platts?

24 DR. PLATTS: I think I understand what she means.

25 HEARING OFFICER DEL PIERO: Do you understand?

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01 DR. PLATTS: No, not completely, no.

02 HEARING OFFICER DEL PIERO: I'm going to sustain  
03 the objection.

04 Ms. Cahill, will you be a little more specific?

05 Q BY MS. CAHILL: Dr. Platts, would you characterize

06 the Upper Owens River as a spring-fed stream or a  
07 snow-melt stream?  
08 A BY DR. PLATTS: Neither.  
09 Q And it has some characteristics of each?  
10 A Yes, it does.  
11 Q And of those characteristics, are the spring-fed  
12 characteristics greater than the snow-melt  
13 characteristics?  
14 A No. You would need to define "characteristics."  
15 Q Okay. Let me refer you to Figure 5 in DFG Exhibit  
16 62. This shows average monthly flows. Do you have  
17 that report? Thank you. It's on Page 17.  
18 A Is this 931?  
19 Q Yes.  
20 A On page?  
21 Q Page 17, Figure 5. And the lighter-colored bars  
22 are the average monthly flows from 1941 to 1989 just  
23 upstream of East Portal. Is that correct?  
24 A That's correct.  
25 Q And isn't it true that the peak flows shown here

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01 are much closer to the base flows than they are on a  
02 stream like Rush or Lee Vining that's primarily a  
03 snow-melt stream?  
04 A That would be correct, except the monthly flows  
05 mask out what is really going on.  
06 Q But on a monthly basis, the difference between the  
07 runoff months and the base months is much less on the  
08 Upper Owens River than it is on either Rush or Lee  
09 Vining Creek; isn't that right?  
10 A I have not looked at Rush or Lee Vining Creek, but  
11 I would assume that you're right.  
12 Q Now, if you were to add an increment of flow on  
13 top of each of those natural monthly flows, you would  
14 have, in effect, the same shape of the curve; would you  
15 not?  
16 A That's correct. On a monthly basis.  
17 Q So when you testified with regard to the  
18 undesirability of having uniform flows in the Upper  
19 Owens River -- let me withdraw that.  
20 Isn't it true that the Upper Owens River has, on a  
21 monthly average, roughly uniform flows just naturally?  
22 MR. BIRMINGHAM: Excuse me. May I ask that that  
23 be reread?  
24 (Whereupon the record was read by the Reporter.)  
25 DR. PLATTS: I would say they're not uniform.

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01 Q BY MS. CAHILL: But the variability is no more, on a  
02 monthly basis, than 50 percent of the base flow?  
03 A BY DR. PLATTS: Yes. But you want to remember that  
04 monthly flows mask out what's really going on in the  
05 system.  
06 Q Okay. But if you were to take a uniform increment  
07 of water and add it to the natural monthly flows, you  
08 would, in fact, mimic the natural pattern, would you  
09 not?  
10 A No, you wouldn't.  
11 Q And why not?  
12 A Because you'd be masking out the peak flows,  
13 instantaneous peak flows that are coming down the

14 system.

15 Q If you were adding a constant increment on top of  
16 whatever those peak flows might be, wouldn't you be  
17 tracking the natural?

18 A If you added to the peak flows, instantaneous peak  
19 flows and displayed it, then I would say you were  
20 correct.

21 HEARING OFFICER DEL PIERO: Excuse me. I don't  
22 understand that. Forgive me, but I don't understand  
23 that. So I want you to help me out.

24 In a natural hydrograph, you've got a lower end  
25 and a high end, and the peak flows in a natural

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01 hydrograph are whatever they are. And the natural  
02 system of the stream or the river that's being  
03 evaluated will have developed over eons predicated on  
04 that natural hydrograph.

05 If you add water to increase the peak flow, is  
06 that not going to exceed what the natural hydrograph  
07 was?

08 DR. PLATTS: Yes.

09 HEARING OFFICER DEL PIERO: Would that not cause  
10 damage either from erosion or modification to the  
11 stream channel?

12 DR. PLATTS: Yes, it could.

13 HEARING OFFICER DEL PIERO: Is that what you're  
14 recommending?

15 DR. PLATTS: No. I'm --

16 HEARING OFFICER DEL PIERO: I'm sorry. But I  
17 really didn't understand what the last comments were.

18 DR. PLATTS: My main point to Counsel was that  
19 monthly flows mask out so much that it's very difficult  
20 to say that if you did something to a monthly flow and  
21 did something to a corresponding monthly flow, that the  
22 results would be similar because the spike is going  
23 up --

24 HEARING OFFICER DEL PIERO: I understand that,  
25 but that's not the issue that I'm asking about. I'm

0034

01 asking about what you said, not related to the  
02 uniformity of the elevation of monthly flows that she  
03 was talking about. You were talking about adding to  
04 the peak flow, at peak-flow times, obviously.

05 Is that not going to cause a scarring or erosion  
06 or some unnatural activity going on in that stream  
07 channel?

08 DR. PLATTS: Yes, it would. It could.

09 MS. CAHILL: Ms. Anglin, could you mark the  
10 question -- just in this general area, the answer about  
11 monthly flows?

12 THE REPORTER: Sure.

13 HEARING OFFICER DEL PIERO: I don't mean to take  
14 up your time. Maybe I'll explore that on my  
15 examination.

16 Q BY MS. CAHILL: Dr. Platts, on the first page of your  
17 testimony, you recommend that the Upper Owens River  
18 receive bank-full flows at least every three years.  
19 You say, "Q-3."

20 Is that Q-3 based on the natural flows in the  
21 Upper Owens River?



22 A BY DR. PLATTS: No. That Q-3 is just based on the  
23 bank-full flow of the Owens River in its present  
24 condition, Upper Owens River.

25 Q So the Q-3 in this case doesn't mean the flow that  
0035 would happen every three years?

01 A Not the natural -- no. What flow are you speaking  
02 of?  
03

04 Q I'm quoting from your testimony on Page 1. You  
05 say you, "Recommend the Upper Owens River receive  
06 bank-full flows at least once every three years." You  
07 say, "Q-3." What do you mean by Q-3?

08 A Yes. That means that's the flow -- Q-3 would mean  
09 that's a flow event on the average of once every three  
10 years that would top the bank.

11 Q Okay. But that Q-3 doesn't relate to any actual  
12 hydrology that's occurred in the period of record?

13 A No.

14 Q Okay. You're just using that as a shorthand for a  
15 flow that ought to occur every three years?

16 A Yes. I'm just -- I'm using that to imply that the  
17 Q-3 is that flow that, on the average of every -- over  
18 a three-year average would top the bank.

19 Q Okay.

20 MR. HERRERA: Excuse me, Ms. Cahill. Your 20  
21 minutes has expired.

22 MS. CAHILL: Mr. Del Piero, I know that you are  
23 strict on extensions during rebuttal. I would petition  
24 for an additional period of 20 minutes. I would expect  
25 not to use it all. I took longer with Dr. Orton than I  
0036 anticipated. Given that there are two witnesses here,  
01 I would ask to be allowed to complete my examination of  
02 Dr. Platts.  
03

04 HEARING OFFICER DEL PIERO: I'll grant the 20  
05 minutes. I would assume you're going to be done in  
06 that time.

07 MS. CAHILL: I will certainly be done, and I  
08 expect to be done in less.

09 Q BY MS. CAHILL: Dr. Platts, when you testified about  
10 the need for over-bank flows, is it true that you said  
11 there were some exceptions for spring-fed streams?

12 A There are some exceptions for spring-fed streams  
13 that are entirely spring fed.

14 Q With regard to the bank-full flow, did you take  
15 your information on bank-full flows from the EBASCO  
16 report?

17 A Yes, I did.

18 Q And that's from Table 8 and Table 9 on Pages 48  
19 and 49; is that right?

20 A That is correct.

21 Q And in effect, what you did was take the bank-full  
22 discharge and take some of those, perhaps eliminating  
23 those that weren't representative, added them, and then  
24 divided to arrive at an average?

25 A Yes, I did.

0037

01 Q Now, when the average bank-full discharge occurs,  
02 isn't it true that some of the points will already be  
03 over-bank?

04 A That's correct.  
05 Q So in order to arrive at the average bank-full  
06 discharge, you're already causing some localized  
07 flooding at other cross-sections?  
08 A That's correct.  
09 Q Do the landowners along the upper portion of the  
10 Upper Owens River below The Portal object to flooding  
11 on their pastures?  
12 MR. BIRMINGHAM: Objection, relevance. The  
13 Department of Water and Power has easements over these  
14 lands, so whether they object or not is -- whether the  
15 landowners object is really irrelevant.  
16 HEARING OFFICER DEL PIERO: Mr. Dodge?  
17 MR. DODGE: Regardless of what the easement  
18 situation is, I don't know what it is, it appears to me  
19 that the opinions of the landowners is still relevant.  
20 MS. CAHILL: I believe it's relevant. The  
21 landowners' testimony addresses a maximum flow that  
22 they recommend.  
23 HEARING OFFICER DEL PIERO: I'm going to overrule  
24 the objection. Do you know the answer, Sir?  
25 DR. PLATTS: I don't know the answer, Sir, because  
0038  
01 I have not asked the landowners whether they objected  
02 or not.  
03 HEARING OFFICER DEL PIERO: Then let's move on.  
04 Q BY MS. CAHILL: Dr. Platts, are fluctuations of 100  
05 cfs or more during the non-snow-melt runoff season  
06 natural in the Upper Owens River?  
07 A BY DR. PLATTS: They would not be natural unless you  
08 received a summer rainstorm event of large magnitude.  
09 Q Are you aware of the research done by Stromberg  
10 and Patton on willows along the Upper Owens River?  
11 A No, I'm not.  
12 Q You haven't seen the auxiliary report in this  
13 matter dealing with that subject?  
14 A No. I don't remember it.  
15 Q Assuming, hypothetically, that the landowners did  
16 object to flows that flooded their pastures, would that  
17 affect your recommendation?  
18 A No, it would not.  
19 Q If the grazing were eliminated on the Upper Owens  
20 River and large fluctuations were eliminated, is it  
21 likely that the channel would ultimately narrow  
22 somewhat?  
23 A For clarification, you're saying if there are no  
24 fluctuations, would the channel narrow?  
25 Q If you had no grazing and relatively constant  
0039  
01 flows, no daily fluctuations of 100 cfs or more outside  
02 the snow-melt season, would you expect that ultimately  
03 the channel would narrow?  
04 A Yes. You're correct. The channel would narrow  
05 without fluctuations, but would not be the channel you  
06 would want.  
07 HEARING OFFICER DEL PIERO: Excuse me. Why?  
08 DR. PLATTS: Because then you would have an inset  
09 channel within the Upper Owens River which would be  
10 kind of a plugged-up channel and because the Upper  
11 Owens tends to transport a lot of fines, a lot of

12 sands, and without fluctuations, you would probably  
13 have a very sandy-bottomed river.  
14 Q BY MS. CAHILL: Would that be true even if there were  
15 fluctuations during the snow-melt period?  
16 A BY DR. PLATTS: No. Now you're adding on to the  
17 question.  
18 Q No. My question originally was outside the  
19 snow-melt period.  
20 HEARING OFFICER DEL PIERO: That's correct. Her  
21 question included the snow-melt fluctuations. That's  
22 why I asked the question why because I didn't quite  
23 understand your answer.  
24 DR. PLATTS: Okay.  
25 HEARING OFFICER DEL PIERO: Maybe you didn't  
0040  
01 understand the question.  
02 DR. PLATTS: I didn't understand the answer (sic)  
03 completely then. You are correct.  
04 Q BY MS. CAHILL: And then, again, with regard to your  
05 average bank-full -- even when the average bank-full  
06 flow is there, not all the cross-sections would be at  
07 bank-full; is that right?  
08 A BY DR. PLATTS: That's correct.  
09 Q What is the width of the channel above the East  
10 Portal?  
11 A I don't know right off.  
12 Q Is it fair to say the channel is wider below East  
13 Portal than it is above?  
14 A That would be fair.  
15 MS. CAHILL: I believe that's all I have. Thank  
16 you.  
17 HEARING OFFICER DEL PIERO: Thank you very much.  
18 Is it Mr. Dodge or Mr. Flinn?  
19 MR. DODGE: It's me.  
20 HEARING OFFICER DEL PIERO: Mr. Dodge. Good  
21 morning, Sir.  
22 MR. DODGE: Good morning.  
23 HEARING OFFICER DEL PIERO: You didn't go to the  
24 Kings game last night, did you?  
25 MR. DODGE: No. I tried to catch Cal versus  
0041  
01 Arizona on ESPN, but our television doesn't have ESPN.  
02 HEARING OFFICER DEL PIERO: I read some  
03 stimulating information about what the Environmental  
04 Protection Agency's doing on salinity standards in the  
05 delta. So I think your evening and mine were on par.  
06 CROSS-EXAMINATION BY MR. DODGE  
07 Q Dr. Orton, I just have a couple of follow-up  
08 questions for you. You told us about your  
09 recommendations for flushing flows. Did you have a  
10 recommendation for DWP on over-bank flows?  
11 A BY DR. ORTON: I told them what kinds of flows would  
12 result in minimum over-bank flows.  
13 Q What specific numbers did you give them?  
14 A As I recall, I told them that flows in the range  
15 of -- let's see.  
16 MR. BIRMINGHAM: I'm going to interpose an  
17 objection on the grounds the question is ambiguous with  
18 respect to the stream.  
19 HEARING OFFICER DEL PIERO: Sustained. You want

20 to specify, Mr. Dodge?  
21 Q BY MR. DODGE: Rush Creek and then Lee Vining Creek.  
22 A BY DR. ORTON: I told them that a flow capable of  
23 wetting the immediate vicinity of the bank, over-bank  
24 flow, in Rush Creek would be approximately 45 cfs.  
25 Q And Lee Vining Creek?  
0042  
01 A In Lee Vining Creek, a little bit less. A couple  
02 of cfs less.  
03 Q How did you make that calculation?  
04 A I made that calculation from looking at the  
05 PHABSIM output and the Fish and Game reports and also  
06 observations in the field.  
07 Q Is there some document where we could find this  
08 calculation?  
09 A Yes. Either instream flow -- either stream  
10 evaluation report.  
11 Q Did you make a calculation yourself that we could  
12 look at?  
13 A I derived the number. A calculation.  
14 Q Well, I understood that Dr. Platts, in doing the  
15 calculation for the Upper Owens River, took the  
16 information, the EBASCO report, and calculated certain  
17 averages as to what it would take to reach a full bank  
18 flow. Did you do the same thing?  
19 A I attempted to. Neither of those reports did what  
20 EBASCO did in the sense of having transect data with  
21 estimates of over-bank flows for each transect.  
22 Q And absent that data, how could you make that  
23 calculation?  
24 A Weighted usable area curves versus flow in those  
25 reports has a curve for fry. And fry weighted usable  
0043  
01 area versus flow curves typically show a point where  
02 the curve changes its slope. And that has, in most  
03 cases, a straightforward interpretation that the amount  
04 of fry habitat goes down with increasing flows because  
05 the velocities pick up. The moment where you reach  
06 over-bank flows, you flood the bank and create shallow  
07 habitat, and the amount of fry habitat then increases.  
08 That point, you know, barring other information,  
09 is a good estimate of over-bank flows integrated over  
10 the entire stream.  
11 Q Dr. Platts, do you agree that such a calculation  
12 could be made without the bank-full discharge data  
13 that's in the EBASCO report?  
14 A BY DR. PLATTS: I have not looked at Rush and Lee  
15 Vining at all. I couldn't answer that question.  
16 Q Making your recommendations on bank-full flows,  
17 you use the EBASCO report in the column bank-full  
18 discharge in cfs, correct?  
19 A Correct.  
20 Q Mr. Hasencamp, do you remember discussions about  
21 bank-full discharge flows?  
22 A BY MR. HASENCAMP: Yes.  
23 Q That those were part of your calculations?  
24 A Well, that was part of the overall plan.  
25 Q Mr. Tillemans, your depth measurements on Rush  
0044  
01 Creek, the so-called thalweg measurements -- and I

02 believe there's sort of a schematic of them directly  
03 behind you on the board; is that right?  
04 A BY MR. TILLEMANS: That's correct.  
05 Q How many measurements did you make?  
06 A There's over 1500 measurements.  
07 Q Okay. And that was in approximately 12,000 feet  
08 of stream; is that right?  
09 A I think Dr. Beschta's is about 11,700 feet.  
10 Q Okay. How many of those measurements resulted in  
11 water depth over three feet?  
12 A I couldn't tell you. All I did was take the data,  
13 and as soon as I got the data, I sent it to  
14 Dr. Beschta.  
15 Q You don't have the raw data?  
16 A I have the data. I took the data. Yes, I have  
17 the data.  
18 Q You do have the data?  
19 A Yes.  
20 Q So if we wanted to ask you for the data, we could  
21 just count them, couldn't we?  
22 A Yes.  
23 Q Do you have any order of magnitude as to how many  
24 measurements you had in excess of three feet?  
25 A No, I don't.

0045  
01 Q Less than 100?  
02 A I'd have to look at the data.  
03 Q Similarly, if I wanted to ask you how often the  
04 thalweg measured two feet or less, do you have any  
05 estimate of that?  
06 A Again, out of 1500, I couldn't give you exact  
07 numbers. I think we volunteered the data yesterday,  
08 and I'd be more than happy to send it.  
09 Q Okay.  
10 A I did this at Bob's request and ran it in a couple  
11 of days, very limited time, and tried to get as much  
12 done as possible. And as soon as I compiled the data,  
13 I sent it directly to Bob for some extrapolation.  
14 HEARING OFFICER DEL PIERO: That's Dr. Beschta?  
15 MR. TILLEMANS: Dr. Beschta, I'm sorry.  
16 MR. DODGE: We would ask for that.  
17 HEARING OFFICER DEL PIERO: And that's the source  
18 of the "B."  
19 MR. DODGE: Mr. Chairman, we would ask for that  
20 data.  
21 HEARING OFFICER DEL PIERO: It was offered  
22 yesterday by Mr. Birmingham.  
23 You indicated you would have it available by when,  
24 Sir?  
25 MR. BIRMINGHAM: You said next Friday. We said

0046  
01 we'd get it as early in the week as possible.  
02 HEARING OFFICER DEL PIERO: Do you have any idea  
03 at this point as to when it will be available?  
04 MR. BIRMINGHAM: I think Mr. Tillemans has some of  
05 the data here with him, but not all of it. That data  
06 that he has with him, we could provide it now.  
07 MR. FLINN: If it's available in electronic media  
08 such as an ASCII file, we would request it in that  
09 form.

10 HEARING OFFICER DEL PIERO: Do we know that?  
11 Mr. Tillemans, is it available in that media?  
12 MR. TILLEMANS: Dr. Beschta, how he compiled the  
13 graphs or whatever, I think may be on a disk.  
14 HEARING OFFICER DEL PIERO: Floppy?  
15 MR. TILLEMANS: You would have to ask Dr. Beschta.  
16 I'm not sure.  
17 HEARING OFFICER DEL PIERO: Have you made  
18 arrangements for duplication of the information yet,  
19 Mr. Birmingham?  
20 MR. BIRMINGHAM: No, we have not.  
21 HEARING OFFICER DEL PIERO: Let me ask,  
22 Mr. Birmingham, between now and the end of the day, if  
23 you would be good enough to be able to answer one,  
24 whether or not it's on a floppy --  
25 MR. BIRMINGHAM: We can find that out within five  
0047  
01 minutes.  
02 HEARING OFFICER DEL PIERO: And two, if it's  
03 possible to have those duplicates made as soon as  
04 possible. I know I told you Friday of next week. If  
05 it's possible to have them made as soon as possible --  
06 at this point, it would probably be nice if our Staff  
07 had them so we could take a look at that background  
08 information, also.  
09 MR. BIRMINGHAM: Absolutely.  
10 HEARING OFFICER DEL PIERO: Okay.  
11 Q BY MR. DODGE: You told me you couldn't tell me how  
12 many of the thalwegs were greater than three feet, nor  
13 could you tell me how many were two feet or less.  
14 Would you agree that there were --  
15 MR. BIRMINGHAM: Objection --  
16 MR. DODGE: I haven't even finished the question  
17 yet.  
18 MR. BIRMINGHAM: I'm sorry, Mr. Dodge.  
19 MR. DODGE: Excuse me, Mr. Chairman. I didn't  
20 mean to speak to Mr. Birmingham directly.  
21 HEARING OFFICER DEL PIERO: The objection was  
22 withdrawn. Go ahead and ask your question.  
23 Q BY MR. DODGE: You told me you couldn't tell me how  
24 many of the thalwegs were greater than three feet nor  
25 could you tell me how many were two feet or less.  
0048  
01 Would you agree that the latter was more common than  
02 the former?  
03 MR. BIRMINGHAM: I'm going to object on the  
04 grounds it misstates the evidence. Mr. Tillemans said  
05 he couldn't tell Mr. Dodge the number that were in  
06 excess of three feet or are shallower than three feet  
07 without looking at the data. I don't think  
08 Mr. Tillemans said he couldn't answer that question.  
09 HEARING OFFICER DEL PIERO: I'm going to overrule  
10 the objection.  
11 Mr. Tillemans, do you understand Mr. Dodge's  
12 question?  
13 MR. TILLEMANS: Could I have it reread, please?  
14 HEARING OFFICER DEL PIERO: Certainly.  
15 (Whereupon the record was read by the Reporter.)  
16 THE WITNESS: Yes.  
17 Q BY MR. DODGE: By a substantial margin?

18 A MR. TILLEMANS: I'd have to look up figures to tell  
19 you how much.  
20 Q Were you here yesterday when Dr. Hardy was talking  
21 about 25 cfs in Rush Creek in the winter?  
22 A Yes.  
23 Q And you were looking at it at 80 cfs; is that  
24 right?  
25 A Yes. 80 cfs, 79.

0049  
01 Q How would 25 cfs affect the depths that you  
02 measured?  
03 A I think that's a question you should probably ask  
04 Dr. Beschta.  
05 Q Well, you've spent a lot of time on that stream.  
06 You don't have an opinion?  
07 MR. BIRMINGHAM: I'm going to object on the  
08 grounds that it calls for an opinion that is beyond the  
09 scope of Mr. Tillemans' expertise.  
10 HEARING OFFICER DEL PIERO: I'm going to sustain  
11 the objection.  
12 He indicated he thought someone else was more  
13 qualified to answer the question. We've allowed that  
14 on the part of all parties, Mr. Dodge.  
15 MR. DODGE: May I speak to that point? If the  
16 objection is that there's someone else more qualified  
17 in the world to answer a question, we'd have very few  
18 answers in this proceeding. I think this man is  
19 qualified to answer that question.  
20 MR. BIRMINGHAM: Maybe Mr. Dodge would like to try  
21 and lay a foundation, but the basis of my objection is  
22 whether or not Mr. Tillemans can answer it. In my  
23 view, it goes beyond the scope of his expertise.  
24 HEARING OFFICER DEL PIERO: I thought  
25 Mr. Tillemans answered it. I thought Mr. Tillemans

0050  
01 said that -- perhaps he's not as direct as he could  
02 have been, but he said he didn't know the answer.  
03 MR. DODGE: No. He said he'd like Dr. Beschta to  
04 answer it. That's different than saying, "I don't know  
05 the answer."  
06 MR. BIRMINGHAM: In addition, Mr. Del Piero, when  
07 we started this this morning, I suggested that it would  
08 be better if Mr. Tillemans testified --  
09 HEARING OFFICER DEL PIERO: I understand that,  
10 and, Mr. Birmingham, please understand, I'm keeping  
11 that very much in mind and that's why I sustained your  
12 objection.  
13 And, Mr. Dodge, Mr. Birmingham made a suggestion.  
14 If you wish to lay a foundation you can go ahead and do  
15 that, and we'll see if we get to that point.  
16 Q BY MR. DODGE: Rush Creek is shallower at 25 cfs than  
17 it is at 80, isn't it?  
18 A BY MR. TILLEMANS: I would expect that.  
19 Q How did you make these depth measurements? Did  
20 you have a stick with feet and inches on it?  
21 A I had a survey rod that I obtained from our survey  
22 crews. It was a plastic survey rod. It extends out to  
23 20 feet in five-foot increments, and it's hashed out in  
24 tenths of a foot. And it's an oblong-shaped type rod  
25 that's very light.

0051

01 Q And you just cram it into the stream and make a  
02 reading. Is that what you do?  
03 A I didn't cram it into the stream.  
04 Q What do you do?  
05 A When you take a thalweg profile, you take the  
06 deepest thread of the main channel, which is what I was  
07 doing, I was measuring the main channel. And you walk  
08 up the center of the stream, and the increments I did  
09 are three steps. And you take a line right across the  
10 stream in the third step and find the deepest spot and  
11 take your reading.  
12 Q And does the accuracy of the reading depend on  
13 getting the stick vertical?  
14 A Yes.  
15 Q And if the stick is not vertical, then by  
16 definition, the measurement will be greater than the  
17 actual depth; is that right?  
18 A Correct.  
19 Q If we sent someone out there, could we duplicate  
20 your results with some accuracy?  
21 A I think so. I think if somebody did a width and  
22 depth thalweg profile like I did using that survey rod,  
23 that I would be very surprised if they couldn't  
24 duplicate what I did.  
25 Q Dr. Platts?

0052

01 A BY DR. PLATTS: Yes.  
02 Q This may be our last meeting.  
03 MR. BIRMINGHAM: Don't count on it, Mr. Dodge,  
04 unless you're retiring.  
05 HEARING OFFICER DEL PIERO: Oh, ye of little  
06 faith, Mr. Birmingham.  
07 MR. ROOS-COLLINS: Mr. Dodge shows signs of  
08 optimism.  
09 HEARING OFFICER DEL PIERO: No. He shows signs of  
10 approaching Social Security age.  
11 (Laughter.)  
12 MR. DODGE: Dr. Platts and I are in a head-long  
13 race to do that.  
14 DR. PLATTS: I think I'll beat you.  
15 Q BY MR. DODGE: Dr. Platts, you are critical of DFG  
16 recommendations on Upper Owens River because the 200  
17 cfs is not a bank-full flow.  
18 A BY DR. PLATTS: That's correct.  
19 Q Okay. Now, I'll get to that in a minute.  
20 Let me ask you, pre-1940, was 200 cfs a bank-full  
21 flow for the Upper Owens River?  
22 A I did not check that out, but it sounds  
23 reasonable.  
24 Q It was a smaller river, then, wasn't it?  
25 A Yes, it was.

0053

01 Q And it has been -- the size of the river has been  
02 increased by the artificial Mono Basin flows from 1943  
03 to 1989?  
04 A Yes, and other factors.  
05 Q Now, hypothetically, if the Upper Owens River were  
06 to receive no Mono Basin water, would the channel of  
07 the Upper Owens River gradually return to its historic



08 channel over time?  
09 A Yes, it would, gradually.  
10 Q Okay. And then if that happened, then 200 cfs  
11 might be an adequate over-bank flow?  
12 A Yes. Once the channel is reestablished.  
13 Q Okay. But today, your testimony is that it takes  
14 approximately 300 to over-bank, correct?  
15 A That's correct.  
16 Q Okay. So what you're telling us is that the Upper  
17 Owens River today needs 300 cfs to over-bank -- to  
18 maintain basically the degraded channel of the Upper  
19 Owens River?  
20 A That's not correct.  
21 Q You don't agree that the high flows from 1940 to  
22 1989 degraded the channel?  
23 A I do agree with that. I don't agree with your  
24 previous statement.  
25 Q Okay. This over-bank flow once every three years,  
0054  
01 for how many days are you recommending that?  
02 A I did not state for how many days.  
03 Q That was kind of the point of my question, to see  
04 whether you were going to state it.  
05 A No, I did not. There was not enough in the EBASCO  
06 report to allow that.  
07 Q The over-bank flows could come in wet years, could  
08 they?  
09 A Yes, they could.  
10 Q And in a wet year, the average highest daily flow  
11 naturally of the upper -- excuse me, Sir. The highest  
12 daily average flow absent Mono Basin imports in the  
13 Upper Owens River, say, at East Portal is approximately  
14 what?  
15 A I'd say a little over 200 cfs.  
16 Q So you're talking about, in that situation, adding  
17 about 100?  
18 A Yes.  
19 Q Now, in terms of goals, let me try to talk about  
20 goals. Hypothetically, if we want to retain the  
21 present Upper Owens River channel, your testimony is  
22 that we need 300 cfs for bank-full flows?  
23 A That's incorrect.  
24 Q How is that incorrect?  
25 A The reason that I recommended that we have the  
0055  
01 bank-full flows is so that we don't have to live with  
02 the present Owens River channel bank.  
03 Q Okay. But hypothetically, again, if we wanted to  
04 restore the pre-1940 channel on the Upper Owens River,  
05 then 200 cfs would be adequate for bank-full flows?  
06 A That's correct. If you wanted to go back to the  
07 old channel, 200 cfs would do it. But it would be a  
08 longer period of time than if you had 300 cfs to drive  
09 the system for the first part of the rehabilitation  
10 period.  
11 Q Now, Ms. Cahill asked you a series of questions  
12 about spring-fed, et cetera, things like that, and  
13 whether the Upper Owens River naturally was relatively  
14 constant compared to snow-fed streams. Let me see if I  
15 can get to the bottom of this.

16 As I understand it, DFG recommends a relatively  
17 constant input to the Upper Owens River from the Mono  
18 Basin, correct? That's their recommendation?

19 A I interpreted it that they recommended constant  
20 flows in the Owens -- Upper Owens River regardless of  
21 the water source.

22 Q Oh, I see. Now, hypothetically, if DFG were to  
23 recommend a relatively constant input to the Upper  
24 Owens River from the Mono Basin, you wouldn't have a  
25 problem with that?

0056

01 A No, I would not.

02 Q I have a couple of questions about ramping, Sir.  
03 Now, you suggested a maximum change from the prior day  
04 of 10 percent, right?

05 A At certain flows, yes.

06 Q At certain flows. You're right. When the Upper  
07 Owens River is at excess -- I see you have your reading  
08 glasses today.

09 A Yeah. These are better.

10 Q When the Upper Owens River is in excess of 100  
11 cfs, you have a maximum ramp of 10 percent?

12 A That's correct.

13 Q Let me ask you first, is that sort of judgmental  
14 in the sense that reasonable professionals might  
15 disagree?

16 A Yes, it is. It's judgmental.

17 Q Some would have a higher number and some would  
18 have a lower number?

19 A That's correct.

20 Q Okay. Now, you didn't, in your testimony, put a  
21 cite for the 10 percent, but it turns out that one cite  
22 might be your own article, correct?

23 A Yes. That's correct.

24 Q In fact, I think it's DFG Exhibit 72; is that  
25 right?

0057

01 A I didn't know if it was an exhibit or not.

02 Q I've got it in this folder somewhere, Sir.  
03 Ecological and Geomorphological Concepts for Instream  
04 and Out-of-Channel Flow Requirements, by Hill, Platts,  
05 and Beschta, right?

06 A That's correct.

07 Q And that suggests 10 percent, doesn't it?

08 A It does.

09 Q Your article also says that less than 10 percent  
10 is, quote, highly preferred, end quote. Do you  
11 remember that?

12 A I do.

13 Q Why is it highly preferred?

14 A I think our thinking on that is it represent more  
15 of the natural hydrograph.

16 Q The 10 percent, Sir, in your experience, I know  
17 you have a lot of it, is that a commonly-used ramping  
18 criteria?

19 A Yes -- I don't know if it's a commonly-used  
20 ramping criteria. It's a commonly-used figure for  
21 recommendations.

22 Q You don't know -- it's commonly recommended, but  
23 you're not sure whether it's instituted commonly?

24 A I'm not sure.

25 Q Okay. Would you agree with me that DFG's 10  
0058  
01 percent recommendation for ramping is within the range  
02 of reason?

03 A Yes.

04 Q And would you also agree that since ramping  
05 criteria of less than 10 percent are, to quote your  
06 article, highly preferred, that DFG could reasonably  
07 have set a lower ramping criterion, particularly on the  
08 downward leg?

09 MR. BIRMINGHAM: Excuse me. I'm going to object  
10 again on the grounds that the question is vague and  
11 ambiguous with respect to stream.

12 HEARING OFFICER DEL PIERO: I'm going to sustain  
13 the objection because it's vague, not necessarily that  
14 it's ambiguous, although it may well be as to stream,  
15 too. I thought the line of questioning was pretty  
16 clear with regard to the stream.

17 I wasn't quite sure, Mr. Dodge, what it was.  
18 Would you be kind enough to restate it? I'd appreciate  
19 it.

20 Q BY MR. DODGE: You said in your article that a  
21 ramping rate of less than 10 percent is highly  
22 preferred, correct?

23 A BY DR. PLATTS: I believe that's correct. I don't  
24 know if we said "highly" or not.

25 Q Well, at this point in our relationship,  
0059  
01 Dr. Platt, will you take my word for it or not?

02 A I will take your word for it.

03 Q Now, my question, I think is a simple one, given  
04 that a ramping rate of less than 10 percent is highly  
05 preferred, wouldn't it have been entirely reasonable  
06 for DFG to propose a ramping criterion of less than 10  
07 percent?

08 A This would depend what stream you're talking about  
09 because the ramping rate depends on streams, on how  
10 their flow regimes are operating. So I could not  
11 answer that question.

12 Q In terms of establishing a ramping rate, you don't  
13 recommend using the maximum daily change that a stream  
14 experiences naturally and setting that out as the  
15 ramping rate, do you?

16 A No, I do not. It's a matter of consideration, but  
17 it wouldn't be your total consideration.

18 Q There would be other factors, would there?

19 A Right.

20 Q Let me ask you to take a look at 1981.  
21 Mr. Hasencamp told us yesterday in Figure 2 that this  
22 was a normal year, and he noted the daily changes there  
23 from April through July of 1981, if you look at the  
24 bottom half of the page.

25 Would you agree with me that, for that normal  
0060  
01 year, 1981, there are very few daily changes that  
02 exceed 10 percent?

03 A That's correct.

04 Q And there are, Sir, if I may look over your  
05 shoulder here, there are a couple of days in April

06 where it does go over 30 percent. Two days, in fact.  
07 Now, you wouldn't recommend establishing a ramping  
08 criterion based on two days, would you?

09 A Restate your question.

10 Q Yes. There were two days in 1981 where the daily  
11 changes exceeded 30 percent. I just want to establish  
12 with you that you wouldn't recommend establishing a  
13 ramping criterion based on those two days?

14 A I would not.

15 Q Now, I'm going to change subjects with you, Sir.  
16 You had a comment yesterday that peaked my interest.  
17 You said the IFIM method did not take into account  
18 habitat, but that maybe the Tennant method did take  
19 habitat into account. Could you expand on that?

20 A Well, the IFIM model relates mainly to depth and  
21 velocity as it relates to a fish surviving, and the  
22 Tennant method relates more to trying to get a certain  
23 percentage of a natural flow.

24 And my comment to that is that I believe the  
25 Tennant method would have a better chance of developing

0061

01 a flow that would be of more benefit to habitat than  
02 just developing a flow that was developed just mainly  
03 for fish in order to rear and feed.

04 Q Does the Tennant method, in addition to  
05 establishing percentages of average mean flow, does it  
06 also require the person establishing or recommending  
07 flows to observe the stream from time to time?

08 A I believe it does.

09 Q In fact, it requires the person to observe the  
10 stream at 60 percent of average mean flow; is that  
11 right?

12 A I believe you're right.

13 Q And also 30 percent?

14 A It could be.

15 Q How about 10 percent?

16 A I don't know.

17 Q Have you made those observations? Would you be in  
18 a position to apply the Tennant method?

19 A To what stream?

20 Q Rush Creek or Lee Vining Creek?

21 A Oh, no. I would not.

22 MR. HERRERA: Excuse me, Mr. Dodge. Your 20  
23 minutes has expired.

24 MR. DODGE: I would apply for an additional five  
25 minutes, Mr. Del Piero.

0062

01 HEARING OFFICER DEL PIERO: Justification,  
02 Mr. Dodge?

03 MR. DODGE: Justification is I have a few more  
04 questions.

05 No. Seriously. They put four people on a panel  
06 and take an hour and 20 minutes. If it were one  
07 witness, I could understand it.

08 HEARING OFFICER DEL PIERO: That's the  
09 justification, Mr. Dodge. Granted.

10 MR. DODGE: And I won't even take the five.

11 HEARING OFFICER DEL PIERO: Okay.

12 Q BY MR. DODGE: In any event, someone who's going to  
13 apply the Tennant method, it's not simply a matter of

14 getting out the calculator and doing some  
15 multiplication, you also have to observe the stream at  
16 various flows; is that right?  
17 A To be successful, I'd say so.  
18 Q Do you think Dr. Hardy has done that?  
19 A I don't know. I've never been in the field with  
20 Dr. Hardy.  
21 Q You tell him I'm going to ask him on the 24th,  
22 will you?  
23 Have you looked at Dr. Kondolf's recommendation  
24 for Rush Creek flushing flows?  
25 A No, I have not.

0063

01 Q If I showed it to you, would you be able to tell  
02 me whether you think it's good, bad, or indifferent?  
03 A Just in a brief period of time?  
04 Q Yes.  
05 A Probably not.  
06 Q Do you have any idea what bank-full flows on Rush  
07 Creek would be?  
08 A No, I've never looked.  
09 Q Do you think it's quite unlikely that it would be  
10 as low as 45 cfs?  
11 A I think that's kind of unlikely.  
12 MR. DODGE: That's all I have. Thank you, Sir.  
13 HEARING OFFICER DEL PIERO: Mr. Roos-Collins?  
14 MR. ROOS-COLLINS: Mr. Del Piero, I request that  
15 Los Angeles determine whether Mr. Barnes is available  
16 to testify before I begin my cross-examination. I need  
17 to inform Ms. Koehler, who is in San Francisco, whether  
18 she needs to drive up to Sacramento today.  
19 HEARING OFFICER DEL PIERO: Mr. Birmingham?  
20 MR. BIRMINGHAM: I'm informed that Mr. Barnes is  
21 available today.  
22 HEARING OFFICER DEL PIERO: Okay. He is  
23 available. Now, do you wish to make a request?  
24 MR. ROOS-COLLINS: I request a five-minute recess  
25 so that I can so inform Ms. Koehler and ask her to come

0064

01 to Sacramento.  
02 HEARING OFFICER DEL PIERO: I assume she's going  
03 to examine him? It's your intent to have Ms. Koehler  
04 examine Mr. Barnes?  
05 MR. ROOS-COLLINS: Yes.  
06 MR. BIRMINGHAM: Before we do that, can I confer  
07 with Counsel because it's now ten o'clock? We have, in  
08 addition to Mr. Barnes today, we have Mr. Miller.  
09 Mr. Hanson is here to present rebuttal to rebuttal  
10 testimony, and then we have a Department of Fish and  
11 Game employee. That may take up the whole day, and if  
12 Ms. Koehler hasn't left San Francisco yet --  
13 HEARING OFFICER DEL PIERO: Ladies and Gentlemen,  
14 I'm going to take a ten-minute recess.  
15 Mr. Birmingham, Mr. Dodge, Mr. Roos-Collins,  
16 Ms. Scoonover, Ms. Cahill, I strongly recommend the  
17 five of you get together and decide how you wish to  
18 proceed so can you tell me after the break.  
19 MR. BIRMINGHAM: Thank you.  
20 HEARING OFFICER DEL PIERO: Thank you.  
21 (Whereupon a brief recess was taken.)

22 HEARING OFFICER DEL PIERO: Ladies and Gentlemen,  
23 this hearing will again come to order.  
24 I understand you have good news for me,  
25 Mr. Birmingham?

0065  
01 MR. BIRMINGHAM: I have some news -- the good  
02 news -- we conferred during the recess and concluded  
03 that with the witnesses we have here today, we will  
04 have a full day. So Mr. Barnes will not be here today,  
05 but we believe he will be here on Tuesday.  
06 Also, we have the thalweg profile data on disk --  
07 HEARING OFFICER DEL PIERO: Floppy?  
08 MR. BIRMINGHAM: Floppy disks, yes. We will have  
09 them copied over the weekend so they will be available  
10 for anyone who wants them on Monday in the afternoon or  
11 Tuesday morning. We will bring copies to the Board  
12 for --  
13 HEARING OFFICER DEL PIERO: Where would they pick  
14 them up on Monday in the afternoon?  
15 MR. BIRMINGHAM: They can pick them up at our  
16 office in the afternoon. Our office will be closed on  
17 Monday, but Mr. Pollack can be reached by telephone.  
18 HEARING OFFICER DEL PIERO: Okay.  
19 MR. POLLACK: Am I supposed to give my phone  
20 number?  
21 MR. BIRMINGHAM: What is your direct-dial number?  
22 MR. POLLACK: I'm afraid I don't know off the top  
23 of my head. You have to call 321-4500.  
24 HEARING OFFICER DEL PIERO: Mr. Flinn? Let me  
25 introduce you to one of your brethren at the lower end

0066  
01 of the food chain.  
02 MR. FLINN: We bottom dwellers stick together.  
03 HEARING OFFICER DEL PIERO: I assume, Mr. Pollack,  
04 you'll secure that phone number and make it available  
05 to the parties.  
06 MR. POLLACK: I think I'm doing that right now,  
07 Mr. Del Piero.  
08 HEARING OFFICER DEL PIERO: Thank you, Sir.  
09 Mr. Roos-Collins, are you prepared to examine  
10 these witnesses?  
11 MR. ROOS-COLLINS: I am prepared.  
12 HEARING OFFICER DEL PIERO: Ready?  
13 MR. ROOS-COLLINS: Ready.  
14 HEARING OFFICER DEL PIERO: Good. Let's proceed.  
15 CROSS-EXAMINATION BY MR. ROOS-COLLINS  
16 Q Good morning. Mr. Tillemans, let me begin with  
17 you. Yesterday, Los Angeles offered or, rather,  
18 introduced into evidence a 1931 map identified as L.A.  
19 DWP 140. You found that map in the garage at the Cain  
20 Ranch this week?  
21 A BY MR. TILLEMANS: Yes, three days ago.  
22 Q Did you see any other old papers in the garage?  
23 A On that day --  
24 HEARING OFFICER DEL PIERO: No objections based on  
25 ambiguity?

0067  
01 I'm sorry. Please answer the question.  
02 MR. TILLEMANS: Yes, I did.  
03 Q BY MR. ROOS-COLLINS: Did you see a pre-1941 fish

04 population survey, by any chance?  
05 A BY MR. TILLEMANS: No, I didn't.  
06 MR. SMITH: That's really --  
07 Q BY MR. ROOS-COLLINS: Do me a favor, please, next  
08 time you're in the garage, do look for a pre-1941 fish  
09 population survey and apprise us if you find it?  
10 A BY MR. TILLEMANS: Well, it wasn't on that shelf  
11 because I looked.  
12 Q Thank you.  
13 MR. BIRMINGHAM: I think, for those people that  
14 haven't been to the Cain Ranch facility that  
15 Mr. Tillemans was using, it's quite a place. It's an  
16 old storeroom, and I would love to go through it  
17 sometime, but for the fear of very large animals living  
18 among the archives.  
19 MR. FLINN: They say Mr. Downey can be found  
20 there.  
21 (Laughter.)  
22 MR. FLINN: I had to do that after his crack about  
23 my examinations.  
24 HEARING OFFICER DEL PIERO: Okay. Now we're  
25 even.

0068

01 Mr. Roos-Collins, you better get going so we don't  
02 have any more of those.  
03 Q BY MR. ROOS-COLLINS: Mr. Tillemans, do you have  
04 Dr. Beschta's rebuttal testimony before you?  
05 A BY MR. TILLEMANS: I think so, yes.  
06 Q Why don't you take a moment to locate Page 6 of  
07 Dr. Beschta's rebuttal testimony?  
08 A Could you direct me to the page again, please?  
09 Q Page 6, Paragraph 4, which sets forth the channel  
10 width measurements you have previously discussed.  
11 A Okay.  
12 Q You participated in the field measurements on  
13 December 13th and 15th, 1993?  
14 A No, I didn't.  
15 Q Have you reviewed the data taken on December 13th  
16 and 15th, 1993?  
17 A Yes. I've looked at them briefly.  
18 Q Is it correct that Paragraph 4 shows that the  
19 width measured on December 13th and 15th, 1993, was 31  
20 feet on average?  
21 A That's correct.  
22 Q And on January 3rd and 4th, 1994, it was 24 feet  
23 on average?  
24 A That's correct.  
25 Q Did Rush Creek get seven feet narrower between  
0069  
01 December 13th and January 4th?  
02 A No, it didn't.  
03 Q How do you explain that seven-foot difference?  
04 A Because the widths that were compiled by my data  
05 were -- I can't remember the exact number now, 730 some  
06 odd widths or whatever. And this width data is very --  
07 it was only taken from a few points. I think they're  
08 like 20 to 30 points, and what I -- I need to back up a  
09 little here on this.  
10 What we originally preferred was to have a survey  
11 crew go in and do a complete thalweg profile, channel

12 cross-sections, a whole study for us as quickly as  
13 possible, but the survey supervisor was not equipped to  
14 have his men in the creek at cold temperatures when  
15 there was a snowstorm that just came in on that date.  
16 There were cold temperatures, and the supervisor would  
17 not give us the data we wanted because of safety  
18 constraints. And, therefore, that necessitated me to  
19 get out in the creek and do a thalweg profile, and  
20 that's the data that Dr. Beschta was using.

21 Q Mr. Tillemans, I meant no criticism of the City of  
22 Los Angeles for the manner in which this data were  
23 collected. I am simply attempting to understand how we  
24 can relate the data collected on different days.

25 Let me ask you a different question --  
0070

01 A I --

02 Q Excuse me. Do you have further explanation to  
03 offer?

04 A I think to relate that data with the data I've  
05 taken is not appropriate to make the same conclusions  
06 from it.

07 Q So in Paragraph 4 on Page 6 of Dr. Beschta's  
08 rebuttal testimony, we should compare the data  
09 collected in May of 1991 with the data collected in  
10 January 1994, and we should exclude the data collected  
11 in December 1993?

12 MR. BIRMINGHAM: I'm going to object. We had an  
13 understanding when we started this that Mr. Tillemans  
14 was going to be questioned about the work that he did.  
15 He's now being asked to interpret the work that  
16 Dr. Beschta did based upon work that Mr. Tillemans did  
17 in the DWP survey. This is a question that needs to be  
18 asked of Dr. Beschta.

19 MR. ROOS-COLLINS: That's a fair objection. I  
20 withdraw the question.

21 HEARING OFFICER DEL PIERO: Fine.

22 Q BY MR. ROOS-COLLINS: Mr. Tillemans, let me ask you  
23 one further question, though, about the data you did  
24 gather in January of this year.

25 Did you gather data at the transects -- or rather  
0071

01 stations identified in Figure 1 of Dr. Beschta's  
02 rebuttal testimony?

03 A I could. If the thalweg profile is continuous  
04 through the stream in that section I did. So whether  
05 my points landed exactly on that station that the  
06 survey did or not, I couldn't tell you.

07 Q Dr. Orton?

08 A BY DR. ORTON: Mr. Roos-Collins.

09 Q Your resume states that your thesis for your  
10 second doctorate is entitled Inventing The Public Trust  
11 Doctrine, California Water Law and the Mono Lake  
12 Controversy. Is that correct?

13 A That's correct.

14 Q Two questions. First, is that thesis a public  
15 document?

16 A Yes.

17 MR. ROOS-COLLINS: I request, Mr. Birmingham, that  
18 the document be made available to us.

19 MR. BIRMINGHAM: I presume that it's in the



20 library at the University of California at Los  
21 Angeles.

22 MR. ROOS-COLLINS: Thank you.

23 HEARING OFFICER DEL PIERO: Excuse me. Where is  
24 it, Dr. Orton?

25 DR. ORTON: It is in the UCLA library. There's  
0072

01 several. They placed it in an odd place because the  
02 department is the Department of Environmental Science  
03 and Engineering, and so they placed it in, I think, the  
04 math sciences library.

05 MR. BIRMINGHAM: Dr. Orton, do you have additional  
06 copies available?

07 DR. ORTON: I have one copy available.

08 MR. BIRMINGHAM: Can you give that to  
09 Mr. Roos-Collins, please?

10 HEARING OFFICER DEL PIERO: Dr. Orton, you have it  
11 available now? How many pages is it,  
12 Dr. Orton?

13 DR. ORTON: It's like 300 something.

14 MR. ROOS-COLLINS: Since I asked for it, I will  
15 make copies available to this Board and also to the  
16 other parties which wish to obtain it, and I thank  
17 Mr. Birmingham and Dr. Orton for the cooperation in  
18 providing it.

19 HEARING OFFICER DEL PIERO: Fine.

20 Q BY MR. ROOS-COLLINS: Dr. Orton, an invention has an  
21 inventor. When you titled your thesis Inventing the  
22 Public Trust Doctrine, who, in your opinion, invented  
23 the doctrine?

24 A BY DR. ORTON: The doctrine's earliest roots -- and I  
25 don't want to go through the whole dissertation. The

0073  
01 doctrine's earliest roots go back to the Institutes of  
02 Justinian and probably before that. It's been being  
03 invented for a very long time.

04 Q In the interest of time, I will read your thesis  
05 before I ask the questions on that subject.

06 Let me turn now to --

07 HEARING OFFICER DEL PIERO: I appreciate that very  
08 much, Mr. Roos-Collins. The foundational questions  
09 might take a tad longer than I'm willing to grant you  
10 time for.

11 UNIDENTIFIED SPEAKER: Check on Justinian's  
12 availability.

13 Q BY MR. ROOS-COLLINS: I will note that there are many  
14 expert witnesses in this proceeding but Dr. Orton is  
15 the only expert, to my knowledge, with a double  
16 doctorate, both a biologist and a historian  
17 understanding Roman law.

18 Let me turn to a subject somewhat closer to your  
19 rebuttal testimony. Are you familiar with  
20 Dr. Beschta's direct testimony in this proceeding?

21 A BY DR. ORTON: Yes, I believe so.

22 Q Let me read a paragraph from Page 38 of his direct  
23 testimony and ask if you agree with it. Quote, if Rush  
24 and Lee Vining Creeks are to be restored, the dynamics  
25 of the natural flow regime below the points of

0074  
01 diversion must somehow be simulated. Retaining this

02 variability in flows is as important as setting the  
03 minimum instream flow, end of quotation.

04 Do you agree with that?

05 A Yes. There's a variation that occurs on many time  
06 scales and different spatial scales in these streams.  
07 They are highly variable at every time scale, daily,  
08 weekly, monthly, et cetera. So in general, I agree  
09 with that statement.

10 Q Thank you.

11 Let me turn now to your testimony under  
12 cross-examination by Mr. Dodge that you used the fry  
13 curves for the Upper Owens River -- excuse me, for Rush  
14 and Lee Vining Creeks in developing your  
15 recommendations for flows in those creeks. Do you  
16 recall your testimony on that subject?

17 A I think so, yes.

18 Q Are you familiar with Department of Fish and Game  
19 Exhibit 62, which is the Upper Owens River Stream  
20 Evaluation Report 93-1?

21 A Somewhat.

22 Q Let me ask you to turn to Page 48 of that report.  
23 Do you have it before you?

24 A I do not.

25 Q Excuse me. Page 105, and I will provide you my  
0075 copy.

02 Referring to Figures 38 through 41, please study  
03 them and tell me when you're ready to discuss them.

04 A Okay.

05 Q Is it your understanding that Figures 38 through  
06 41 on Pages 104 and 105 of DFG Exhibit 62 show trout  
07 habitat/stream flow relationships for the Upper Owens  
08 River?

09 A For brown and rainbow trout, yes.

10 Q And focusing specifically on the curve for  
11 spawning, is that the curve to which you were  
12 referring -- excuse me. Were you referring to the  
13 curve for spawning in the Rush and Lee Vining Creek  
14 reports in your answer to Mr. Dodge's question?

15 A No, I was not.

16 Q You were referring to a curve for fry?

17 A That is correct.

18 Q And you see no fry curve in these figures?

19 A That is correct.

20 Q Dr. Platts, how does the fishery habitat below  
21 East Portal today compare with the habitat that existed  
22 before 1941?

23 A BY DR. PLATTS: It's less productive.

24 Q Why?

25 A Because the channel has been over-widened.  
0076

01 There's more stream bank erosion.

02 Q Do you have a copy of DFG 62 in front of you?

03 A What's the title?

04 Q The Upper Owens River Stream Evaluation Report?

05 A Yes, I do.

06 Q Excuse me, Dr. Orton. May I borrow back my copy?

07 Dr. Platts, I asked you to turn to Page 36 of that  
08 report, Figure 17. Is it your understanding that that  
09 figure shows the extent to which the Upper Owens River

10 has widened between the 1859 land survey and 1990?  
11 A Yes.  
12 Q On Page 34, that report states, "This widening is  
13 likely the result of increased flows caused by opening  
14 and operating Mono Craters Tunnel." Do you agree?  
15 A You're reading this on Page 34 at what point?  
16 Q The second full paragraph.  
17 A Now, would you -- the question once more, please?  
18 Q Do you agree with the opinion expressed in that  
19 paragraph that, "This widening is likely the result of  
20 increased flows caused by opening and operating Mono  
21 Craters Tunnel"?  
22 A I wouldn't completely agree with that.  
23 Q Would you agree that opening and operating Mono  
24 Craters Tunnel was a principal cause for the widening  
25 referred to on Page 34 and illustrated in Figure 17?

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01 A Yes, I would.  
02 Q Let me ask you to turn now to Pages 38 and 39 of  
03 the same report, Table 5. Is it your understanding  
04 that this table shows a net loss of 19,107 feet in  
05 channel length between 1944 and 1990 in the Upper  
06 Owens?  
07 A Yes.  
08 Q Do you have any reason to dispute that estimate?  
09 A No, I do not.  
10 Q Let me ask you about a paragraph -- a statement in  
11 the paragraph on Page 39 following Table 5. "The Owens  
12 River on the Inaja property," that's I-N-A-J-A,  
13 "provides for comparison and control to the rest of the  
14 Upper Owens River in which high flows augmented by  
15 diversion from the Mono Craters Tunnel and land  
16 management practices have decreased stream bank  
17 stabilities and reduced overall channel length."  
18 Do you agree with that statement?  
19 A Yes. I would agree with that.  
20 Q Finally, let me ask you to turn to Table 6 --  
21 A Could I make a comment?  
22 Q Please.  
23 A In the questioning of the channel widening as  
24 being the primary cause or resulting from the  
25 over-widening, we need to remember that those channels

0078

01 were in extremely poor condition before The Portal  
02 discharges started. In other words, those channels  
03 were pretty badly eroded before that time, so they were  
04 set up for this to happen.  
05 Had the Owens River been in excellent condition,  
06 the results of The Portal discharge would have been  
07 quite different.  
08 Q What's the basis for your opinion that the Upper  
09 Owens River's channel was in a degraded state before  
10 1941?  
11 A Based on the photographs I've seen that were shot  
12 in the 1930s.  
13 Q Do you know whether those photographs are in the  
14 record of this proceeding?  
15 A No, I do not.  
16 Q Let me ask you to turn to Page 36, final  
17 paragraph, where the report states, "As described above

18 in the geomorphology section, the Upper Owens River is  
19 an anastomosing," A-N-A-S-T-O-M-O-S-I-N-G, "river in  
20 which sinuosity increases over time and hydrologic  
21 deficiency of the channel decreases. With the decrease  
22 in channel efficiency, over-bank flows are more likely  
23 to occur and cause meander cut offs or new eroded  
24 channels where over-bank flows coalesce back into the  
25 main channel. This process is typically very slow in

0079

01 natural channels that have relatively small  
02 fluctuations in flows under natural hydrologic  
03 conditions for all vegetative stream banks and relative  
04 cohesive bank sediments."

05 Based on your prior -- your answer to my prior  
06 question, is it your opinion that this paragraph is  
07 incorrect if it is applied to the Upper Owens River  
08 before 1941?

09 A This paragraph here is applying to natural  
10 channels. The Upper Owens River was not a natural  
11 channel prior to the diversion of waters.

12 Q You previously testified, in answer to questions  
13 put to you by Mr. Dodge and Ms. Cahill, that the  
14 channel form of the Upper Owens River might narrow if  
15 no Mono Basin water were imported. Was that your  
16 testimony?

17 A Yes. It would be a slow process, but it would.

18 Q And, in turn, if the import from the Mono Basin  
19 were reduced from the 1941 through 1985 average as a  
20 result of this Board's order, you would also expect a  
21 narrowing of the channel over time; is that correct?

22 A I would expect that.

23 Q Yesterday, during your direct examination by  
24 Mr. Birmingham, you indicated that the City of Los  
25 Angeles is undertaking various initiatives to improve

0080

01 the management of the lands that it owns along the  
02 Upper Owens River. Could you describe what those  
03 initiatives are?

04 A Yes. The DWP is in the process now of setting up  
05 the management plans for the three branches in the  
06 Upper Owens River so that once these management plans  
07 are implemented, the land-use practices that will  
08 continue to be practiced there then will have no effect  
09 on the Upper Owens River.

10 Q Is the City of Los Angeles considering removing  
11 grazing from the area -- areas adjacent to the Upper  
12 Owens River?

13 A Those decisions have not been made. In the  
14 process of submitting my plans to the department, that  
15 could be part of the scenario. It will be a different  
16 mix of scenarios because different reaches require  
17 different types of land use plans.

18 Q If the City of Los Angeles did decide to remove  
19 grazing from riparian areas, would you expect riparian  
20 vegetation to emerge as a result?

21 A Yes, I would.

22 Q And how would riparian vegetation emergence affect  
23 the width of the channel of the Upper Owens River?

24 A It will narrow the width of the Upper Owens River.

25 Q Let's assume that the import from the Mono Basin

0081

01 is reduced as a result of this Board's order and let's  
02 also assume that grazing is removed from riparian areas  
03 at the initiative of the City of Los Angeles, would  
04 your estimate of bank-full flow change given those  
05 assumptions?

06 A Yes. It will change over time, but it would not  
07 change in the beginning.

08 Q Your estimate would change as the channel itself  
09 changes?

10 A Yes.

11 Q Do you have an opinion about the specific  
12 restoration measures discussed beginning on Page 218 of  
13 this report?

14 A I believe that I skimmed this when I was looking  
15 at the flow data, but I didn't pay too much attention  
16 to it.

17 Q Then I won't ask any further questions. I ask you  
18 to assume that these measures are complex and many in  
19 number, so I will ask you a different question.

20 On Page 225 --

21 MR. DODGE: Mr. Chairman, let me just say, so that  
22 everyone is apprised, that I'm not objecting to  
23 Mr. Roos-Collins' questions because I just -- well, for  
24 whatever reason, I'm not objecting. But I will, at  
25 some point, take the position that rebuttal ought to be

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01 limited to rebuttal and, you know, I think that in  
02 fairness, he's going well beyond what Dr. Platts put  
03 into evidence as rebuttal.

04 I'm just -- I just want everyone to know that I'm  
05 not -- I'm planning to take that position as  
06 necessary.

07 MR. BIRMINGHAM: I think what Mr. Dodge is telling  
08 us is that when I start to ask questions on redirect  
09 about these subjects which Mr. Roos-Collins is going  
10 into -- he's not objecting because he and  
11 Mr. Roos-Collins are allies, but when I start questions  
12 on the same subject, you're going to get objections. I  
13 think that's what Mr. Dodge meant.

14 (Laughter.)

15 HEARING OFFICER DEL PIERO: I see other heads  
16 nodding vigorously in regard to your analysis,  
17 Mr. Birmingham. Obviously, you're correct.

18 Mr. Herrera, how much time has Mr. Roos-Collins  
19 had?

20 MR. HERRERA: He has one minute remaining.

21 HEARING OFFICER DEL PIERO: Make good use of it,  
22 Mr. Roos-Collins.

23 Q BY MR. ROOS-COLLINS: Dr. Platts, let's turn to  
24 Tennant as a method for determining fish flow. Are you  
25 recommending that this Board use Tennant and not IFIM?

0083

01 A BY DR. PLATTS: No, I'm not.

02 Q Are you making any recommendation to this Board  
03 regarding the method it uses for determining fish flow  
04 in this proceeding?

05 A No, I am not.

06 MR. ROOS-COLLINS: No further questions.

07 HEARING OFFICER DEL PIERO: Thank you very much.

08 Ms. Scoonover?  
09 MS. SCOONOVER: I have no questions of this panel.  
10 HEARING OFFICER DEL PIERO: Thank you very much,  
11 Ms. Scoonover.  
12 Mr. Frink?  
13 MR. FRINK: Yes. I have just a few.  
14 CROSS-EXAMINATION BY THE STAFF  
15 Q BY MR. FRINK: Dr. Platts, when did you last visit  
16 the Upper Owens River?  
17 A BY DR. PLATTS: Excuse me. I was trying to figure  
18 out where the voice comes from.  
19 (Laughter.)  
20 Q BY MR. FRINK: It's over here. Here we go. You're  
21 going to be dreaming this.  
22 HEARING OFFICER DEL PIERO: This is a test,  
23 Dr. Platts.  
24 MR. CANADAY: My lips didn't move.  
25 DR. PLATTS: I was there this last October.  
0084  
01 Q BY MR. FRINK: Do you know approximately what the  
02 flow was on the day that you visited?  
03 A BY DR. PLATTS: No. I did not check to see what the  
04 flow was.  
05 Q And how would you describe the channel conditions  
06 in the portion of the Upper Owens River that you  
07 visited at that time?  
08 A Fairly poor.  
09 Q In what way?  
10 A The channel was transporting fines. The stream  
11 banks were eroded. Some areas of the channel  
12 over-widened.  
13 Q What portion of the Upper Owens River did you  
14 visit?  
15 A I visited that area from the lower Arcularius  
16 Ranch to Crowley Reservoir.  
17 Q In terms of the stream bank erosion that you  
18 referred to, what do you believe was the cause of that?  
19 A That year's erosion or over the long-term?  
20 Q The ongoing erosion. The erosion you saw at the  
21 time.  
22 A Most of it was due to livestock grazing.  
23 MR. FRINK: That's all the questions I have.  
24 Thank you.  
25 HEARING OFFICER DEL PIERO: Mr. Satkowski?  
0085  
01 MR. SATKOWSKI: Yes. I just have a couple of  
02 questions.  
03 Q BY MR. SATKOWSKI: Dr. Platts, earlier Mr. Dodge  
04 asked you questions dealing with the Owens River, and I  
05 wasn't exactly clear on what you had said. You had  
06 responded to a question by saying that having a 200 cfs  
07 flow on the Owens River would be okay if you wanted to  
08 go back to the original type of system and narrow the  
09 channel. Is that correct?  
10 A BY DR. PLATTS: I think my statement was that if you  
11 had a 200 cfs flow that was uniform over the year --  
12 was that your statement that you understood? A 200 cfs  
13 flow over the year that the channel would change?  
14 Q Yes. Go ahead.  
15 A Yes. The channel would change if it had a uniform

16 200 cfs flow.

17 Q You also said something about a 300 cfs flow might  
18 be something that we might want to look at, at least  
19 for an initial period of time, something to that  
20 effect. Could you elaborate on what you meant by that?

21 A Yes. I make that statement because I believe that  
22 the Upper Owens River needs to go under a series of  
23 flows that will rehabilitate the river and in order to  
24 bring the stream banks of the Owens up and bring them  
25 out and in requires some flows over the top of the bank

0086

01 that would allow the bank morphology to change.

02 So in the beginning, I would -- I recommend --  
03 that's one of the basic main reasons I recommended the  
04 300 cfs flow was mainly to rebuild the Owens River --  
05 Upper Owens River channel at a faster pace.

06 Q And for what period of time would you recommend  
07 that this 300 cfs flow take place?

08 A During a period of the natural hydrograph peak.

09 Q And for, say, how many years into the future  
10 before we would be able to decrease the 300 cfs down to  
11 some other value?

12 A That would be difficult because I would not want  
13 to see any additional water put into the Owens River  
14 for the next three to five years that would get to that  
15 type of a flow. And then once those flows come in  
16 those types of valley bottom types, the process is  
17 fairly slow except the Upper Owens does have a fairly  
18 high sediment transport rate.

19 I would have to guess that to bring the stream  
20 banks back to meet the natural flows with increased  
21 vegetation vigor, you're looking at a quarter to a half  
22 a decade and maybe even more. Excuse me, a century.

23 Q A quarter to a half a century?

24 A Yes.

25 Q Thank you.

0087

01 Mr. Hasencamp, I understand that you'll be  
02 returning to testify on LAAMP, LAASM, water supply, and  
03 the L.A. management plan; is that correct?

04 A BY MR. HASENCAMP: Yes, that's correct. I understand  
05 the deadline is Thursday at 5:00 p.m. for that  
06 testimony?

07 Q That's my understanding. Yes.

08 HEARING OFFICER DEL PIERO: You've trained him  
09 well, Mr. Birmingham.

10 Q BY MR. SATKOWSKI: Has L.A. modified its stream-flow  
11 and flushing-flow recommendations based on additional  
12 evidence?

13 A BY MR. HASENCAMP: Yes. We will, and we will present  
14 that in the new plan. But before we presented that, we  
15 wanted to run it through the final LAAMP and the L.A.  
16 model and look at the results to make sure that they  
17 work rather than a micro scale, macro scale of the  
18 whole system.

19 Q From what you said, it sounds like you do have the  
20 stream-flow and flushing-flow recommendations already  
21 developed; is that correct?

22 A Very close to a final draft. I should say a final  
23 draft, yes.

24 Q Is it possible that you could provide those to us  
25 as soon as possible, either through this hearing or  
0088  
01 outside the hearing, so that other parties could use  
02 that information and evaluate it using the models?  
03 MR. BIRMINGHAM: Excuse me.  
04 HEARING OFFICER DEL PIERO: Mr. Birmingham?  
05 MR. BIRMINGHAM: I think Mr. Hasencamp testified  
06 that the final figures are going to be dependent upon  
07 LAAMP, and this testimony is directly related to LAAMP.  
08 And it's our understanding that it is due, all of his  
09 testimony is due Thursday at five o'clock.  
10 We are willing to share with people -- we have  
11 been and will continue to be willing to share with  
12 people any data we have, but at this point, I'm going  
13 to have to ask that it be a reciprocal arrangement, and  
14 the other thing is to state that this is not final.  
15 Until the LAAMP has been finalized, and we're able to  
16 analyze it, the specific flows may change.  
17 HEARING OFFICER DEL PIERO: Is there some  
18 information Mr. Satkowski has not delivered to you, or  
19 are you talking about the other parties?  
20 MR. BIRMINGHAM: Not other parties.  
21 HEARING OFFICER DEL PIERO: Oh.  
22 MR. BIRMINGHAM: No. I'm not complaining about  
23 anything Mr. Satkowski has done. All I'm saying is  
24 that if we're going to show our testimony, we'd like to  
25 see other people's testimony, too. And we're not  
0089  
01 trying to be obstreperous, but as I've said a couple of  
02 times, we've bent over backwards to try and provide  
03 people with data, and we would just appreciate the same  
04 courtesy.  
05 MR. SATKOWSKI: The reason I was asking for that  
06 is, as you know, time is short and if other parties --  
07 HEARING OFFICER DEL PIERO: No one knows that  
08 better than I, Mr. Satkowski.  
09 MR. SATKOWSKI: Yes.  
10 -- want to evaluate the L.A. management plan  
11 values, I don't know if enough time will be available  
12 after we receive the information. So that's why I was  
13 recommending that we receive that information as soon  
14 as possible if it's available.  
15 HEARING OFFICER DEL PIERO: Mr. Birmingham, can I  
16 ask you a question? What information are you  
17 suggesting is not being provided you in a timely  
18 fashion?  
19 MR. BIRMINGHAM: I don't want to reopen old  
20 arguments, but I still would love to look at various  
21 documents we've requested from the Mono Lake  
22 Committee. There have been efforts throughout these  
23 proceedings for us to get information from the  
24 Department of Fish and Game. I will say quite honestly  
25 that the Department of Fish and Game has been much more  
0090  
01 forthcoming in providing data and documents recently  
02 than they were at the beginning, but what I'm saying is  
03 if we're going to provide our testimony before Thursday  
04 to the State Board and the other parties, we'd like the  
05 other parties to provide their testimony to us earlier



06 on this subject.

07 HEARING OFFICER DEL PIERO: Mr. Frink?

08 MR. FRINK: Yes. I believe Mr. Satkowski wasn't  
09 really interested in the testimony on behalf of the  
10 Department of Water and Power, and we realize that  
11 you're not in a position to finalize that yet.

12 What he was interested in receiving, if it's  
13 available, and with the recognition that the numbers  
14 are tentative, would be the tentative-flow  
15 recommendations and flushing-flow recommendations that  
16 the Department of Water and Power would use in their  
17 management plan if the numbers are feasible. I don't  
18 know if you're at that stage or not, but if you are, it  
19 might be helpful and expedite the hearing later on.

20 HEARING OFFICER DEL PIERO: Mr. Hasencamp, do you  
21 know the answer to that question?

22 MR. HASENCAMP: Yes. We can certainly provide  
23 draft numbers.

24 I think Mr. Birmingham was also referring to Mono  
25 Lake Committee as putting together a management plan as  
0091

01 well for some of their own goals, and I don't know if  
02 there's a request also for them to provide their input  
03 in the same manner. I think that's part of  
04 Mr. Birmingham's objection.

05 HEARING OFFICER DEL PIERO: When do you propose to  
06 put that information on, Mr. Dodge?

07 MR. DODGE: What?

08 MR. VORSTER: The management plan?

09 HEARING OFFICER DEL PIERO: Would you like to have  
10 the Reporter read the question back, Mr. Dodge?

11 MR. DODGE: How many times have I asked you to get  
12 our management plan together, Mr. Vorster?

13 MR. VORSTER: Many times. If I can give my  
14 answer, it's similar to what I think I've heard  
15 before. Until we have the final LAAMP, the LAAMP does  
16 not work at this point to do the management plan --

17 MR. DODGE: It's the same excuse I hear every time  
18 I ask him. We don't have it yet.

19 MR. VORSTER: We don't have the model yet so I can  
20 run it.

21 MR. BIRMINGHAM: Can I make a motion that we  
22 delete the expletive and --

23 HEARING OFFICER DEL PIERO: Sounds like a personal  
24 problem to me.

25 Which expletive?

0092

01 MR. BIRMINGHAM: There's a reference --

02 HEARING OFFICER DEL PIERO: Ms. Anglin didn't hear  
03 it either. So --

04 MR. DODGE: We have a deadline which is, as I  
05 understand it, based on when we expect LAAMP to be  
06 amended, and I am sympathetic, but I can't do it  
07 either. I'm sympathetic to Mr. Birmingham's thought  
08 that he can't beat that deadline.

09 MR. FRINK: If we get the information on Thursday,  
10 I think we can work with it. It's not worth stirring  
11 everything up at this point.

12 HEARING OFFICER DEL PIERO: We will try our best  
13 to persevere. Okay?

14 Now, where were we? Who's on first?  
15 MR. SATKOWSKI: Those are all the questions I have  
16 at this time.  
17 HEARING OFFICER DEL PIERO: Thank you.  
18 Mr. Smith?  
19 MR. SMITH: Thank you, Mr. Del Piero. I have a  
20 couple of questions for Dr. Platts.  
21 Q BY MR. SMITH: Despite your explanation a couple of  
22 minutes ago about the 300 cfs and the 200 cfs and the  
23 Upper Owens, I'm still not capturing exactly what you  
24 mean.  
25 For the near term, are you saying we should have  
0093  
01 flows up to 300 cfs in order to build the banks, build  
02 the willows? Is that for the near term, like for the  
03 first five years? Is that what you're saying?  
04 A Yes. I'm saying that we need those type of flows  
05 once the Upper Owens is ready for those in order to  
06 start the building process.  
07 Q How long is this period once the Owens is ready  
08 for it? What kind of time period are you talking  
09 about?  
10 A I'm estimating that it will be three to five years  
11 under proper management before the Owens is ready for  
12 that type of flow.  
13 Q So in the meantime, during this three- to  
14 five-year period, what type of flows would you  
15 recommend during that period of time, maximum?  
16 A I did not look at that.  
17 Q Okay. But then after the 300, do you foresee any  
18 kind of a period where the flows would then be slowly  
19 restricted down to, say, for instance, 200?  
20 A Yes. Over a fairly long period of time as the  
21 channel rebuilds and the channel bank flows would be  
22 less, you're correct.  
23 A BY MR. HASENCAMP: And if I could just add, there are  
24 wet years when the natural flow in the Upper Owens  
25 River is above 200 and, in fact, it was 227 in June of  
0094  
01 '83. So you could never limit more than, obviously,  
02 the natural flow in the creek.  
03 Q Right. I'm just speaking about the ways in which  
04 we could artificially augment it only. I was not  
05 talking about natural flow. Okay. Fine. Thank you  
06 for that clarification.  
07 I have one other request from you, though. You  
08 stated that you saw some aerial photographs of the  
09 deterioration of the Upper Owens taken in the twenties  
10 or the thirties. I'd like request that the department  
11 provide the Board with those photographs.  
12 A BY DR. PLATTS: These were on-ground photographs.  
13 Q Whatever kind of photographs they were, I would  
14 like to have them.  
15 HEARING OFFICER DEL PIERO: Mr. Birmingham, do you  
16 have those?  
17 MR. BIRMINGHAM: I have some photographs that  
18 Mr. Tillemans gave me a few moments ago. I believe  
19 they're some of those that Dr. Platts referred to in  
20 his testimony, and I had intended on asking  
21 Mr. Tillemans and Dr. Platts questions on this subject.

22 But I believe they're some of the photographs  
23 Dr. Platts referred to, and again --  
24 HEARING OFFICER DEL PIERO: Were they on the  
25 shelf, too?

0095  
01 MR. BIRMINGHAM: Mr. Del Piero, if we brought in  
02 every document that DWP has on the subject, we could  
03 fill this room and the building next-door.  
04 HEARING OFFICER DEL PIERO: I don't doubt that,  
05 Sir.  
06 MR. BIRMINGHAM: We have reports, photographs,  
07 maps, 90 percent of which I have never seen and 90  
08 percent of which probably most of the witnesses have  
09 never seen. But we'll provide these photographs to the  
10 Board and any other photographs that we have.  
11 MR. SMITH: Mr. Birmingham, did you have a  
12 catalog, a bibliography of all that material?  
13 MR. BIRMINGHAM: We do have a data bank of all of  
14 the material that was -- when did we stop compiling  
15 it? In 1989, I believe, is when we stopped compiling  
16 it. And Ms. Goldsmith tells me it's not all of DWP's.  
17 But we do have a data bank of a lot of material that  
18 literally would fill that wall.  
19 HEARING OFFICER DEL PIERO: Let me ask this  
20 question, Mr. Birmingham. Have these photographs been  
21 part of any evidentiary exhibits in prior activities?  
22 MR. BIRMINGHAM: No.  
23 HEARING OFFICER DEL PIERO: They have not?  
24 MR. BIRMINGHAM: They have not.  
25 HEARING OFFICER DEL PIERO: Has anybody

0096  
01 representing any of the other parties ever seen these  
02 before?  
03 MR. BIRMINGHAM: Well, California Trout  
04 Incorporated has been working with the Department of  
05 Water and Power cooperatively over the last few years  
06 in developing a management plan that Dr. Platts has  
07 referred to. I don't know whether Mr. Edmondson, who  
08 is the representative of California Trout, has seen  
09 them, but I know that he has been working cooperatively  
10 with the department. And maybe Mr. Roos-Collins can  
11 address that.  
12 HEARING OFFICER DEL PIERO: Let me ask Dr.  
13 Platts. Dr. Platts, since you have been working with  
14 Mr. Edmondson, do you know if he's seen the pictures  
15 you're referring to?  
16 DR. PLATTS: I don't know if he's seen the  
17 pictures I'm referring to. I know, in talking with  
18 Mr. Edmondson, he would answer the question the same  
19 way I did. He has the same interpretations.  
20 MR. SMITH: As a final request, all of the  
21 pictures upon which you relied, could you provide us  
22 with copies of those pictures, please?  
23 DR. PLATTS: Yes.  
24 MR. SMITH: Thank you. That's all I have.  
25 HEARING OFFICER DEL PIERO: Mr. Roos-Collins?

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01 MR. ROOS-COLLINS: Several points. First, I hope  
02 the record is clear that Dr. Platts was expressing his  
03 opinion about Mr. Edmondson's opinion. Mr. Edmondson's

04 opinion may be different than Dr. Platts --

05 HEARING OFFICER DEL PIERO: The record is clear,  
06 Mr. Roos-Collins.

07 MR. ROOS-COLLINS: Secondly, I agree with  
08 Mr. Birmingham that Cal-Trout does work closely with  
09 the City of Los Angeles in developing improved  
10 management practices for the Upper Owens. I do not  
11 know whether Mr. Edmondson has seen these photographs.

12 HEARING OFFICER DEL PIERO: I sensed that because  
13 it was my understanding that you were not one of the  
14 participants in this cooperative working arrangement  
15 between Cal-Trout and the City of Los Angeles.

16 MR. FRINK: Mr. Hearing Officer, I'd like to  
17 express the concern that I have as we approach the end  
18 of the hearing, as witnesses are appearing on rebuttal  
19 and probably will not be back again, that we not  
20 augment the hearing record in unnecessary ways and  
21 extend the proceeding indefinitely or unnecessarily.  
22 I'm not sure how essential this information is on the  
23 pre-diversion conditions of the Upper Owens River  
24 because I don't believe that anybody is alleging that  
25 the reductions in -- well, I won't get into the

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01 reasoning.

02 But in any event, on any requests for additional  
03 information, I think we all have to keep in mind that  
04 the hearing is approaching a close and many of the  
05 witnesses who could testify to the information probably  
06 will not be back again.

07 HEARING OFFICER DEL PIERO: Mr. Dodge?

08 MR. DODGE: Mr. Frink was about to say that no one  
09 is taking a position that, in fact, he realizes we are  
10 taking, which is why he didn't finish the sentence.

11 MR. SMITH: Could I address that?

12 HEARING OFFICER DEL PIERO: No. No.

13 You can have a seat unless you have something to  
14 say, Mr. Birmingham.

15 MR. BIRMINGHAM: I thought I was up next.

16 HEARING OFFICER DEL PIERO: I'm sorry. Forgive  
17 me.

18 This issue has been discussed enough. I think you  
19 are on next, Mr. Birmingham, unless Mr. Herrera and  
20 Mr. Canaday had questions. You do? Fine. Gentlemen,  
21 please proceed.

22 Q BY MR. HERRERA: Dr. Platts, in your earlier  
23 testimony, you made some comments to the effect that  
24 you were not a proponent of constant stream flows but,  
25 in fact, you were a proponent of, and maybe I've gotten

0099

01 this right or wrong, but mimicking the natural flow  
02 regime. Is that correct?

03 A BY DR. PLATTS: That would be true.

04 Q And you recommended that in the Upper Rush Creek  
05 area earlier, and you're recommending the same thing  
06 for Owens River; is that correct?

07 A I have never worked with flows on Rush Creek, but  
08 I did recommend that on the Upper Owens.

09 Q You made a comment yesterday, I believe, that --  
10 in reference to the Department of Fish and Game's  
11 recommendation of a maximum of 200 cfs on the Upper

12 Owens, and I believe your comment was that it was too  
13 low because it was strictly a flow for fish and will  
14 not protect fish habitat, just fish for a short period  
15 of time. Is that correct?  
16 A That's correct.  
17 Q Could you tell me why it will not protect fish  
18 habitat?  
19 A Because the 200 cfs flow would be far below the  
20 bank level. Therefore, the banks and the riparian  
21 habitats would never see flows and never have the flows  
22 to cause the rebuilding of those systems or have the  
23 sediments deposited or the vegetative water or the  
24 seeding process. You would have no seeding process on  
25 those banks in the Upper Owens if you never had bank  
0100 forming -- bank-topping flows.  
02 Q And further you said that it would not protect  
03 fish habitat, just fish for a short period of time. In  
04 other words, these flow regimes would just allow for  
05 the protection of the fish for a short period of time.  
06 I'm a little bit concerned about what "short  
07 period of time" is and what you really meant by just  
08 protecting fish for a short period of time.  
09 A I'm a little hazy on that, too. I have a hard  
10 time visualizing the Owens at a constant 200 cfs, but I  
11 think eventually over time with the constant 200 cfs,  
12 it would go to fit that form of the channel which would  
13 be a very uniform channel and not the high diversity  
14 fish habitat channel.  
15 Q Would you support this same kind of philosophy for  
16 Rush and Lee Vining Creek?  
17 A The principles that I expressed on the Upper  
18 Owens, I would express those same principles for Rush  
19 and Lee Vining knowing that they are different streams,  
20 and they occupy different land types, they occupy  
21 different channel types. Therefore, the principles  
22 would apply, but the final recommendations or  
23 suggestions may be different.  
24 Q Okay. You were present yesterday when, I believe,  
25 Mr. Tillemans and Dr. Beschta presented the videotape  
0101 of Rush Creek?  
02 A Yes, I was.  
03 Q Would you depict that flow as being out-of-bank  
04 for Rush Creek?  
05 A I depict that flow as being out-of-bank on those  
06 very lower banks, but not a flow that would be  
07 out-of-bank for the upper banks.  
08 Q And what was your understanding of the flow at  
09 that time?  
10 A My understanding of the flow at that time was that  
11 it was a flow of the type that we need at this time to  
12 enhance the vegetative riparian corridors along the  
13 borders of those flows.  
14 Q And I believe when Mr. Tillemans responded to my  
15 question yesterday the flow was 78 cfs, Am I correct,  
16 Mr. Tillemans?  
17 A BY MR. TILLEMANS: I think the flows are 79 and 80.  
18 MR. HERRERA: Thank you. That concludes my  
19 questions. Thank you, Gentlemen.

20 HEARING OFFICER DEL PIERO: Thank you very much,  
21 Mr. Herrera.  
22 Mr. Canaday?  
23 Q BY MR. CANADAY: Dr. Platts, I'm concerned that we're  
24 going to get some confusion in expectations by some of  
25 the parties. Could you describe what -- when you talk  
0102  
01 about riparian vegetation on the Upper Owens, the kind  
02 of riparian vegetation that you have in mind was there  
03 historically?  
04 A BY DR. PLATTS: What type of vegetation was  
05 historically on the Upper Owens before the entrance of  
06 European man? Is that the question?  
07 Q That you're attempting to restore.  
08 A Attempting to restore. What I would be attempting  
09 to restore on the lands that I'm working on is mainly  
10 an herbaceous over-story with clustered willow, not a  
11 lot of willow, but a clustered willow, and the  
12 herbaceous over-story will come first. And what I  
13 really want to do on those lands is drive the root  
14 systems down to where we get high bank stability and we  
15 get the over-cover and the necessary matting so that  
16 high flows will not affect those banks, but they will  
17 build those banks, and then the flows, at the same  
18 time, give us a chance in certain reaches of that river  
19 to again have some brushy species. And the only way we  
20 can get brushy species is to have the flows that would  
21 distribute the seeding process and allow the survival  
22 of those seeds as they come down. Otherwise, it would  
23 be very difficult to get any brushy species again on  
24 the Upper Owens.  
25 Q Your understanding of the difference between, say,  
0103  
01 Rush Creek and the Upper Owens River is that the  
02 expectations of a riparian community that has recently  
03 been seen in Rush Creek is not something that you would  
04 expect to occur in the Upper Owens; is that correct?  
05 A That is correct. They are different streams.  
06 They occupy different valley bottoms. They occupy  
07 different channel types, therefore they will react  
08 differently, and you are correct.  
09 Q Dr. Orton, can you explain your definition of  
10 over-bank flows? I'm confused that your recommendation  
11 of 45 cfs would result in over-bank flows for riparian  
12 vegetation, yet from my view of the video we saw  
13 yesterday, I wasn't impressed by any real, what I would  
14 call, over-bank flows. I need you to define that.  
15 A BY DR. ORTON: Yes, Sir. Over-bank flows, as their  
16 name implies, would be flows that go over a bank. And  
17 identifying the banks -- if you were in Rush Creek at a  
18 flow of 19 cfs and you increased flows to above 45, you  
19 would start to see those banks over-top. As you  
20 increase the flows beyond that, you would then bump  
21 into the next terrace, a new bank-flow discharge. It  
22 varies throughout the stream. So you'd hit the next  
23 terrace and increase the flows.  
24 As you increase the flows further, then you go  
25 over the next terrace until you start to get into what  
0104  
01 you might call a flood flow in the sense of, say, a

02 1986 event where the whole valley gets flooded.  
03 The intent of my recommendation was to over-top  
04 the banks in the immediate vicinity of the stream  
05 channel as defined by, say, 19 cfs or, actually,  
06 anywhere between 19 cfs on up to about 45 cfs.  
07 Q Your understanding of the channel morphology,  
08 let's say, of the lower Rush Creek below The Narrows,  
09 that 19 cfs was a full-bank discharge. So you're not  
10 talking about over-bank flows, you're talking about an  
11 artificial bank created by a 19 cfs flow?  
12 MR. BIRMINGHAM: I'm going to object on the  
13 grounds the question is ambiguous.  
14 HEARING OFFICER DEL PIERO: As to?  
15 MR. BIRMINGHAM: May I ask that it be reread?  
16 HEARING OFFICER DEL PIERO: Certainly.  
17 (Whereupon the record was read by the Reporter.)  
18 MR. BIRMINGHAM: I don't understand what the  
19 question means.  
20 HEARING OFFICER DEL PIERO: Dr. Orton?  
21 DR. ORTON: I'm having a little bit of a problem  
22 with the term "artificial bank."  
23 HEARING OFFICER DEL PIERO: Fine. Mr. Canaday,  
24 please restate your question. I'm going to overrule  
25 your objection, though, because I don't know that -- I  
0105  
01 understood the question. But if Dr. Orton doesn't  
02 understand it, I'm going to ask Mr. Canaday to restate  
03 it.  
04 Q BY MR. CANADAY: You saw the video that we viewed  
05 yesterday; is that correct?  
06 A BY DR. ORTON: That's correct.  
07 Q And the channel in which the stream was contained,  
08 you saw that, correct?  
09 A At a scale of -- yes. From up in the air, yes.  
10 Q And that flow, we've heard, is somewhere between  
11 '78 to '80 cfs. Is that your understanding?  
12 A That's true, yes.  
13 Q Did the visual that we saw yesterday include  
14 over-bank flow, in your definition?  
15 A No. I would say that for the amount of flow that  
16 was in the channel, you'd probably have to go up, say,  
17 another 15 cfs to over-top those banks that you saw on  
18 the video. And that would be my minimum estimate, and  
19 I would restrict that estimate to the lower reach,  
20 Reaches 4 and 5.  
21 HEARING OFFICER DEL PIERO: Dr. Orton, just for my  
22 edification, what was the existing flow in the stream  
23 in the videotape?  
24 DR. ORTON: In the videotape?  
25 HEARING OFFICER DEL PIERO: Yes.  
0106  
01 DR. ORTON: '79 to '80, was my understanding,  
02 cfs.  
03 Q BY MR. CANADAY: But in your testimony, though, you  
04 state that over-bank -- I'm not wearing my glasses  
05 today. Can I borrow Dr. Platts'? My eyesight's not  
06 bad. My arms are too short.  
07 In your testimony you talk about over-bank flows,  
08 and are over-bank flows, by your definition, the same  
09 as riparian maintenance flows by Dr. Platts'?

10 A BY DR. ORTON: Yes. In fact -- the answer's yes. My  
11 explanation is that that is -- I developed those flows  
12 in consideration of the functions that those flows --  
13 the biological functions that those flows are intended  
14 to achieve. In putting that together, I envision Rush  
15 Creek at 19 cfs, which I've seen that creek for several  
16 years at that flow.

17 I also saw flows increased beyond that. So that  
18 if you had -- if you could envision Rush Creek at 19  
19 cfs with the riparian vegetation down right to the  
20 water's edge and then you increase flows beyond that,  
21 you would start to inundate the riparian vegetation  
22 that had grown around the edge of that stream since  
23 1983 or so. That vegetation would then start to  
24 collect fines, organics.

25 If you brought the flow then back down the  
0107  
01 organics that had been in the water there would be  
02 deposited on the stream, and you could start to develop  
03 your riparian corridor adjacent to the channel as the  
04 channel is defined by 19 cfs. That would result in a  
05 process, in my opinion, of narrowing that channel.

06 Q But the channel that we saw yesterday was a  
07 channel that was defined by a 78 cfs flow that had the  
08 riparian community that Dr. Beschta was testifying to  
09 that was coming up along next to the stream and  
10 defining the channels; is that correct?

11 A That is correct and, in fact, that riparian  
12 vegetation defining those channels, to my  
13 understanding, is doing so because that riparian  
14 vegetation is in the water. It's intercepting a flow,  
15 creating turbulence, and having that effect.

16 Q At that flow yesterday?

17 A Yes.

18 Q And then you're defining a flow to narrow the  
19 channels, but Dr. Beschta, I believe, testified  
20 yesterday that the channels were already narrow and  
21 were representative of pre-'41 conditions. Do you  
22 recall that testimony?

23 A Could you repeat that, please?

24 Q In Dr. Beschta's testimony yesterday, he indicated  
25 that the stream widths of the Lower Rush Creek of which

0108  
01 that video was taken is similar to -- equal or similar  
02 to the stream widths that were in that stream prior to  
03 diversions.

04 A I recall that testimony, yes.

05 Q Do you agree with that or disagree with that?

06 A I would defer to Dr. Beschta's opinion on that.  
07 He has far greater skill at interpreting those  
08 photographs. I have looked at those same aerial  
09 photographs that he has. I'm impressed by his  
10 expertise.

11 Q On Lee Vining Creek, in talking about  
12 channel-maintenance flows or flushing flows, you  
13 advised them that, "Any of these channel-maintenance  
14 flows or flushing flows be deferred until the  
15 populations of adults in Lee Vining Creek rises to  
16 pre-1989 levels." That was your testimony?

17 A I believe so. Yes.



18 Q So, then, to understand how the populations -- to  
19 determine if they met that 1989 level, you -- erase  
20 that.

21 So for you to make the determination that they --  
22 that the fish population had, in fact, achieved these  
23 pre-1989 levels, you would, then, support fish  
24 population monitoring to make that determination; is  
25 that correct?

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01 A That is correct. I would support -- the existing  
02 population data would indicate -- I wouldn't start  
03 looking for it because I wouldn't expect the population  
04 in the near future to return to that level.

05 Q So, then, you would support, for some period of  
06 time, fish population monitoring as the scientific way  
07 of determining that they ultimately reached those  
08 pre-1989 levels; is that correct?

09 A Mr. Canaday, when you say "for some period of  
10 time," are you implying that we would begin immediately  
11 or do you mean -- I guess I don't understand the  
12 question. I'm sorry.

13 Q Well, the question is, you set the basis of your  
14 recommendation that the fish population needs to reach  
15 the 1989 condition, some level of population, before  
16 your recommendation of these flows, these  
17 channel-maintenance flows. How would you determine  
18 that the population has reached the 1989 conditions?

19 A I would, in approximately three years, begin  
20 monitoring. I don't think the population, due to its  
21 present demographics, is capable of getting back up  
22 there without outside stocking.

23 Q But you wouldn't want -- you wouldn't want to take  
24 sampling now?

25 A I don't think you would learn much, no. I would

0110

01 not.

02 Q Was it your testimony on Rush Creek that you  
03 believe that Rush Creek has the capability of  
04 supporting a relatively good fishery? Or --

05 A Fishery? Did I -- I'm not sure whether I said  
06 "fishery."

07 Q Your testimony -- I'll get to the point. You  
08 suggested that the population indices of Rush Creek for  
09 the fishery are equal to, and you have in parenthesis,  
10 are better than, what is found in the eastern Sierra  
11 streams. Do you still agree with that testimony?

12 A And I don't mean to be evasive here. Can you  
13 point me to where I say that?

14 Q Page 5 under the topic of Frequency. The second  
15 paragraph.

16 A Yes. What I say there is that, in fact, all  
17 population indices are equal to what is found in  
18 other -- equal to or better than what is found in other  
19 eastern Sierra streams. Fishery implies angling. A  
20 fish population --

21 Q Okay. A fish population.

22 A Okay. Then with that understanding, could you  
23 repeat the question? I'm sorry.

24 Q All population indices of fish on Rush Creek are  
25 equal to or better than what is found in eastern Sierra

0111

01 streams. Do you agree with that?

02 A I do.

03 Q So you would not typify Rush Creek as a  
04 low-productivity stream compared to other eastern  
05 Sierra streams; is that correct?

06 A That is correct. However, I want to say "other  
07 eastern Sierra streams," that would not include, for  
08 example, the Owens River. That would include streams  
09 that are coming down and draining the watershed.

10 Q One last question, Dr. Orton. You made a  
11 statement that in the L.A. DWP plan -- I understand  
12 we're going to have a revised plan, but nevertheless,  
13 in this revised plan, the development of riparian  
14 vegetation, especially in and immediately along the  
15 stream is, in fact, still an important goal of the L.A.  
16 DWP plan?

17 A That is correct.

18 Q And that --

19 A Well, to the degree that I have an input in that  
20 plan, and I don't think I would be disputed in that, I  
21 believe that is an important goal, yes.

22 Q So if it was found that 45 cfs was not adequate  
23 for certain maintenance flows, in this case riparian  
24 maintenance flows, you would encourage adoption of a  
25 flow that did meet that goal; is that correct?

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01 A I would have to see that -- I would have to see  
02 the details of the recommendation. In some  
03 circumstances, I would not support that.

04 Q Well, let's assume that there was a flow necessary  
05 greater than 45 cfs. To meet the plan's goal, under  
06 that assumption, you would support that flow; is that  
07 correct?

08 A Again, my answer is not necessarily.

09 Q And the basis of that?

10 A Because depending on how the flow -- once a flow  
11 would be identified to encourage the growth of riparian  
12 community, if that flow were implemented poorly, for  
13 example, too soon, then it would work at cross purposes  
14 to that goal, I think. For example, if a flow -- if a  
15 flow of too high a magnitude were released down Rush  
16 Creek, I think -- and Dr. Platts or Dr. Beschta could  
17 speak to this, I think a potential for scouring or  
18 removing present-day vegetation, which is not yet --  
19 stem diameters are not yet wide enough to blow them  
20 out -- they'd be lost.

21 Q Do you have any idea what flow rate that would be?

22 A Only very roughly. For example, if 200 -- if a  
23 1986 event came along and that were released, I think  
24 that you'd set the stream back.

25 Q To your recollection, in what kind of frequency

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01 would you expect a 1986 event? Is this a ten-year  
02 event, a five-year event, or 100-year event?

03 A I'd say 10- to 25-year event.

04 Q Okay. Mr. Tillemans, just a couple of questions  
05 for you, Sir. You collected the Bartole thalweg data.  
06 Is there any reason why that data was not collected  
07 above The Narrows in any sections or below?

08 A BY MR. TILLEMANS: Yes. Why wasn't there any data  
09 collected above The Narrows? Is that what your  
10 question is?  
11 Q It appears from the data that I'm looking at that  
12 the data was collected from below The Narrows to what  
13 we call The Ford; is that correct?  
14 A Correct.  
15 Q Can you explain why that was the only section of  
16 the stream that the Bartole thalweg was collected in?  
17 A Basically, due to time and, basically, what  
18 Dr. Beschta asked me to do was, you know, if you can  
19 sneak in the time and get something of this matter  
20 done, do it from The Ford to The Narrows.  
21 Q So that question's better asked of Dr. Beschta,  
22 then?  
23 A Yes.  
24 MR. CANADAY: Thank you. That's all I have.  
25 HEARING OFFICER DEL PIERO: Thank you very much

0114

01 Mr. Canaday.  
02 Mr. Birmingham, how much redirect do you have?  
03 MR. BIRMINGHAM: I expect that my redirect will go  
04 well beyond 20 minutes, and I'm wondering if we could  
05 take a lunch recess now. I think that my redirect  
06 examination of my witnesses would be more effective and  
07 efficient if I had a little time to prepare it, and  
08 I'd ask for that time over the lunch hour.  
09 HEARING OFFICER DEL PIERO: Mr. Dodge?  
10 MR. DODGE: Well, I would have thought we could  
11 finish up before lunch.  
12 MR. BIRMINGHAM: I would have thought so, too. We  
13 have gone -- as Mr. Dodge correctly pointed out, we  
14 went beyond the scope of rebuttal testimony, I think,  
15 with respect to just about everyone. And I doubt that  
16 I will be able to complete a redirect after three hours  
17 of cross-examination within 20 minutes.  
18 HEARING OFFICER DEL PIERO: Mr. Dodge?  
19 MR. DODGE: Well, my experience is that we're much  
20 more likely to move ahead quickly if he asks questions  
21 now than if he talks for an hour and a half at lunch.  
22 (Laughter.)  
23 HEARING OFFICER DEL PIERO: Mr. Roos-Collins?  
24 MR. ROOS-COLLINS: I have two comments. First,  
25 with respect to cross-examination going beyond the

0115

01 scope of direct, I note that I took 20 minutes and not  
02 more. If Mr. Birmingham will do that in his  
03 cross-examination of my witnesses, I will be  
04 delighted.  
05 Secondly, I am concerned about Mr. Birmingham's  
06 representation that he may need more than 20 minutes  
07 for his redirect. I suggest that we're on a slippery  
08 slope to a longer hearing than you have scheduled, and  
09 I request guidance as to the justification necessary  
10 for getting more than 20 minutes on redirect.  
11 HEARING OFFICER DEL PIERO: I can't very well give  
12 guidance like that, Mr. Roos-Collins, until the end of  
13 the 20 minutes so I can hear what Mr. Birmingham's  
14 justification is.  
15 But, Mr. Birmingham, I want you to start

16 questioning now.  
17 MR. BIRMINGHAM: Sure.  
18 HEARING OFFICER DEL PIERO: Ladies and Gentlemen,  
19 we'll break in about 20 minutes.  
20 DR. ORTON: Excuse me, Gentlemen. I don't mean to  
21 speak out of order. Can I be excused for about a  
22 minute?  
23 HEARING OFFICER DEL PIERO: Yes, go ahead.  
24 Mr. Birmingham, why don't you begin?  
25 MR. BIRMINGHAM: Thank you. Before I do, may I

0116

01 ask Mr. Roos-Collins for a copy of Cal-Trout Exhibit  
02 5-P, which is a photograph? My copy of the photograph  
03 is a black-and-white Xerox which is not very good.  
04 HEARING OFFICER DEL PIERO: Ladies and Gentlemen,  
05 we'll break at about five after the hour, and we'll  
06 return here at 1:15.  
07 MR. BIRMINGHAM: Excuse me. May I ask if the  
08 State Board has an original copy of Cal-Trout Exhibit  
09 5-P?  
10 HEARING OFFICER DEL PIERO: I don't know.  
11 Mr. Smith, do we have an original copy of 5-P?  
12 I've seen that picture several times. Is there a  
13 reason why we need it?  
14 MR. BIRMINGHAM: I would like to ask a question of  
15 Dr. Orton of 5-P.  
16 HEARING OFFICER DEL PIERO: Is that the picture of  
17 Rush Creek?  
18 MR. BIRMINGHAM: It's the picture of Rush Creek  
19 with the fisherman standing at a meander. And it's an  
20 exhibit to the testimony of Eldon Vestal.  
21 Actually, Mr. Herrera has discovered it.  
22 HEARING OFFICER DEL PIERO: Thank you,  
23 Mr. Herrera.  
24 MR. BIRMINGHAM: Thank you, Mr. Herrera.  
25 / / / / /

0117

01 REDIRECT EXAMINATION BY MR. BIRMINGHAM  
02 Q The copy that Mr. Herrera discovered is a copy  
03 that apparently was submitted as Figure 1-A by the  
04 Department of Water and Power. The reason I wanted to  
05 use the Cal-Trout copy was because Mr. Beschta was the  
06 first to view this and describe it.  
07 Dr. Orton, I'm handing you a copy of an Exhibit  
08 5 -- it's Cal-Trout 5-P and DWP Figure 1, L.A. DWP  
09 Figure 1-A, an enlargement of Cal-Trout 5-P. Do you --  
10 have you seen this photograph before?  
11 A BY DR. ORTON: Yes, I believe so.  
12 Q Now, I'm referring to the testimony of Eldon  
13 Vestal, which is Cal-Trout Exhibit 5 -- have you read  
14 Mr. Vestal's testimony, Dr. Orton?  
15 A Yes, I have.  
16 Q Now, let me read to you a description -- this is  
17 Paragraph 36 of that photograph. "Attached hereto as  
18 Cal-Trout 5-P is a photograph I took of an angler  
19 fishing on Rush Creek as it existed in 1947 with dense  
20 riparian cover, beautiful gravels, and a nice flow of  
21 approximately 20 cfs. This photograph is  
22 representative of the conditions on Rush Creek before  
23 L.A.'s diversions began to have a serious impact."

24 Now, apparently the flow that is depicted in that  
25 photograph is approximately 20 cfs. If there were a  
0118  
01 flow of 45 cfs in that channel, do you have an opinion  
02 as to whether or not the flow of 45 cfs would go out of  
03 bank?  
04 A I have an opinion, yes.  
05 Q What is your opinion?  
06 A Three observations, first off --  
07 HEARING OFFICER DEL PIERO: Excuse me. Before you  
08 begin, can I ask you a question? I just want one  
09 clarification. Is it your opinion that it's a 20 cfs  
10 flow in that picture?  
11 DR. ORTON: It's hard to tell because the depth --  
12 HEARING OFFICER DEL PIERO: I understand. Given  
13 what you can see, does it appear to you that that's a  
14 20 cfs flow?  
15 DR. ORTON: It could be.  
16 HEARING OFFICER DEL PIERO: Would you be fishing  
17 in that stream if it were a 20 cfs flow with that  
18 width?  
19 DR. ORTON: Would I be fishing? Yeah. I guess I  
20 could. I point out on the photograph, Sir, that the  
21 angler standing on the bank is in water up to about his  
22 knees. He's casting to the bank --  
23 HEARING OFFICER DEL PIERO: I understand that.  
24 That's why I'm asking because I have a general  
25 understanding of what 20 cfs running in about two to  
0119  
01 three feet looks like, and I'm just interested in your  
02 opinion as to whether or not that appears to be 20 cfs  
03 or greater, regardless of what the representation is,  
04 Mr. Birmingham.  
05 MR. BIRMINGHAM: It's not my representation. It's  
06 the representation of Cal-Trout.  
07 DR. ORTON: Yes, I think it could be 20 cfs.  
08 HEARING OFFICER DEL PIERO: Could it be more?  
09 DR. ORTON: Yes.  
10 HEARING OFFICER DEL PIERO: Significantly more?  
11 Could it be 40?  
12 DR. ORTON: It could be 40.  
13 HEARING OFFICER DEL PIERO: Yeah. I'm sorry for  
14 interrupting you, Mr. Birmingham.  
15 Ms. Anglin -- do you recall the question that  
16 Mr. Birmingham asked you, Dr. Orton?  
17 DR. ORTON: Yes, I do.  
18 HEARING OFFICER DEL PIERO: Why don't you go ahead  
19 and answer and if you need any help, I'll have  
20 Ms. Anglin read those questions back.  
21 DR. ORTON: I believe the question was whether it  
22 was my opinion whether or not those banks would over  
23 flow if the flows went up to 44 cfs.  
24 Q BY MR. BIRMINGHAM: 45.  
25 A BY DR. ORTON: 45 cfs. And my response -- I have an  
0120  
01 opinion, three observations. First off, there is  
02 submerged vegetation in the stream. You can see that  
03 on the right. There are some stems. There also seem  
04 to be some stems in the middle of the stream just off  
05 the left at the center of the photograph. Apparently,

06 the stream is over-topping some terrestrial vegetation  
07 in the stream, which is kind of an interesting  
08 observation, to my mind.

09 The second observation is the bank on the right  
10 clearly is two feet, maybe three feet above the  
11 stream. It would not over-top that bank. On the left  
12 you see a bank which has a very dish-shaped shape, and  
13 it's got no vegetation on it and my opinion is that  
14 there, the 40 cfs could over-top that bank and probably  
15 create a channel that would cut across that point. In  
16 fact, it looks like it might have done so.

17 Q Thank you, Dr. Orton.

18 You said that you have observed Rush Creek at 19  
19 cfs?

20 A That's correct.

21 Q At the time you observed Rush Creek at 19 cfs,  
22 were there portions of the stream with depths that are  
23 similar to the depths that appear in the photograph  
24 described or identified and in evidence as Cal-Trout  
25 Exhibit 5-P?

0121

01 A Yes.

02 Q Dr. Platts, I have some questions of you. Before  
03 I do that, let me just ask some questions of  
04 Mr. Hasencamp.

05 Mr. Hasencamp, in the development of your  
06 management plan, before you established flows, did you  
07 consult with experts?

08 A BY MR. HASENCAMP: Yes, I did.

09 Q You didn't pick the minimum flow by yourself, you  
10 did that in consultation with fishery biologists?

11 A Yes, that's true.

12 Q In particular, Mr. Hanson and Dr. Hardy?

13 A Yes, I relied on their written testimony.

14 Q And with respect to the flushing flows or the  
15 channel-maintenance flows or the riparian-maintenance  
16 flows, you consulted with Dr. Orton?

17 A Yes.

18 Q And did you consult with any other individuals  
19 developing the criteria that you would use to select  
20 those flows?

21 A Yes. Yes, I did.

22 Q Who were they?

23 A Dr. Beschta, some field personnel who are familiar  
24 with some of the daily hydrology of the region.

25 Q And so you didn't pull the figures out of the thin

0122

01 air?

02 A Certainly not. I took all the recommendations of  
03 the various experts and took the micro recommendations  
04 and put them in a big plan. Because sometimes there  
05 are certain resources that are in conflict, and you  
06 have to resolve is water going to go into the Upper  
07 Owens River or Rush Creek or Lee Vining Creek, and you  
08 can't put it all three places at once. So there's a  
09 lot of management of the entire system in developing  
10 the management plan.

11 Q Did you consider the flushing flows that had been  
12 established by the court based on the recommendations  
13 of witnesses who testified before Judge Finney?

14 A I'm a little unclear.  
15 Q Well, the interim stream flow order contains  
16 flushing flows; is that correct?  
17 A Yes, it does.  
18 Q Did you consider the flows that had been  
19 established based upon the recommendations of experts  
20 in that case when you were establishing your flushing  
21 flows?  
22 A Yes. I took those recommendations into account  
23 and the data.  
24 Q Dr. Platts, with respect to the Upper Owens River,  
25 you stated a couple of times -- and I want to make sure  
0123  
01 that I understand what you meant. You stated a couple  
02 of times that monthly flows mask out what is really  
03 going on.  
04 A BY DR. PLATTS: Yes, I did.  
05 Q How do monthly flows mask out what's really going  
06 on?  
07 A Well, if you had a zero flow and 100 cfs flow  
08 taken during that month, you'd have a monthly flow of  
09 50 cfs, and that doesn't show what's going on.  
10 Q Is it your understanding that excluding what  
11 Mr. Dodge termed "artificial flows" from the Mono  
12 Basin, excluding artificial flows from the Mono Basin,  
13 is it your understanding that flows in the Upper Owens  
14 River sometimes exceed 200 cfs?  
15 A They have.  
16 Q Do you have any information on that subject,  
17 Mr. Hasencamp?  
18 A BY MR. HASENCAMP: Yes. As I said before, it was 227  
19 cfs in 1983, and the only data -- daily data I looked  
20 at was from '73 to more recently. But I assume that  
21 probably happened in '69 and '67 and some of the other  
22 big years as well.  
23 Q Now, Dr. Platts, Mr. Dodge asked you if there was  
24 a constant flow -- if the Department of Fish and Game  
25 recommended a constant flow from the Mono Craters  
0124  
01 Tunnel, would you have an objection to that, and I  
02 believe you said no, you wouldn't; is that correct?  
03 A BY DR. PLATTS: I would have no objection to that as  
04 long as it was within certain boundaries.  
05 Q As long as you stay within those certain  
06 boundaries, would you have an objection if the flow out  
07 of the Mono Craters Tunnel fluctuated?  
08 A No, I would not.  
09 Q Now, as I understand the department of -- what I  
10 understand is not relevant here, so let me ask it  
11 differently.  
12 Assuming that the Department of Fish and Game  
13 recommends that once an export for a year has been  
14 established, that that export remain constant, that the  
15 flows through the Mono Craters Tunnel remain constant,  
16 and assuming that they have established a recommended  
17 maximum flow of 200 cfs in the Upper Owens River, are  
18 those two recommendations consistent with one another?  
19 A BY MR. HASENCAMP: Can I answer the question?  
20 Q Certainly, Mr. Hasencamp.  
21 A No, they're not. Most of the exports under the

22 flows under DFG proposed recommendations would occur in  
23 wet years. And if you were to have a constant export,  
24 for example, of 50 cfs and in the month of June, for  
25 example, the flow was naturally 180 cfs, you could not

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01 add the 50 cfs, so you could not add a constant flow,  
02 and it would top out at 200 cfs. I could draw it on a  
03 chart, if you'd like.

04 Q Would you, please?

05 A Certainly.

06 Maybe you have another question.

07 HEARING OFFICER DEL PIERO: Actually, we're going  
08 to break. We're going to break. Okay? And you can  
09 have that chart prepared so we don't take up additional  
10 time after lunch.

11 MR. BIRMINGHAM: I'll have it prepared during  
12 lunch.

13 HEARING OFFICER DEL PIERO: And, Ladies and  
14 Gentlemen, we'll be back at one -- we're going to be  
15 back at 1:15 and before we end, I want to point  
16 something out. Okay? I think I'd like to remind all  
17 the parties that -- including -- all the parties.  
18 Okay? -- that rebuttal testimony is supposed to be --  
19 the rebuttal phase of this hearing is supposed to be  
20 limited to rebuttal testimony and cross-examination on  
21 that testimony. Okay?

22 And it seems to me that -- not to cause anybody  
23 any heartburn, but it seems to me it would be  
24 appropriate, and I'd appreciate it very much if all of  
25 those participants here would focus on that which we

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01 are supposed to be focusing on during the rebuttal  
02 phase. Understanding that all of you have a variety of  
03 issues you want to address and hoping that I can extend  
04 to you every opportunity to do that, it strikes me that  
05 now, after a day and a half, this phase of the hearing  
06 has not necessarily proceeded in as expeditious or  
07 informative a fashion as I would have hoped. So if  
08 those of you that are going to be asking questions --  
09 all of you that are going to be asking questions can  
10 ensure that structure and focus are applied during the  
11 course of this rebuttal phase, I would appreciate it.  
12 I'm sure the record would be much cleaner, and we won't  
13 have requests for clarifications or objections beyond  
14 those that we would normally expect. Okay?

15 And I will leave you all with that thought. Have  
16 a nice lunch. Ladies and Gentlemen, we'll be back at  
17 1:15.

18 (Whereupon the lunch recess was taken.)

19 HEARING OFFICER DEL PIERO: Mr. Birmingham, we're  
20 back on the record.

21 MR. BIRMINGHAM: Thank you. I am informed by  
22 Mr. Herrera that I have an additional nine minutes of  
23 my additional 20, so I will try and move this along.

24 HEARING OFFICER DEL PIERO: Okay.

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25 Q BY MR. BIRMINGHAM: Mr. Hasencamp, before the lunch  
01 recess, I asked a question of this panel which you were  
02 responding to regarding the consistency between a  
03 recommendation that water that flows in the Upper Owens



04 be limited to 200 cfs and the recommendation that  
05 exports from the Mono Basin be maintained at a constant  
06 level. Do you recall that question?  
07 A BY MR. HASENCAMP: Yes, I do.  
08 Q And you had given us an answer, and you were going  
09 to explain your answer through the presentation of a  
10 graph; is that correct?  
11 A Yes.  
12 Q Over the course of the lunch hour, did you have an  
13 opportunity to prepare the graph?  
14 A A hurried graph, yes.  
15 Q And that's been marked as L.A. DWP Exhibit 141; is  
16 that correct?  
17 A Yes.  
18 Q Would you please explain L.A. DWP Exhibit 141?  
19 A Certainly.  
20 Q Take the microphone with you if you would,  
21 Mr. Hasencamp.  
22 A Okay. I chose an actual -- actual data from  
23 runoff year 1986. It certainly is not the biggest year  
24 on record, but it is one of the more recent wet years.  
25 And under most of the plans, especially with the DFG

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01 flows, the only times significant export would occur is  
02 in wet years.

03 The bottom line here on the chart shows the actual  
04 Upper Owens River flows on a monthly basis in runoff  
05 year 1986. The peak occurs in June, which is  
06 approximately 164 cfs, and then the base around here is  
07 between 90 and 100 cfs for most of the fall and winter.

08 Q That's from the period August through March?

09 A August through March of 1986. Or March of 1987.  
10 I'm sorry. April. April '86 through March '87. And  
11 there's both the component of the spring component and  
12 the runoff component.

13 HEARING OFFICER DEL PIERO: Mr. Hasencamp, I'm  
14 glad you clarified that. I thought the font might have  
15 been off on this one.

16 Q BY MR. BIRMINGHAM: The runoff year runs from April  
17 through March; is that correct?

18 A MR. HASENCAMP: Yes.

19 Q And that's the reason April is the first month on  
20 L.A. DWP Exhibit 141?

21 A Yes. Now, in 1986 the runoff for the Mono Basin  
22 was about 170,000 acre-feet, which is about 140 percent  
23 of normal, and under many of the plans, a runoff of  
24 about 40 percent is a reasonable export. It would  
25 maintain just about any lake level. In fact, the lake

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01 went up a half a foot in 1986. So if 40 percent of the  
02 Mono Basin runoff was allowed to be exported, it would  
03 translate into a constant flow of 95 cfs under the  
04 Department of Fish and Game recommendations.

05 Now, if you add the 95 cfs --

06 MR. DODGE: Excuse me, Mr. Hasencamp. Do you mean  
07 40 percent of 140 percent?

08 MR. HASENCAMP: I mean 40 percent of the 170,000  
09 acre-feet, which translates to 68,000 acre-feet.

10 MR. BIRMINGHAM: And I will only note, for the  
11 record, that Mr. Dodge has objected many times when I

12 have asked a witness for clarification and has stated,  
13 quite accurately, "maybe Mr. Birmingham could do his  
14 cross-examination on his own time."

15 MR. DODGE: I apologize.

16 HEARING OFFICER DEL PIERO: You did get that down,  
17 didn't you?

18 THE REPORTER: Oh, yes.

19 HEARING OFFICER DEL PIERO: Thank you.

20 MR. HASENCAMP: With the 95 cfs constant export,  
21 as proposed by the Department of Fish and Game, if you  
22 add 95 cfs to the monthly peak of 164 cfs and, in fact,  
23 the daily peak was even higher than that, but on a  
24 monthly basis it would translate to about 260 cfs and  
25 this, of course, is 60 cfs above the maximum that they

0130  
01 allow, 200 cfs.

02 And, in fact, in this runoff period, all of this  
03 export would not be allowed with a 200 cfs cap, and so  
04 what you then have is a flow in the Upper Owens of --  
05 rising to 200, being constant for a number of months  
06 until July or August, and then falling to about 190 or  
07 180 constant. So, in effect, you'd have fairly  
08 constant flow between 160 and 200 cfs, and you'd lose  
09 the peak that you would see in a natural hydrograph,  
10 and you also are not allowed to have the constant  
11 export of 95. In fact, here, you're only allowed about  
12 35 cfs.

13 Q BY MR. BIRMINGHAM: So, Mr. Hasencamp, if I  
14 understand L.A. DWP Exhibit 141, using actual runoff  
15 data from 1986 and implementing the Department of Fish  
16 and Game proposals, it would not be possible to  
17 implement a proposal to maintain constant export from  
18 the Mono Basin at a continuous level and maintain a  
19 maximum flow in the Upper Owens River below 200 cfs?

20 A BY MR. HASENCAMP: Yes. Unless the export was  
21 dropped to a very minor amount. But if the export is  
22 in the range that we're talking about, you'd be much --  
23 you could not do it.

24 Q Dr. Platts. You were asked by Mr. Roos-Collins,  
25 and actually, by Ms. Cahill, a number of questions

0131  
01 about the condition of the Upper Owens River before  
02 diversions began. And Mr. Smith asked you a question  
03 about your use of -- excuse me, Dr. Smith asked you a  
04 question about the use of photographs in determining  
05 the condition of the Upper Owens River before the  
06 Department of Fish and Game began its diversions.

07 I'd like to show you a number of photographs, and  
08 may I take a moment and provide them to opposing  
09 Counsel first, Mr. Del Piero?

10 HEARING OFFICER DEL PIERO: Mr. Birmingham, I  
11 assume these are the photographs?

12 MR. BIRMINGHAM: These are the photographs, yes.

13 HEARING OFFICER DEL PIERO: Dr. Platts, which  
14 shelf in the garage did these come off of?

15 (Laughter.)

16 DR. PLATTS: I wasn't looking for paper.

17 (Laughter.)

18 MR. TILLEMANS: I've got to leave.

19 (Laughter.)

20 HEARING OFFICER DEL PIERO: What did we all have  
21 for lunch? I want to know.  
22 Q BY MR. BIRMINGHAM: Mr. Tillemans, I'm handing you a  
23 number of photographs --  
24 HEARING OFFICER DEL PIERO: They all missed it,  
25 so it's okay.

0132

01 MR. BIRMINGHAM: I heard it.  
02 Q BY MR. BIRMINGHAM: Mr. Tillemans, where did you find  
03 those photographs?  
04 A BY MR. TILLEMANS: These were --  
05 Q Actually, I'd like to withdraw that last  
06 question.  
07 The photographs I've just handed you,  
08 Mr. Tillemans, are those photographs that were in your  
09 possession?  
10 A Recently, yes.  
11 Q Do you know when those photographs were taken?  
12 A Prior to Crowley Lake. The exact dates, I'm not  
13 sure, but it's somewhere in the thirties. Randall may  
14 have a more --  
15 Q Dr. Orton, do you know when those photographs were  
16 taken?  
17 A BY DR. ORTON: Again, I don't know the exact date,  
18 but they are 1939, '40, before Crowley Lake.  
19 Q Dr. Platts, the photographs I'm handing you, are  
20 those photographs on which you relied in support of  
21 your opinion concerning the condition of the Upper  
22 Owens River channel before diversions began?  
23 A BY DR. PLATTS: Yes.  
24 MR. BIRMINGHAM: The State Board Staff, made  
25 photocopies of these photographs over the lunch hour.

0133

01 In response to Dr. Smith's request, we would have these  
02 marked and then reproduce them so that all of the  
03 parties have better quality photographs than those --  
04 the Xerox copies or the photocopies.  
05 HEARING OFFICER DEL PIERO: Thank you.  
06 Q BY MR. BIRMINGHAM: Let me ask you, Dr. Platts,  
07 before L.A. began diversions out of the Mono Basin -- I  
08 think you testified that the Upper Owens River channel  
09 is in a degraded condition; is that correct?  
10 A BY DR. PLATTS: That's true.  
11 Q What were the causes of the degraded condition of  
12 the Upper Owens River channel before DWP began its  
13 diversions?  
14 A It was primarily due to heavy livestock grazing.  
15 Q Do any of the photographs which I've handed you  
16 contain evidence of damage due to heavy livestock  
17 grazing?  
18 A Yes, they do.  
19 Q Can you show us an example of that, please?  
20 A These two photos --  
21 Q Maybe I could write an exhibit number on the back  
22 of each one of them. On the first one, I will write  
23 L.A. DWP Exhibit 142, and it is a photograph which  
24 shows -- actually, would you please describe L.A. DWP  
25 142, Dr. Platts?

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01 A This is a photo of the Upper Owens River, and I'm

02 assuming it's in Crowley Lake or above Crowley Lake.  
03 And the photograph shows that this river has had a long  
04 period of extremely heavy grazing. Stream banks are  
05 very poor. A lot of recent shearing by livestock.  
06 There's been a change in vegetative composition. The  
07 stream is over-widened, and the stream is susceptible  
08 to high-flow events because the vegetative condition  
09 has extremely low vigor.

10 MR. SMITH: Could you hold that up so we could see  
11 that photo?

12 Q BY MR. BIRMINGHAM: That's L.A. DWP 142.

13 I'm now showing you a photograph, Dr. Platts, that  
14 has been marked on the back as L.A. DWP 143. It  
15 appears to be the portion of a channel taken from a  
16 bluff. Is that correct?

17 MR. HERRERA: Excuse me, Mr. Birmingham. Your 20  
18 minutes has expired.

19 MR. BIRMINGHAM: I make an application for an  
20 additional 20 minutes, Mr. Del Piero.

21 HEARING OFFICER DEL PIERO: The reason for the  
22 application?

23 MR. BIRMINGHAM: The showing on which I would base  
24 the application is I'm attempting to conduct redirect  
25 after approximately three and a half hours of

0135

01 cross-examination of a panel of four witnesses on  
02 testimony, some of which went beyond the scope of the  
03 original -- the original direct, and in order to cover  
04 that testimony adequately, it's necessary to go beyond  
05 the 20 minutes.

06 HEARING OFFICER DEL PIERO: Granted.

07 MR. BIRMINGHAM: Thank you.

08 HEARING OFFICER DEL PIERO: I assume you'll be  
09 done within the next 20 minutes?

10 MR. BIRMINGHAM: Yes. We will be done.

11 Q BY MR. BIRMINGHAM: Can you describe that photograph,  
12 Dr. Platts?

13 A BY DR. PLATTS: Yes. This is marked 143, and this  
14 photograph shows much the same as the other photographs  
15 did. The valley bottom has received extremely heavy  
16 grazing because that's where the forage is being  
17 produced. The stream is showing that it has come  
18 apart. The river is not doing well at all. There was  
19 willow here, and it looked like there may be a few  
20 stragglers. It's pretty well eliminated. The stream  
21 banks are very susceptible to any stress. There's been  
22 changes in vegetative diversity of the plant  
23 community.

24 Q Thank you.

25 Now, Dr. Platts, I'm going to ask you a

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01 hypothetical question. I'm going to ask you to assume  
02 that in 1941, that the Upper Owens River was not in a  
03 degraded state. Had the Upper Owens River not been in  
04 a degraded state in 1941, would exports from the Mono  
05 Basin have had the same effects on that channel as they  
06 did?

07 A Not the same effects.

08 Q What would the effects have been, in your opinion?

09 A If the Upper Owens River had been a natural system

10 with natural stream banks and natural vegetation, it  
11 would have been a river that could have accepted higher  
12 flows without so much damage. The high flows still  
13 would have changed the channel, but the channel would  
14 have been narrower and deeper and the channel would not  
15 have been so over-widened in order to take on the  
16 excess flows.

17 Q Now, Dr. Platts, again, to make sure that the  
18 record is clear on on your opinions. For a period of  
19 the next three to five years after implementation of a  
20 grazing management plan, is it your opinion that flows  
21 in the Upper Owens River should be limited to  
22 approximately 200 cfs?

23 A Yes. Before the effects of the plan  
24 implementation take effect, I would not want to see  
25 high flows on the Upper Owens.

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01 Q During the period of the next three to five years  
02 after implementation of a grazing management plan, why  
03 would you want to limit flows in the Upper Owens to  
04 approximately 200 cfs?

05 A Because at this time, the vegetative condition on  
06 the banks is not ready to accept the erosive forces.  
07 The vegetation hasn't built to the point that it can  
08 accept the sediments and trap those sediments and  
09 contain the sediments, and the stream bank is also not  
10 tough enough to hold up under those types of flows.

11 Q Now, is it correct that if the stream or channel  
12 receives a flow not exceeding 200 cfs or approximately  
13 200 cfs for a period of three to five years after  
14 implementation of a grazing management plan, that the  
15 channel will become more stable?

16 A Would you repeat the question, please?

17 Q Certainly. The process that you just described,  
18 when I asked you why you'd want to limit flows for a  
19 period of three to five years, is that so that the  
20 channel will become more stable?

21 A That's correct. That's to give the vegetation a  
22 jump start.

23 Q Now, after the channel has become or had an  
24 opportunity to become more stable, is it your  
25 recommendation that there be periodic flows of

0138

01 approximately 300 cfs in the Upper Owens River?

02 A That is correct.

03 Q And how often would you recommend these flows  
04 occur after the channel has had an opportunity to  
05 become more stable?

06 A If the management plan is followed and if the  
07 vegetative response occurs, as I am predicting it would  
08 occur, I would want to see our bank maintenance flows  
09 occur on the average of about once every three years  
10 over a fairly long period of time.

11 Q Now, what would be the purpose of these flows of  
12 approximately 300 cfs every three years?

14 so that we can develop a much more productive channel  
15 on the Upper Owens than we have today.

17 A Yes. I would like to see a narrower river.

18 Q Now, after the channel has narrowed, as you've  
19 described it, in your opinion, should flows in the  
20 Upper Owens be limited to 200 cfs?  
21 A No. Definitely not.  
22 Q Why not?  
23 A Well, if you finally rebuild the Owens or get it  
24 on the rebuilding process and then decide you're going  
25 back to a 200 cfs continuous flow, then you've defeated  
0139  
01 the purpose of what we're trying to do.  
02 Q What is it that we're trying to do?  
03 A We're trying to develop those flows that will keep  
04 that stream bank and the channel in good condition and  
05 good form from this time on, so we're going to need  
06 those type of flows over time.  
07 Q Now, after this process has been completed, the  
08 restoration that you anticipate based upon the flow  
09 regime that you've just described, would exports from  
10 the Mono Basin represented by the historic exports  
11 damage the Upper Owens River channel?  
12 A No, they would not, if they're within certain  
13 boundaries.  
14 Q Within the boundaries of historic exports, would  
15 the channel be damaged?  
16 A If I'm interpreting it correctly, we wouldn't be  
17 going over flows of 360, 370 cfs? I would say that  
18 those flows would be favorable.  
19 Q Those flows would not damage the river?  
20 A Not once it's toughened up.  
21 Q Does your answer depend upon the continuation of a  
22 land management program?  
23 A Yes. And it has to be followed. It has to be a  
24 good land management program in order to get to that  
25 type of response.  
0140  
01 Q I'd like to talk just a few moments about ramping  
02 criteria. Mr. Dodge asked you some questions about  
03 this, and I believe he referred to some hydrographs  
04 that were in the testimony of Dr. Beschta, the rebuttal  
05 testimony.  
06 A BY MR. HASENCAMP: I think it was Mr. Hasencamp.  
07 Q Excuse me. I believe that Mr. Hasencamp is  
08 right.  
09 I'd like you to look at the Figure 1 from the  
10 rebuttal testimony of William Hasencamp, which is L.A.  
11 DWP Exhibit 133. Figure 1 is a hydrograph from Lee  
12 Vining Creek above the intake for the period 1981, and  
13 before I ask questions of Dr. Platts, Mr. Hasencamp, is  
14 it correct that Lee Vining Creek is a creek in which  
15 flows are less impaired than the flows of Rush Creek?  
16 A Generally, yes.  
17 Q Why is that?  
18 A Well, there's -- the storage capacity where the  
19 bulk of the runoff goes in Lee Vining Creek is much  
20 less, and so spills of the reservoirs occur much more  
21 frequently, and they're uncontrolled more than Rush  
22 Creek.  
23 Q So the flows in Lee Vining Creek are more typical  
24 of natural flows than flows in Rush Creek?  
25 A Yes, they would be.

0141

01 Q Now, looking at this hydrograph from 1981,  
02 Dr. Platts, is it correct that for the period April  
03 through July, there are 26 days during which the  
04 descending flow was in excess of 10 percent?

05 A BY DR. PLATTS: That sounds about right.

06 Q Now, looking at Lee Vining Creek above the intake  
07 in 1986, which is Figure 3 to the testimony of William  
08 Hasencamp, is it correct that on the descending limb of  
09 the hydrograph represented by Figure 3, that there are  
10 16 days in which the descending limb of a hydrograph is  
11 in excess of a 10 percent change in the flow?

12 A That's correct.

13 Q Dr. Beschta, in his testimony, talks about the  
14 article that we have all submitted as an exhibit. It's  
15 an article which you wrote with Dr. Beschta and one of  
16 your colleagues, Mark Hill. Is that correct?

17 A That's correct.

18 Q Now, I'd like to refer you, if I can, to the  
19 latter part of Dr. Beschta's rebuttal testimony, which  
20 is in evidence or has been identified as L.A. DWP  
21 Exhibit 137. And in the first paragraph, he refers to  
22 the 1991 publication. I'm sorry. Not the first  
23 paragraph. This is the first paragraph under the  
24 section on ramping flows on Page 14 of his testimony.  
25 He refers to your 1991 article. Is that correct,

0142

01 Dr. Platts?

02 A Yes, he does.

03 Q And then in the next paragraph he says, "Given  
04 that both high flows and low flows within the range of  
05 natural conditions will occur in a flow-regulated  
06 stream, one of the issues that still needs  
07 clarification is the rate at which flow changes will  
08 occur; i.e., the ramping rate. For recession limbs of  
09 stream hydrographs, it is suggested by Hill et al.,  
10 that in the absence of supporting research, we  
11 recommend that flows be reduced by no more than 10  
12 percent of the previous day's flows. And in most  
13 cases, a reduction of less than 10 percent of the  
14 previous day's flow would be highly preferred."

15 Now, that's what you wrote in 1991; is that  
16 correct, Dr. Platts?

17 A That's correct.

18 Q Then he goes on to state that, "The term  
19 supporting research is probably too strongly worded for  
20 this sentence and does not mean that a recession rate  
21 for a given stream should automatically be set at 10  
22 percent unless a major scientific research effort is  
23 carried out that thoroughly studies various hydrologic  
24 aquatic vegetation relationships for that stream.  
25 Instead, for streams with long-term records of daily

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01 flows such as Rush Creek above Grant Lake, the  
02 historical hydrographs provide abundant information  
03 regarding the magnitude and frequency of daily flow  
04 changes during both rising and falling stages. In such  
05 circumstances, it would seem prudent to simply utilize  
06 the existing hydrological record to assess the normal  
07 occurrence of flow changes of various magnitudes and

08 use them as guidance for establishing ramping rates.  
09 For streams without any hydrologic data, the  
10 recommendation of 10 percent may be reasonable or it  
11 may not, but it was our recommendation in 1991."

12 I've just read a very large portion of  
13 Dr. Beschta's testimony, but do you agree with what  
14 Dr. Beschta has stated in that portion of his  
15 testimony?

16 A Yes, I agree. If you've got good data, you've got  
17 good hydrologic data, good flow regime analysis, that  
18 should set your ramping rate criteria. Our guidelines  
19 to our profession at that time -- and most of our  
20 streams do not have good data, then we put out the  
21 conservative 10 percent in order to get protection.

22 Q Now, yesterday I asked you a question, and it was  
23 followed up on by a number of my opposing Counsel, and  
24 I want to clarify it a little bit further.

25 Is it correct that one of the differences between  
0144 01 the Upper Owens River on the one hand, and Rush and Lee  
02 Vining Creek on the other that the Upper Owens River is  
03 a spring-fed stream to a large degree and Rush and Lee  
04 Vining Creeks are snow-melt streams?

05 A That would be part of it.

06 Q And therefore, based upon that difference, you  
07 would consider different ramping flows in the different  
08 streams?

09 A Yes, I would. If the hydrologic data you had gave  
10 you the reason to have different ramping flows, I  
11 would.

12 HEARING OFFICER DEL PIERO: Excuse me,  
13 Mr. Birmingham.

14 Dr. Platts, so I know, what percentage of the  
15 Owens River is spring fed as opposed to snow-melt --  
16 that question has been asked now by Mr. Birmingham,  
17 Ms. Cahill, Mr. Dodge. And I don't have an answer.

18 MR. DODGE: I didn't ask that question.

19 HEARING OFFICER DEL PIERO: Oh, maybe --

20 MR. DODGE: The question is vague. Upper Owens  
21 River where?

22 HEARING OFFICER DEL PIERO: Well, I'm asking --  
23 if you wish to object, Mr. Dodge.

24 MR. DODGE: I do. I think the answer is different  
25 if you're looking at East Portal versus somewhere  
0145 01 downstream.

02 HEARING OFFICER DEL PIERO: Why don't you describe  
03 for me what percentage is spring-fed as opposed to  
04 snow-melt fed above Portal and then below Portal?

05 MR. HASENCAMP: Maybe I can answer that question?

06 HEARING OFFICER DEL PIERO: I don't know. Can you  
07 answer the question?

08 MR. HASENCAMP: I think I would be more qualified  
09 to answer.

10 HEARING OFFICER DEL PIERO: Let me ask Dr. Platts,  
11 first, and then if I'm not satisfied with his answer,  
12 I'll try you.

13 DR. PLATTS: Okay. It depends, too, depending on  
14 what you're relating this spring flow versus snow-melt  
15 flow to, whether it's just the actual flow going down



16 the channel or is it the processes that each one  
17 affects.

18 The snow-melt processes have the most effect on  
19 the Upper Owens River than the stream --

20 HEARING OFFICER DEL PIERO: I'm talking about just  
21 flow. I'm not talking about biological processes that  
22 might result or what effect it has on riparian  
23 corridors. That's not the question. I just want to  
24 isolate just the flow so I can get an answer on that.

25 A number of people have asked that question  
0146

01 including Mr. Birmingham, and I've never heard a  
02 number. I've never heard a percentage of even more  
03 than 50 percent or smaller than a bread box, so please  
04 quantify it for me.

05 DR. PLATTS: I did do a quick calculation on  
06 monthly flows below East Portal from 1941 to 1989, and  
07 above East Portal, it was flowing 58 cfs in the average  
08 month.

09 HEARING OFFICER DEL PIERO: What percentage of  
10 that was snow-melt as opposed to -- that's a monthly  
11 average.

12 DR. PLATTS: I would guess about 70 to 80 percent  
13 was spring-fed.

14 HEARING OFFICER DEL PIERO: 70 to 80 percent is  
15 spring-fed?

16 DR. PLATTS: Now, you may have more accurate  
17 figures.

18 HEARING OFFICER DEL PIERO: Mr. Hasencamp?

19 MR. HASENCAMP: It depends on the year type, of  
20 course. In dry years, it rises very little, and you  
21 get almost a constant flow, especially in the recent  
22 drought. And then in wet years, you do get some of the  
23 upstream components coming, you get a relatively large  
24 peak. So I would say dry --

25 HEARING OFFICER DEL PIERO: Wait. Wait. Wait.  
0147

01 Wait. Wait. You get an upstream component of what,  
02 snow-melt?

03 DR. PLATTS: Yes.

04 HEARING OFFICER DEL PIERO: In dry years, I'm  
05 assuming -- maybe I'm wrong, but the stream that feeds  
06 the headwaters of the Owens River, I'm assuming, with  
07 the exception of perhaps severe drought years or after  
08 multiple years of drought, it runs more or less  
09 constant. Is that a correct assumption, or is that an  
10 incorrect assumption?

11 DR. PLATTS: It's constant, but it decreases in  
12 prolonged droughts.

13 HEARING OFFICER DEL PIERO: I don't want to talk  
14 about prolonged droughts. I want to talk about average  
15 or median, or anything that you can characterize that's  
16 not completely unique and unusual. Okay? So let's not  
17 talk about 1991. Let's talk about something else.

18 Don't worry, Mr. Birmingham, this is not being  
19 discounted from your 20 minutes.

20 MR. BIRMINGHAM: I was turning around because I  
21 was trying to decide if I should assume the role of the  
22 Hearing Officer and say, "Answer the question."

23 (Laughter.)

24 HEARING OFFICER DEL PIERO: That's okay. I'm more  
25 than capable of getting an answer. Really.

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01 MR. HASENCAMP: In a ballpark figure, I would say  
02 that about 50 cfs is from springs, and on an average,  
03 about 10 cfs from snow melt. But the average is very  
04 skewed. In wet years, you know, obviously, the base  
05 remains more or less the same. In wet years, you'll  
06 get a much larger chunk from the average of ten, and  
07 the dry years, much less.

08 HEARING OFFICER DEL PIERO: Above The Portal, how  
09 many cfs is running in the stream that's attributable  
10 to spring water?

11 MR. HASENCAMP: About 50.

12 HEARING OFFICER DEL PIERO: By cfs?

13 MR. HASENCAMP: It's a little bit less right now.

14 HEARING OFFICER DEL PIERO: Average monthly flow?

15 MR. HASENCAMP: Yes.

16 HEARING OFFICER DEL PIERO: Okay. Okay. So I  
17 assume then -- no. Is it appropriate, then, to  
18 conclude that anything above 50, on average, is  
19 attributable to either snow-melt or some other source  
20 of water?

21 MR. HASENCAMP: Yeah. Thunderstorm, et cetera.

22 MR. BIRMINGHAM: Thank you very much,  
23 Mr. Del Piero.

24 HEARING OFFICER DEL PIERO: He answered the  
25 question.

0149

01 Q BY MR. BIRMINGHAM: Mr. Tillemans, you're probably  
02 more familiar with the Owens Valley than any other  
03 member of this panel, so I'm going to ask you a  
04 question about these photographs, L.A. DWP 142 and 143,  
05 in hopes of laying additional foundation.

06 Do you know where those photographs were taken?

07 A BY MR. TILLEMANS: Yes, I do.

08 Q Can you please tell us -- first, L.A. DWP 142.  
09 Where was that photograph taken?

10 A Okay. Both these photos are taken essentially  
11 about the same site. I was there last week and  
12 verified it. This -- both these photos are looking  
13 from a northwest perspective to kind of a southeasterly  
14 perspective, and its looking -- in the area of Upper  
15 Crowley Lake, looking towards Latent Springs on the far  
16 left corner and you have White Mountain Peak barely in  
17 the background and kind of Casa Diablo area in the  
18 middle.

19 Q And now with respect to 143, where was that  
20 photograph taken?

21 A Excuse me. I just described 143. I'll describe  
22 142 now.

23 Q Where was 142 taken?

24 A It's in the same place, down in the riverbed.

25 Q The same area of the Owens Valley?

0150

01 A It's not the Owens Valley, it's Long Valley.

02 Q Excuse me. L.A. DWP 144 is -- would you please  
03 describe what's depicted in this photograph?

04 A This is the Crowley Lake area before Crowley Lake  
05 was there. It's a picture looking, I think, in a

06 northeasterly perspective towards the Glass Mountains  
07 and Alligator Point.  
08 MR. DODGE: Can we have a copy of 142?  
09 MR. BIRMINGHAM: Mr. Dodge, I'm going to ask for  
10 foundational purposes, and then we'll get you copies of  
11 them.  
12 Q BY MR. BIRMINGHAM: L.A. DWP 145 is another  
13 photograph. Will you please tell us where that  
14 photograph was taken?  
15 A BY MR. TILLEMANS: This photograph was taken from a  
16 higher elevation looking down on Crowley. It's in the  
17 Hilton Peak/McGee Creek area and what it looks down on  
18 is near the dam site and the boat dock and basically,  
19 you're looking at all of Crowley, a large portion of  
20 Crowley. I think some of McGee Bay is not in this  
21 photo.  
22 Q Now, that photo was taken before Crowley began to  
23 fill?  
24 A Yes.  
25 Q So when you say you're looking down at Crowley,  
0151  
01 you're looking at the location of Crowley before  
02 Crowley formed?  
03 A That's correct.  
04 MR. BIRMINGHAM: Mr. Del Piero, I have two  
05 photographs, historic photographs of cattle  
06 operations. Do we want to have these marked and  
07 introduced?  
08 MR. CANADAY: Staff has no desire for those,  
09 Mr. Del Piero.  
10 HEARING OFFICER DEL PIERO: Unless you have some  
11 overwhelming desire, I see no reason to.  
12 MR. BIRMINGHAM: Actually, Mr. Tillemans does  
13 point out that one of the photographs does contain a  
14 good view of the Upper Owens River channel, which  
15 I'll --  
16 MR. TILLEMANS: It shows the upper one-third --  
17 MR. BIRMINGHAM: Actually, let me mark it, and  
18 I'll ask you what it shows, Mr. Tillemans. Excuse me.  
19 I've marked this photograph as L.A. DWP 145. I  
20 thought it was a cattle operation, but apparently, it  
21 has other significance.  
22 What is that significance, Mr. Tillemans?  
23 MR. TILLEMANS: This fence line is still here.  
24 This photo was taken in the McGee area and on the  
25 right-hand side of it would be anywhere from a half to  
0152  
01 the upper third of McGee Bay.  
02 MS. SCOONOVER: Excuse me, Mr. Birmingham. I  
03 believe the last photo was marked as 145. The McGee  
04 Creek aerial looking down at Crowley --  
05 MR. BIRMINGHAM: That's correct. This would be  
06 146. Let me mark it and ask you to describe it again.  
07 I've remarked this photograph as 146.  
08 Would you describe it again?  
09 MR. TILLEMANS: This is, again, Long Valley, and  
10 this fence line is still there that goes towards the  
11 Glass Mountains. On the right-hand side by the willow  
12 today, there would be about a third to a half of McGee  
13 Bay showing -- of Crowley Lake.

14 Q BY MR. BIRMINGHAM: In that photograph?  
15 A BY MR. TILLEMANS: Yes.  
16 Q Thank you.  
17 A I visited that site, also.  
18 Q How often do you visit these sites during the  
19 course of a year, Mr. Tillemans? Not for purposes of  
20 identifying these photographs, but how often do you go  
21 out to these areas?  
22 A I'm out on our property quite a bit in many such  
23 places.  
24 MR. BIRMINGHAM: Again, Mr. Del Piero, we'll have  
25 these reproduced over the weekend and supplied to all  
0153  
01 the parties. I'll give them to Mr. Dodge or  
02 Ms. Cahill, assuming they have questions for  
03 cross-examination.  
04 HEARING OFFICER DEL PIERO: Thank you very much.  
05 MR. BIRMINGHAM: And that concludes my redirect.  
06 HEARING OFFICER DEL PIERO: Thank you.  
07 Ms. Cahill, would you like the opportunity to look  
08 at the pictures beforehand?  
09 MS. CAHILL: No. I don't think I have questions  
10 about the pictures.  
11 HEARING OFFICER DEL PIERO: Then perhaps,  
12 Mr. Birmingham, you may want to pass those on to  
13 Mr. Dodge or Mr. Roos-Collins or Ms. Scoonover.  
14 RECROSS EXAMINATION BY MS. CAHILL  
15 Q Dr. Orton, let me just ask again. Your 45 cfs  
16 figure -- how did you characterize that? That was  
17 bank-full or over-bank?  
18 A BY DR. ORTON: Over-bank.  
19 Q And you based that on the transects from the IFIM  
20 study; is that right?  
21 A Yes.  
22 Q And those were the transects that both Beak and EA  
23 used in their studies?  
24 A That's my understanding, yes.  
25 Q And did you look at the transects as they are  
0154  
01 presented in the EA report, which is L.A. DWP Exhibit  
02 15?  
03 A I'm not familiar. Can you identify it?  
04 Q It's the EA instream flow analysis for lower Rush  
05 Creek. It's L.A. DWP Exhibit 15, and there are  
06 cross-sections of the various transects that are  
07 contained in that document.  
08 A No. I did not rely on that.  
09 Q If I were to tell you that that document contains  
10 transects that were located below The Narrows,  
11 Transects 47, 49 -- well, anyway, beginning with  
12 Transect 47, the transects shown were below The  
13 Narrows, and if I were to tell you that there were four  
14 lines that represented flows of 13 cfs, 19 cfs, 60 cfs,  
15 and 100 cfs, would it be possible for a person to take  
16 those transects and locate your 45 cfs line  
17 approximately midway, slightly higher than midway  
18 between the 20 cfs flow and the 60 cfs flow line?  
19 A Located with respect to the figure? The stream  
20 bank on the figure? I guess I don't understand the  
21 question.

22 Q The question is by examining these cross-sections,  
23 could one determine where 45 cfs lies in relation to  
24 the banks?  
25 A Not by the banks. If you refer to the banks in a  
0155  
01 real sense as opposed to the banks as depicted on the  
02 drawing, there is a difference there.  
03 Q What is the difference?  
04 A Well, the difference is that what you see in front  
05 of you is a representation of the banks, and I would  
06 need to know, for example, the spacing of the  
07 verticals. It's a transect, and you drop verticals  
08 down from the transect. So if -- for example, in the  
09 line -- it would depend on how well this represents the  
10 bank, the actual bank.  
11 Q Can you examine those and tell us whether that's a  
12 rough approximation of where the bank is? Would that  
13 provide useful information for one who wanted to know  
14 what a 45 cfs flow would mean in terms of banks below  
15 The Narrows?  
16 A It would be useful in one -- I'd have to spend  
17 some time with it, I'm afraid.  
18 Q What -- how did you use the IFIM transects to  
19 determine what would be over-bank?  
20 A I'm sorry. I was --  
21 Q How did you go from the information in the IFIM  
22 studies to determining what was over-bank?  
23 A By using the PHABSIM output. The weighted usable  
24 area versus flow information.  
25 Q How does the weighted usable area output tell you  
0156  
01 where the bank is?  
02 A By the -- the transects feed into the PHABSIM  
03 model, and the PHABSIM model is sort of your -- if  
04 you're thinking in terms of a flow chart, the beginning  
05 of the flow chart would be the transect data and the  
06 output would be the weighted usable area versus flow.  
07 So it's a very integrated measure.  
08 If you look at the fry curves, specifically the  
09 weighted usable area versus flow curves for fry, you  
10 will find a point where the slope changes direction.  
11 And that usually indicates that you've identified a  
12 point where the channel, the slope of the channel, the  
13 bank, itself, has a sharp break to it.  
14 Q So you're inferring where the banks are by a  
15 change in slope?  
16 A Absolutely, yes.  
17 Q And is -- but for a person who wanted to get a  
18 rough idea of where the banks are, wouldn't these  
19 transects give them a relatively good rough idea?  
20 A Yes. If you had all of them -- yeah. If you'd go  
21 through them, that might be so.  
22 Q Thank you. Doctor -- actually, it's not for  
23 Dr. Platts.  
24 Mr. Hasencamp, this L.A. DWP 141, that was 1986;  
25 is that right?  
0157  
01 A BY MR. HASENCAMP: The actual Upper Owens River was  
02 1986, not the Mono Basin export.  
03 Q Right. And you said that 1986 was 140 percent of

04 normal runoff; is that right?  
05 A For the Mono Basin.  
06 Q And you sometimes have a problem with too much  
07 water in very wet years; isn't that right?  
08 MR. BIRMINGHAM: Objection. It's vague,  
09 ambiguous.  
10 MS. CAHILL: Isn't it true --  
11 HEARING OFFICER DEL PIERO: You're going to  
12 withdraw the question?  
13 MS. CAHILL: I'll withdraw it.  
14 Q BY MS. CAHILL: Isn't it true that Los Angeles has a  
15 concern with being forced to take Mono Basin water in  
16 some very wet years where your aqueduct is already at  
17 capacity?  
18 A BY MR. HASENCAMP: Certainly. We are very concerned  
19 about that, and that's why 1986 is such a perfect year  
20 because, in reality, we exported about 65,000  
21 acre-feet, which is almost the same number I put up  
22 there. So that's almost exactly --  
23 Q And isn't it true that in 1986, you did not export  
24 any water in the months of May, June, and July?  
25 A That's right. We exported more later.

0158  
01 Q And you didn't export any in May, June, and July  
02 because you didn't need it in those months or couldn't  
03 accommodate it?  
04 A We were concerned about capacity. So we put water  
05 in Grant Lake, knowing that we could get the water  
06 later in the year when the runoff in the Long Valley  
07 area declined, and that's different than how we operate  
08 in a wet year.  
09 Q So, in fact, you weren't deprived of that peak --  
10 this is a combination of a hypothetical and a real, but  
11 the truth was that in 1986 when the Upper Owens River  
12 had its natural high flows, you didn't take any water.  
13 MR. BIRMINGHAM: I'm going to object for the exact  
14 reasons that Ms. Cahill stated, that in prefacing her  
15 question -- the question is ambiguous because she is  
16 combining actual operations with a hypothetical  
17 question. L.A. DWP 141 deals with Department of Fish  
18 and Game's proposed rules for operating, and the  
19 purpose of Mr. Hasencamp's testimony was not to  
20 describe what actually happened in 1986, but to  
21 demonstrate what would happen if the Department of Fish  
22 and Game's rules had been implemented.  
23 MS. CAHILL: I'm willing to withdraw that  
24 question.  
25 Q BY MS. CAHILL: Mr. Hasencamp, let me read to you

0159  
01 Fish and Game's recommendation. It's found on Page 217  
02 of DFG 62. "Given that water is not available for such  
03 a release, meaning a constant year-long release of 200  
04 cfs just below East Portal, the recommendation to  
05 optimize conditions for trout is to release at a  
06 constant rate the augmentation from Grant Lake that  
07 becomes available over the year starting July 1st as  
08 long as," and there are a number of conditions, and the  
09 last one is, "Such releases do not cause Upper Owens  
10 River flow below East Portal, and then -- " I'm going  
11 leave out the Hot Creek part, "To exceed 200 cfs."

12           So does that recommendation prioritize which takes  
13 precedence between the constant flow and the do not  
14 exceed 200 cfs?  
15 A BY MR. HASENCAMP: The way you worded it, it's an  
16 inconsistency.  
17 Q    If it says, "Take at a constant rate unless it  
18 would cause the river to go above 200," that isn't  
19 inconsistent is it?  
20 A    No. That wouldn't be then. In that case, then  
21 the 200 would --  
22 Q    And, in fact, when the Upper Owens River's natural  
23 flow approaches 200, isn't it true that in most cases,  
24 that will be a very wet year in which Los Angeles is  
25 not going to want to take large amounts of Mono Basin  
0160 water into the Upper Owens River in the months of May,  
02 June, and July?  
03 A    Well, I would not agree. In this year, in fact,  
04 in reality, we exported the 265. It just didn't happen  
05 in June. It happened later in October and September.  
06 So, in fact, that is a serious cap at 200 cfs, and it  
07 would impede the operations, both historically and in  
08 the future.  
09 Q    And you took it in what months?  
10 A    Well, the total flow in the Upper Owens or in the  
11 Owens River below East Portal in September and October  
12 was about 265.  
13 Q    In other words, though, the peak caused when you  
14 exceeded 200 was not related to the natural peak in the  
15 Upper Owens River; is that right?  
16 A    That's correct.  
17 Q    So that we are clear, L.A. DWP 141 roughly shows  
18 the flows in the Upper Owens River in the bottom line,  
19 but it is not an accurate representation of how L.A.  
20 DWP, in fact, took its exports that year, even though  
21 that was a year prior to any court lake level  
22 injunction?  
23 A    No. The purpose of L.A. DWP Exhibit 141 was to  
24 choose an example year with conditions and show the  
25 problems with the DFG criteria.  
0161  
01           MS. CAHILL: Thank you.  
02           HEARING OFFICER DEL PIERO: Thank you very much,  
03 Ms. Cahill. Mr. Dodge?  
04           MR. DODGE: I'm going to set a record for the  
05 fewest questions.  
06           MR. BIRMINGHAM: I have that record already,  
07 Mr. Dodge.  
08           HEARING OFFICER DEL PIERO: I'm afraid, Mr. Dodge,  
09 it's true. You'd have to stipulate to set that  
10 record.  
11                    RE CROSS EXAMINATION BY MR. DODGE  
12 Q    Dr. Platts, would you take a look at one of my  
13 favorite documents, Mr. Hasencamp's testimony, in  
14 particular, Figure 3 and Figure 4?  
15           HEARING OFFICER DEL PIERO: Mr. Hasencamp, I bet  
16 you didn't know that was his favorite document.  
17           MR. HASENCAMP: I certainly did not, but I'm  
18 flattered.  
19           HEARING OFFICER DEL PIERO: I'm sure you are.

20 Q BY MR. DODGE: Figure 3 shows Lee Vining Creek daily  
21 variations for 1986. Figure 4 shows the same  
22 information for Rush Creek for 1986. Do you see that,  
23 Sir?  
24 A BY DR. PLATTS: I do.  
25 Q On the down limb, if that's what we're calling it,  
0162  
01 in each case would you agree with me, that there are  
02 only two days that exceeded 20 percent?  
03 A I would.  
04 Q And I appreciate I'm not giving you much time to  
05 do this, but just looking at the information on Figure  
06 3 and Figure 4, would that information suggest to you,  
07 if that's all the information you had, that a ramping  
08 criterion of 10 percent on the downside was within the  
09 range of reason?  
10 A It's difficult to make any statement just from  
11 this in this short time period, but I would say it may  
12 be reasonable. You know, I would want to qualify that  
13 with some time to really go into it.  
14 Q I understand.  
15 Mr. Hasencamp, I have a really good question for  
16 you, and I hope you get it right.  
17 MR. BIRMINGHAM: Is the Indian Ditch --  
18 (Laughter.)  
19 MR. DODGE: No. No. I'm waiting on that one.  
20 Q BY MR. DODGE: L.A. Department of Water and Power  
21 Exhibit 141, which is your handiwork, right?  
22 A BY MR. HASENCAMP: Yes.  
23 Q I understood the upshot of your testimony to be  
24 that there would be a problem based on the Mono Basin  
25 exports -- excuse me. Let me start again.  
0163  
01 I understood that based on the Mono Basin runoff  
02 in 1986 which you said was 140 percent of normal; is  
03 that right?  
04 A Yes, I did.  
05 Q And then you added the actual Upper Owens River  
06 flows during 1986?  
07 A Yes.  
08 Q And the upshot of your testimony was that there  
09 would be a problem meeting the DFG recommendation of  
10 not to exceed 200 cfs in the Upper Owens River, right?  
11 A Well, if you wanted a constant flow throughout the  
12 year, yes. You could not do that and keep it at 200  
13 cfs.  
14 Q My question to you is I want you to assume that  
15 the DFG limit of 200 cfs in the Upper Owens River is  
16 not only a good idea, but it's cast in granite. All  
17 right? Assume that can't exceed that. Can you think  
18 of an environmentally responsible way to deal with the  
19 excess water in the Mono Basin?  
20 MR. BIRMINGHAM: I'm going to object on the  
21 grounds that it calls for utter speculation --  
22 HEARING OFFICER DEL PIERO: I'm sorry. That  
23 objection is overruled. He asked simply if he could  
24 think of one. He didn't ask him to identify it.  
25 MR. HASENCAMP: I probably could think of one.  
0164  
01 Q BY MR. DODGE: And would one way to deal with that



02 water be to send it down to raise the level of Mono  
03 Lake?

04 MR. BIRMINGHAM: I'm going to object on the  
05 grounds that it calls for an opinion beyond the  
06 expertise of this witness.

07 HEARING OFFICER DEL PIERO: Excuse me,  
08 Mr. Birmingham, but it's going to have to be better  
09 than that because the expertise of this witness relates  
10 to how much water goes down Rush Creek. So --

11 MR. BIRMINGHAM: But the question is --

12 HEARING OFFICER DEL PIERO: The terminus of Rush  
13 Creek, I understand, is Mono Lake. At least it has  
14 been during most of the course of this hearing.

15 MR. BIRMINGHAM: The question deals with more  
16 environmentally sensitive ways to use this water within  
17 the Mono Basin. And I'm not sure that Mr. Hasencamp is  
18 qualified to express an opinion concerning whether or  
19 not putting this water down into Mono Lake would  
20 necessarily be environmentally sensitive. Ultimately,  
21 that is the question that is presented to this Board  
22 for resolution.

23 HEARING OFFICER DEL PIERO: Mr. Dodge?

24 MR. DODGE: I stand by the question.

25 HEARING OFFICER DEL PIERO: I'm going to overrule  
0165

01 the objection. I'm going to overrule it, and I  
02 would -- Mr. Birmingham, I would recommend that you  
03 read the record and particularly the way that the  
04 question was framed afterwards because I think the  
05 nature of your objection is -- doesn't necessarily jive  
06 with the objection -- pardon me, the nature of the  
07 question and --

08 MR. BIRMINGHAM: May I ask that the question be  
09 reread now so that --

10 HEARING OFFICER DEL PIERO: Certainly.

11 Ms. Anglin, would you be kind enough to read both the  
12 first and the second of Mr. Dodge's questions?

13 (Whereupon the record was read by the Reporter.)

14 MR. BIRMINGHAM: I will withdraw my last  
15 objection.

16 HEARING OFFICER DEL PIERO: Thank you very much,  
17 Mr. Birmingham.

18 MR. BIRMINGHAM: And I will assert a new  
19 objection. The question is vague in that it does not  
20 define what environmentally responsible is, and it also  
21 lacks foundation because there are many elements of  
22 putting water down Rush Creek that are not set forth in  
23 Mr. Dodge's hypothetical question.

24 MR. DODGE: I took out the environmentally  
25 responsible just to move the thing ahead.

0166  
01 HEARING OFFICER DEL PIERO: I understand that, and  
02 I'm going to overrule the objection because you did  
03 remove that from the second question.

04 Mr. Hasencamp, you can answer the question with a  
05 yes or no. If you would like to expand on that, you're  
06 welcome to, Sir.

07 MR. HASENCAMP: One way is to put water down the  
08 creeks into Mono Lake. There are other ways including  
09 increasing irrigation, trying to manage Grant Lake

10 storage in such a way that this 200 cfs concrete stone  
11 was that you could try to get the water out, but it  
12 would severely restrict the export out of the Mono  
13 Basin with both the 200 cfs and the constant flows.  
14 And I know that there's potentially problems,  
15 environmental problems, putting in it Mono Lake if  
16 you're concerned about sand Tufa and some of the  
17 nesting isles on Paoha Island. There's a lot.  
18 Q BY MR. DODGE: If I understand it -- let's not you  
19 and I get into a debate about environmentally  
20 sensitive. I'll get into that debate with someone  
21 else.

22 But as I understand your testimony, assuming that  
23 200 cfs is chipped in granite, the Upper Owens River is  
24 not to exceed that, one way to deal with the excess  
25 water is to send it down the four tributary streams,

0167

01 right?

02 A Yes.

03 Q One way to deal with the water is through  
04 irrigation, right?

05 A Some of it, yes.

06 Q Some of it, yes. And one way to deal with the  
07 water is to raise the level of Grant Lake, right?

08 A Yes.

09 Q But that has a lot of perils to it, doesn't it?

10 A If it's done without planning. But if you plan  
11 properly, you can certainly accomplish it a lot more  
12 effectively.

13 Q But in a 140 percent runoff year, there's a limit  
14 to how much Grant Lake can accommodate; is that right?

15 A That's correct.

16 Q And the capacity of Grant Lake is 47,500  
17 acre-feet, isn't it?

18 A That's very close.

19 MR. DODGE: Thank you. No further questions.

20 HEARING OFFICER DEL PIERO: Thank you very much.

21 Mr. Roos-Collins?

22 You didn't set a record, Mr. Dodge.

23 MR. DODGE: Well, Mr. Hasencamp is --

24 HEARING OFFICER DEL PIERO: Promises, promises.

25 MR. DODGE: -- more clever than I thought. It

0168

01 took a while.

02 HEARING OFFICER DEL PIERO: He's as clever as I  
03 thought he was.

04 Mr. Roos-Collins.

05 Ladies and Gentlemen, I may as well tell you --

06 what are we looking for Mr. Roos-Collins?

07 MR. BIRMINGHAM: I have the photographs,

08 Mr. Roos-Collins. Mr. Dodge gave them to me because he  
09 said not to let you have them, that you may want to ask  
10 questions about them. But I have never followed  
11 Mr. Dodge's direction.

12 HEARING OFFICER DEL PIERO: Mr. Roos-Collins, I'd  
13 like to point out to you, Sir, that at a quarter to the  
14 hour, I'm going to have to take a break because I have  
15 to make a phone call. And so I don't mean to interrupt  
16 your examination, but you may as well just assume  
17 you're going to get six or seven minutes after the

18 break, at least in your initial 20. Okay?  
19 MR. ROOS-COLLINS: Thank you for that guidance.  
20 HEARING OFFICER DEL PIERO: Certainly.  
21 RECROSS EXAMINATION BY MR. ROOS-COLLINS  
22 Q Mr. Hasencamp, you were asked several questions by  
23 Mr. Birmingham on his redirect examination regarding  
24 the people with whom you consulted in preparing the  
25 L.A. DWP management plan.

0169  
01 Do you recall those questions?  
02 A BY MR. HASENCAMP: Yes, I do.  
03 Q Let me ask you a related question. What is the  
04 fishery objective of the L.A. DWP management plan?  
05 A To follow the Court's decision, which in Cal-Trout  
06 2, I believe it is to maintain the fish in good  
07 condition that are planted or are naturally below the  
08 diversion dams.  
09 Q Dr. Orton, on Page 2 of your written testimony,  
10 you state that you believe that Dr. Hardy's and  
11 Mr. Hanson's recommended flows to be capable of  
12 maintaining fish in good condition downstream of the  
13 Mono Basin diversions of the City of Los Angeles. That  
14 is your opinion?  
15 A BY DR. ORTON: Yes, I do, and yes, it is.  
16 Q Will you turn now to the phrase on Page 5 of your  
17 written testimony, "all population indices." In  
18 forming your opinion that the recommended flows just  
19 described would maintain the fish in good condition,  
20 were you referring to particular population indices?  
21 A In part, yes.  
22 Q Which ones?  
23 A Biomass estimates. Abundance. Presence of  
24 multiple-year classes. Typical ages. Longevity.  
25 Sizes.

0170  
01 HEARING OFFICER DEL PIERO: Mr. Dodge, I'm sure  
02 that Mr. Pollack will be happy to give you a copy of  
03 that work product.  
04 MR. POLLACK: I can't stipulate to that,  
05 Mr. Del Piero.  
06 HEARING OFFICER DEL PIERO: Okay.  
07 MR. DODGE: The last comment he wrote down is, "Hi  
08 there, Bruce."  
09 (Laughter.)  
10 MR. POLLACK: That's also incorrect.  
11 MR. BIRMINGHAM: I saw it. It wasn't, "Hi there,  
12 Bruce."  
13 HEARING OFFICER DEL PIERO: It helps my  
14 concentration if everyone sort of stays in their own  
15 chair.  
16 Please proceed, Mr. Roos-Collins.  
17 MR. ROOS-COLLINS: During a prior break, Counsel  
18 were chatting about the subject of upcoming testimony.  
19 I characterize the subject as "discretion."  
20 Mr. Birmingham said that Mr. Dodge had none.  
21 MR. BIRMINGHAM: And then, Mr. Dodge set out to  
22 prove that I was absolutely correct. Let's leave it at  
23 that.  
24 MR. VALENTINE: Thank you.  
25 Q BY MR. ROOS-COLLINS: Dr. Orton, let's return to your

0171

01 answer. One of the population indices you just listed  
02 is biomass. What biomass in Rush Creek, in your  
03 opinion, would be indicative of a fishery in good  
04 condition?

05 A BY DR. ORTON: I could not answer that by itself. I  
06 mean, you can't throw a single index out. I'd have to  
07 see how it compares with other streams. It's a  
08 relative measure.

09 Q You'd give the same answer with respect to  
10 abundance?

11 A No. On that one, you could be specific to the  
12 degree that taking them by year classes, if the number  
13 of young-of-the-year was being produced in sufficient  
14 numbers to maintain subsequent year classes, then at a  
15 certain point, it wouldn't matter how many of them you  
16 have.

17 Q Abundance refers to the number of fish in a  
18 stream?

19 A Yes.

20 Q What abundance, in your opinion, is indicative of  
21 a fishery in good condition in Rush Creek?

22 A I think it would be the same answer I gave on the  
23 first index, biomass. I'll specify it a bit more.  
24 Abundance in Rush Creek, for various year classes, has  
25 varied quite a bit. It's hard to give a simple answer

0172

01 to that.

02 Q What range of abundance, in your opinion, is  
03 indicative of fish in good condition in Rush Creek?

04 A Taking them by different year classes, the  
05 young-of-the-year, we've seen numbers of close to a  
06 hundred thousand. We've also seen numbers as low as --  
07 this is stretching it. My memory at this point,  
08 probably about 8,000. So, you know, you're dealing  
09 with an order of magnitude for young-of-the-year.

10 And then for each subsequent year class, there's  
11 usually about an order of magnitude reduction to the  
12 point where in Rush Creek, three-year olds would be on  
13 the order of, oh, less than a thousand. Say anywhere  
14 from 200 on up to, I believe, 600 three-years olds.  
15 Four-year olds, a fraction of that, and five-year olds,  
16 to my knowledge, have not been found with the exception  
17 of one scale that I've seen. The older they get, the  
18 harder they are to read their scales. It's hard to  
19 read the scales, and there's not very many of them, so  
20 it's hard to get a population estimate at all at that  
21 point.

22 Q Let me read more of the paragraph, which is the  
23 predicate for this line of questions. Again, this is  
24 on Page 5 of your written testimony. "Although the  
25 abundance of trout in Rush Creek has fluctuated within

0173

01 the last ten years, primarily, the younger-age classes,  
02 these fluctuations are natural and expected. There is  
03 no indication that the population is under any risk of  
04 extirpation. In fact, all population indices are equal  
05 to or better than what is found in other eastern Sierra  
06 streams."

07 In your opinion, is the fishery in Rush Creek

08 today in good condition?

09 A Yes.

10 Q And today, the flow regime in Rush Creek is  
11 controlled by the stream and lake level orders issued  
12 by the El Dorado Superior Court?

13 A In part.

14 Q Is it your understanding that, but for the  
15 diversion of 2,000 acre-feet in 1991 for the Upper  
16 Owens River IFIM, no diversions have occurred from Rush  
17 Creek in the last several years?

18 MR. BIRMINGHAM: Excuse me. I'm going to object  
19 to the question on the grounds that it's ambiguous.  
20 Mr. Roos-Collins uses the term "diversion." I wonder  
21 if he could state it to mean out-of-basin diversions.  
22 In fact, there are diversions ongoing in the basin.

23 MR. ROOS-COLLINS: I thank Mr. Birmingham for that  
24 clarification, and I accept it.

25 Q BY MR. ROOS-COLLINS: Dr. Orton, do you understand  
0174 the question?

02 A BY DR. ORTON: I do. I'm afraid I forgot the time  
03 period. For what period of time?

04 Q You've testified that the fishery in Rush Creek,  
05 in your opinion is in good condition today?

06 A Yes.

07 Q My question went to the effect of the existing  
08 court orders on diversions. But for the diversion,  
09 the export of several thousand acre-feet for the Upper  
10 Owens River IFIM, is it your understanding that no  
11 export from the Mono Basin has occurred in the last  
12 several years?

13 A Well, no. If you're talking about from 1989 to  
14 the present, I would agree with that.

15 Q Okay. So the fishery is in good condition today  
16 and no export but for that IFIM export has occurred  
17 since 1989. If exports commenced again, would the  
18 fishery remain in good condition?

19 A I think if the export resulted in stream flows  
20 that we've seen over the period of record beginning  
21 about 1987, I believe that's true. Yes. I think the  
22 fish have remained in good condition since they  
23 recolonized the stream.

25 compares the fishery in Rush Creek to the fisheries in  
0175

02 the fishery in Rush Creek is in good condition as long  
03 as its population indices are comparable to those in

05 A If they're comparable to those in other eastern  
06 Sierra streams, if you note -- in the statement, it

08 Morhardt. Actually -- yes. Data presented there. The  
09 indices as of that moment. Of course, if something

11 volcanism, for example.

12 Q If there were what?

14 active area. The last reported volcanism was about 90  
15 years ago.

16 So, in other words, if something happened that  
17 lowered the indices across the board, I would expect  
18 that.

19 HEARING OFFICER DEL PIERO: Mr. Roos-Collins,  
20 we're going to take a break. We'll be on break for  
21 about ten minutes, Ladies and Gentlemen.

22 (Whereupon a recess was taken.)

23 HEARING OFFICER DEL PIERO: Ladies and Gentlemen,  
24 we're back on the record. Mr. Dodge?

25 MR. DODGE: Yes. Three quick things. One,  
0176

01 pursuant to your direction, I have caused to mark as an  
02 exhibit the cover page of the Mono Lake Newsletter  
03 together with the information on fisheries. It's  
04 National Audubon Society and Mono Lake Committee  
05 Exhibit 256 and --

06 HEARING OFFICER DEL PIERO: And I've already ruled  
07 that into the record.

08 MR. DODGE: -- I would offer it into evidence.

09 HEARING OFFICER DEL PIERO: I think it was already  
10 offered and already entered into the record, but  
11 nonetheless, it's been done.

12 MR. DODGE: The next witness is Mr. Miller for  
13 whom I have no questions, so I'm going to depart.

14 There are at least two procedural matters that I  
15 think we ought to discuss. One is, as you know, except  
16 for Mr. Vorster, whose testimony is still in limbo, I  
17 have only one witness in rebuttal. That's Dr. Stine.  
18 He is available Tuesday afternoon or Thursday, and if  
19 we could set him now, I would appreciate it.

20 HEARING OFFICER DEL PIERO: He's available Tuesday  
21 afternoon. Does he have classes Tuesday morning?

22 MR. DODGE: I don't remember what --

23 HEARING OFFICER DEL PIERO: Is he available all  
24 day Thursday?

25 MR. DODGE: All day Thursday, yeah.

0177  
01 MR. CANADAY: Dr. Stine has classes Tuesday  
02 morning.

03 HEARING OFFICER DEL PIERO: On Tuesday mornings  
04 but not on Thursday?

05 Mr. Birmingham? Do you expect to have significant  
06 examination of Dr. Stine?

07 MR. BIRMINGHAM: No, I don't. And on this issue  
08 of witnesses, I think it would be appropriate to have  
09 Dr. Stine appear on Tuesday afternoon because I don't  
10 expect a lot of cross-examination of Dr. Stine.

11 HEARING OFFICER DEL PIERO: Okay. I just don't  
12 want to have him here on Tuesday afternoon and not get  
13 done with him by five o'clock. That's the concern that  
14 I've got. So if you feel confident that's not a  
15 problem, we'll do him Tuesday afternoon. If not,  
16 Thursday.

17 Ms. Scoonover?

18 MS. SCOONOVER: I'm concerned about the order of  
19 the witnesses who are going next because it seems to me  
20 we have Mr. Miller, Mr. Barnes.

21 MR. BIRMINGHAM: We have additional witnesses.

22 MS. SCOONOVER: And then Department of Fish and  
23 Game had a witness lined up. I'm concerned about the

25 HEARING OFFICER DEL PIERO: The overall picture  
0178

02 to try and accommodate everyone's schedule and  
03 accommodate the witnesses' schedule and make sure

05 testimony before they put on their presentation and  
06 examinations, the schedule, at this point, is not

08 inappropriate characterization, but it's not much  
09 better than that.

11 Have you thought about that? You have none now.

12 MS. SCOONOVER: We have none now.

14 Mr. Canaday? Who do we have on Tuesday? We have  
15 the balance of Mr. Birmingham's witnesses, is that

17 MR. BIRMINGHAM: We have, on Tuesday, Jerry Gewe,  
18 who is a water supply panel witness who has to be

20 related to this subject.

21 HEARING OFFICER DEL PIERO: Which city council,

23 MR. BIRMINGHAM: Los Angeles. So we had hoped to  
24 call him on Wednesday.

0179

01 Tuesday? Let's figure this out now. Let's assume --

03 ask everyone else.

04 Ms. Cahill, do you anticipate significant

06 MS. CAHILL: No.

07 HEARING OFFICER DEL PIERO: Ms. Scoonover?

09 HEARING OFFICER DEL PIERO: Give me an estimate of  
10 time, 20 minutes?

12 Mr. Birmingham.

13 HEARING OFFICER DEL PIERO: That's not helpful.

15 HEARING OFFICER DEL PIERO: That's helpful.

16 Mr. Roos-Collins? There you go. How much time

18 MR. ROOS-COLLINS: Cal-Trout is jointly calling  
19 Dr. Stine. I anticipate two minutes on my direct.

21 four, and it took an hour and a half.

22 MR. BIRMINGHAM: Dr. Stine, compared to the panel

24 MR. ROOS-COLLINS: On my direct examination, less  
25 than ten minutes.

01 HEARING OFFICER DEL PIERO: Less than ten  
02 minutes?

04 HEARING OFFICER DEL PIERO: I'll assume 20.  
05 Mr. Dodge? Are you putting him on, also?

06 MR. DODGE: I am putting him on, period.  
07 HEARING OFFICER DEL PIERO: And 20 minutes for  
08 you?  
09 MR. DODGE: I'll ask him to summarize in 20 to 30  
10 minutes, yeah.  
11 HEARING OFFICER DEL PIERO: How much time for  
12 cross?  
13 MS. CAHILL: Probably none. Little to none.  
14 Let's say five minutes.  
15 HEARING OFFICER DEL PIERO: We're at two and a  
16 half hours already. When do you expect him to be here  
17 on Tuesday? Does he arrive at two?  
18 MR. CANADAY: He has stated he would be here at  
19 approximately 2:00 p.m.  
20 HEARING OFFICER DEL PIERO: That gives --  
21 MR. DODGE: I'll get him here as early as I can.  
22 HEARING OFFICER DEL PIERO: I understand, but I  
23 also understand what his class schedule is. The best  
24 he can do by car is to get here by two o'clock. We had  
25 that conversation two or three days ago. I'm a little,  
0181  
01 in fact, I'm a lot concerned that we'll put him on at  
02 two. We're already -- the estimates, even being a  
03 little conservative, are already two and a half hours.  
04 If we go over at all, even considering the break, we're  
05 going to be pushing up against five o'clock, and we  
06 won't get him done.  
07 Pardon me?  
08 MR. VORSTER: Wednesday's a terrible day for  
09 Dr. Stine.  
10 HEARING OFFICER DEL PIERO: I don't think  
11 Wednesday's a consideration. Tuesday afternoon or  
12 Thursday morning. What would we have Tuesday afternoon  
13 if we did not have him here.  
14 MR. DODGE: We have two brief Department of Fish  
15 and Game witnesses. We have Mr. Hanson. He can be  
16 here on Tuesday.  
17 HEARING OFFICER DEL PIERO: Mr. Hasencamp?  
18 MR. DODGE: Mr. Hasencamp. I could be ready for  
19 Mr. Hasencamp on Tuesday.  
20 MR. BIRMINGHAM: Ready for Mr. Hasencamp -- we  
21 have additional -- Mr. Miller's here this afternoon.  
22 We had hoped to get him on and off this afternoon. His  
23 testimony shouldn't be terribly long. We have  
24 Mr. Barnes, who will be available on Tuesday.  
25 Mr. Barnes, I'm not sure what kind of cross-examination  
0182  
01 parties have for Mr. Barnes. We also have Mr. Hanson,  
02 who's been sitting here most of the day waiting. In  
03 fact, all day waiting, and I believe he will be  
04 available on Tuesday to come back if he arranges some  
05 meetings that he was supposed to attend in Los Angeles,  
06 but I think he can accommodate us.  
07 HEARING OFFICER DEL PIERO: Is that true,  
08 Mr. Hanson?  
09 MR. HANSON: Well, I've got some meetings in Los  
10 Angeles Tuesday and Wednesday. I'd rather be on  
11 Thursday or Friday. If that doesn't work out, I'll  
12 cancel it.  
13 MR. BIRMINGHAM: So there's a pretty full day,



15 Game witnesses for Tuesday.  
16 HEARING OFFICER DEL PIERO: Are we going to have  
  
18 MS. CAHILL: We have Mr. Cordone here today. If  
19 we don't get to him today, I think he'd be available  
  
21 his schedule to be here Tuesday.  
22 MR. BIRMINGHAM: That would make Wednesday a dark  
  
24 Wednesday.  
25 MS. CAHILL: It would probably be better to count  
  
01 on Tom Payne on Wednesday.  
02 HEARING OFFICER DEL PIERO: Mr. Birmingham, are  
  
04 Dr. Stine?  
05 MR. BIRMINGHAM: Without Dr. Stine, it's probably  
  
07 outlined.  
08 HEARING OFFICER DEL PIERO: Mr. Dodge?  
  
10 MR. BIRMINGHAM: Thursday would probably be a good  
11 day for Dr. Stine. And Mr. Gewe will be here on  
  
13 MR. FRINK: Who do you have on Tuesday again,  
14 Mr. Birmingham?  
  
16 and Mr. Hasencamp.  
17 MR. FRINK: On the management plan?  
  
19 testimony I gave yesterday.  
20 MS. SCOONOVER: What about Mr. Kimmerer and --  
  
22 testimony, so he will not be -- he will be withdrawn.  
23 The others are dependent on LAAMP.  
  
25 HEARING OFFICER DEL PIERO: Mr. Roos-Collins, do  
0184  
  
02 we have left, Mr. Canaday, after Thursday of next  
03 week?  
  
05 HEARING OFFICER DEL PIERO: Three?  
06 MR. CANADAY: If you're going to meet your  
  
08 Friday the 21st, Monday the 24th, and Tuesday the 25th.  
09 HEARING OFFICER DEL PIERO: How much time are we  
  
11 Beschta and -- well, is it gone, or is that going to  
12 take a half a day for Beschta?  
  
14 HEARING OFFICER DEL PIERO: A whole day?  
15 MR. DODGE: I would guess.  
  
17 MR. DODGE: They have a lot more to say than this  
18 panel and look how long we've taken with these folks.  
  
20 Mr. Dodge an opportunity to prepare was so that he  
21 could do an organized and effective cross-examination.

22 I certainly understand that he may need an additional  
23 20 minutes, but -- for the two of them, but all day  
24 with two witnesses, I think --  
25 MR. DODGE: I do believe over the long haul that I  
0185  
01 have a world's record for being the briefest, so I'm  
02 going to finish them in an orderly way.  
03 HEARING OFFICER DEL PIERO: Okay. Besides  
04 Hardy -- you guys can argue it later on. I'm trying to  
05 figure out timing here to make sure that we get this  
06 process done. Okay. Whose testifying on LAAMP?  
07 Vorster?  
08 MR. DODGE: Yes.  
09 HEARING OFFICER DEL PIERO: Who else?  
10 MR. DODGE: Hasencamp.  
11 MR. HASENCAMP: Mike Deas.  
12 MR. VORSTER: Russ Brown.  
13 HEARING OFFICER DEL PIERO: One day for this?  
14 MR. VORSTER: Hutchison?  
15 MR. FRINK: Probably one day on the modeling  
16 itself, and probably another day on impacts or  
17 operations that are directly related to the modeling.  
18 HEARING OFFICER DEL PIERO: And they're supposed  
19 to be done Thursday afternoon, Mr. Vorster?  
20 MR. VORSTER: My understanding is the testimony is  
21 due Thursday at 5:00 p.m. And then we have -- that  
22 includes not only on LAAMP, but the water supply  
23 models. I think there's NHI. I think that's what you  
24 were referring to.  
25 MR. FRINK: Correct.  
0186  
01 MR. VORSTER: I assume that would take a day in  
02 addition to the modeling and operational plans.  
03 HEARING OFFICER DEL PIERO: Is everybody going to  
04 be prepared to do that on Friday of next week?  
05 MR. VORSTER: The testimony will be coming in on  
06 Thursday at 5:00 p.m.  
07 HEARING OFFICER DEL PIERO: I understand that. I  
08 also understand the schedule we've got laid out allows  
09 us three days after Thursday of next week; Friday,  
10 Monday, and Friday, and Monday's already taken up with  
11 Drs. Beschta and Hardy, so that means we've got two  
12 days. We've got Friday next week, less than 24 hours  
13 after the receipt of the testimony, and the following  
14 Friday. Everybody going to be ready?  
15 MR. BIRMINGHAM: I --  
16 HEARING OFFICER DEL PIERO: I don't see anybody  
17 jumping up very quickly.  
18 MR. BIRMINGHAM: I suspect that we will suffer  
19 from the same disability that Mr. Dodge complained  
20 about yesterday. I don't know what Mr. Vorster's  
21 testimony's going to look like nor do I know what the  
22 other LAAMP testimony is going to look like, but I'm  
23 sure it's going to be complex.  
24 HEARING OFFICER DEL PIERO: We've got to do  
25 scheduling. We've got a problem. I'm not going to be  
0187  
01 able to go to Monterey. It's just that simple. If I  
02 do go, it's going to be one-day turnaround. It's just  
03 not going to work out.

05 extreme case on which we ought to consider a Saturday?  
06 HEARING OFFICER DEL PIERO: I don't know, Ladies  
  
08 try and get this done, but given what's going on,  
09 there's no purpose in going on evenings because  
  
11 problem. The thing that's going to be holding us up  
12 is -- I guess we could go in the evening on Tuesday and  
  
14 a lost day. We have nothing at this point that we can  
15 put on.

17 put Payne on Wednesday.  
18 MR. BIRMINGHAM: We also have Jerry Gewe on  
  
20 MR. CANADAY: Is the Board meeting still scheduled  
21 for Wednesday?  
  
23 turnaround, two hours.  
24 MR. BIRMINGHAM: We would support having a session

0188

01 Monday. We fully support that idea.  
02 MS. CAHILL: What about Beschta and Hardy? I  
03 wonder if they could make Saturday?  
  
05 day before yesterday. Okay. Look. We're going to  
06 do -- Mr. Birmingham, we're going to do all your  
  
08 MR. BIRMINGHAM: The way that it currently looks  
09 is Tuesday we would have Mr. Barnes, Mr. Hanson, and  
  
11 then the two Department of Fish and Game witnesses.  
12 Thursday we would have Dr. Stine. And then that --  
  
14 testimony.  
15 HEARING OFFICER DEL PIERO: I want to ask a  
  
17 at all of getting the modeling testimony by eight  
18 o'clock in the morning on Thursday as opposed to five  
  
20 MR. VORSTER: We're meeting on Monday. Meeting  
21 all day Monday and, hopefully, we can bring to a  
  
23 That would be an optimistic outlook.  
24 HEARING OFFICER DEL PIERO: The reason I ask that

0189

01 day would be Thursday, particularly if we could get the  
  
03 do cross-examination on Friday because everyone would  
04 have all day Thursday to evaluate it. So, is the  
  
06 MR. DODGE: Why don't we address that question on  
07 Tuesday morning after the Monday meeting?  
  
09 MR. VORSTER: There's a lot -- once the model is  
10 done, and not only do all the operational plans have to  
11 be done, but all that input to the water supply stuff

12 has to be done.

13 HEARING OFFICER DEL PIERO: Mr. Dodge, you be  
14 prepared to have Dr. Stine here Tuesday afternoon and,  
15 Ladies and Gentlemen, we'll go Tuesday evening. Okay?

16 MR. DODGE: Stine is Tuesday afternoon.

17 HEARING OFFICER DEL PIERO: Tuesday afternoon.  
18 We'll finish him up Tuesday evening. We'll put him on  
19 after we get done with all of Mr. Birmingham's  
20 witnesses.

21 Mr. Birmingham, you want to read those witnesses  
22 again that you've got scheduled for Tuesday?

23 MR. BIRMINGHAM: We have Barnes, Hanson, and  
24 Hasencamp's cross and, as Ms. Goldsmith points out,  
25 that could be shoved back to the panel on Monday with  
0190

01 Dr. Beschta.

02 HEARING OFFICER DEL PIERO: Either way.

03 MR. BIRMINGHAM: Tuesday -- or Wednesday, I'm  
04 sorry, we would have Gewe, Cordone, and Payne. And  
05 then Tuesday night presumably Dr. Stine.

06 HEARING OFFICER DEL PIERO: Late Tuesday  
07 afternoon, Tuesday evening, Dr. Stine.

08 MR. BIRMINGHAM: Thursday would be --

09 HEARING OFFICER DEL PIERO: A dark day.

10 MR. BIRMINGHAM: -- a dark day.

11 HEARING OFFICER DEL PIERO: We're just hoping,  
12 Dr. Vorster, but -- if you can get -- I think a number  
13 of the people who are meeting with you on Monday are in  
14 this room and are going to have that information.  
15 Given the process, I don't mean to push people, but if  
16 it's at all possible for you all to take that day, if  
17 the information is obviously available, and review it.

18 MS. CAHILL: It may not be an entirely dark day  
19 because the people designated additional responsive  
20 experts need to be on Thursday. After having a blank  
21 day to fill in.

22 HEARING OFFICER DEL PIERO: It may well work out  
23 that way, anyway. Okay?

24 And then -- who's got a real aversion to doing a  
25 Saturday session? There was only one hand in the air,  
0191

01 Mr. Dodge?

02 MR. VORSTER: My wife --

03 HEARING OFFICER DEL PIERO: You're not a --

04 MR. VORSTER: My wife has an aversion, not me.

05 MR. DODGE: I'm joking. I'll be here on Saturday,  
06 if I have to be.

07 HEARING OFFICER DEL PIERO: I don't really relish  
08 the idea of a Saturday hearing, but in the event that  
09 we are obliged to do that in order to get done in a  
10 timely fashion, as I pointed out, a number of people  
11 are going to be leaving around the 1st of February. I  
12 am prepared to miss some of those, if not all of those,  
13 days in Monterey that I'm scheduled to be there to get  
14 this matter wrapped up by the end of the month.

15 Inasmuch as there are 36 people showing up there for  
16 three days and they all scheduled it around my  
17 schedule, it's going to be a tad embarrassing, so I'm  
18 going to try and do what I can do, and if you all can  
19 be accommodating as best you can, I understand all

21 get it finished up by the end of the month.

22 MR. DODGE: The other procedural matter, and I

24 to address is that I understand that Mr. Satkowski is  
25 putting the arm on us to outline management plans in

01 some way or another by Monday, and I want to know  
02 exactly what my obligations are in that regard.

04 now afforded the opportunity to put the arm on in  
05 public.

07 Monday would be at least an idea as to what types of  
08 standards your group is proposing during rebuttal so

10 modified can accommodate and handle any new standards  
11 that might arise. If you can get more specific, that

13 MR. DODGE: We will be as specific as we can,  
14 given the status of LAAMP. And I understand that Los

16 MR. ROOS-COLLINS: Mr. Satkowski --  
17 HEARING OFFICER DEL PIERO: Wait. Wait. Wait,

19 but it was certainly soliciting a response from  
20 Mr. Birmingham.

22 Water and Power intends to attend the meeting on Monday  
23 prepared to discuss hypothetical flows with the

25 are not cast in granite because they may change based  
0193

02 HEARING OFFICER DEL PIERO: We understand that.  
03 We understand that completely, and that's clear on the

05 Mr. Roos-Collins?

06 MR. ROOS-COLLINS: So Mr. Satkowski is requesting

08 alternatives?

09 HEARING OFFICER DEL PIERO: Mr. Frink?

11 from my understanding, is the technical representatives  
12 of the parties who attend the modeling meeting on

14 reasonable flows in their plans. Now, obviously, if it  
15 doesn't work out right in the models or if, for some

17 entirely permissible. It's totally off the record, but  
18 it's an effort to make sure that the models, as much as

20 recommendations that they may be asked to evaluate.

21 HEARING OFFICER DEL PIERO: Satisfied,

23 MR. ROOS-COLLINS: Yes.

24 HEARING OFFICER DEL PIERO: Good.

0194

01 a very long drive in front of him. I'm informed by

02 Mr. Roos-Collins he has no questions. May he be  
03 excused?

04 HEARING OFFICER DEL PIERO: Mr. Tillemans, have a  
05 safe trip.

06 MR. BIRMINGHAM: And Dr. Platts has to catch an  
07 airplane, so I wonder if we could resume with his  
08 cross-examination.

09 HEARING OFFICER DEL PIERO: Is everyone clear as  
10 to which witnesses are going to be on now on Tuesday  
11 and Wednesday? So we can put that issue to rest?  
12 Everyone's clear so they can be prepared to  
13 cross-examine?

14 Mr. Tillemans, our best to your family, have a  
15 safe trip Sir.

16 Dr. Platts, Mr. Roos-Collins.

17 MR. ROOS-COLLINS: Mr. Tillemans, I renew my  
18 request that you stop at the garage on the way home.

19 Q BY MR. ROOS-COLLINS: Dr. Orton, I have one final  
20 question for you, and then I will move on to  
21 Dr. Platts.

22 In your opinion, how do the population indices of  
23 the fisheries in the eastern Sierra streams referred to  
24 on Page 5 of your written rebuttal testimony compare to  
25 the corresponding population indices of the fishery in  
0195

01 Rush and Lee Vining Creeks before 1941?

02 A BY DR. ORTON: There's no data comparable to the data  
03 presented in either Dr. Mark's testimony or the EA  
04 reports. Electrofishing wasn't done then, that wasn't  
05 done by anybody then. So any numbers would have to be  
06 inferential. I guess that is two answers. The first  
07 answer is you can't draw a direct comparison. I'm not  
08 sure you can make a comparison.

09 Q You said there were two answers. That's your  
10 first answer. Do you have a second answer?

11 A How would those numbers compare? I think it would  
12 be safe to say that the numbers of young-of-the-year  
13 are comparable now to what existed before. That is to  
14 say that they were supporting whatever age classes  
15 followed. And I don't think it would have been that  
16 far out of the range that we've seen in the data  
17 collected over the last ten years in Rush Creek.

18 Lee Vining Creek, it's a different beast. Lee  
19 Vining Creek, prior to 1940, had a completely different  
20 flow regime. It had, when the power plant was  
21 operating, irrigation ditches down below were  
22 operating, and they are no longer. So it's very  
23 difficult to say.

24 Q Dr. Orton, let me make sure I understand your  
25 answer. My question was, how do the population indices  
0196

01 in the eastern Sierra streams referred to on Page 5 of  
02 your testimony compare with the corresponding  
03 population indices in Rush and Lee Vining Creeks prior  
04 to 1941? Did you answer that question?

05 A I thought I had.

06 Q Thank you.

07 Dr. Platts, let me move on to you in the interest  
08 of your catching your flight.

09 In your redirect examination by Mr. Birmingham,

11 River had come apart before 1941. Was that your  
12 testimony?

14 Q Is that a technical term?

15 A No.

17 A What I mean by that, "coming apart" is a phrase to  
18 throw the whole mix in that has happened to the Owens

20 follow at the elevation of the following banks. The  
21 banks are -- have a lot of sheer damage. You can see

23 level. The plant species composition has changed. So  
24 the river is just not in its natural condition.

0197

01 the middle foreground, there appears to be an undercut

03 A Yes. I can't tell whether it's undercut, but I  
04 think I see the bank you're referring to.

06 A To a very small degree.

07 Q Has the Upper Owens River come apart at that

09 closest to the viewer in L.A. photograph --

10 HEARING OFFICER DEL PIERO: Mr. Roos-Collins,

12 on the picture so there's no ambiguity in terms of what  
13 you're asking?

15 the bend approximately one inch from the lower edge of  
16 the photograph.

18 in very poor condition. I can see a lot of slumping of  
19 banks, and these banks are now lying down in the

21 of slippage areas where livestock have actually pushed  
22 the banks in. It's just not a good bank.

24 morning, I asked you how the pre-1941 fishery in the  
25 Upper Owens River compares to the current fishery. I

01 recall that your answer was it was better. Was that  
02 your answer?

04 proof of that.

05 Q Do you still have DFG Exhibit 62, the Upper Owens

07 A I do.

08 Q Could you turn to Page 34? The section entitled

10 section. Quote, changes in meander bend configuration,  
11 location, and channel length along the Upper Owens

13 channel apparent in aerial photographs taken in 1944  
14 and 1990 are presented in Figure 18 and Table 5. The

16 a net loss of 3.6 miles of river channel between 1944  
17 and 1990."

18 Do you see that paragraph?  
19 A Yes, I do.  
20 Q Prior to 1941, had channel grazing caused a loss  
21 of river channel in the Upper Owens River?  
22 A I would assume that it had.  
23 Q And how would that loss compare with the loss of  
24 3.6 miles between 1944 and 1990?  
25 A I would guess that it would be less.

0199  
01 Q Substantially less?  
02 MR. BIRMINGHAM: I'm going to object on the  
03 grounds that it calls for speculation.  
04 MR. ROOS-COLLINS: If that objection represents  
05 this witness' knowledge, I accept the objection and  
06 withdraw the question.  
07 DR. PLATTS: That's a very difficult --  
08 HEARING OFFICER DEL PIERO: The question is  
09 withdrawn.  
10 Q BY MR. ROOS-COLLINS: Dr. Platts, I do understand  
11 it's difficult.  
12 Let me ask you now about another paragraph in this  
13 same exhibit on Page 55. This is in the section where  
14 EBASCO presents its analysis of the relationship  
15 between flow and sediment movement. First full  
16 paragraph on Page 55, quote, based on the sediment  
17 transport calculations, flows upstream of Hot Creek in  
18 the range of approximately 20 to 200 cfs are optimal  
19 for development of coarse bed surface pavement and  
20 hence, conditions for gravel improvement."  
21 Do you agree with that statement?  
22 A BY DR. PLATTS: No, I don't.  
23 Q What's the basis for your disagreement?  
24 A I think 20 cfs is too low.  
25 Q What's the basis for your disagreement?

0200  
01 A I doubt if 20 cfs in the Upper Owens River with  
02 that type of a channel configuration would move the  
03 necessary gravels to create a coarse bed surface.  
04 Q Have you reviewed the sediment transport analysis  
05 that immediately precedes Page 55?  
06 A No, I have not.  
07 Q So your disagreement is based on professional  
08 judgment?  
09 A Yes.  
10 Q In answer to questions by Mr. Birmingham on his  
11 redirect, I believe you testified that a flow of 200  
12 cubic feet per second or more would not damage the  
13 Upper Owens River channel once that channel had been  
14 toughened. Was that your testimony?  
15 A I think it was as long as the flows are in certain  
16 boundaries, yes.  
17 Q Let's assume that this Board adopts its license  
18 amendment before the City of Los Angeles has taken  
19 action on the land management initiatives for the Upper  
20 Owens River and let's specifically assume that there is  
21 no assurance available to this Board that grazing will  
22 be removed from the Upper Owens River. In that  
23 circumstance, would you still be comfortable that a  
24 flow in excess of 200 cubic feet per second would not  
25 cause damage in the Upper Owens River?



01 A I would not be comfortable.

02 Q Thank you.

04 recommendations. On Page 1 of your written rebuttal  
05 testimony under the section Maintenance Flows, you

07 bank-full flows at least once every three years for  
08 channel and bank maintenance."

10 ecological principles discussed in the article to which  
11 Mr. Birmingham referred in his redirect examination?

13 principles in that article.

14 Q And do those principles apply as well to Rush and

16 A They could.

17 Q Would you recommend to this Board that this Board

19 maintenance in Rush and Lee Vining Creeks?

20 A I would not at this time because I've never looked

22 would say that I'm not prepared or familiar enough with  
23 those streams to make a recommendation to the Board. I

25 Q But based on general ecological principles, you  
0202

02 as a general matter?

03 A Yes. That is correct.

05 questions.

06 HEARING OFFICER DEL PIERO: Thank you very much,

08 Mr. Valentine -- is Ms. Scoonover --

09 MR. VALENTINE: She's making some calls, but we

11 HEARING OFFICER DEL PIERO: You have no

12 questions.

14 MR. FRINK: Yes.

15 RECROSS EXAMINATION BY THE STAFF

17 catch. I do have one brief question.

18 You testified earlier that providing occasional

20 HEARING OFFICER DEL PIERO: That's -- excuse me,

21 Mr. Frink. That's one of our exhibits, I think, isn't

23 MR. BIRMINGHAM: Yes, L.A. DWP 142.

24 HEARING OFFICER DEL PIERO: Is that ours?

0203

01 copies.

03 Please proceed.

04 Q BY MR. FRINK: Okay. Dr. Platts, you stated earlier

06 approximately 300 cfs on the Upper Owens River would

07 serve to narrow the channel. Could you briefly

08 describe how that process would occur?

09 A BY DR. PLATTS: Yes. And I'd like to refer to them  
10 more as stream bank maintenance flows rather than  
11 channel.

12 The only way that those stream banks can move in  
13 on the Upper Owens is that they receive sediment and  
14 they're capable of holding that sediment so they can  
15 build. This means that you have to develop the  
16 vegetation base and the vegetation mat, and that you  
17 have those mats in place at the time the sediments are  
18 being moved off of the channel out into the bank and  
19 the flood planes.

20 And then vegetation has to catch this, and by  
21 catching this, it builds the banks, and it also brings  
22 the banks in. See, if you never have flows going up  
23 over the bank, like the 200 cfs flow recommended, that  
24 means those sediments go all the way to the Crowley  
25 Reservoir. We want those sediments to go up on to the

0204

01 banks and form the banks, then that would be the new  
02 Owens River banks under the new flow regime on a better  
03 vegetative base.

04 Q So the purpose of the flows is that they would  
05 deposit sediment above the existing banks?

06 A Yes. That's on the existing banks.

07 MR. FRINK: Okay. That's all I have. Thank you.

08 HEARING OFFICER DEL PIERO: Mr. Satkowski?

09 MR. SATKOWSKI: No questions.

10 HEARING OFFICER DEL PIERO: Mr. Smith?

11 MR. SMITH: Thank you. I have one question for  
12 Mr. Hasencamp but not for Dr. Platts.

13 HEARING OFFICER DEL PIERO: Are there any other  
14 questions for Dr. Platts? Mr. Canaday, why don't you  
15 take the mike and get Dr. Platts on an airplane, okay?

16 Q BY MR. CANADAY: Dr. Platts, you testified that  
17 the -- are you the primary person developing the  
18 management plan for the L.A. DWP --

19 A BY DR. PLATTS: Yes.

20 Q And you've identified that this is a very long and  
21 ongoing process, this recovery; is that correct?

22 A Yes, it will be.

23 Q Do these plans include elements that deal with  
24 fish monitoring, channel plan form monitoring, and  
25 riparian vegetation monitoring?

0205

01 A They include plans to do the habitat and the  
02 stream bank and vegetation monitoring but not the fish  
03 monitoring.

04 MR. CANADAY: Thank you.

05 HEARING OFFICER DEL PIERO: Mr. Herrera, any  
06 questions?

07 MR. HERRERA: No, I do not, Mr. Del Piero.

08 HEARING OFFICER DEL PIERO: Have a safe trip,  
09 Sir.

10 DR. PLATTS: Thank you.

11 HEARING OFFICER DEL PIERO: Thank you very much.  
12 Mr. Smith?

13 MR. SMITH: Yes.

14 Q BY MR. SMITH: Mr. Hasencamp, I've got a question for  
15 you with some -- feel free to defer this question off

17 Game, but I just wanted to bring it up so that we would  
18 have L.A. DWP 141 when your questions come up.

20 Fish and Game is going to cross Mr. Hasencamp further?  
21 Then I'm going to ask the question --

23 MR. SMITH: I'm inquiring as to whether you will  
24 be further crossing Mr. Hasencamp in these -- this

0206

01 out.

03 Q BY MR. SMITH: I'd like to ask a question now and  
04 perhaps it would be a better time to answer it then,

06 On L.A. DWP 141, you have high flows in May and  
07 June, and I wanted to quote from DFG 62, Page 216,

09 not the high-flow months of May and June, would  
10 increase the monthly average flow by so and so cfs."

12 that clarified. Please?

13 HEARING OFFICER DEL PIERO: Do you understand the

15 MR. HASENCAMP: No.

16 HEARING OFFICER DEL PIERO: I didn't think so. I

18 Q BY MR. SMITH: Okay. In Department of Fish and Game  
19 Exhibit No. 62, it's speaking about the further

21 A BY MR. HASENCAMP: You mean the Mono Basin export?

22 Q Yeah. The Mono Basin exports. It concerns your

24 months and DFG is recommending ten months, not the high  
25 flow months of May and June.

01 A I see.

02 Q When that issue comes up --

04 question? Are you prepared to respond to that now as  
05 to why, rather than waiting for Department of Fish and

07 answer, if he doesn't, he can have the answer ready for  
08 you.

10 MR. HASENCAMP: I'm still not sure --

11 HEARING OFFICER DEL PIERO: What the question is?

13 HEARING OFFICER DEL PIERO: I think, Mr. Smith,  
14 are you asking him to articulate why their

16 MR. SMITH: Why his understanding of Fish and  
17 Game's -- frankly, I'm a little bit confused. This

19 Department of Fish and Game says clearly ten months and  
20 not May and June. So I'd like to have this cleared

22 here.

23 MR. HASENCAMP: I'm not sure I do either at this

24 point.  
25 MR. SMITH: Take some time to think about it. I'd  
0208 like to have an answer, please.  
01 HEARING OFFICER DEL PIERO: Mr. Frink?  
02 MR. FRINK: Mr. Hasencamp, I think I can clarify  
03 what the question is aiming at.  
04 In your Exhibit 141, did you assume a flow  
05 augmentation over a 12-month period?  
06 MR. HASENCAMP: Yes, I did.  
07 MR. FRINK: If you had the flow augmentation over  
08 a ten-month period and excluded May and June, could you  
09 avoid the problem that you discussed earlier on Exhibit  
10 141 where flows would exceed 200 cfs?  
11 MR. HASENCAMP: No. You could not. I'm not sure  
12 exactly how -- what we're talking about. If you're  
13 talking about starting in April with a certain flow and  
14 then cutting it off in May and June and resuming in  
15 July, this 95 cfs then would increase by 12-tenths, so  
16 this would be a larger number now since you're not  
17 exporting in this time period. And so you would  
18 probably be over the 200 for a longer period here.  
19 And so you would certainly have a flat hydrograph  
20 without any peak, and you would still, by just looking  
21 at it, there will be some places where you will be over  
22 200 cfs.  
23 MR. FRINK: But if you did operate in that way, it  
24 would serve to flatten out the flow on the Upper Owens  
0209 River?  
01 MR. HASENCAMP: Not really. It's impossible to  
02 operate that way, from my understanding, because if you  
03 have a flow of 95 cfs in April and if the Department of  
04 Fish and Game wants to ramp 10 percent, you could not  
05 then shut it off in May and June or whatever months.  
06 It would be a long process to get back down and get  
07 back up -- you certainly would infringe in this point.  
08 MR. FRINK: Okay. I believe that answers the  
09 question. Thank you.  
10 HEARING OFFICER DEL PIERO: I don't know. Does it  
11 answer your question?  
12 MR. SMITH: Not completely. Let's address it --  
13 HEARING OFFICER DEL PIERO: Fine. Maybe you can  
14 break it down next week when we have Mr. Hasencamp  
15 back.  
16 Any other questions of this panel? Mr. Canaday?  
17 Mr. Herrera, did you have any questions?  
18 MR. HERRERA: No, I do not.  
19 HEARING OFFICER DEL PIERO: I didn't think so.  
20 Q BY MR. CANADAY: Dr. Orton, I want to go back to the  
21 recommendation for over-bank flooding of 45 cfs to make  
22 sure I'm clear on what your recommendation is based on.  
23 That's based on a theoretical 19 cfs channel or a  
24 channel that would contain a 19 cfs flow; is that  
0210 correct? And that a -- if 45 cfs were to be put in  
01 that channel or if flow was raised to a flow rate, a  
02 cue of 45, then you would expect that channel to  
03 over-bank.  
04 A BY DR. ORTON: Yes in many locations.

07 A Yes.

08 Q Okay. The next question I have is that -- if you

10 want to refer you to the Bartole-thalweg diagram,

11 Figure 2.

13 Q And unfortunately, Mr. Tillemans' not here, but my  
14 recollection is that this Bartole-thalweg was collected

16 cfs, I believe.

17 MR. BIRMINGHAM: I believe it was Mr. Tillemans'

19 MR. CANADAY: 79.

20 MR. BIRMINGHAM: That would be a discharge at Mono

22 MR. CANADAY: Thank you.

23 Q BY MR. CANADAY: What would your opinion be based on,

25 existing Bartole-thalweg was measured this last month,  
0211

02 was put in that stream, how dramatic would the change  
03 be in the thalweg, the depth of the thalweg? Do you

05 A BY DR. ORTON: Over the range of 40 to 80, I would  
06 expect to see it dropped. Between 40 going down, I

08 Q In the videotape that we saw yesterday, there was  
09 described the pool formation that either had occurred

11 the stream, the stream that's approximately 79 cfs.  
12 Would you expect that that natural pool formation would

14 A The scenario that you've described -- yes, I  
15 would. But I have to qualify that by saying you'd have

17 all over again.

18 Q Okay. So the pools that we saw in that video

20 flow rate. Okay, at the state of the stream at the  
21 time that that video was taken, your testimony is that

23 and those pools that were developed on the margins  
24 would no longer be pools or available, and you'd have

0212

01 plan form of the stream, 19 or 20 cfs.

03 makes a difference is the grazing, and if you went  
04 back -- at 19 cfs, the stream was definitely responding

06 much as it could because there was grazing on the  
07 stream, and every time vegetation would start to grow,

09 yesterday, vegetation was cut back due to grazing.

10 So if the flows were reduced now from 80 down to

12 start to encroach on the stream. As soon as it had  
13 encroached on the stream to a significant degree, then

14 you would start to have pools forming again. The  
15 process -- would they be of the same depth? I can't  
16 answer that.

17 Q But would you agree with me that the pools and the  
18 riparian vegetation that is recovering and healing  
19 itself along the stream that was identified in the  
20 video had a flow rate of 70 cfs, near 80, if that flow  
21 rate was now reduced to a flow rate at or near 20 to 30  
22 cfs, a continual flow, as we heard from Dr. Hardy, that  
23 the healing that's occurring now is going to have to  
24 start over again?

25 MR. BIRMINGHAM: I'm going to have to object on  
0213

01 the grounds that this goes outside the scope of  
02 Dr. Orton's expertise and, in addition, I think it  
03 misstates the testimony in that the flows that we have  
04 talked about are not the flows strictly -- that we've  
05 heard testimony about from DWP witnesses, is not  
06 strictly flows of 20 cfs, but it includes flows of -- a  
07 minimum flow of 20 cfs plus channel-maintenance flows  
08 and over-banking flows and riparian-vegetation flows  
09 for the purposes of maintaining pools that have started  
10 to form.

11 HEARING OFFICER DEL PIERO: Ms. Anglin, could you  
12 read that question back again, please?

13 (Whereupon the record was read by the Reporter.)

14 HEARING OFFICER DEL PIERO: I'm going to sustain  
15 the objection.

16 You need to break that question up into three  
17 portions, okay?

18 MR. CANADAY: I'll withdraw the question.

19 HEARING OFFICER DEL PIERO: Well, I'm interested  
20 in knowing the answer. I'll ask it.

21 MR. CANADAY: I have a degree in biology and not  
22 law, Mr. Del Piero.

23 HEARING OFFICER DEL PIERO: Okay. Mr. Frink? You  
24 want to help Mr. Canaday?

25 MR. FRINK: I have a degree in law. I'm still not  
0214

01 sure I can do this.

02 Dr. Orton, I believe Mr. Canaday asked you a  
03 question about the flows in the video and you confirmed  
04 that they were approximately '79 to '80 cfs.

05 DR. ORTON: I did, yes.

06 MR. FRINK: And he then asked with the channel  
07 having a flow of 19 cfs, 19 to 45 cfs, I believe, is  
08 the flow that you have testified or the range of flows  
09 you had testified before would not result in  
10 over-banking. Is that correct?

11 DR. ORTON: Yes.

12 MR. FRINK: If you were to reduce the flows to  
13 that -- the flows in lower Rush Creek to the range of  
14 19 to 45 cfs, would the riparian vegetation recovery  
15 that is occurring higher up on the bank at a higher  
16 flow have to, in essence, begin again at a lower level  
17 to accommodate the lower flows?

18 DR. ORTON: Can I ask a question to see if I  
19 understand the question?

20 MR. BIRMINGHAM: Excuse me. If Dr. Orton doesn't  
21 understand the question, he should say he doesn't

23 rephrased or explained.  
24 HEARING OFFICER DEL PIERO: Dr. Orton, what part

0215  
01 DR. ORTON: The part of the question that I do not  
03 Now --  
04 HEARING OFFICER DEL PIERO: Go ahead.

06 would that vegetation die if the flows were reduced, I  
07 agree that that is outside of my expertise. If the  
09 the bank to a new part of the stream, I think it would,  
10 if given time, and that's -- it certainly wouldn't --  
12 If it were done carefully -- you don't just drop  
13 it down and then you keep it about there, but you drop  
15 walk it down, I see no reason why the riparian  
16 vegetation wouldn't encroach on the stream, as it were,  
18 of 45 or 19 cfs.  
19 HEARING OFFICER DEL PIERO: But you don't know  
21 level would die or not? Is that a question better put  
22 to Dr. Beschta?  
24 go so far as to say I don't think it would die.  
25 Whether it would continue to do things, that's clearly  
01 a question for Dr. Beschta.  
02 HEARING OFFICER DEL PIERO: You don't know -- you  
04 would have? Or is that something you think  
05 Dr. Beschta --  
07 that is there are several places, quite some distance  
08 from the stream, that riparian vegetation is doing  
10 responding in a way that is complex. And I have no  
11 information on that.  
13 riparian vegetation immediately adjoining the flow of  
14 water in the stream, if you were to reduce the flows to  
16 involved before you would have the same degree of  
17 riparian vegetation immediately adjoining the stream as  
19 MR. BIRMINGHAM: I'm going the object on the  
20 grounds that the question is beyond the scope of  
22 requires expertise in riparian vegetation, and  
23 Dr. Orton is a fisheries biologist.  
25 flow in excess of 45 cfs for maintenance of riparian  
0217  
02 recommendation.  
03 HEARING OFFICER DEL PIERO: Overruled.

04 Dr. Orton, do you understand the question?  
05 DR. ORTON: Yes, I do. I think I can help out.  
06 HEARING OFFICER DEL PIERO: Okay.  
07 DR. ORTON: My flow recommendation was related to  
08 the results of a fisheries study. It talks about the  
09 physical process of where water will be. Its effects  
10 on riparian vegetation that you're directing the  
11 question to has to do with what kind of riparian  
12 vegetation would exist ultimately. So at some point, I  
13 have to sort of stop talking, as it were, and let  
14 someone else start talking about what the end point  
15 would be.  
16 MR. FRINK: I believe that answers the question.  
17 Jim, did you have anything else?  
18 HEARING OFFICER DEL PIERO: Mr. Canaday, let me  
19 ask you this question. Did that answer what you were  
20 looking for?  
21 MR. CANADAY: No.  
22 HEARING OFFICER DEL PIERO: Okay. Then let me ask  
23 this. Did it answer a portion of what you were looking  
24 for?  
25 MR. CANADAY: A portion.

0218  
01 HEARING OFFICER DEL PIERO: Then what portion --  
02 explain for me what issue you wish to get to and,  
03 perhaps we can get there, okay?  
04 MR. CANADAY: I'm trying to understand, we've  
05 heard testimony in the video that is showing the stream  
06 is repairing itself. By repairing itself, I mean that  
07 there is -- at a flow rate of 70 to 80 cfs, we see  
08 bank-side riparian vegetation coming in and vegetation  
09 coming slightly away from the bank. It's claimed that  
10 there are pools being developed in a stream that, we  
11 heard testimony in recent times, has not had deep  
12 pools.  
13 My question to Mr. -- Dr. Orton would be if, in  
14 fact, a flow regime was now implemented on that stream  
15 at a range between 20 and 30 cfs as a minimum flow,  
16 that those pools that are developing at the higher flow  
17 no longer will be developing?  
18 HEARING OFFICER DEL PIERO: You mean would those  
19 pools?  
20 MR. CANADAY: Would those pools --  
21 HEARING OFFICER DEL PIERO: Dr. Orton, do you  
22 understand that question?  
23 DR. ORTON: I think so, yes.  
24 HEARING OFFICER DEL PIERO: Mr. Birmingham, do you  
25 want to object to that question?

0219  
01 MR. BIRMINGHAM: I do want to object to the  
02 question because it goes beyond the scope of  
03 Dr. Orton's expertise. Mr. Canaday is absolutely  
04 correct in his characterization of the testimony that  
05 he heard yesterday, but Dr. Orton did not present that  
06 testimony. That testimony was presented by Dr. Beschta  
07 who is an expert on fluvial geomorphology, who has  
08 studied riparian vegetation for many, many years and  
09 has studied stream restoration for many, many years.  
10 The question that Mr. Canaday is posing is a  
11 perfectly legitimate question, but ought to be posed to



13 would be Dr. Beschta or, perhaps, Dr. Platts.

14 HEARING OFFICER DEL PIERO: Mr. Frink?

16 relates to what he did in consulting with Mr. Hasencamp  
17 in developing the L.A. DWP management plan. We all

19 principles and the mechanics of formation of streams,  
20 or at least I hope we all have an understanding after

22 proceeding for a number of months, and in other  
23 proceedings, for a number of years. But Dr. Orton is

25 And again, I think if -- that it's a perfectly  
0220

02 answered, but it should be put to the expert.

03 MR. FRINK: I think we can hold the question until

05 HEARING OFFICER DEL PIERO: Okay. Mr. Canaday,  
06 I'm going to sustain Mr. Birmingham's objection.

08 make a notation of that. On the 24th when Dr. Beschta  
09 comes back, I want you to ask that question because I'm

11 Do we have any other questions of these  
12 individuals? Seeing none, Gentlemen, thank you very

14 MR. BIRMINGHAM: At this time, the Department of  
15 Water and Power for the City of Los Angeles and the

17 Mr. Pollack will conduct the examination of Mr. Miller.

18 HEARING OFFICER DEL PIERO: Fine. Again,

20 MR. POLLACK: Mr. Del Piero, we may need the  
21 screen lowered.

23 your own tripod. I just do screens, not tripods.

24 Do you promise to tell the truth during the course

0221

01 MR. MILLER: I do.

03 Mr. Hasencamp is also involved in forecasting one of  
04 the inputs into operating the L.A. aqueduct, so for the

06 we're asking Mr. Hasencamp to stay on that panel.

07 HEARING OFFICER DEL PIERO: Have a seat,

09 MR. HASENCAMP: Thank you.

10 HEARING OFFICER DEL PIERO: Mr. Miller, would you

12 MR. MILLER: Certainly. My name is Virginus,  
13 V-I-R-G-I-N-I-U-S, Newton Miller the IIIrd.

15 Q And are you familiar with -- what is the next  
16 number, Mr. Smith, for L.A. DWP exhibits?

18 147.

19 Q BY MR. POLLACK: Mr. Miller, are you familiar with

20 the document that Mr. Smith has just allowed me to  
21 identify as L.A. DWP No. 147?

22 A BY MR. MILLER: Yes. Referring to my rebuttal  
23 testimony, yes, I am.

24 Q Did you prepare that testimony?

25 A Yes, I did.

0222

01 Q Is Attachment 1 to L.A. DWP Exhibit 147 your  
02 summary of qualifications?

03 A Yes, it is.

04 Q Can you briefly relate how your summary of  
05 qualifications relates to the testimony marked as L.A.  
06 DWP 147?

07 A Yes. In December of 1986, I received my Bachelor  
08 of Science degree in civil engineering from the  
09 University of California at Davis. My emphasis was in  
10 structural engineering, and I took the relevant courses  
11 listed, primarily structural design, but also  
12 engineering, economics, water quality, hydrology, and  
13 geotechnical engineering.

14 After graduating, I started working for the  
15 Department of Water and Power. For a period of  
16 approximately five and a half years, I worked in the  
17 design division designing water structures including  
18 water tanks, pumping plants, site work, hydrology work  
19 related to runoff and runoff control. During that  
20 time, I received my professional engineer's license. I  
21 oversaw all aspects of projects from planning through  
22 design through construction.

23 In August of 1992, I moved to my new position,  
24 which is now supervision of the forecasting and  
25 operations group within the aqueduct division. These

0223

01 groups oversee the preparation and implementation of  
02 plans for the operation of the aqueduct system, amongst  
03 other duties relevant to that system.

04 Q And what does the operator of the Los Angeles  
05 aqueduct do?

06 A The operator of the Los Angeles aqueduct division  
07 prepares plans and implements these plans to cover the  
08 operations of the aqueduct for any given year, and what  
09 I'd like to do next is to run you through the flow  
10 chart to describe those operations as they occur.

11 Q Before you do that, let me ask a question so you  
12 can respond to it. Can you summarize your testimony  
13 which includes the operations plan?

14 A Yes, I can. If you'll allow me. If I speak  
15 loudly, will this be acceptable? Can everybody hear me?

16 HEARING OFFICER DEL PIERO: Mr. Miller, you sound  
17 like you have a voice comparable to another witness  
18 that frequents this room, so we may not have difficulty  
19 getting along.

20 MR. MILLER: Deep baritone does carry, doesn't  
21 it?

22 To give you just a general idea of what we go  
23 through every year, in the beginning of the runoff year  
24 or just prior to it, we start what we call operations  
25 planning. The first stage of this is to prepare a

0224

01 runoff forecast. This is done using data from our

03 taken from snow pillows, precipitation gauges, and  
04 also, forecasts of long-range precipitation for any

06 This information is input into a program. From  
07 that program we get a prediction of water supply which

09 emphasize supply. We have to know how much supply is  
10 available before we can plan on how to utilize that

12 The next step is to prepare a prop run program.  
13 This program forms the initial basis of how we will

15 averages. We try and figure out what our approximate  
16 uses and losses are. These uses and losses can be in

18 of transit losses. They can be in the form of  
19 irrigation uses, and various other questions that must

21 available supply.

22 This program is pretty good; however, it only

24 change and be very different from the averages used in  
25 the prop-run program. Therefore, we use the initial

01 data here to prepare daily operations. It's in these  
02 daily operations that we take care of the day-to-day

04 filling reservoirs, draining reservoirs. We also  
05 prepare for maintenance operations or for special

07 Now, once these two programs have been run,  
08 sometimes there will be contradictions between one,

10 If that's the case, we go back and revise the initial  
11 prop-run program and then run daily operations program

13 if we have a good program, we move on and start  
14 consulting with other DWP organizations, and those are

16 testimony.

17 We solicit their input about specific

19 that our highest deliveries be during the periods when  
20 the City of Los Angeles has its highest demand, such as

22 that depending on what they intend to do as far as  
23 supplying water to the city.

25 and adjusted our plans to meet their needs, we move on  
0226

02 division head approves the plan, then we move on and  
03 distribute this plan to the various affected

05 Now, comes the fun part and where 90 percent of my  
06 job is, and that is updating the plans for daily

08 March and April, we are making a long-range forecast of  
09 what the situation with the aqueduct operations will

11 Precipitation might not have been the way we wanted it  
12 to. Who can predict the weather perfectly? We may  
14 require shut downs for maintenance work. Timing of  
15 runoff can vary considerably from what we plan on  
17 plan.  
18 And I think this constant updating of the plan is  
20 as having no plan for operations. They maintain you  
21 just fly this aqueduct system by the seat of your  
23 where it starts. I would liken our operations of the  
24 aqueduct system to flying an airplane. The first step,

0227

01 let's say you want to fly from Los Angeles to New York,  
03 plan, which indicates how far you're going to go, what  
04 stops you're going to make, what kind of route you're  
06 initiate operations.  
07 However, if, during your flight, you run into a  
09 your way, or you start to run out of fuel, you may  
10 modify that plan. You may not be able to make it to  
12 "Well, geez, Chicago's as far as I can get." The  
13 important thing, when you are flying an airplane or  
15 crash the plane into the ground. The important thing  
16 is that our plan constitutes a set of goals.  
18 implementation of that plan, we have to change that  
19 plan, otherwise significant damage could occur. And  
21 the end of the runoff year, and we start the whole  
22 process over again.  
24 your testimony, Mr. Miller, regarding operation of Long  
25 Valley Reservoir?

01 A BY MR. MILLER: Yes, I can. What I have up on the  
02 screen here is a copy of Attachment No. 4 to my  
04 Which Mono Basin is Available. As you can see, there  
05 are three years here, and these are the actual  
07 during those years. We have a dry year, a normal year,  
08 and a wet year compared to the historical average

10 Now, as you can see, there's a great deal of  
11 variability. In dry years, we tended to draw down the  
13 primary purpose is for flow regulation and storage of  
14 runoff. Any recreational uses or uses as a fishery are  
16 runoff and regulation of flows.  
17 Now, during wet years, we tend to keep the

19 the high runoff. As you can see, the runoff is stored  
20 between June and approximately August. This is a  
  
22 high, so we need room to accommodate these storages  
23 while the runoff south of the reservoir is moving out

25           The problem that you could have, given setting a  
0229

02 at the graph, this historical average roughly  
03 corresponds to Fish and Game's recommendation of

05 during the period between June and August, reservoir  
06 storage climbs sharply. If you were to move that up a

08 come so close to that capacity as to remove the  
09 operator's flexibility to deal with changing

11           In the planning of our operations, flexibility is  
12 everything. We can't predict exactly when runoff is  
13 going to come, how much of it is going to come, or what  
14 form it's going to take. I mean, it can come in as  
15 certain rivers. It can come in just as regular flow.  
16 We need flexibility in order to deal with this.  
17 We also need flexibility in order to deal with such  
18 problems as failures of portions of the aqueduct.  
19 Therefore, setting it too high eliminates a large  
20 amount of flexibility.

21           As I mentioned before, in dry years, we had taken  
22 down the reservoir farther than that. This we  
23 realized, or our department management realized and has  
24 made a conscious decision after 1989 not to take the  
25 reservoir as low as it did in 1989. Our management saw  
0230

01 that the fact that taking the reservoir storage that  
02 low reduced recreational opportunities at Long Valley  
03 and also impacted the economy of the local town.  
04 Knowing that, the department decided to keep storages  
05 higher voluntarily.

06           That does not mean that we are restricting  
07 ourselves to that. We need the flexibility to take the  
08 reservoir lower in the cases of high years,  
09 particularly since runoff can vary anywhere from 30  
10 percent of the long-term average to over 170 percent of  
11 the average.

12           Now, during wet years, if the storage was to go  
13 higher than the 183,000 acre-foot capacity or any limit  
14 like that, there is a risk of spilling the reservoir.  
15 If that reservoir spills, there's a serious risk of  
16 damage to department property as well as the Owens  
17 River below Long Valley Reservoir and Pleasant Valley  
18 because that water has to go somewhere.

19           Other problems could be in operations of it. Fish  
20 and Game has decided that they feel we should not draw  
21 down the reservoir during the periods between July and  
22 October. Historically, those are periods when the  
23 runoff south of the reservoir is lower. As that runoff  
24 south of the reservoir declines, we need to pick the  
25 flows up out of Long Valley to maintain steady flows

01 and keep water moving south. To limit drawdowns of the  
02 reservoir during the late season will mean that water

04 into the river in the aqueduct will be less. The  
05 water's got to come from somewhere.

07 the aqueduct without Mono Basin water available. Now,  
08 on this one, as I've stated in the testimony, two of

10 aqueduct simulation model because we have no historical  
11 precedent for them. Those are the normal-year

13 wet-year precipitation and operations of the aqueduct.  
14 What we did in these cases was we took the actual

16 reservoir without Mono Basin water. But again, even  
17 with no Mono water, no Mono Basin water available, as

19 tend to start trying to bring it down. If we have to

21 and Game's requirements we would have to do, we'd have

23 really start increasing our late season deliveries when

25 operational problems including the fact that it gets

01 very cold and sometimes the rivers tend to freeze up,

03 Reservoir. In other words, a lot of these restrictions

05 I think the main thing I'd like to emphasize

07 minimum storage or reducing drawdowns during certain

09 It is an interconnected series of facilities, be they

11 When you start putting restrictions on one of these

13 and the downstream portions.

15 unit. If you're going to propose anything and you're

17 manner that addresses the system as a whole, not just

19 Q I have one further question to ask you,

21 storage level of 125,000 acre-feet have during dry

23 A Well, as I stated, in dry years, as you can see,

25 set the flow or the minimum storage at 125,000, what's

01 going to happen is there's less water to take out of

03 below Pleasant Valley. That will have the effect of

05 Reservoir, reducing opportunities for recreation but,

07 water to the City of Los Angeles.

08 It could also effect how much water we have to  
09 pump from the ground to meet irrigation needs in the  
10 Owens Valley. It could mean drawing more water out of  
11 the San Fernando Basin to meet water needs in the City  
12 of Los Angeles.

13 Q Are there legal requirements for outflows from  
14 other reservoirs below Crowley Lake Reservoir, excuse  
15 me, that might be impacted by such a restriction?

16 A The current restriction that we face is a legal  
17 agreement with the Department of Fish and Game to  
18 provide a minimum outflow from Pleasant Valley  
19 Reservoir of 75 cubic feet per second. That could be  
20 impacted in a severely dry year.

21 MR. POLLACK: Thank you, Mr. Miller. That  
22 concludes our direct testimony.

23 HEARING OFFICER DEL PIERO: Thank you,  
24 Mr. Pollack.

25 Ms. Cahill?

0234

01 Does National Audubon have any cross-examination?

02 MR. VORSTER: I informed Bruce Dodge that there  
03 were no questions necessary of Mr. Miller, so that's  
04 why he left.

05 HEARING OFFICER DEL PIERO: You're representing  
06 that Mr. Dodge actually left?  
07 Please proceed, Ms. Cahill.

08 CROSS-EXAMINATION BY MS. CAHILL

09 Q Good afternoon, Mr. Miller.

10 Was it your understanding when you prepared your  
11 testimony that the California Department of Fish and  
12 Game had an inflexible recommendation of a minimum  
13 storage level of 125,000 acre-feet in all year types?

14 A Yes, it was.

15 Q Were you provided with the testimony of Curtis  
16 Milliron of the department to review before you  
17 presented your testimony?

18 A Yes, I was.

19 Q Do you not recall, then, that Mr. Milliron  
20 testified that, "It's my feeling that during a wet  
21 year, it's probably not an issue," when he was asked  
22 whether he had specific recommendations as to Crowley  
23 Lake levels?

24 A Yes, I do remember that statement.

25 Q And do you recall that he said, "In dry years, I  
0235

01 think it's common that we all give, and as  
02 Mr. Hasencamp stated in a proposed water management  
03 plan, they suggest a minimum level of 80,000 acre-feet,  
04 that's slightly above what we have experienced in the  
05 last several years and so I would be comfortable with  
06 that"?

07 A No. I am not familiar with that statement.

08 MR. HASENCAMP: I also think that misstates my  
09 testimony.

10 HEARING OFFICER DEL PIERO: That's not the issue.  
11 That would have been an appropriate objection at the  
12 time, but that's not the issue. The issue is she's  
13 reading what he said.

14 Q BY MS. CAHILL: So you were not made aware that the  
15 Department of Fish and Game indicated enough

16 flexibility that they might, in fact, accept a minimum  
17 level of 80,000 acre-feet in dry years?

18 A BY MR. MILLER: No, I was not.

19 MR. BIRMINGHAM: Actually, I think, if the record  
20 is clear, Mr. Del Piero, that was Mr. Milliron stating  
21 what he thought Mr. Hasencamp said. What Mr. Milliron  
22 thinks Mr. Hasencamp testified to is really  
23 irrelevant. Mr. Hasencamp's testimony speaks for  
24 itself.

25 HEARING OFFICER DEL PIERO: Obviously. As does  
0236

01 Mr. Milliron's.

02 MS. CAHILL: Fish and Game apparently --

03 HEARING OFFICER DEL PIERO: Ms. Cahill, proceed.

04 I understand where we are, okay?

05 Q BY MS. CAHILL: All right. Did you read this  
06 testimony and not see that?

07 A BY MR. MILLER: I read the testimony, yes.

08 Q Okay. And did you have the sense that the 125,000  
09 acre-feet was an inflexible requirement or a  
10 recommendation that the Department of Fish and Game was  
11 asking Los Angeles to take into account?

12 A I had the understanding that it was a  
13 recommendation that they very much were wanting to  
14 pursue.

15 Q But would some of your concerns be alleviated if  
16 you understood the department's recommendation not to  
17 be an inflexible recommendation that this Board set  
18 that as a target level, but more an input to Los  
19 Angeles as to how we would like to see Long Valley  
20 operated, if possible?

21 A I'm not sure I understand what you mean by a  
22 "recommendation" that they put their input in. Do you  
23 mean that -- well, can you explain that, please?

24 Q Yes. Are your concerns with inflexibility  
25 reflected in your testimony based on the thought that

0237  
01 the Department of Fish and Game's recommendation was an  
02 inflexible recommendation that this Board set 125 as an  
03 inflexible minimum storage level?

04 A To understand your -- my understanding of your  
05 question, I would have problems with any kind of  
06 recommendation requiring minimum storages being set by  
07 the Department of Fish and Game, the absolute  
08 recommendations.

09 In operating the aqueduct system as a whole and  
10 Long Valley Reservoir in particular, the department  
11 needs a great deal of flexibility in order to deal with  
12 unforeseen circumstances.

13 Q You indicated that since the experience in 1989,  
14 the Department of Water and Power has voluntarily  
15 attempted to keep the level of Crowley higher than it  
16 went in that year; is that right?

17 A That is correct.

18 Q And that is to take recreation into account?

19 A Yes.

20 Q Is the Department of Water and Power willing to  
21 also at least consider what might be good for the  
22 trophy fishery in Crowley Lake in determining how to  
23 operate that reservoir?



24 A I believe you're asking me to make a policy  
25 statement, and that is beyond both my expertise and my  
0238 capabilities and my line of employment to make a policy  
01 statement such as that.

02  
03 Q Do you know whether, at this point in time, the  
04 Department of Water and Power is taking recreation into  
05 account?

06 A Yes, they are.

07 Q And at this time, are they in any way taking  
08 fishery or fishing into account?

09 A Yes.

10 Q And are they willing to accept input from the  
11 Department of Fish and Game in a given year with regard  
12 to what might be beneficial for the fishery?

13 A Yes, we're willing to take input. In fact, we do  
14 as matter of course.

15 Q On Page 6 of your rebuttal testimony, you list  
16 potential results of limiting Long Valley Reservoir  
17 draw down between July and October in wet years. What  
18 is the definition of "wet year" in that case?

19 A In this case, wet year, as I used our department  
20 definition, if I remember correctly, precipitation and  
21 runoff greater than a 120 percent of Mono?

22 MR. HASENCAMP: For this run, I believe that is  
23 correct.

24 Q BY MS. CAHILL: And where you state that, "One of the  
25 consequences of limiting draw downs between late July  
0239

01 and October is lower flows in the Owens River south of  
02 Long Valley Reservoir." Which stretch of the Owens  
03 River are you referring to?

04 A That would be the stretch of the Owens River  
05 between Pleasant Valley Reservoir and Tinemaha  
06 Reservoir.

07 Q Would that be what we call the Middle Owens?

08 A Yes, I believe so.

09 Q Do you know of any adverse impacts of having lower  
10 flows in the Middle Owens?

11 A You mean direct knowledge or speculating?

12 Q Well, are you aware of any?

13 A I'm aware that there will be -- if there are lower  
14 flows below Pleasant Valley Reservoir, there are less  
15 opportunities for recreation. There are also problems  
16 with meeting our irrigation requirements. If it gets  
17 too low, it could cause problems such as that. Also,  
18 during that period, we still have a net loss of water  
19 between Pleasant Valley and Tinemaha Reservoir. There  
20 are actual losses in transit, so that would, of course,  
21 impact our operations.

22 Q When you refer, on Page 6, "That draw downs will  
23 force L.A. DWP to set October through March flows  
24 higher, which may prove infeasible to weather  
25 conditions," has there ever actually been a time that  
0240

01 the aqueduct downstream of Tinemaha has frozen?

02 A Yes, just this past year. When water temperatures  
03 get extremely low, Tinemaha Reservoir, the water  
04 temperature in Tinemaha gets very cold. The water  
05 south of Tinemaha Reservoir begins to freeze up and

06 form what I believe is referred to in our northern  
08 aqueduct.  
09 What can happen with that is by limiting the  
11 water in Tinemaha, which proves to be a problem because  
12 as you store more water in Tinemaha, the surface area  
14 colder. So you're faced with a Catch-22. In that  
15 case, the only other option is to begin reduction of  
17 course, entails reducing draw down of Long Valley  
18 Reservoir.

20 commonly?  
21 A It happens commonly.

23 A I can only speak to my experience. I've only been  
24 operating the system for a year and a half, but in my

0241  
01 last year. And it usually occurs for a couple of days.

03 find in the transcript references to flexibility, but  
04 rather than take anyone's time, I will just conclude.

06 HEARING OFFICER DEL PIERO: Thank you very much,  
07 Ms. Cahill.

09 Mr. Roos-Collins? Actually, Mr. Roos-Collins,  
10 we're going to take a five-minute break because I've

12 minutes.  
13 (Whereupon a recess was taken.)

15 CROSS-EXAMINATION BY MR. ROOS-COLLINS  
16 Q Good afternoon, Mr. Miller. I'm Richard

18 proceeding.  
19 A BY MR. MILLER: Good afternoon, Counsel.

21 A No, I have not.  
22 MR. ROOS-COLLINS: Mr. Del Piero, there's your

24 HEARING OFFICER DEL PIERO: Actually, I think the  
25 first one was sort of a false start, so this may have

01 been the first one.  
02 MR. ROOS-COLLINS: Mr. Del Piero expressed a

04 seen.  
05 HEARING OFFICER DEL PIERO: Your face is it, Sir.

07 Q BY MR. ROOS-COLLINS: Are you familiar with the June  
08 10th, 1993, letter from Richard Nagel to Reg Cullin,

10 information request?  
11 A BY MR. MILLER: No, I'm not.

13 I ask you to read the second paragraph on the first

14 page.

15 HEARING OFFICER DEL PIERO: Mr. Birmingham,  
16 Mr. Dodge represented to me that you could read and  
17 listen to two conversations at once. Is that not  
18 true?

19 MR. MILLER: Did you state the second paragraph on  
20 the first page?

21 MR. ROOS-COLLINS: I did.

22 HEARING OFFICER DEL PIERO: Oh, it isn't.

23 MR. MILLER: Okay. I've read the paragraph.

24 Q BY MR. ROOS-COLLINS: Mr. Nagel stated in that  
25 paragraph, "The Los Angeles Department of Water and  
0243

01 Power does not have any written documents stating  
02 management practices used in operating Grant Lake  
03 Reservoir."

04 Do you agree with that opinion?

05 A Yes, I do.

06 Q So the spreadsheet programs which constitute the  
07 prop-run are not written documents stating management  
08 practices used in operating Grant Lake Reservoir?

09 A No, they are not.

10 Q On Page 1 of your rebuttal testimony, you state  
11 that the operations plan, quote, constitutes a set of  
12 goals, unquote, for the aqueduct operations. What are  
13 the goals for the operation of Grant Lake Reservoir?

14 A Are you talking about currently?

15 Q Yes.

16 A Currently, I am not involved directly in the  
17 operation of Grant Reservoir because we are not  
18 exporting water from the Mono Basin, so I really don't  
19 feel I can address that issue.

20 Q Attachment 3 to your rebuttal testimony states,  
21 "System capacities at various control points including  
22 Grant Lake Reservoir;" is that correct?

23 A That is correct.

24 Q And among other things it recommends minimum  
25 storage of 11,000 acre-feet and maximum storage of  
0244

01 47,500 acre-feet in that reservoir; is that correct?

02 A That is correct.

03 Q So if this Board adopts a license amendment that  
04 allows storage in Grant Lake Reservoir to remain  
05 between 11,000 and 47,500 acre-feet, in your opinion,  
06 would Grant Lake Reservoir be operated safely and  
07 within its capacity?

08 A Yes.

09 Q Let's return to Page 1 of your --

10 A I would like to add one clarifying statement.

11 Q Please do.

12 A I believe it will be operated safely from an  
13 operation standpoint. I can't speak to any other  
14 aspect, such as the structural safety of the  
15 reservoir. I want to be clear about that. You could  
16 be operating the reservoir very high and an earthquake  
17 could come along, and it would fail. As far as water  
18 supply, yes, that would be safe.

19 Q Mr. Hasencamp, do you agree with that?

20 A BY MR. HASENCAMP: Could you restate the question  
21 again, please?

22 Q What did you mean in Attachment 3 in recommending  
23 minimum storage of 37,000 acre-feet and maximum storage  
24 of 47,500 acre-feet in Grant Lake Reservoir?

25 A I meant that for the purposes of the LAAMP model  
0245  
01 and also L.A. DWP's LAASM model that for operational  
02 planning, that these constraints should be used. These  
03 are not recommended minimums as far as a hard number  
04 because there are certain circumstances you might want  
05 to go below 11,000, but for planning, for running  
06 specifically the LAAMP model and for an extended  
07 period, this is a good range for planning purposes.

08 Q Is there any document other than Attachment 3 to  
09 Mr. Miller's written rebuttal testimony which describes  
10 operational constraints in storage in Grant Lake  
11 Reservoir that might differ from the recommended  
12 minimum and maximum for planning purposes?

13 A There's Judge Finney's preliminary injunction,  
14 which says that, "For the purposes of releasing water  
15 to Mono Lake, in order to achieve 6377, Grant Lake does  
16 not have to go below 11,480 acre-feet? As far as  
17 operating for export, there's no restrictions on that.

18 Q Thank you.

19 Mr. Miller, let's return to Page 1 of your written  
20 rebuttal testimony. In the section entitled Aqueduct  
21 Operation Planning, you state that the plan, the  
22 operations plan, quote, incorporates a great deal of  
23 flexibility due to the extreme variability of  
24 circumstances involved in operating the Los Angeles  
25 aqueduct, unquote.

0246  
01 Are you describing the operations plan as having a  
02 great deal of flexibility?

03 A Yes.

04 Q Does the aqueduct system as well have a great deal  
05 of flexibility?

06 A If the plan is properly prepared, it does. The  
07 physical constraints of the system are enumerated in  
08 Attachment 3. As an example, many of these maximum  
09 flows that we have, they are physical constraints of  
10 the system. So if I want to get 750 cfs out of South  
11 Haiwee Reservoir, that's the maximum I can go. I can't  
12 force 900 cfs out of that. So these physical  
13 constraints in some cases are absolute maximums.

14 A properly prepared plan will always leave some  
15 room below those maximums, as I believe I state on Page  
16 4 of my testimony. I state that, "Under normal  
17 operating conditions, flows and reservoir storages  
18 range from slightly above the minimums to slightly  
19 below the maximum levels given in Attachment 3." You  
20 never want to have a plan where for five or six months  
21 out of the year, you have to run a reservoir at a  
22 maximum level or a minimum level or run a portion of  
23 the aqueduct at a maximum or minimum level. You have  
24 to give yourself some room to allow for the  
25 unforeseen. You might have more runoff than you

0247  
01 expect. You might have less. You need to give  
02 yourself a little bit of room to operate, but above  
03 all, flexibility is the very important thing in the

04 operations plan. These goals are not hard and fast.  
05 If we state that our goal is to export 300,000  
06 acre-feet of water to the City of Los Angeles and for  
07 some reason runoff isn't what we expected to be, we're  
08 not still going to say we're going to export 300,000  
09 acre-feet of water to Los Angeles if it means draining  
10 reservoirs and damaging the system.

11 Q Attachment 1 of your resume, states that, "You  
12 evaluate aspects of ongoing litigation on operations."  
13 You understand that this litigation may have an effect  
14 on the flexibility of the aqueduct system?

15 A Yes, I do.

16 Q Let me ask you about the runoff forecast model  
17 described in the second section on Page 1 of your  
18 written rebuttal testimony. You state that, "Forecasts  
19 are made around the 1st of the month in February,  
20 March, April, and May;" is that correct?

21 A Yes, that is.

22 Q So the first forecast for 1994 will be made in  
23 about two and a half weeks on the 1st of February?

24 A Correct.

25 Q And those forecasts are subsequently integrated  
0248 into the operations plan?

02 A I don't know if you're misstating my testimony or  
03 not, but what my testimony says is those forecasts are  
04 used to make predictions of the runoff which is then  
05 used to prepare the plan.

06 Q That is a better statement of your testimony, and  
07 I apologize for misstating it.

08 Have you ever read an article at the beginning of  
09 any year where a reporter compares the predictions of  
10 various seers with actual events that occurred in the  
11 prior year?

12 A Predictions on what?

13 Q Events like Princess Diana getting divorced, that  
14 sort of thing?

15 A Yes, occasionally I do grab The Enquirer at the  
16 market.

17 Q There is a point to this line of inquiry. Does  
18 the forecasting group retroactively evaluate the  
19 accuracy of your forecast of runoff?

20 A Yes, we do. Our forecasting group performs a  
21 function known as the runoff recap which entails  
22 gathering and analyzing various hydrologic data  
23 provided by a northern district hydrology group. They  
24 run that through a computer to figure out how much  
25 runoff we did have and to see how that corresponds to

0249 the predicted runoff.

02 HEARING OFFICER DEL PIERO: It's like the NFL  
03 Today.

04 Q BY MR. ROOS-COLLINS: What is the long-term accuracy  
05 of your February 1st forecast?

06 A BY MR. HASENCAMP: If I could answer that, I've been  
07 the chief forecaster for the last five years for the  
08 Department of Water and Power, and I don't believe you  
09 were here during my direct testimony. I covered  
10 forecasting, and a great part of it was my testimony.  
11 And February 1st, of course, the rain is quite large,

12 the possible outcome; March 1st is more narrow; April,  
14 that great. We do have a handle on whether it's going  
15 to be a relatively dry year or wet year, but as far as

17 HEARING OFFICER DEL PIERO: Excuse me,  
18 Mr. Roos-Collins.

20 you make a final?

21 MR. HASENCAMP: You mean -- we have a February,

23 on an official scale. In-house, of course, we update  
24 it, but we have -- May 1st is our last official

0250

01 HEARING OFFICER DEL PIERO: Thank you.

03 Q BY MR. ROOS-COLLINS: You just said that the February  
04 1st forecast was not particularly accurate. In your

06 forecast in percentage terms?

07 A BY MR. HASENCAMP: Yes, we do.

09 1st forecast on a long-term basis?

10 A Unfortunately, I don't know that off the top of my

12 of the exhibits which does have the specific numbers,  
13 and I would not want to -- I might know of several

15 Q Mr. Hasencamp, I will reserve further questions on  
16 this issue until you return.

18 Q Mr. Miller, the prop-run plan serves as the  
19 foundation for the daily operations program?

21 Q You state on Page 4 of your written rebuttal  
22 testimony that the daily operations program is updated

24 conditions. By "constant," do you mean daily?

25 A Daily.

01 Q More frequently than daily?

02 A Monday through Friday, assuming working days, we

04 update it as necessary during the day depending on  
05 requests that we may get from user groups or relayed to

07 on opening day last year, the fishing season, the  
08 Bishop Chamber of Commerce requested that we increase

10 stated a certain flow was beneficial to the  
11 recreational use and the people really thought it was a

13 our northern district personnel relaying that request,  
14 we evaluated whether we could change operations to

16 and we did.

17 So yes, it's updated every working day for sure,

19 requests come to us from various groups within the

20 department or from our own needs.

21 Q Let's say that the daily operations program is  
22 updated on Day Two to change Day One's release from  
23 Grant Reservoir into Rush Creek. How quickly can the  
24 actual operator of Grant Reservoir put into effect the  
25 new release requirement in Day Two's daily operations

0252

01 program?

02 A In your question you said on Day Two you decide to  
03 change Day One's operation?

04 Q Excuse me. If the question is confusing, and I  
05 think it is, let me ask it differently.

06 Let's say that on Day One, the release from Grant  
07 Reservoir is 20 cubic feet per second into Rush Creek.  
08 You then revise the daily operations program for Day  
09 Two and decide that the release into Rush Creek should  
10 be 25 cubic feet per second. How quickly after that  
11 operations plan is updated can the operator of Grant  
12 Reservoir put that new release into effect?

13 A Okay. I'll describe the process that we use to  
14 initiate flow changes in the northern district. When  
15 we decide to initiate a flow change in the northern  
16 district, we are not in control of the personnel who  
17 actually make those changes, so we call our northern  
18 district engineering group in the Bishop office and  
19 request a change. Many of the times we do not specify  
20 an exact time. Sometimes we will specify a day.  
21 Sometimes we'll just say do it this week. But if need  
22 be, a change can be implemented immediately,  
23 particularly if it's an emergency.

24 However, normally, we would say -- say on Day One,  
25 we decide to change the flows. We would call up

0253

01 northern district group and tell them, "Tomorrow,  
02 please change the flows," and they will, if necessary,  
03 dispatch a person specifically to do it or make that  
04 part of their daily plan of duties in addition to  
05 whatever else they are going to do.

06 Q Is the control device for the release from Grant  
07 Reservoir into Rush Creek automated?

08 A I'm not familiar with the control device for the  
09 releases of Grant Lake.

10 Q Mr. Hasencamp, are you familiar?

11 A BY MR. HASENCAMP: A little bit.

12 Q Do you have an answer to that question?

13 A By "automated," you mean from a remote facility?

14 Q Yes.

15 A No.

16 Q Same question for the diversion facility on Lee  
17 Vining Creek?

18 A No, it is not. We do have a telemetry system to  
19 give us a flow reading from a distant location. We  
20 don't have control from a distant location.

21 Q So a person physically visits either facility in  
22 order to control release into either stream?

23 A Yes, that's correct.

24 Q Mr. Miller, let's say that the daily operations  
25 program calls for a release into Rush Creek of 25 cubic

0254

01 feet per second. How close would the actual release

02 come to the release specified in the program?  
03 A BY MR. MILLER: Well, the program itself does not  
04 specify the release. The releases are input by the  
05 operator.  
06 Q That question must not be clear. Let me ask the  
07 question differently.  
08 Can the operator of Grant Reservoir control the  
09 release so that it is within a few percentage points of  
10 the desired release specified in the daily operations  
11 program?  
12 A I can't speak to the accuracy of what those meters  
13 are. That's beyond my expertise. You'd probably have  
14 to ask our personnel in the Bishop office regarding the  
15 accuracy of the measuring devices that they use.  
16 Q Mr. Hasencamp, do you have an opinion about that  
17 question?  
18 A BY MR. HASENCAMP: Yes. The release from Grant Lake  
19 is one of the more accurate release points within the  
20 Mono Basin. So it is accurate to within a few cfs.  
21 As far as the controlling, as far as the  
22 measurement device, there's some additional error  
23 between the measurement device and what's recorded, but  
24 as far as what's recorded, you can get it within a few  
25 cfs.

0255

01 Q Thank you.  
02 MR. HERRERA: Mr. Roos-Collins, your 20 minutes  
03 has expired.  
04 MR. ROOS-COLLINS: Mr. Del Piero, I request an  
05 additional ten minutes of time in order to complete my  
06 examination of Mr. Miller. My grounds for requesting  
07 the additional time is that he is presenting  
08 information regarding the capacity of the aqueduct  
09 system to respond to flow allocations which is novel to  
10 me, at least, and critical, in our opinion, to this  
11 Board's decisions.  
12 HEARING OFFICER DEL PIERO: Granted. I understand  
13 that Ms. Scoonover has, what, five minutes? Do you  
14 expect to have a number of questions, Mr. Pollack?  
15 MR. POLLACK: Not so far, but we'll see what  
16 develops.  
17 HEARING OFFICER DEL PIERO: Okay.  
18 Proceed, Mr. Roos-Collins.  
19 Q BY MR. ROOS-COLLINS: If my questions were innocuous  
20 so far, you can rest easy.  
21 Mr. Miller, Attachment 3 to your written testimony  
22 identifies reservoirs in the aqueduct system. Does the  
23 aqueduct system also have storage capacity in  
24 groundwater basins?  
25 A BY MR. MILLER: Yes, it does.

0256

01 Q Where?  
02 A These would be groundwater basins in the Owens  
03 Valley.  
04 Q Now, can that capacity be used to store water that  
05 is exported from the Mono Basin?  
06 A BY MR. HASENCAMP: We're restricted in the amount  
07 that we can pump by the green book restrictions in the  
08 Owens Valley, and the current agreement calls for --  
09 that pumping will be the same in the future as it was



10 in the last 20 years. And so when you say use the  
11 groundwater basin as a storage, yes, water could be put  
12 into that. Could water be taken out? Any additional  
13 water? That's very questionable. So in that case,  
14 it's not really a storage basin.

15 Q Thank you.

16 Mr. Miller, several days ago, Mr. Birmingham was  
17 asked to provide a copy of an agreement between  
18 Southern California Edison and the City of Los Angeles  
19 affecting the operations of your respective facilities  
20 on Lee Vining and Rush Creeks. He subsequently  
21 provided a document I now show you. This document has  
22 not yet been marked as an exhibit. It is entitled  
23 Agreement of Sale and Purchase Between the Southern  
24 Sierra Power Company and Associated Companies and  
25 Department of Water and Power of the City of Los

0257

01 Angeles, and it appears to be dated in October of  
02 1933.

03 To the best of your knowledge, is this agreement  
04 still in effect?

05 A I have no knowledge of that agreement. I haven't  
06 seen it before. I know it exists, but I have no  
07 knowledge of the agreement itself.

08 Q Your testimony, on Page 2, in the bullets refers  
09 to the fact that the operations plan must take into  
10 account such elements as operation of Southern  
11 California Edison reservoirs. How do you take into  
12 account the operation of Southern California Edison  
13 reservoirs in the development of your operations plan?

14 A The chief operator contacts the operators of  
15 Southern California Edison reservoirs to find out their  
16 plans for their operations including monthly releases  
17 on average and things like that.

18 As I've said, I've never consulted that agreement,  
19 so I'm not familiar with it.

20 Q In the last ten years, how many acre-feet of water  
21 total have been delivered from the L.A. aqueduct system  
22 to other parties for irrigation?

23 A Actually, if -- pardon me for one second. I need  
24 to get one set of notes. Excuse me.

25 What I have are some figures by area. I can give

0258

01 you a 20-year average readily.

02 Q I modify my question for the last 20 years.

03 A Over 20 years, the average delivery of irrigation  
04 stock water in the Mono Basin is 8,500 acre-feet. This  
05 also reached a maximum of 12,000 acre-feet in 1986 and  
06 a minimum of 1,000 acre-feet in 1991. That's per the  
07 data that I had access to.

08 In the Long Valley area, the average from 1970 to  
09 1990 was 19,900 acre-feet. The maximum delivered in  
10 any one year was 41,600 acre-feet. The minimum was  
11 8,830 acre-feet.

12 In the Round Valley area, the 1970 to 1989 average  
13 was 8,300 acre-feet with a maximum year delivery of  
14 10,800 acre-feet and a minimum yearly delivery of 4,500  
15 acre-feet.

16 And the area from -- let's see. Where do I have  
17 it? I'm looking for my figures on irrigation. The

18 next figure that I had available was Tinemaha to Haiwee  
20 an average between 1970 and 1989 of 15,200 acre-feet  
21 per year with a minimum value of 18,900 acre-feet a  
23 value of 18,900 per year and a minimum of 11,000  
24 acre-feet per year.

0259

01 unless you want this on the record, we would be more  
03 computation sheet to you, and then we could stipulate  
04 it into the record.

06 offer and accept it.

07 MR. HASENCAMP: If I could just say that the data

09 Los Angeles aqueduct simulation model documentation.  
10 So all of the 20- year averages are available.

12 keep in mind this is not the net irrigation, but  
13 applied irrigation. So there is return water from this

15 Q BY MR. ROOS-COLLINS: Understood.

16 Mr. Miller, let me turn now to LAASM. On Page 4

18 forecasting and operations groups are preparing  
19 programs to allow the use of LAASM as the primary tool

21 that to say that you intend that LAASM will become part  
22 of the actual operations model for the aqueduct system?

24 to help prepare plans to operate on a year-to-year  
25 basis. As I state, "Development of spreadsheet

01 programs to use data from the LAASM for generation of  
02 prop-runs will begin in 1994," so the data from the

04 prop-runs. The values from the prop-runs will then be  
05 used to develop the daily operation sheet. It will be

07 replace any of the processes because it still requires  
08 a lot of judgment and input from the operators.

10 the aqueduct system run by a computer.

11 Q So it is your intention that LAASM will be used in

13 aqueduct this year?

14 A I can't make that statement. I don't know

16 use. We will have to do some development work and  
17 check it and make sure we're happy with it before we

19 plans.

20 A BY MR. HASENCAMP: We're in a transition phase in our

22 the other prop-run program. Now, we develop a new --  
23 the L.A. aqueduct simulation model. Right now, it's

25 The next step within the model is to make it more of an

0261

01 annual model with much more controls on an annual  
02 basis. And so it will be phased in as it's developed a  
03 little more.

04 Q One final line of inquiry. Mr. Miller, your  
05 written testimony describes the annual development of  
06 an operations plan for the aqueduct system. Does the  
07 Department of Water and Power have a long-term  
08 supply-and-demand analysis which you use in developing  
09 the annual operations plan?

10 A BY MR. MILLER: If you refer to a specific  
11 document? Are you referring to a specific document?

12 Q I'm asking whether such a document exists.

13 A Not to my knowledge, no.

14 MR. ROOS-COLLINS: Thank you. No further  
15 questions.

16 HEARING OFFICER DEL PIERO: Thank you very much.  
17 Ms. Scoonover?

18 MS. SCOONOVER: I have a question of Mr. Hasencamp  
19 that I think I'll hold until Tuesday, since we'll be  
20 seeing you again, in order to keep things moving  
21 quickly this evening.

22 That leaves me with just two brief questions for  
23 you, Mr. Miller.

24 CROSS-EXAMINATION BY MS. SCOONOVER

25 Q You have described the process by which the Los  
0262

01 Angeles Department of Water and Power prepares its  
02 operations plans for the Los Angeles aqueduct and you  
03 described a set of goals. You described that the plan  
04 constitutes a set of goals for Los Angeles aqueduct  
05 operations. Is that an accurate summary?

06 A BY MR. MILLER: Yes, it is.

07 Q Can you tell me is one of the goals to meet as  
08 much of the Los Angeles area demand as possible with  
09 eastern Sierra water?

10 A Yes.

11 Q My second question refers to some of your concerns  
12 you voiced in keeping Long Valley Reservoir too high.  
13 You said there was some damage that could occur from  
14 uncontrolled spills from Long Valley Reservoir, and one  
15 area that you specifically identified as unacceptable  
16 to potential damage from high flows was the Owens  
17 River.

18 Do you recall that testimony?

19 A Yes. It's on Page 6.

20 Q Are you familiar with the stretch of the Owens  
21 River referred to as the Lower Owens River?

22 A Yes, I am.

23 Q And are you also familiar with the approximately  
24 60-stream miles of historic channel in the Lower Owens  
25 River, a large portion of which has no or low flows at

0263

01 this time?

02 A By "familiar," if you mean I'm aware of their  
03 existence, yes. Do I know specifics about those  
04 60-mile stretches, no, I do not.

05 Q Are you also familiar with the associated wetlands  
06 that lie to both the east and the west of the Lower  
07 Owens River?

08 MR. POLLACK: I'm going to object to that,  
09 Mr. Del Piero. I fail to see the relevance to  
10 Mr. Miller's testimony which dealt with aqueduct  
11 operations and a question that dealt with wetlands as a  
12 part of the Lower Owens River which is not part of the  
13 aqueduct system.

14 MS. SCOONOVER: Wetlands immediately adjacent to  
15 the Lower Owens River have a large effect on whether or  
16 not the Lower Owens River is susceptible to damage from  
17 high flows as Mr. Miller alleges. I'm simply trying to  
18 get a little bit of background on his degree of  
19 knowledge of the system, the Lower Owens River system.

20 HEARING OFFICER DEL PIERO: I'm going to overrule  
21 the objection, but I'm going to caution you. The  
22 nature of this witness' expertise may be limited to the  
23 answer to that question and no others, but go ahead and  
24 pursue it.

25 MS. SCOONOVER: I won't pursue it much further.

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01 Q BY MS. SCOONOVER: Do you recall the question?

02 A BY MR. MILLER: Actually, I would like you to repeat  
03 the statement, but I also have a clarification for what  
04 my testimony states.

05 HEARING OFFICER DEL PIERO: Let's take it one step  
06 at a time.

07 Ms. Anglin, would you read the question back?

08 (Whereupon the record was read by the Reporter.)

09 MR. MILLER: I would have to give you the same  
10 answer that I gave on the question previous to that. I  
11 am familiar with their existence. I am not familiar  
12 with the specifics of what they look like or anything  
13 like that.

14 Q BY MS. SCOONOVER: So you would be unable to answer  
15 questions regarding the capacity of these wetlands to  
16 carry overflow, to handle overflow?

17 A BY MR. MILLER: That is correct.

18 Q In the Lower Owens River?

19 A That is correct.

20 MS. SCOONOVER: That's all. Thank you.

21 MR. MILLER: The one clarification I would like to  
22 make to my testimony, though, is when I stated that  
23 uncontrolled spills from Long Valley could result in  
24 damage to the Owens River, and I believe this question  
25 came out under cross-examination, was I meant the

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01 Middle Owens River immediately below the Pleasant  
02 Valley Reservoir.

03 MS. SCOONOVER: So --

04 MR. MILLER: I was not speaking to damage in the  
05 Lower Owens, I was speaking to potential for damaging  
06 the Middle Owens.

07 MS. SCOONOVER: Middle Owens. Thank you.

08 HEARING OFFICER DEL PIERO: Thank you very much.  
09 Mr. Frink?

10 MR. FRINK: I have none, but Mr. Satkowski does.

11 HEARING OFFICER DEL PIERO: Mr. Satkowski?

12 CROSS-EXAMINATION BY THE STAFF

13 Q BY MR. SATKOWSKI: I just have I believe three  
14 questions. The first one deals with Attachment 5,  
15 which is Long Valley Reservoir Storage, No Mono Basin

16 Water.

17 Down near the dry-year line, it's labeled 1990  
18 through 1991, there's a couple of asterisks, and when  
19 you look down at the asterisks, it says that, "The  
20 actual 1972-73 dry year, Long Valley Reservoir  
21 storage." Can you explain what this means?  
22 A BY MR. MILLER: You've caught us in an error. What  
23 this data is, as I pointed out in my earlier testimony,  
24 is for no Mono water Basin available. We have only had  
25 historical operations for a dry year. So that double

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01 asterisk should read, "Actual 1990 to 1991 dry-year,  
02 Long Valley Reservoir storage." Not '72-73, as it is  
03 shown on the graph. That appears in error.

04 Q Thank you.

05 My other questions deal with Attachment 3, which  
06 is Los Angeles Aqueduct System Capacities, and I guess  
07 this question is for either of you. In the table, the  
08 fourth line down, Tinemaha Reservoir, historical  
09 maximum storage is about 16,000 acre-feet. The  
10 recommendation for the maximum on that reservoir is  
11 6,300 acre-feet. For the record, can you explain why  
12 the large difference?

13 A Certainly. Currently, Tinemaha Reservoir is under  
14 a state order from the State Division of Dam Safety to  
15 be held at a lower elevation. The previous high led to  
16 a storage of 16,000, approximately, 300 acre-feet.  
17 Currently, due to the limitations regarding safety of  
18 that dam, it's current maximum storage is limited to  
19 6,300 acre-feet.

20 The department is preparing a plan to begin  
21 remedial work on the reservoir to increase its  
22 capacity, but this will, of course, require approval  
23 from the State Division of Safety of Dams.

24 Q How long do you believe it would take to get this  
25 approval?

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01 A That's really out of my expertise and my group is  
02 not preparing the plans to submit to the state. I  
03 really don't have a firm timetable on that now.

04 Q Okay. In the Grant Lake Reservoir line, the  
05 recommended minimum is 11,000 even. Is that L.A.'s  
06 recommendation, or is it 11,500?

07 A BY MR. HASENCAMP: This is not a recommendation for a  
08 hard condition. This is a recommendation for use in  
09 the LAAMP planning model. We're not recommending that  
10 a minimum 11,000 be put on the reservoir. We're saying  
11 for long-term planning purposes, use that as the  
12 minimum.

13 Q Use 11,000?

14 A Yes.

15 A BY MR. MILLER: Again, that's for long-term  
16 planning. As I've mentioned before, the flexibility of  
17 storage is paramount. If it looks like we're getting a  
18 really heavy year up there, we will need to have  
19 reserve storage in Grant Lake Reservoir or any of the  
20 other reservoirs. Therefore, we may have to go below  
21 these recommended minimums.

22 Q My last question deals with the Pleasant Valley  
23 outflow. In the historical maximum column, it shows

24 809 cfs. The recommendation for maximum flow from  
25 Pleasant Valley is 600 cfs. Why the discrepancy  
0268  
01 there?  
02 A BY MR. HASENCAMP: Well, Pleasant Valley used to have  
03 a larger capacity than it does now, and the historical  
04 maximum is when the reservoir was at capacity and  
05 spilling. When both of those things were taking place,  
06 through the power plant and through the bypass, we  
07 could get 809 cfs. But again, for planning purposes  
08 and for long-range planning, through the power plant,  
09 600 cfs, and if you want to use the bypass, then 700  
10 cfs is a usable number, a reasonable number to use.  
11 Q Could you also get 800 cfs through the system if  
12 you were to use the bypass?  
13 A No. Not without encroaching the maximum.  
14 Pleasant Valley, like Tinemaha, has a lower maximum  
15 than it historically had. So unless you take Pleasant  
16 Valley above the legal level and, in fact, spill it,  
17 then you can get more water through the bypass.  
18 A BY MR. MILLER: And to spill that reservoir requires  
19 permission from the State Division of Dam Safety, and  
20 we have to try and get that very far ahead of time.  
21 And they are not very willing to give that out on just  
22 a, you know, a one-phone-call basis. The only time  
23 they've allowed it in the recent past was for  
24 maintenance purposes of the Pleasant Valley Power  
25 Plant. When we couldn't flow water through the power  
0269  
01 plant, they will allow to us raise the reservoir and  
02 spill it.  
03 MR. SATKOWSKI: Thank you very much. Those are  
04 all the questions I have.  
05 HEARING OFFICER DEL PIERO: Mr. Smith?  
06 MR. SMITH: I have no questions. Thank you.  
07 HEARING OFFICER DEL PIERO: Mr. Herrera?  
08 MR. HERRERA: I have one question.  
09 Q BY MR. HERRERA: Are there any restrictions from the  
10 Department of Fish and Game for maximum releases out of  
11 Pleasant Valley Reservoir?  
12 A BY MR. MILLER: There are none that I am aware of.  
13 Q Mr. Hasencamp?  
14 A BY MR. HASENCAMP: I don't believe there are.  
15 MR. HERRERA: Thank you.  
16 HEARING OFFICER DEL PIERO: Mr. Canaday?  
17 Q BY MR. CANADAY: This would be for either one of  
18 you. On the telemetry, how far -- what's the sending  
19 range of the telemetry, let's say, from the Grant Lake  
20 of the measuring devices? Is there a limitation on the  
21 range?  
22 A BY MR. MILLER: I'm not an expert on the telemetry,  
23 but our telemetry divisions, such as those, go to our  
24 Bishop office either through hard wire or radios, and  
25 once it's in Bishop, it can be entered into a computer,  
0270  
01 and from there it can go anywhere.  
02 Q My last question is for Mr. Miller. When you're  
03 going through these planning operations for a  
04 particular water year and you identify different  
05 irrigation amounts of water in various places along the

06 system, is that part of the planning? Is there a  
07 switch in your planning criteria that evaluates whether  
08 you reduce the irrigation deliveries?

09 A Okay. I am not directly involved in setting  
10 irrigation limits on water. That is handled by our  
11 Bishop office.

12 What we do during the planning of the operations  
13 is we consult with our personnel in the Bishop office  
14 to find out how much water they plan to deliver. Now,  
15 our normal commitment is five acre-feet of water per  
16 acre of irrigated land. However, we do have the option  
17 during dry years to reduce that.

18 Q When you say "we," the Bishop office has that  
19 option, or is it --

20 A We, the Department of Water and Power.

21 MR. CANADAY: All right. Thank you.

22 HEARING OFFICER DEL PIERO: Mr. Frink, you have  
23 one question?

24 MR. FRINK: Yes. I do have a followup on the  
25 question Mr. Satkowski asked about the maximum storage

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01 capacity of Tinemaha Reservoir.

02 Q BY MR. FRINK: Mr. Miller, I believe you indicated  
03 that the maximum reflected in Attachment 3 is a result  
04 of the restrictions imposed by the Division of Safety  
05 of Dams. Mr. Satkowski asked if you knew how long it  
06 would be until you had the approval to go higher.

07 Has the Department of Water and Power made any  
08 improvements on Tinemaha Reservoir in response to the  
09 Division of Dam Safety's requests?

10 A BY MR. MILLER: No. We have not made any  
11 improvements. We have started the process to improve  
12 the reservoir. We've begun doing geological studies  
13 and investigations, but we have made no physical  
14 modifications to the reservoir.

15 Q Mr. Hasencamp, I believe Mr. Miller stated he  
16 didn't know how long it would be until the Department  
17 of Water and Power could expect approval from the  
18 Division of Dam Safety. Do you have an opinion on  
19 that?

20 A BY MR. HASENCAMP: No, I do not.

21 MR. FRINK: Thank you.

22 HEARING OFFICER DEL PIERO: I have one question in  
23 regards to that matter, Gentlemen.

24 CROSS-EXAMINATION BY THE BOARD

25 Q BY HEARING OFFICER DEL PIERO: Have you identified a  
0272

01 strategy yet as to addressing the problems that the  
02 Division of Dam Safety have identified?

03 A BY MR. MILLER: That question would probably be best  
04 addressed by our dams and geology group.

05 Q The question I'm asking is has an action been  
06 taken by whoever is in authority to identify a repair  
07 or improvement strategy?

08 A As I stated, we've initiated the studies to come  
09 up with a plan of action.

10 Q But they are not completed?

11 A No. We don't have any recommended plan yet. We  
12 are in the initial stages.

13 Q Have you completed an environmental impact report

14 on it?  
15 A Not to my knowledge.  
16 Q Are you still scoping the basis of the work?  
17 A I'm not aware of any activities of that sort as  
18 far as --  
19 Q Is it being done by someone on your staff or is it  
20 being done by a consultant? Or do you know?  
21 Mr. Hasencamp, do you know?  
22 A BY MR. HASENCAMP: In the past, our practice has not  
23 been to improve the reservoirs, but to determine what  
24 operation is safe. If there was an earthquake, how  
25 much would the dam slump. It's too costly to get in  
0273  
01 there and actually bring these reservoirs up to the  
02 standard.  
03 Q So what course of action is being pursued by the  
04 Department of Water and Power in regard to this matter?  
05 A Well, we've already gone through at South Haiwee.  
06 We've got, just in the last couple of years, the  
07 maximum South Haiwee restored to 27,000 acre-feet. So  
08 that was a number one priority.  
09 A BY MR. MILLER: I will address this. I have been in  
10 with a meeting with the group, Water Engineering  
11 Design, which is a division of Water and Power. They  
12 have personnel who are working on a remediation plan  
13 for the reservoir. We have indicated that we don't  
14 want any storage lower than 63,000 acre-feet, and if  
15 possible and if they can come up with a remediation  
16 plan that will allow higher storages, they should  
17 pursue that matter.  
18 Now, whether they're going to actually do the  
19 calculations or not, I'm not sure, and whether they  
20 have any consultants on board performing those  
21 calculations, I'm not sure.  
22 Q How recently was that?  
23 A Probably within about the last six months or so.  
24 MR. FRINK: I believe Mr. Miller meant to state  
25 lower than 6300 acre-feet not lower than 63,000?  
0274  
01 MR. MILLER: That would be correct.  
02 MR. FRINK: Thank you.  
03 HEARING OFFICER DEL PIERO: Mr. Birmingham?  
04 MR. POLLACK: Actually, it's me.  
05 HEARING OFFICER DEL PIERO: I'm sorry,  
06 Mr. Pollack. Forgive me.  
07 MR. POLLACK: Can I have just a moment?  
08 HEARING OFFICER DEL PIERO: Certainly, Sir.  
09 MR. BIRMINGHAM: We only have a half an hour of  
10 questions, Mr. Del Piero.  
11 MR. POLLACK: We have no redirect, Mr. Del Piero.  
12 HEARING OFFICER DEL PIERO: Thank you very much,  
13 Mr. Pollack.  
14 I'll recall --  
15 MR. BIRMINGHAM: As Ms. McKeever said several  
16 months ago, I lost control of this a long time ago.  
17 HEARING OFFICER DEL PIERO: I'll recall  
18 Mr. Birmingham's lame joke on Tuesday.  
19 HEARING OFFICER DEL PIERO: Ms. Cahill?  
20 MS. CAHILL: One question.  
21 CROSS-EXAMINATION BY MS. CAHILL



22 Q Mr. Miller, again on Attachment 3 where you have  
23 the maximum and minimums listed for your reservoirs,  
24 are there any legally required minimum pools for any of  
25 those reservoirs?

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01 A BY MR. MILLER: Not that I'm aware of, no.

02 MS. CAHILL: Thank you.

03 HEARING OFFICER DEL PIERO: Thank you very much.

04 Mr. Roos-Collins?

05 MR. BIRMINGHAM: Is this a question by

06 Mr. Vorster?

07 MR. ROOS-COLLINS: It is. Would you prefer that  
08 he ask it?

09 MR. VORSTER: I'll ask it.

10 MR. BIRMINGHAM: You know Bruce Dodge has a rule  
11 about these questions and the rule is you take them  
12 like this and you throw them over your shoulder. Let  
13 the record reflect that I have returned  
14 Mr. Roos-Collins' question to him.

15 HEARING OFFICER DEL PIERO: I appreciate that.

16 MR. ROOS-COLLINS: That story brings to mind the  
17 Biblical saying about throwing pearls to swine. And in  
18 case that's too abstract, I'm characterizing  
19 Mr. Vorster's question as pearls.

20 CROSS-EXAMINATION BY MR. ROOS-COLLINS

21 Q Mr. Hasencamp, in answer to one of my earlier  
22 questions, you referred to the green book. Does the  
23 green book restrict the Department of Water and  
24 Power's storage of excess water in the Big  
25 Pine volcanic formation?

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01 MR. POLLACK: Mr. Del Piero, while I didn't object  
02 the first time the green book was mentioned, the  
03 testimony that is being offered today is regarding  
04 aqueduct operations in regard to Crowley Lake and this  
05 proceeding, the Mono Basin. And Mr. Roos-Collins is  
06 now bringing up the Owens Valley, which is the subject  
07 of long litigation and controversy and a completely  
08 different situation. I fail to see the relevance as  
09 regards this proceeding.

10 MR. ROOS-COLLINS: The relevance, Mr. Del Piero,  
11 is based on the representation by Mr. Miller in which  
12 Cal-Trout joins that the aqueduct system should be  
13 considered as an integrate whole and what happens in  
14 one part affects the other. I'm asking about the  
15 capacity of one part of the aqueduct system to store  
16 groundwater given the possible effect on the Mono  
17 Basin.

18 HEARING OFFICER DEL PIERO: Ms. Scoonover?

19 MS. SCOONOVER: Mr. Hasencamp did indeed raise the  
20 green book in answer the one of Mr. Roos-Collins'  
21 previous questions. Mr. Hasencamp will be back next  
22 Tuesday. Perhaps you could wait 'til then to ask  
23 Mr. Hasencamp more about the green book.

24 HEARING OFFICER DEL PIERO: We can take care of it  
25 now.

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01 I'm going to overrule your objection, okay? But  
02 let's not get too far afield on this, okay?

03 MR. ROOS-COLLINS: Thank you.

04 HEARING OFFICER DEL PIERO: Did you understand the  
05 question, Mr. Hasencamp?  
06 MR. HASENCAMP: I think I do.  
07 HEARING OFFICER DEL PIERO: If you would prefer to  
08 have it read back to you, Sir, we can do that.  
09 MR. HASENCAMP: No, that's okay.  
10 HEARING OFFICER DEL PIERO: Okay.  
11 MR. HASENCAMP: I'm not aware of that.  
12 Q BY MR. ROOS-COLLINS: Thank you.  
13 We previously discussed the use of automated  
14 devices to control releases from Grant Reservoir and  
15 other facilities in the Mono Basin. Are flow -- are  
16 automated flow control devices used anywhere in the  
17 L.A. aqueduct system to control releases from  
18 reservoirs?  
19 A BY MR. MILLER: By -- well, if you mean like remote  
20 control?  
21 Q I do.  
22 A The valves at the power houses are controlled from  
23 within the powerhouse, but they are not controlled  
24 from, say, like Bishop office or anything like that.  
25 They're controlled at the facility, itself, but they do  
0278  
01 have remote operators.  
02 Q Have the forecasting and operations groups  
03 investigated the possibility of installing remote  
04 control devices at your Mono Basin facilities?  
05 A No, we have not.  
06 MR. ROOS-COLLINS: Thank you. No further  
07 questions.  
08 HEARING OFFICER DEL PIERO: Thank you.  
09 Mr. Miller, would that serve any purpose?  
10 MR. MILLER: It would make flow changes easier to  
11 do, certainly. You wouldn't have to dispatch a person  
12 out there with the associated costs.  
13 HEARING OFFICER DEL PIERO: How long does it take  
14 to dispatch a person to that location?  
15 MR. MILLER: You'd have to ask our Bishop office  
16 about what the average turnaround time --  
17 HEARING OFFICER DEL PIERO: Mr. Hasencamp, do you  
18 have a sense?  
19 MR. HASENCAMP: Not very long. We have a person  
20 in the Mono Basin fairly routinely, and we make changes  
21 usually every day.  
22 HEARING OFFICER DEL PIERO: What is it, 45  
23 minutes?  
24 MR. HASENCAMP: It depends on the time of day. In  
25 the morning, certainly within an hour, if it's the  
0279  
01 first thing in the morning.  
02 MR. MILLER: Mr. Del Piero, to answer part of your  
03 question, too, one of the reasons is we usually call in  
04 changes about a day ahead of time so that it can be  
05 done with our aqueduct and reservoir keepers as part of  
06 their morning routine when they take readings and such.  
07 HEARING OFFICER DEL PIERO: Ms. Scoonover?  
08 MR. SCOONOVER: I have no further questions.  
09 HEARING OFFICER DEL PIERO: Mr. Frink?  
10 MR. FRINK: No questions.  
11 HEARING OFFICER DEL PIERO: Mr. Satkowski?

12 MR. SATKOWSKI: No questions.  
13 HEARING OFFICER DEL PIERO: Mr. Smith?  
14 Mr. Canaday? Mr. Herrera? Any further questions,  
15 Sir?  
16 Gentlemen, thank you very much for your kindness  
17 and participation. Mr. Hasencamp, we'll see you next  
18 week. Mr. Miller, I don't know if we'll see you again,  
19 but it's been a pleasure.  
20 Ladies and Gentlemen, unless there are any  
21 procedural items to take care of, I'll see you Tuesday  
22 morning at 8:30. Good. Thank you.  
23 (Whereupon the hearing was adjourned at 5:30 p.m.)  
24 ---o0o---  
25

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01 REPORTER'S CERTIFICATE

01  
02 ---o0o---  
02  
03 STATE OF CALIFORNIA )  
03 ) ss.  
04 COUNTY OF SACRAMENTO )  
04  
05 I, KELSEY DAVENPORT ANGLIN, certify that I was the  
06 official court reporter for the proceedings named  
07 herein; and that as such reporter, I reported, in  
08 verbatim shorthand writing, those proceedings, that I  
09 thereafter caused my shorthand writing to be reduced to  
10 typewriting, and the pages numbered 1 through 279  
11 herein constitute a complete, true and correct record  
12 of the proceedings:  
13  
14 PRESIDING OFFICER: Marc Del Piero  
15 JURISDICTION: State Water Resources Control Board  
16 CAUSE: Mono Lake Diversions  
17 DATE OF PROCEEDINGS: January 14, 1994  
18  
19 IN WITNESS WHEREOF, I have subscribed this  
20 certificate at Sacramento, California, on this 31st day  
21 of January, 1994.  
22  
23  
24  
24 \_\_\_\_\_  
25 Kelsey Davenport Anglin, RPR  
25 CM, CSR No. 8553  
25