

MEETING
STATE OF CALIFORNIA
WATER RESOURCES CONTROL BOARD
WATER RIGHTS HEARING ON
PERMITS 11308 AND 11310

JOE SERNA, JR. BUILDING
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
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1 PROCEEDINGS

2 HEARING OFFICER DODUC: Good morning, everyone.
3 This is the time and place for a hearing to receive
4 evidence on whether the Final Environmental Impact Report
5 for the consideration of the modifications to the U.S.
6 Bureau of Reclamation Water Rights Permits 11308 and 11310
7 to protect public trust values of downstream water rights
8 on the Santa Ynez River below Bradbury Dam should be
9 entered into the administrative record for Phase 2 of the
10 Cachuma hearing. I will refer to this document as the
11 Final EIR during this proceeding.

12 I'm Tam Doduc, member of the State Water
13 Resources Control Board. And I will serve as Hearing
14 Officer for today.

15 With me today are staff assigned to assist with
16 this hearing: Staff Counsel Dana Heinrich; Staff
17 Environmental Scientist Jane Farewell; and Water Resources
18 Control Engineer Ernie Mona.

19 Before we get started, I'm required to review the
20 evacuation procedures. In the event of a fire alarm, we
21 are required to evacuate this room immediately. Please
22 look around now and identify the exits closest to you.
23 Please take your valuables with you and do not use the
24 elevators. Exit down the stairways. Due to the
25 construction in Ceasar Chavez Park, the temporary

1 relocation site is north of the building at J. Neely Park
2 and gardens at 516 11th Street. Just follow the crowd.
3 You cannot use the stairs. You will be directed to a
4 protective vestibule inside the stairwell.

5 Let me take a moment and ask you to check to make
6 sure that your cell phones and any other noise-making
7 devices is set on silent or vibrate. I will do the same.

8 This hearing is being held in accordance with the
9 Notice of Public Hearing dated January 23rd, 2012. The
10 purpose of this hearing is to provide parties an
11 opportunity to cross-examine the State Water Board's
12 witnesses and to present rebuttal and surrebuttal
13 testimony that addresses the key issue contained in the
14 hearing notice, which is whether the Final EIR should be
15 entered into the administrative record for Phase 2 of the
16 Cachuma hearing.

17 We are broadcasting this hearing on the internet
18 and recording both audio and video. A court reporter is
19 present to prepare a transcript of the proceeding. This
20 transcript will be made available electronically on the
21 Board's website as soon as the hearing team receives it.

22 To assist the court reporter, please provide her
23 with your business card and be sure that you use a
24 microphone whenever you speak.

25 Also, do I have to caution -- I caution you that

1 the internet broadcast continues during all breaks. So be
2 careful you do not have private conversations during open
3 microphone at any time.

4 All right. We will now move to the evidentiary
5 portion of the hearing. First, I will take a roll call of
6 the parties present today who plan on participating in the
7 hearing.

8 Will those who plan to participate please state
9 your name and whom you represent so that the court
10 reporter can enter this information into the record.

11 Who's here from the Bureau?

12 If you could come up to the microphone and
13 identify yourself for the court reporter.

14 MS. AUFDEMBERGE: My name is Amy Aufdemberge.
15 I'm Assistant Regional Solicitor in the U.S. Department of
16 Interior's Regional Solicitor's Office.

17 HEARING OFFICER DODUC: Cachuma Conservation
18 Board?

19 MR. O'BRIEN: Morning, Hearing Officer Doduc,
20 members of staff.

21 Kevin O'Brien, Downey Brand, LLP. Also with me
22 helping CCRB is my colleague, Christian Marsh.

23 HEARING OFFICER DODUC: Santa Ynez River Water
24 Conservation District, ID Number 1?

25 MR. WILKINSON: Good morning, Hearing Member

1 Doduc and staff.

2 I'm Greg Wilkinson from the law firm of Best,
3 Best & Krieger. With me today from our firm is Peter
4 Garcia also with Best, Best & Krieger and representing
5 Santa Ynez River Water Conservation District, Improvement
6 District Number 1, which we will probably shorthand in
7 this hearing as ID 1.

8 HEARING OFFICER DODUC: Thank you.

9 Santa Ynez River Water Conservation District?

10 MR. CONANT: Good morning. Ernest A. Conant of
11 Young Wooldridge. With me is Steven Torigiani on behalf
12 of Santa Ynez River Water Conservation District, sometimes
13 referred to as the "parent district."

14 HEARING OFFICER DODUC: City of Lompoc?

15 MS. DUNN: Good morning. I'm Sandra Dunn with
16 the firm of Somach, Simmons & Dunn representing the City
17 of Lompoc.

18 HEARING OFFICER DODUC: City of Solvang?

19 MR. WILKINSON: They're not present.

20 HEARING OFFICER DODUC: Santa Barbara County?

21 MR. WILKINSON: I don't believe they're present.

22 HEARING OFFICER DODUC: California Department of
23 Fish and Game?

24 MS. MURRAY: Hello. Nancee Murray, Senior Staff
25 Counsel with the California Department of Fish and Game.

1 HEARING OFFICER DODUC: Thank you.

2 National Marine Fisheries Services?

3 MR. HYTREK: Good morning. I'm Dan Hytrek with
4 the National Oceanic and Atmospheric Administration,
5 Office of General Counsel representing the National Marine
6 Fisheries.

7 HEARING OFFICER DODUC: Thank you.

8 And California Trout?

9 MS. KRAUS: Good morning. I'm Karen Kraus with
10 the Environmental Defense Center representing California
11 Trout.

12 HEARING OFFICER DODUC: Great. Thank you very
13 much.

14 Let me just briefly give you an outline of what
15 to expect.

16 First, Mr. David Rose, who I see is already
17 prepared, from the State Board Office Of Chief Counsel
18 will present the witnesses, Mr. Joe Gibson and Mr. Daryl
19 Koutnik, who prepared the Final EIR.

20 The parties may then cross-examine these
21 witnesses in the following order. We'll begin with the
22 Bureau, then Mr. O'Brien, Mr. Wilkinson, Mr. Conant, Ms.
23 Dunn, Ms. Murray, Mr. Hytrek, and Ms. Kraus.

24 MR. O'BRIEN: Ms. Doduc, can I be heard on a
25 procedural matter?

1 HEARING OFFICER DODUC: Sure.

2 MR. O'BRIEN: Just had a couple items.

3 First of all, we have one witness, Mary Lou
4 Cotton, who is unfortunately not available tomorrow. And
5 talked to Mr. Hytrek yesterday about this. So I'm going
6 to request that if we don't get to her today, which it
7 looks like it's fairly unlikely, I would request that we
8 take her out of order. It's about a five minute
9 presentation mostly relating to some very specific water
10 conservation issues. So I would request the opportunity
11 to take her out of order this afternoon.

12 HEARING OFFICER DODUC: That's Ms. Cotton?

13 MR. O'BRIEN: Cotton, yes.

14 And secondly, we received an e-mail from
15 Ms. Farewell yesterday. It was very helpful in terms of
16 explaining the procedures and time requirements.

17 The three Cachuma units represented by myself,
18 Mr. Wilkinson, and Mr. Conant have worked collaboratively
19 on our presentation and attempted to streamline things as
20 much as possible.

21 In that regard, we've divided up the
22 cross-examination. And I realize that under the
23 guidelines issued yesterday, each party has 30 minutes to
24 cross-examine.

25 What we would propose is that in the case of

1 certain witnesses -- for example, I would like to cede my
2 time to Mr. Wilkinson so he can then cross-examine on
3 behalf of all three of the Cachuma member agencies. I
4 think we'll find this hearing will move a lot faster if we
5 are allowed to move our time around. I think it will be
6 much more efficient and that's the way we prepared for the
7 hearing. So I request the opportunity to do that.

8 HEARING OFFICER DODUC: It's my standard practice
9 that, while we do set preliminary time limits, that if
10 there is a showing of cause, I'm more than open to
11 continue the cross-examination as long as it's relevant to
12 the issue at hand. So while I do not welcome the exchange
13 of time, let me assure you that if one party is going to
14 be cross-examining on behalf of all three does show good
15 cause for continuing the line of cross-examination beyond
16 30 minutes, I would certainly welcome and allow that
17 opportunity.

18 MR. O'BRIEN: Very good. Thank you.

19 HEARING OFFICER DODUC: With regard to the
20 witnesses be allowed -- any rebuttal should be limited to
21 evidence that is responsive to the direct testimony of the
22 State Water Board witnesses or to the validity of the
23 specific factual statement analysis or determination
24 contained in the final EIR. Rebuttal does not include
25 evidence that should have been presented during the case

1 in chief of the parties submitting rebuttal evidence.
2 Surrebuttal will be limited to the scope of the rebuttal
3 evidence.

4 Parties are encouraged to be efficient in
5 conducting their cross-examination and presenting their
6 rebuttal and surrebuttal testimony. Except where I
7 approve a variation, we will follow the procedures set
8 forth in the Board's regulation, the Hearing Notice, and
9 the subsequent rulings.

10 Parties will be limited to 30 minutes for
11 cross-examination of the State Water Board's witnesses.
12 Rebuttal witnesses will be given 15 minutes each to
13 present their testimony. Rebuttal witnesses Darren
14 Brumback and Dr. Trush will be subject to
15 cross-examination as a panel.

16 Cross-examination of each rebuttal witness or
17 panel of witnesses will be limited to 30 minutes per
18 party.

19 Surrebuttal testimony will be presented in two
20 panels. The first panel will consist of witnesses
21 responding to the rebuttal testimony of Darren Brumback
22 and Dr. William Trush.

23 The second panel will consist of witnesses
24 responding to the rebuttal testimony of Heather Cooley.

25 Each panel will be limited to 30 minutes to

1 present their surrebuttal testimony, and cross-examination
2 of each panel will be limited to 30 minutes per party.

3 And here's when I ask are there any other
4 procedural items that we need to consider before we begin?

5 Actually, since Mr. O'Brien did make a request,
6 are there any concerns or objections from the other
7 parties with respect to taking Ms. Cotton out of order?

8 MS. KRAUS: Karen Kraus from CalTrout.

9 I don't necessarily have an objection, but could
10 you clarify with respect to that request when exactly Mary
11 Lou Cotton would be testifying then just in terms of the
12 order of the proceedings?

13 HEARING OFFICER DODUC: Well, I was going to play
14 it by ear and see what progress we make throughout the
15 day. I will definitely squeeze her in before the end of
16 the day, but I can't give you an exact order at the
17 moment.

18 MS. KRAUS: I guess I'm assuming that she would
19 still come after CalTrout's rebuttal witness would
20 testify.

21 HEARING OFFICER DODUC: I would hope to get the
22 rebuttal witnesses done before getting to the surrebuttal.

23 MS. KRAUS: Okay.

24 HEARING OFFICER DODUC: But we'll see how things
25 play out.

1 MS. KRAUS: I would reserve my right to raise a
2 concern then with playing it by ear.

3 HEARING OFFICER DODUC: For planning purposes,
4 again, we'll see how things play out today. But it's
5 possible we may stay here late until about 6:00 or so and
6 then begin earlier tomorrow morning, earlier than the
7 10:00 that was noticed.

8 All right. I will now administer the oath. Will
9 those persons who may testify during this proceeding
10 please stand and raise your right hand.

11 (Whereupon all prospective witnesses were sworn.)

12 HEARING OFFICER DODUC: I will assume everyone
13 said yes. Thank you. You may be seated.

14 At this time, I will ask Mr. Rose to please
15 present the State Water Board's witnesses.

16 MR. ROSE: Thank you, Board Member Doduc.

17 DIRECT EXAMINATION

18 MR. ROSE: Would you please state your names and
19 places of employment for the record?

20 DR. KOUTNIK: My name is Daryl Koutnik. I work
21 for the company Impact Sciences in Southern California.
22 Corporate office is in Camarillo, California.

23 MR. GIBSON: My name is Joe Gibson. I'm
24 currently a partner with the firm Reed Consultants in West
25 Lake Village. I formerly until February 29th was with

1 Impact Sciences.

2 MR. ROSE: And you submitted --

3 HEARING OFFICER DODUC: Could I ask that the last
4 witness, when you speak, please get closer to the
5 microphone? Thanks.

6 MR. ROSE: And you submitted copies of their
7 resume for these proceedings?

8 MR. GIBSON: Yes, we did.

9 DR. KOUTNIK: Yes.

10 MR. ROSE: Are your resumes still current and
11 accurate?

12 DR. KOUTNIK: Yes, mine is.

13 MR. GIBSON: The only change on mine would be my
14 appointment with Reed Consultants.

15 MR. ROSE: Thank you.

16 And you were primarily responsible for preparing
17 the Final Environmental Impact Report for this project;
18 correct?

19 DR. KOUTNIK: That is correct.

20 MR. GIBSON: Yeah. I served as Project Manager
21 principally in charge. Daryl Koutnik also served as the
22 lead author for the biology issues on this.

23 MR. ROSE: Have you reviewed the Final
24 Environmental Impact Report for today?

25 MR. GIBSON: Yes. Since we published it and

1 provided it to the Board, we have gone back and
2 re-reviewed the document to become familiar with it for
3 today's hearing.

4 MR. ROSE: Thank you.

5 From your review of the FEIR for today's hearing,
6 is there anything you feel needs to be corrected or
7 clarified about that document?

8 MR. GIBSON: Yes, there are. There are a number
9 of clarifications we would like to make with specific to
10 the Response to Comments that we drafted for the final
11 that was provided to the Water Board. Specifically, these
12 deal with the responses to the letter submitted by NOAA
13 and Marine Fisheries Service dated May 27th, 2011.

14 In reviewing those responses and having time to
15 digest this very voluminous document -- a lot of review
16 goes in -- we went back and looked at some items that were
17 raised by us and others and would like to make a couple
18 language clarifications to a couple of the responses.

19 The first one is in terms of responses 8-1, 8-3,
20 and 8-4. In the responses for each of those comments, we
21 drafted a statement that basically said -- and I'll read
22 it the way it was. "As required by NMFS, the Cachuma
23 Project will fully comply with provision of revised
24 biological opinion."

25 In going back and re-reviewing the document since

1 we drafted it and submitted those response, both Dr.
2 Koutnik and I felt that that was an overstatement of
3 really what the purpose of the document is and the
4 language should rather read that the Cachuma Project would
5 be expected to comply in each of those statements.

6 Next with regards to response 8-9, there was a
7 statement within that response that talked about
8 protection with regards to public trust resources. And
9 again, Dr. Koutnik and I reviewed that response and again
10 felt that, as drafted, it was a bit overstated. And
11 basically the response should have read -- or should read
12 "that the public trust resources will experience improved
13 conditions relative to the base line." And that same
14 statement is made in response number 8-15.

15 Based on that, Daryl, did you have any other
16 issues that we looked at that we needed to make correction
17 on?

18 DR. KOUTNIK: One more clarification also in 8-15
19 was an absolute statement that we wanted to clarify as
20 more permissive. That was it says the State Water
21 Resources Control Board will follow reclamation in
22 adopting requirements of revised biological opinion. And
23 again that was something that was too absolute. And we
24 recommend the sentence be phrased that the State Water
25 Resources Control Board could amend the permits to reflect

1 requirements of the revised biological opinion.

2 MR. GIBSON: So based on that, we have no
3 other -- in our review of the document, no other suggested
4 language changes at this time.

5 MR. ROSE: I appreciate all of those
6 clarifications.

7 Let me ask you one additional point. You had
8 brought up -- this was -- I believe you referenced
9 Responses to Comments 8-3 and 8-4. The Cachuma Project
10 would be expected to comply with the provisions of the
11 revised biological opinion. That's what you just said;
12 right?

13 DR. KOUTNIK: That's correct.

14 MR. GIBSON: There's correct.

15 MR. ROSE: The second part of that, the Initial
16 Response to Comments says, "Just as the project has
17 operated in compliance with the September 2000 biological
18 opinion."

19 I believe that there have been some comments
20 provided earlier regarding whether or not there has been
21 full compliance with the September 2000 Biological
22 Opinion. Do you have any additional thoughts about that
23 second part of the statement, or is that leave that as is?

24 MR. GIBSON: I think we'd like to clarify that
25 possibly a little bit as well.

1 Daryl, do you want to speak to that?

2 DR. KOUTNIK: Correct. We acknowledge that there
3 are provisions within the biological opinion that have not
4 been fully implemented by the agencies that are
5 responsible for being part of the Cachuma Project and the
6 water agencies involved.

7 And to the best of our understanding of the
8 actions of these agencies that they have been in good
9 faith implemented as much as is possible within their
10 realm. For example, we know that there are passages that
11 are currently thought and some opportunities that haven't
12 been fully implemented.

13 So with that regard, that statement is
14 provisional that -- that it's compliance within the
15 abilities of those agencies that are responsible.

16 MR. ROSE: I appreciate that clarification. With
17 that clarification, does that change any of your analysis
18 or conclusions that you made in the Final Environmental
19 Impact Report?

20 MR. GIBSON: As we went back and reviewed the
21 document and all of the clarifications, including the one
22 you brought up regarding compliance, our opinion is no,
23 the conclusions of the Final EIR are still valid as
24 presented.

25 MR. ROSE: Thank you. I appreciate that.

1 I have just a few more brief questions and then
2 I'll be done.

3 Was the purpose of the Final Environmental Impact
4 Report to determine what measures are necessary to protect
5 public trust resources as required by the Public Trust
6 Doctrine?

7 MR. GIBSON: I think you have to go to the
8 fundamental purpose of an EIR and it's really an
9 information document, the decision makers to make that
10 determination.

11 And again as we looked at drafting the document,
12 it was to fully disclose the information so such a
13 decision could be made. But not for the document to make
14 or lead that decision.

15 MR. ROSE: Would you say that the FEIR does make
16 such a determination?

17 MR. GIBSON: No, it does not. It provides an
18 analysis of alternatives and identifies and discloses
19 potential impacts. It does not make any such decision.

20 MR. ROSE: And would you say that the purpose of
21 the FE -- was the purpose of the FEIR to determine what
22 measures are necessary to maintain fish in good conditions
23 as defined in Fish and Game Code Section 937?

24 DR. KOUTNIK: No. The EIR was there to analyze
25 the impacts associated with the alternatives as part of

1 the project description. And, therefore, that would not
2 be the stated purpose of the environmental document.

3 MR. ROSE: Did the FEIR make such a
4 determination?

5 DR. KOUTNIK: No, it didn't.

6 MR. ROSE: I don't have any additional questions.

7 HEARING OFFICER DODUC: Thank you, Mr. Rose.

8 We will begin the cross-examination with the
9 Bureau. Does did Bureau wish to cross-examine?

10 Could I ask you to come sit over there that way
11 the witnesses don't have to --

12 CROSS-EXAMINATION

13 MS. AUFDEMBERGE: I was wondering how that was
14 going to work.

15 My name is Amy Aufdemberge. I'm an attorney with
16 the Department of Interior today representing the Bureau
17 of Reclamation. And I thank you for the opening
18 testimony, and I have just a few clarifying questions.

19 Given your clarifying statements this morning in
20 preparing the December 2011 Final EIR, did you consider
21 all timely written comments during the 2011 public comment
22 period?

23 MR. GIBSON: Yeah. With regards to all the
24 comments that were received on the document, we considered
25 only comments received by the Board.

1 MS. AUFDEMBERGE: Thank you.

2 Are you aware of any reliable and substantiated
3 information which was not considered in the Final EIR and
4 which was available prior to the Board's finalization of
5 the EIR that may require material changes to the document?

6 MR. GIBSON: Could I ask you to repeat part of
7 that? I didn't hear the first part.

8 MS. AUFDEMBERGE: Are you aware of any reliable
9 and substantiated information which is not considered in
10 the FEIR and which was available prior to the Board's
11 finalization of the document which would require material
12 changes to the document?

13 MR. GIBSON: Not that I'm aware of.
14 Daryl?

15 DR. KOUTNIK: To the best of my knowledge, no.

16 MS. AUFDEMBERGE: Thank you.

17 Have you read the Board's Initial Hearing Notice
18 for this Phase 2 Cachuma hearing, including how that
19 Notice may have been modified in August of 2003?

20 MR. GIBSON: Yes. As part of our work, the
21 initial thing we did was review the entire hearing record.

22 MS. AUFDEMBERGE: Then are you familiar with the
23 key issues outlined in the Board's August 2003 public
24 hearing notice for this Phase 2?

25 MR. GIBSON: Yes, we reviewed those and are aware

1 and understand them.

2 MS. AUFDEMBERGE: In your opinion, does the Final
3 EIR present the Board with sufficient facts and analysis
4 to evaluate whether to modify Permits 11308 and 11310 for
5 the Cachuma Project in accordance with those key issues?

6 MR. GIBSON: Yes, it does.

7 MS. AUFDEMBERGE: Thank you very much. That
8 concludes my cross-examination.

9 HEARING OFFICER DODUC: Thank you.

10 Cachuma Conservation Release Board. Mr. O'Brien.

11 CROSS-EXAMINATION

12 MR. O'BRIEN: Mr. Gibson and Mr. Koutnik, I'm
13 going to limit my questions to the areas of water supply
14 and demand. And I believe that Mr. Wilkinson is going to
15 focus on the fisheries issues.

16 Did either of you have an opportunity to review
17 the outline submitted by Ms. Heather Cooley in this
18 proceeding?

19 MR. GIBSON: Yes, I believe we both had the
20 opportunity to review the outline.

21 MR. O'BRIEN: So you're generally --

22 HEARING OFFICER DODUC: Mr. O'Brien, could I ask
23 you to move over there? Otherwise, the witnesses will be
24 leaning back and forth.

25 MR. O'BRIEN: I'm sorry?

1 HEARING OFFICER DODUC: Move over there to
2 continue your cross-examination.

3 MR. O'BRIEN: Okay. This is more comfortable
4 actually.

5 So you're generally aware, I take it, that
6 CalTrout has taken the position that the FEIR
7 overestimates future demand and plan potential shortages
8 under the proposed alternatives. Are you generally aware
9 of that?

10 MR. GIBSON: Yes, we're aware of that.

11 MR. O'BRIEN: Are you also aware that CalTrout
12 has asserted that the FEIR does not include cost effective
13 urban conservation potential available to the various
14 water contractors?

15 MR. GIBSON: Yes, we're aware of your statements.

16 MR. O'BRIEN: Now, in preparing the FEIR and in
17 particular in relation to water supply and demand by the
18 various Cachuma contractors, what information or data did
19 you consider?

20 MR. GIBSON: With regards to water supply, we
21 inquired of all the agencies that were involved to have
22 them provide us their most current data during the
23 drafting of the Environmental Impact Report, including,
24 but not limited to, information that they were in
25 preparation for their 2010 Urban Water Management Plan

1 updates. So we felt that that information was as accurate
2 as presented by them as we could get.

3 MR. O'BRIEN: That was on the water demand side I
4 believe you said?

5 MR. GIBSON: Water demand and what their
6 projection of supply would be.

7 MR. O'BRIEN: Okay. So you actually discussed
8 directly with the individual retailers these supply and
9 demand issues?

10 MR. GIBSON: Yes. In some cases, we had
11 dialogue -- data inquiries for the Cachuma Conservation
12 Board to get that information. And we also contacted the
13 various members directly to get that information.

14 MR. O'BRIEN: Was there ever a situation where
15 you felt you were denied access to any information that
16 you thought was relevant to these water supply and demand
17 issues?

18 MR. GIBSON: Not that I'm aware of.

19 MR. O'BRIEN: Is it fair to say that the Cachuma
20 member agencies were cooperative with you in this process?

21 MR. GIBSON: Yes.

22 MR. O'BRIEN: And this information that you
23 described relating to water supply and demand, in your
24 opinion, was this the best information available on water
25 supply and demand at the time that the FEIR was prepared?

1 MR. GIBSON: Yes. In our opinion, it was the
2 most reliable information that was available.

3 MR. O'BRIEN: Okay. Is it your understanding
4 that CEQA requires the consideration of feasible
5 mitigation measures in some instances?

6 MR. GIBSON: It's our understanding and belief
7 CEQA requires feasible mitigation if there are impacts.

8 MR. O'BRIEN: When we talked about the term
9 "feasible," isn't it true that the CEQA guidelines define
10 that term in reference in part to economic considerations?

11 MR. GIBSON: I think economic consideration can
12 be brought in to determine the feasibility of mitigation
13 measures, yes.

14 MR. O'BRIEN: With respect to conservation
15 measures that have been advocated by CalTrout in this
16 proceeding, are you aware of any economic analysis of the
17 cost effectiveness of the measures that they are
18 promoting?

19 MR. GIBSON: I have not seen any specific cost
20 analysis from the measures they've identified.

21 MR. O'BRIEN: In this entire process, including
22 all the comments to the EIR, public hearings relating to
23 the Notice of Preparation, in that entire time, are you
24 aware of any economic analysis that was presented by
25 CalTrout or any of the other organizations that are

1 opposing the EIR in this proceeding?

2 MR. GIBSON: I'm not aware of any specific
3 economic analysis for any of the water supply or demand
4 issues that are relative to this project, no.

5 MR. O'BRIEN: Now with respect to water
6 conservation potential on the South Coast, are you aware
7 that the water use -- per capita water use on the South
8 Coast is significantly lower than many other regions of
9 the state of California?

10 MR. GIBSON: Well, we are aware that water use
11 varies by region and understand that. And in reviewing
12 both the 2005 and what was available with regard to the
13 2010 Urban Water Management Plan update, we were cognizant
14 water use varied from other regions than in our area as
15 well.

16 MR. O'BRIEN: And generally the South Coast --

17 HEARING OFFICER DODUC: Hold on. Before you
18 continue, could I ask the witness to please get closer to
19 the microphone? If all of you -- I have a really bad head
20 cold, so speaking closer to the microphone will be very
21 helpful to me.

22 MR. GIBSON: Is that better?

23 HEARING OFFICER DODUC: Thank you. That's much
24 better.

25 MR. O'BRIEN: And with reference to my last

1 question, I just wanted to make sure the record is clear
2 that the South Coast, if you compare per capita water use
3 to many other regions of the state, that per capita use is
4 generally relatively low; is that correct?

5 MR. GIBSON: It varies. You know, I mean, it
6 would depend on where you would compare it to.

7 MR. O'BRIEN: Fair enough.

8 Are you familiar with the concept of demand
9 hardening? Is that a term that means anything to you?

10 MR. GIBSON: I've heard the term.

11 MR. O'BRIEN: What is your general understanding
12 of that term?

13 MR. GIBSON: Again, like I said, I've heard the
14 term. I have not used it as such. So I'm not going to
15 give a definition for it.

16 MR. O'BRIEN: Okay. Fair enough.

17 I have no further questions. Thank you.

18 HEARING OFFICER DODUC: Thank you, Mr. O'Brien.

19 Mr. Wilkinson, cross-examination. ID Number 1.

20 CROSS-EXAMINATION

21 MR. WILKINSON: ID Number 1.

22 Good morning, Chairman. I'm Greg Wilkinson. I
23 do represent, in fact, ID Number 1.

24 Mr. Gibson, I'd like to ask you -- it's my
25 understanding, correct, that the FEIR, Final EIR, you

1 prepared under contract to the State Board is not the
2 first EIR you've worked on as a consultant?

3 MR. GIBSON: No, it is not.

4 MR. WILKINSON: Can you tell me approximately how
5 many environmental impacts reports you've developed over
6 the course of your career?

7 MR. GIBSON: I've been writing Environmental
8 Impact Reports under CEQA since 1988. So probably a few
9 hundred, several hundred.

10 MR. WILKINSON: As a result of that work, have
11 you developed an understanding of the requirements of the
12 California Environmental Quality Act as they apply to the
13 development of EIRs?

14 MR. GIBSON: Yes, I have.

15 MR. WILKINSON: Have you taken any CEQA-related
16 courses that taught the requirements that must be
17 satisfied by the EIR?

18 MR. GIBSON: Yes, I have.

19 MR. WILKINSON: Have you taught any of those
20 courses yourself?

21 MR. GIBSON: Not specifically teaching courses,
22 but I've participated in symposiums on CEQA.

23 MR. WILKINSON: Is it your understanding from the
24 work you've done on the development of EIRs CEQA requires
25 that the regulatory environment be examined as that

1 environment exists at the time that the EIR is prepared?

2 MR. GIBSON: Yes, CEQA does require that we
3 establish a base line usually at the time the Notice of
4 Preparation is issued.

5 MR. WILKINSON: Is it your understanding that
6 EIRs are not required to speculate about future regulatory
7 activities whose outcome may be uncertain?

8 MR. GIBSON: It's my understanding that is
9 correct.

10 MR. WILKINSON: Is it also your understanding
11 that EIRs are not required to speculate about future
12 regulatory activities where those activities are still
13 underway and will not reach a conclusion for several
14 years?

15 MR. GIBSON: That is correct.

16 MR. WILKINSON: Is it also your understanding
17 that completion of an EIR is not required to be deferred
18 as one or more guidance plans may be nearing completion
19 but is not completed by the time the EIR is finished?

20 MR. GIBSON: That is correct. And that's my
21 understanding.

22 MR. WILKINSON: In your experience as an EIR
23 consultant, Mr. Gibson, is it also your understanding that
24 sizable federal projects, like the Cachuma Project, are
25 often the subject of continual studies and plans?

1 MR. GIBSON: That has been my experience.

2 MR. WILKINSON: Now based upon the decades of
3 work that you testified to regarding development of EIRs,
4 are you aware of any law or regulation which provides that
5 an EIR developed pursuant to CEQA would bind a federal
6 regulatory agency, such as the National Marine Fisheries
7 Service, when that agency subsequently exercise its
8 regulatory authority?

9 MR. GIBSON: I'm not aware of any law that would
10 do such, no.

11 MR. WILKINSON: Am I correct in my understanding,
12 Mr. Gibson, that in developing the Final EIR that is the
13 subject of this hearing, you relied on the best available
14 science that was produced by the parties to the Cachuma
15 hearing available to you at the time that the document was
16 prepared?

17 MR. GIBSON: To my understanding, working with
18 the staff of the Water Board, yes, that is our -- we
19 evaluated the most reliable information that we knew was
20 available, yes.

21 MR. WILKINSON: Is it my understanding -- and is
22 that understanding correct that part of the development of
23 this Final EIR, that you reviewed the hearing transcripts
24 and the evidence that was presented during the 2003
25 hearings -- the five days of hearings, that occurred in

1 2003?

2 MR. GIBSON: That is correct. That is one of the
3 first things we did under this contract.

4 MR. WILKINSON: You also reviewed the Draft EIR
5 that had been produced by the State Board in 2003?

6 MR. GIBSON: Yes, we did.

7 MR. WILKINSON: Did you review the revised Draft
8 EIR that was produced by the State Board and its
9 consultants in 2007?

10 MR. GIBSON: Yes, we did.

11 MR. WILKINSON: Did you review as well the
12 comments that were presented by all of the parties,
13 including the National Marine Fisheries Service and
14 California Trout, regarding each of those documents?

15 MR. GIBSON: Yes, we did.

16 MR. WILKINSON: Did you review as well the 2000
17 Biological Opinion that had been prepared by the National
18 Marine Fisheries Service for the Cachuma Project?

19 MR. GIBSON: Yes, we did.

20 MR. WILKINSON: Are you aware of any other
21 Biological Opinion that has been prepared for the Cachuma
22 Project other than the 2000 Bio?

23 DR. KOUTNIK: No.

24 MR. GIBSON: No, we are not.

25 MR. WILKINSON: Are you aware that

1 re-consultation has begun between NMFS and Reclamation for
2 the Cachuma Project; correct?

3 MR. GIBSON: We are aware of it, but we have no
4 information on it.

5 MR. WILKINSON: I'm sorry?

6 MR. GIBSON: We are aware of it. We have no
7 information.

8 MR. WILKINSON: Do you know when a new Biological
9 Opinion will emerge from that re-consultation?

10 MR. GIBSON: No. No.

11 MR. WILKINSON: Do you have any information as to
12 what a new Cachuma Biological Opinion will conclude
13 regarding jeopardy with respect to the Cachuma Project?

14 MR. GIBSON: No.

15 MR. WILKINSON: Do you have any idea whether
16 there will be reasonable improved alternatives developed
17 as part of that Biological Opinion for the Cachuma
18 Project?

19 MR. GIBSON: No.

20 MR. WILKINSON: Is it your understanding there is
21 no jeopardy determination that can be made under the
22 Endangered Species Act until there has been an effects
23 analysis undertaken?

24 MR. GIBSON: That's correct.

25 MR. WILKINSON: Are you aware of any effects

1 analysis having been undertaken to this point as part of
2 the re-consultation for the Cachuma Project?

3 DR. KOUTNIK: No.

4 MR. GIBSON: Not that we're aware of.

5 MR. WILKINSON: Did you also review as part of
6 your development of the FEIR in this case the Fish
7 Management Plan developed for the lower San Ynez River in
8 2000?

9 MR. GIBSON: Yes, we did.

10 MR. WILKINSON: Is it your understanding that the
11 Fish Management Plan was developed as part of a
12 cooperative effort that included not only Reclamation and
13 the Cachuma Member Units, but also the National Marine
14 Fisheries Service, the Department of Fish and Game,
15 CalTrout, and Fish and Wildlife Service?

16 MR. GIBSON: That's our understanding that they
17 were involved, yes.

18 MR. WILKINSON: Did you also review the
19 Biological assessment that was developed by the Bureau of
20 Reclamation that formed the basis for the Fish Management
21 Plan?

22 MR. GIBSON: Yes, we did.

23 MR. WILKINSON: Did you review the 1994 and 1995
24 Memorandum of Understanding among the Member Units,
25 Reclamation, Fish and Game, NMFS, and Fish and Wildlife

1 Service?

2 MR. GIBSON: Yes, we did.

3 MR. WILKINSON: Did you also review the 2004 and
4 2008 synthesis reports of scientific data on steelhead
5 that was collected by the Member Units?

6 DR. KOUTNIK: Yes, we did.

7 MR. GIBSON: Yes, we did.

8 MR. WILKINSON: Did you review as well the
9 Settlement Agreement developed by the Santa Barbara County
10 Water Agencies to resolve conflicts between downstream
11 water users and Cachuma Project water users over their
12 relative rights to the Santa Ynez River?

13 MR. GIBSON: Yes, we did.

14 MR. WILKINSON: Is it your understanding that the
15 settle agreement incorporates the flow release
16 requirements of the 2000 Biological Opinion developed by
17 the National Marine Fisheries Service?

18 MR. GIBSON: That is our understanding.

19 MR. WILKINSON: And based upon your review and
20 your understanding of the Settlement Agreement, is it your
21 belief and understanding that conflict between and among
22 the downstream water rights holders and the Cachuma
23 Project water users could resume if that agreement
24 unravels?

25 MR. GIBSON: That's our understanding.

1 MR. WILKINSON: Mr. Gibson, did you also in the
2 course of developing the Final EIR review the January 2011
3 compliance binder and materials contained in that binder
4 provided by Reclamation to the National Marine Fisheries
5 Service in compliance with the provision of the 2000
6 Biological Opinion?

7 MR. GIBSON: Yes, we did.

8 MR. WILKINSON: And in developing the document,
9 did you also evaluate the Draft Recovery Plan prepared by
10 the National Marine Fisheries Service for Southern
11 California steelhead?

12 MR. GIBSON: Yes, we did.

13 MR. WILKINSON: At the time the FEIR was issued,
14 Mr. Gibson, was that the only Recovery Plan you were aware
15 of that had been developed by the National Marine
16 Fisheries Service for the Southern California steelhead?

17 MR. GIBSON: Yes, it was.

18 MR. WILKINSON: Is it also your understanding
19 that Recovery Plans do not contain mandatory requirements,
20 but the compliance is voluntary with those plans?

21 MR. GIBSON: That is our understanding.

22 MR. WILKINSON: Dr. Koutnik, a couple of
23 questions for you as well.

24 Over the course of your work on the Final EIR,
25 did you become familiar with the compliance efforts of

1 Reclamation and the Cachuma Water Agencies to improve
2 conditions for steelhead and O. mykiss generally?

3 DR. KOUTNIK: Yes, that was reported to us.

4 MR. WILKINSON: And did you also examine the data
5 collected by the Cachuma Water Agencies regarding the
6 abundance of O. mykiss throughout the watershed?

7 DR. KOUTNIK: Yes, we did.

8 MR. WILKINSON: You're familiar with the
9 restoration efforts of water agencies to improve the
10 habitat within the San Ynez River watershed, are you not?

11 DR. KOUTNIK: That's correct.

12 MR. WILKINSON: You're familiar with the
13 activities being undertaken on Hilton Creek, Quiota Creek,
14 and Salsipuedes Creek?

15 DR. KOUTNIK: I am.

16 MR. WILKINSON: Based upon your review of the
17 data that have been collected, do you have an opinion
18 about whether the actions taken by the water agencies have
19 increased the habitat available to O. mykiss within the
20 watershed?

21 DR. KOUTNIK: That was our conclusion in our
22 review of those data, yes.

23 MR. WILKINSON: From your review of the available
24 data, did you also develop an understanding of whether the
25 tributary improvement projects undertaken by the Cachuma

1 Water Agencies and Reclamation have increased the
2 abundance of juvenile O. mykiss within the watershed?

3 MR. GIBSON: Again, that was indicated through
4 the data that we reviewed.

5 MR. WILKINSON: That's all I have. Thank you.

6 HEARING OFFICER DODUC: Thank you, Mr. Wilkinson.
7 The San Ynez River Water Conservation District?

8 MR. CONANT: We have no questions.

9 HEARING OFFICER DODUC: Ms. Dunn from the City of
10 Lompoc?

11 MS. DUNN: No questions.

12 HEARING OFFICER DODUC: No Solvang. No Santa
13 Barbara County.

14 Department of Fish and Game. Ms. Murray.

15 CROSS-EXAMINATION

16 MS. MURRAY: Good morning. I just have a couple
17 of questions.

18 On page 1-2 of the FEIR, contains a description
19 of the proposed project.

20 HEARING OFFICER DODUC: Could you please get
21 closer to the microphone?

22 MS. MURRAY: Section 1-3.

23 MR. GIBSON: Yes, in Volume II, it starts --

24 MS. MURRAY: So in Section 1-3 of the FEIR in the
25 second sentence it says, "The proposed project is listed

1 in the NOP issued by the Water Board is" -- you see that
2 on that page?

3 MR. GIBSON: Yes, I do.

4 MS. MURRAY: And in the third sentence there it
5 says, "The revised release requirements are to provide
6 appropriate public trust and downstream water right
7 protection." Do you see that sentence?

8 MR. GIBSON: Yes, I do.

9 MS. MURRAY: So that is from the NOP issued by
10 the State Water Resources Control Board appropriate public
11 trust and downstream water right protection.

12 The FEIR, despite this language in the NOP, does
13 not contain specific conditions or measures that address
14 protection of public trust resources above the dam. Were
15 you told not to put in such measures by the Water Board?

16 MR. WILKINSON: I'm going to object to that
17 question.

18 HEARING OFFICER DODUC: Hold on. Come on up to
19 the microphone, Mr. Wilkinson.

20 MR. WILKINSON: I believe we've had a ruling in
21 the order that, Ms. Doduc, you issued indicating that
22 testimony, evidence, facts relating to passage around the
23 dam -- that is to say the areas above the dam -- are not
24 going to be part of this hearing. And we prepared based
25 upon that ruling.

1 The question that was just asked goes to that
2 issue. And we believe it's objectionable for that reason.

3 HEARING OFFICER DODUC: Ms. Murray?

4 MS. MURRAY: The question is designed at who made
5 decisions regarding changes from the NOP to the actual
6 FEIR.

7 MR. WILKINSON: If I may respond. The question
8 dealt specifically to the issue of upstream areas. And
9 it's those areas that are off limits. And that's the
10 basis for the objection.

11 HEARING OFFICER DODUC: I'll --

12 MS. MURRAY: Off limits, but not off limits at
13 the time of the NOP.

14 HEARING OFFICER DODUC: I'm going to sustain the
15 objection. Please move on to your next line of questions.

16 MS. MURRAY: And just briefly, there was a
17 question earlier regarding finalization of the EIR. Is it
18 your understanding there have been findings of facts in
19 actual adoption of the EIR certification by the Water
20 Board?

21 DR. KOUTNIK: Are you referring to the CEQA
22 findings?

23 MR. GIBSON: The CEQA findings.

24 MS. MURRAY: And actual certification of the EIR
25 by --

1 MR. GIBSON: It's not my knowledge it's been
2 certified, so --

3 MS. MURRAY: Thank you.

4 HEARING OFFICER DODUC: National Marine Fisheries
5 Service?

6 CROSS-EXAMINATION

7 MR. HYTREK: Good morning, Mr. Gibson, Dr.
8 Koutnik. I'm Dan Hytrek.

9 First of all, I'd like to just clear up one issue
10 related to Mr. Wilkinson's questioning. He questioned you
11 about whether you're aware of an MOU from the mid 90s that
12 NMFS is a party to. Were you aware that National Marine
13 Fisheries Service didn't sign that MOU?

14 MR. GIBSON: I'm not aware of if they signed it
15 or not. We're aware of the document.

16 MR. HYTREK: Moving on, the Final Environmental
17 Impact Report includes a statement of project objectives;
18 is that correct?

19 MR. GIBSON: Yes, I believe it does.

20 MR. HYTREK: And one of those objectives on page
21 3.0-2 related to protecting public trust resources
22 including, but not limited to, steelhead in the Santa Ynez
23 River downstream of the Bradbury Dam. Is that an accurate
24 summary as it relates to steelhead?

25 MR. GIBSON: Yes.

1 MR. HYTREK: So even given that, the FEIR
2 discusses some resources in Cachuma Lake upstream of
3 Bradbury Dam; doesn't it?

4 MR. GIBSON: The EIR does address some resources
5 at the lake, yes.

6 MR. HYTREK: Those resource include resident O.
7 mykiss; is that right?

8 DR. KOUTNIK: It's mentioned in the EIR as
9 background material.

10 HEARING OFFICER DODUC: Sorry. Could you repeat
11 that answer?

12 DR. KOUTNIK: It's mentioned in the EIR as
13 background material.

14 MR. HYTREK: So referring your attention to
15 Section 4.7.2.3 on 4.7-28, that section starts out,
16 "Resident O. mykiss present in Cachuma Lake require stream
17 habitat to spawn and complete their life cycle; therefore,
18 require access to tributaries to Cachuma Lake." And those
19 tributaries mentioned there are upstream of Bradbury Dam;
20 is that right? The tributaries you're referring to there,
21 are they upstream of Bradbury Dam?

22 DR. KOUTNIK: They have to be, yes.

23 MR. HYTREK: Then that FEIR discusses whether
24 water level of reductions due to modified releases may
25 affect the ability of these fish to migrate from Cachuma

1 Lake in the tributaries providing spawning habitat; is
2 that correct?

3 MR. GIBSON: Could you restate the question,
4 please?

5 MR. HYTREK: Then in that section, the FEIR
6 discusses whether water level reductions due to modified
7 releases may affect the ability of these fish to migrate
8 from Cachuma Lake into tributaries providing spawning
9 habitat?

10 DR. KOUTNIK: That's correct.

11 MR. HYTREK: And this discussion in the FEIR
12 concludes residential O. mykiss inhabiting Cachuma Lake
13 would not have difficulty ascending into the tributaries
14 under the bearing lake levels of all alternatives; is that
15 right?

16 DR. KOUTNIK: That is -- to the best of my
17 knowledge, that is correct.

18 MR. HYTREK: So the resident O. mykiss that are
19 referred to here, are they the same species as an
20 anadromous O. mykiss or steelhead?

21 DR. KOUTNIK: They are, indeed, considered the
22 same species.

23 MR. HYTREK: Now moving on to the FEIR's
24 discussion of the National Marine Fisheries Service Draft
25 Southern California Steelhead Recovery Plan in Section

1 2.6, that begins on page 2.0-42. So you testified that
2 the FEIR refers to the Draft Recovery Plan because that's
3 what was available at the time; is that right?

4 DR. KOUTNIK: That is correct.

5 MR. HYTREK: So if you reviewed Final
6 Environmental Impact -- the Final Recovery Plan to
7 determine whether there is anything relevant or any
8 changes that are relevant?

9 DR. KOUTNIK: I have only glanced at the Final
10 Recovery Plan. I have not gone into detail.

11 MR. GIBSON: Yeah, I mean, we published this
12 document in December of 2011. That plan was not available
13 and published until January 2012. So --

14 MR. HYTREK: But you haven't reviewed it to
15 determine whether there is any relevant information?

16 MR. GIBSON: As indicated by Dr. Koutnik, he has
17 reviewed the document and is aware of it.

18 DR. KOUTNIK: But it was after this document was
19 already released.

20 MR. HYTREK: Now the Draft Recovery Plan as is
21 mentioned in the FEIR includes a description of the
22 critical recovery actions for the San Ynez River that are
23 identified in the Draft Recovery Plan; is that right, on
24 page 2.3-43?

25 DR. KOUTNIK: Yes. That's correct.

1 MR. HYTREK: And those critical recovery actions
2 include physically modify, alter the dam to allow
3 unimpeded migration of steelhead to upstream spawning and
4 rearing habitats; is that right?

5 DR. KOUTNIK: That's a statement from the Draft
6 Recovery Plan; correct.

7 MR. HYTREK: And steelhead can't currently
8 migrate from downstream of Bradbury Dam up to upstream of
9 Bradbury Dam; is that correct?

10 MR. WILKINSON: I'm going to object again.

11 HEARING OFFICER DODUC: Mr. Wilkinson.

12 MR. WILKINSON: I'm going to object on the same
13 basis that I objected to the questions from the attorney
14 for the Department of Fish and Game.

15 The only purpose of these questions is to try and
16 make a case regarding passage around Bradbury Dam and need
17 for pass. That's been excluded from these hearings. I've
18 let it go because I was trying to get a sense of where the
19 questioning might go. It seems to me that's the only
20 place this line of questioning can go.

21 HEARING OFFICER DODUC: Mr. Hytrek?

22 MR. HYTREK: Member Doduc, I believe the ruling
23 was that it was excluded unless it's directly relevant to
24 information in the Final Environmental Impact Report. I'm
25 drawing their attention to information that is in the

1 Final Environmental Impact Report.

2 HEARING OFFICER DODUC: I'll give you a little
3 bit of leeway on this one. Go ahead and proceed.

4 MR. HYTREK: So before I was interrupted, we had
5 mentioned that steelhead can't migrate from downstream of
6 Bradbury Dam to upstream of Bradbury Dam; is that correct?

7 DR. KOUTNIK: That's my understanding.

8 MR. HYTREK: And none of the measures analyzed in
9 the alternatives include measures to provide passage past
10 Bradbury Dam, do they?

11 DR. KOUTNIK: That was not part of our analysis.

12 MR. HYTREK: So the Final Environmental Impact
13 Report also discusses the Draft Recovery Plan and the run
14 size is mentioned that are needed for Southern California
15 steelhead to be considered viable; is that correct, on
16 page 2.0-43?

17 DR. KOUTNIK: Yeah. That's information directly
18 from the Draft Recovery Plan.

19 MR. HYTREK: But the Final Environmental Impact
20 Report doesn't compare project alternatives in relation to
21 those run sizes, does it?

22 DR. KOUTNIK: Yes, that was not part of the
23 analysis because that wasn't related to the project as
24 defined in the project description.

25 MR. HYTREK: Does the Final Environmental Impact

1 Report otherwise specify what run sizes are needed to
2 protect public trust resource of steelhead in the San Ynez
3 River.

4 DR. KOUTNIK: No, that was not one of the
5 measures used for the analysis of impact.

6 MR. HYTREK: Now moving on to the FEIR's
7 discussion of NMFS 2000 Biological Opinion. That's at
8 Section 2.4 beginning on page 2.0-18 --

9 MR. ROSE: Are you in Volume I or II?

10 MR. HYTREK: Volume II.

11 So just generally, that Biological Opinion
12 relates to effects of operation of U.S. Bureau of
13 Reclamation's Cachuma Project on endangered steelhead; is
14 that correct?

15 DR. KOUTNIK: That is our understanding.

16 MR. HYTREK: And in that Biological Opinion, NMFS
17 concluded that operation of Reclamation's Cachuma Project
18 is not likely to jeopardize the continued existence of
19 Southern California steelhead; is that right?

20 DR. KOUTNIK: I believe that was the conclusion
21 at the time.

22 MR. HYTREK: Now, all the alternatives analyzed
23 in the FEIR include requirements of NMFS's 2000 Biological
24 Opinion; is that accurate? The alternatives are listed on
25 page 3.0 from roughly pages 10 to 12.

1 DR. KOUTNIK: That is correct.

2 MR. HYTREK: Okay. In the Final Environmental
3 Impact Report, there is a Section 4, environmental
4 analysis of alternatives. And in that, there is a
5 sub-section related to Southern California steelhead,
6 Section 4.7. In that section, FEIR uses a habitat scoring
7 system or each life stage of steelhead in Santa Ynez
8 River; is that correct?

9 MR. WILKINSON: What page are you on, Mr. Hytrek?

10 MR. HYTREK: Section 4.7, beginning on 4.7-1.

11 MR. WILKINSON: Thank you.

12 MR. HYTREK: So the scoring system is mentioned
13 on page 4.7-42.

14 MR. GIBSON: Yes, there is a scoring system in
15 the Final EIR.

16 MR. HYTREK: That scoring system refers to low
17 levels that determine would result in no jeopardy to
18 steelhead under the 2000 Biological Opinion?

19 MR. GIBSON: While the scoring system is in
20 there, neither Dr. Koutnik or I participated in the
21 preparation of that scoring system. It's the same
22 information that was presented in 2007 EIR.

23 MR. HYTREK: But my question is: Does the
24 scoring system refer to flow levels that determine it
25 would result in no jeopardy to steelhead? On page 4.7-42,

1 last paragraph specifically.

2 DR. KOUTNIK: Yeah. That comes directly from the
3 Biological Opinion.

4 MR. HYTREK: Okay. Referring to the discussion
5 in the Biological Opinion in the Final Environmental
6 Impact Report, it includes the discussion of conservation
7 recommendations for the Biological Opinion on page 2.0-38.

8 DR. KOUTNIK: Yeah.

9 MR. HYTREK: Now, there are three conservation
10 recommendations listed there; is that right?

11 DR. KOUTNIK: That is correct.

12 MR. HYTREK: But none of the alternatives include
13 any measures mentioned in those three conservation
14 recommendations, do they?

15 DR. KOUTNIK: Can you rephrase that question,
16 please?

17 MR. HYTREK: None of the alternatives analyzed in
18 that FEIR include any measures discussed in those
19 conservation recommendations, do they?

20 MR. GIBSON: Not that I'm aware of.

21 DR. KOUTNIK: That was the conclusion as of 2010.

22 MR. HYTREK: Now Biological Opinion includes an
23 incidental take statement; is that correct?

24 DR. KOUTNIK: That is correct.

25 MR. HYTREK: Now the Biological Opinion's

1 incidental take statement for the Reclamation's Cachuma
2 Project includes a description of the amount or extent of
3 take of endangered steelhead anticipated as a result of
4 operations of that project. Is that accurate?

5 DR. KOUTNIK: To the best of my knowledge.

6 MR. GIBSON: Where are you reading at? I'm
7 sorry. Can you give a reference?

8 MR. HYTREK: Well, the Biological Opinion is
9 included Appendix E.

10 MR. GIBSON: All right.

11 MR. HYTREK: As it's included there, it includes
12 the incidental take. But the FEIR doesn't provide an
13 analysis of whether that amount or extent of take has been
14 exceeded, does it?

15 MR. GIBSON: No. That's not the purpose of the
16 FEIR.

17 MR. HYTREK: So the Biological Opinion also
18 includes reasonable and prudent measures; is that correct?

19 DR. KOUTNIK: Correct.

20 MR. HYTREK: And it includes mandatory terms and
21 conditions; right?

22 DR. KOUTNIK: That is correct.

23 MR. HYTREK: And the Final Environmental Impact
24 Report includes a summary of those; right?

25 DR. KOUTNIK: That is correct.

1 MR. HYTREK: And that summary includes Table 2-4A
2 entitled "Summary of Reasonable and Prudent Measures Terms
3 and Condition Described in the Cachuma Project Biological
4 Opinion Status of Compliance." That's beginning on
5 2.0-21.

6 MR. GIBSON: That's correct.

7 MR. HYTREK: So the summary related to Measure 6
8 and Term and Condition 6 says, "During the next three
9 years of water rights releases, monitor steelhead
10 downstream of Bradbury to confirm they are not encouraged
11 to move downstream"; is that correct?

12 DR. KOUTNIK: That is the statement in the table,
13 yes.

14 MR. HYTREK: And then the status under that table
15 says, "implemented in 2004 and 2007 third water rights
16 releases pending"; is that right?

17 DR. KOUTNIK: That's the statement in the table,
18 correct.

19 MR. HYTREK: But the FEIR doesn't indicate any
20 disagreement between NMFS and Reclamation regarding
21 whether this monitoring requirement has been met, does it?

22 DR. KOUTNIK: Not to my knowledge.

23 MR. HYTREK: In Section 2.4.2, the FEIR discusses
24 Reclamation's project operational changes as those relate
25 to the Biological Opinion. And that begins at page

1 2.0-25.

2 MR. GIBSON: Correct.

3 MR. HYTREK: And beginning on 2.0-26, that
4 discusses ramping of water rights releases; is that right?

5 MR. GIBSON: That's correct.

6 MR. HYTREK: So that discussion includes -- the
7 discussion of ramping down schedules for releases made to
8 satisfy downstream water rights; is that right?

9 MR. GIBSON: Yes. It's a ramping down schedule.

10 MR. HYTREK: But it doesn't include a schedule
11 for ramping up releases, does it?

12 DR. KOUTNIK: There is no such corresponding
13 table; correct?

14 MR. HYTREK: The Final Environmental Impact
15 Report includes a discussion of main stem rearing releases
16 as those relate to the Biological Opinion starting on page
17 2.0-28; is that right?

18 DR. KOUTNIK: That is correct.

19 MR. HYTREK: That includes a discussion of both
20 short-term and long-term target flows for the purposes of
21 main stem rearing.

22 DR. KOUTNIK: Yes, that's correct.

23 MR. HYTREK: So according to the Final
24 Environmental Impact Report, the long-term target flows
25 were implemented following reclamation surcharge of

1 Cachuma Lake in 2005 and 2006; is that right?

2 DR. KOUTNIK: That is my understanding, yes.

3 MR. HYTREK: And the FEIR concludes that
4 Reclamation has met those target flows as required in the
5 Biological Opinion; is that correct?

6 DR. KOUTNIK: Based on the information provided
7 to us, that is correct.

8 MR. HYTREK: So finally, I'll turn your attention
9 to the Response to Comments of NMFS's comments on the
10 report's second released draft EIR. That's in response to
11 comments page 2.0, specifically page 2.0-66, Volume I.

12 Now under heading for response 8-9, there is a
13 statement there that, "The alternatives considered in the
14 2011 second REIR also incorporate the requirements of the
15 2000 Biological Opinion, which is designed to protect the
16 endangered Southern California steelhead. Consequently,
17 the SWR's of the opinion that the public trust resource
18 would be protected under the implementation of the
19 proposed project."

20 Is that statement one that you qualified or
21 revised?

22 DR. KOUTNIK: It is, indeed, one of the ones that
23 we modified.

24 MR. HYTREK: How was that modified?

25 MR. GIBSON: We suggest revise that statement to

1 read that the State Water Resource Control Board is of the
2 opinion that the public trust resource would experience
3 improved conditions relative to the base line
4 implementation of the proposed project.

5 MR. HYTREK: So that conclusion is still based on
6 the 2000 Biological Opinion and those requirements; is
7 that right?

8 DR. KOUTNIK: Yes, that is correct.

9 MR. HYTREK: And you reiterated that NMFS
10 commented that its consultation on the 2000 Biological
11 Opinion is under re-initiation of consultation; is that
12 right?

13 DR. KOUTNIK: You made that statement. That's
14 our understanding that was made prior to the release of
15 this EIR.

16 MR. HYTREK: And National Marine Fisheries
17 Service requested that the Board defer finalization of
18 final impact report until that consultation is complete
19 and new Biological Opinion issues; is that right?

20 MR. GIBSON: We're aware of correspondence to
21 that effect.

22 MR. HYTREK: And that conclusion is made even
23 though as you just -- as we just reviewed, it has made
24 conclusions based upon the 2000 Biological Opinion, the
25 requirements there?

1 MR. ROSE: Objection, the question is unclear as
2 to who "it is." I would like that the question be
3 rephrased, please.

4 HEARING OFFICER DODUC: Rephrase the question.

5 MR. HYTREK: That conclusion was made, even
6 though the Board -- as we just reviewed -- made a
7 conclusion in the Response to Comments that was relying on
8 the 2000 Biological Opinion.

9 HEARING OFFICER DODUC: I think your question is
10 unclear even to me. Try again,

11 MR. ROSE: I'll object on the clarity grounds.
12 I'm not sure what "that conclusion" is. Maybe the
13 witnesses are aware. You began with "that conclusion."

14 MR. HYTREK: The conclusion consequently the
15 State Water Resource Board is of the opinion that as
16 modified, that conclusion.

17 MR. GIBSON: I think the response as we modified
18 it is accurate. And we are aware of NMFS' request to
19 defer release of the final.

20 We're also aware that NMFS did not provide any
21 additional information what the final steelhead recovery
22 plan would be either at that point in time. So we had no
23 other information to be on other than what was provided in
24 the draft plan or the 2000 Biological Opinion. So we can
25 only work with the information that was available to us,

1 and NMFS provided no additional information.

2 DR. KOUTNIK: In addition, the CEQA analysis is
3 preparing the alternatives as stated in the project
4 description against the base line information. And it's
5 not -- it makes use of available information at the time
6 the analysis was done.

7 MR. HYTREK: The point is that you are aware that
8 there is going to be a new Biological Opinion coming out;
9 is that correct?

10 MR. ROSE: Objection. Calls for speculation.

11 MR. HYTREK: Does the Response to Comments
12 looking at page 2.0-62, third paragraph, first full
13 sentence, doesn't it say the Board doesn't need to defer
14 completion of the EIR until completion of a revised
15 Biological Opinion?

16 MR. GIBSON: The statement is correct. However,
17 that doesn't mean we're aware there is one underway.
18 Those are two separate things.

19 HEARING OFFICER DODUC: Could you repeat that
20 response?

21 MR. GIBSON: The statement that was brought up is
22 that the Board does not concur the completion of this EIR
23 should be deferred until finalization of the steelhead
24 recovery plan or the completion of a revised Biological
25 Opinion. That's correct. It's in the document. We

1 support that. But we're not aware of any --

2 MR. HYTREK: That's all my questions. Thank you.

3 HEARING OFFICER DODUC: Thank you, Mr. Hytrek.

4 California Trout. Ms. Kraus, cross-examination?

5 CROSS-EXAMINATION

6 MS. KRAUS: I'm going to start on a topic of
7 water impacts in the EIR.

8 HEARING OFFICER DODUC: Closer to the microphone.

9 MS. KRAUS: In response to one of CalTrout's
10 comments regarding water conservation, the Final EIR
11 states that the scope of the project does not extend to
12 the member unit's ability to conserve water. Are you
13 familiar with the project objectives that are stated in
14 the EIR?

15 MR. GIBSON: Yes, we are.

16 MS. KRAUS: Can I direct you to the Final EIR at
17 Volume II page 3.0-2 where the project objectives are
18 stated and ask you to read the first bullet point.

19 MR. GIBSON: The first bullet point under the
20 project objectives?

21 MS. KRAUS: Starts "protecting public trust
22 resources."

23 MR. GIBSON: "Protecting public trust resources
24 including, but not limited to, steelhead, red-legged frog,
25 tidewater goby and wetlands in the Santa Ynez River

1 downstream of Bradbury Dam to the extent feasible in
2 public interest taking into consideration: One, the water
3 supply impacts of measures designed to protect public
4 trust resources; and two, the extent to which any other
5 water supply impacts can be minimized through the
6 implementation of water conservation measures.

7 MS. KRAUS: So would you agree that the project
8 objectives include considering water conservation
9 measures?

10 MR. GIBSON: There is a statement in the
11 objective to that effect, yes.

12 MS. KRAUS: Thank you.

13 And you testified earlier that you're familiar
14 with the August 13th, 2003, hearing notice. One of you
15 did. I'm sorry, I was behind you. I'm not sure who
16 stated that.

17 MR. GIBSON: I believe as part of the record we
18 reviewed that, yes.

19 MS. KRAUS: One of the key hearing issues in that
20 notice has to do with water conservation measures as well.

21 MR. GIBSON: I don't recall specifically.

22 MS. KRAUS: May I bring a copy of the notice to
23 the witness?

24 HEARING OFFICER DODUC: Go ahead.

25 MS. KRAUS: Could you read the highlighted item

1 there, please. You can confirm that's the hearing notice
2 I identified?

3 MR. GIBSON: Under items, key issues, I believe.

4 MS. KRAUS: Correct.

5 MR. GIBSON: Item 3, should permits 11308 and
6 11310 be modified the protected public trust resources?
7 And then under that, there are four items A, B, C, D
8 highlighted D, wet water conservation measures could be
9 implemented in order to minimize any water supply impacts.

10 MS. KRAUS: Yes. Thank you.

11 Are you familiar with California's institutional
12 requirements of reasonable and beneficial use?

13 MR. GIBSON: Yes, we are.

14 MS. KRAUS: Are you aware this requirement is
15 described as a relevant requirement in the Final EIR?

16 MR. GIBSON: I believe it is.

17 MS. KRAUS: Can you describe the requirement?

18 MR. GIBSON: I have to reference it and look at
19 it and get back --

20 MS. KRAUS: It's on page 1.0-12.

21 MR. GIBSON: The requirements talks about
22 reasonable and beneficial use. It places limitations on
23 unreasonable use.

24 HEARING OFFICER DODUC: What was your question,
25 Ms. Kraus?

1 MS. KRAUS: Describing the requirement.

2 Would you agree it requires that all uses of the
3 State's water be both reasonable and beneficial?

4 MR. GIBSON: As stated, yes. In the document,
5 that's what it says.

6 MS. KRAUS: It prohibits the waste, unreasonable
7 use, unreasonable method of use, or unreasonable method of
8 diversion of water as stated in the EIR.

9 MR. GIBSON: As stated.

10 MS. KRAUS: Thank you.

11 The Final EIR concludes that the feasibility of
12 fully mitigating for all of the potential indirect water
13 supply impacts is uncertain. Does the EIR evaluate and
14 consider specific water conservation measures before it
15 makes this conclusion?

16 MR. GIBSON: It identifies if those are within
17 the purview of the agency's responsible for delivery of
18 water.

19 MS. KRAUS: Does it specifically evaluate any of
20 those?

21 MR. GIBSON: That's not within the scope of the
22 EIR.

23 MS. KRAUS: Does the EIR consider the Pacific
24 Institute's analysis of potential urban water conservation
25 measures?

1 MR. GIBSON: We're aware of that, but they're not
2 specifically evaluated within the EIR.

3 MS. KRAUS: And you said you were aware of it.
4 There was -- the Pacific Institute submitted comments on
5 the EIR -- the 2003 EIR. And earlier it was suggested
6 that that did not include an analysis of the cost
7 effectiveness or the feasibility -- economic feasibility
8 of those measures. Do you remember that? Do you recall
9 that question in your testimony?

10 MR. GIBSON: I do recall with regard to specific
11 economic analysis with regard to conservation measures,
12 yes.

13 MS. KRAUS: With respect to the Pacific Institute
14 comments that were submitted in 2003, did you do a
15 response to those comments?

16 MR. GIBSON: We responded to all the comments.

17 MS. KRAUS: Do you recall the comments regarding
18 cost effectiveness of those measures?

19 MR. GIBSON: I would have to research and go back
20 and look at the responses before I give a response to
21 that. If you know which specific comments we're talking
22 about?

23 MS. KRAUS: I don't have the numbers, but I just
24 have the comment letter. Page 13 of the 2003 comment.

25 HEARING OFFICER DODUC: Did you have a specific

1 question with respect to the response to comment?

2 MS. KRAUS: My question was whether they
3 responded to those comments.

4 HEARING OFFICER DODUC: If they had a response to
5 comment, then I would assume they did.

6 MR. GIBSON: We did respond to the comments. If
7 you want a specific response, I'd have to research and see
8 what that response is.

9 MS. KRAUS: We'll leave it at that then.

10 Regarding my earlier question of just about
11 whether there was specific measures evaluated, you
12 mentioned that there was reference to the Cachuma Water
13 Agency's generally implementing water conservation
14 measures.

15 MR. GIBSON: Yeah. I mean, yes. Specific
16 measures for each of the agencies is within their purview,
17 not within the pursue of this document or the Water
18 Board's.

19 MS. KRAUS: Can you describe specifically what
20 the EIR says with respect to that issue?

21 MR. GIBSON: That issue being?

22 MS. KRAUS: The water conservation measures that
23 are --

24 MR. GIBSON: I would have to research it and see
25 what we specifically say with regards to --

1 MS. KRAUS: It's in Volume II, 4-7.

2 HEARING OFFICER DODUC: Do you have a specific
3 question with respect to --

4 MS. KRAUS: I'm directing him to the --

5 MR. WILKINSON: I would object to questions that
6 start with "Can you tell us what the EIR says?" Because
7 the EIR document speaks for itself. And I think it's
8 unfair to the witness to ask that in the abstract as that
9 last question did. So I would just simply request if Ms.
10 Kraus has a particular part of the EIR she wishes to
11 question about, she direct the witness to that.

12 HEARING OFFICER DODUC: That's what I was leading
13 to her. Thank you, Mr. Wilkinson.

14 MS. KRAUS: That was just my poor formulation of
15 introducing the question.

16 HEARING OFFICER DODUC: Please ask your question.

17 MS. KRAUS: Do you have the --

18 MR. GIBSON: I'm at page 4.3-36 and 37.

19 MS. KRAUS: So as I understand it, it states, "As
20 a mitigation measure, any drought contingency measures
21 identified in the member unit's Urban Water Management
22 Plans shall be implemented to the extent necessary to make
23 up for a shortage in water supply in the drought year"; is
24 that correct?

25 MR. GIBSON: I'm looking for that sentence.

1 MS. KRAUS: It seems to be the last sentence on
2 that page.

3 MR. GIBSON: On page 30 --

4 MS. KRAUS: 4.3-37.

5 HEARING OFFICER DODUC: I'm sorry. And your
6 question?

7 MR. GIBSON: Yes. Statements in the EIR.

8 MS. KRAUS: So it's identified as a mitigation
9 measure that the Member Units will implement any drought
10 contingency measures identified in the Urban Water
11 Management Plan to the extent necessary?

12 MR. GIBSON: That's within the purview, yes.
13 That's mitigation measure within the purview of another
14 agency.

15 MS. KRAUS: It's an actual mitigation measure in
16 the EIR?

17 MR. GIBSON: Yeah. By the same token, the CEQA
18 guidance to the degree this agency can force another --

19 MS. KRAUS: Sorry. Can you get closer to the
20 mike?

21 MR. GIBSON: As the CEQA guidance specifically
22 state though that one agency cannot require another
23 agency, should another agency desire to do that, that's
24 fine. Okay. But the Water Board cannot require another
25 agency to do that as mitigation. It's identified as

1 mitigation, but it's not required by this agency. And
2 I'll provide the point that plays out in the statute and
3 the guidance --

4 MS. KRAUS: I understand what you're saying.
5 Was the economic feasibility of that evaluated?

6 MR. GIBSON: The economic feasibility of what?

7 MS. KRAUS: That mitigation measure.

8 MR. GIBSON: We did not do any evaluation --
9 economic evaluation of things that are not within the
10 purview of the Water Board, no.

11 MS. KRAUS: But it is identified as a mitigation
12 measure?

13 MR. GIBSON: It's listed as a mitigation measure,
14 yes, as stated in the EIR.

15 MS. KRAUS: Moving on to the demand projections.
16 And you testified earlier that the demand projections
17 incorporate information provided by the member agencies
18 from their 2010 planning. Do the -- does the FEIR
19 actually incorporate information from their 2010 Urban
20 Water Management Plans?

21 MR. GIBSON: First, I indicated that we had
22 information from the agencies that they include
23 information in their 2010 Urban Water Management Plans.
24 When we prepared the Final EIR, a number of those plans
25 were not available or were not completed. So they

1 provided us data. And our assumption is that is the most
2 reliable and current data they had. We inquired about
3 that. In some cases, those plans are available. We used
4 the data. When they used the available or completed, they
5 weren't available.

6 MS. KRAUS: When the -- you said when the plan
7 was available, you used the data; is that correct?

8 MR. GIBSON: We inquired of the agencies to
9 provide us with the information and requested the
10 information they were using to prepare their 2010 Urban
11 Water Management Plan updates. If that information was
12 available and provided, we utilized it.

13 MS. KRAUS: Okay. Can I direct you to Table 4-15
14 in the Final EIR on page 4.3-12?

15 MR. GIBSON: Okay.

16 MS. KRAUS: On that table, I see a reference to
17 Carpinteria Water District public review says draft, but I
18 think that's a typo for draft. 2010 Urban Water
19 Management Plan update. Dated June 2011. That's foot
20 note one. And then footnote two is city of Santa Barbara
21 Urban Water Management Plan 2010 update adopted June 14th,
22 2011. And this is a table for the annual water deliveries
23 by the Member Units to their customers; is that correct,
24 as you understand this table?

25 MR. GIBSON: That's the title of the table and

1 those footnotes are accurate.

2 MS. KRAUS: Okay. So would you agree then that
3 the 2010 Urban Water Management Plan for Carpinteria
4 Valley Water District and City of Santa Barbara was
5 information available for your use with this Final EIR

6 MR. GIBSON: I would agree and we sited it in the
7 table.

8 MS. KRAUS: But those plans were not used for the
9 demand projections; correct?

10 MR. GIBSON: Can you site a specific example?

11 MS. KRAUS: Well --

12 MR. GIBSON: I'm sorry?

13 MS. KRAUS: The demand projections for each of
14 the water districts do not site -- actually let me restate
15 that.

16 Just referring to the two Urban Water Management
17 Plans that are sited in table 4-15 Carpinteria Valley
18 Water District and City of Santa Barbara, do you see those
19 sited in the demand projections for those water districts?

20 MR. WILKINSON: Can you give us a table or a page
21 or both that you're referring to in terms of demand
22 projections? It's a little hard to figure out in the
23 document what you're referring to.

24 HEARING OFFICER DODUC: The request was made for
25 a specific page or table number for the demand projection.

1 MS. KRAUS: Table 4-19.

2 MR. GIBSON: Looking at Table 4-19 and other
3 tables, such as 4-14, I would disagree with your comment
4 to say that that information was not used, because the
5 process that we went through was to acquire the data
6 either directly from the agencies where it was available.
7 In some cases, that data wasn't published and we sited
8 that. In other cases, we got the information again. And
9 you can see the sites in the table from Cachuma Member
10 Units, which include the same entities. And that
11 information is available anywhere from, as you can see in
12 Table 4-19 sub-footnote 6, current demand 2009, okay, you
13 know, based on year 2010 and the data was provided to us.
14 In some cases, we have raw data. And in some cases, we're
15 able to rely more on published data.

16 MS. KRAUS: So you are saying you just didn't
17 site to the same document?

18 MR. GIBSON: In some cases as we prepared the
19 same information, the documents were not available or the
20 data was not available in the same format.

21 MS. KRAUS: I'm not sure I'm following you. Can
22 you explain why you wouldn't reference, for example,
23 Carpinteria Valley Water district Urban Water Management
24 Plan in Table 4-19 if that information was available to
25 you for demand projections, just as the information was

1 available to you for annual water deliveries?

2 MR. GIBSON: Well, the sites that we used are
3 direct sites from the documents and the data we got. So
4 in some cases, the data was provided as raw data. So it
5 wouldn't site the a document that we didn't take it out
6 of. But it was essentially the same. It could have been
7 the same data that the agency used to prepare their
8 document. In other cases, we were able to site directly
9 to the 2010 Urban Water Management Plan updates.

10 So I guess I don't understand your confusion
11 because it's essentially the same data. It may be
12 portrayed differently by the agencies in how it was
13 provided.

14 HEARING OFFICER DODUC: Let me see if I can
15 shortcut this and ask the witness if demand information
16 was made available to you from the 2010 Urban Water
17 Management Plan, then you did consider and evaluate it?

18 MR. GIBSON: Correct. If we could site directly
19 to the Urban Water Management Plan for the data a
20 reasonable route to show where the data was from, we sited
21 directly to the Urban Water Management Plans.

22 HEARING OFFICER DODUC: Thank you.

23 Please move on to your next line of questioning,
24 Ms. Kraus.

25 MS. KRAUS: I will.

1 Okay. Again, in response to some of our
2 comments -- and I'm moving away from the water
3 conservation topic now and water demand.

4 The Final EIR states that public trust resources
5 above the dam have not been included in the project
6 objectives, as there are no project activities that
7 currently affect those resource? But isn't it true that
8 the Final EIR does evaluate some impacts to public trust
9 resources above the dam?

10 MR. GIBSON: We're referencing so we can be
11 accurate.

12 DR. KOUTNIK: I don't believe that we do make
13 conclusions about the public resources above the creek are
14 measures based on the scoring criteria, which are all
15 downstream of Bradbury Dam.

16 HEARING OFFICER DODUC: Could you direct us, Ms.
17 Kraus, to any particular --

18 MS. KRAUS: On page 4.7-7, there is a discussion
19 of Cachuma Lake as I understand it and species within
20 Cachuma Lake, which is above Bradbury Dam.

21 DR. KOUTNIK: That's correct. That's all
22 background information.

23 MS. KRAUS: Environmental setting?

24 DR. KOUTNIK: Correct.

25 MS. KRAUS: On 4.7-28, as you -- I believe this

1 was discussed a bit earlier. There is a discussion of
2 resident O. mykiss migrating from Lake Cachuma into
3 tributaries; is that correct?

4 DR. KOUTNIK: That's correct.

5 MS. KRAUS: And in addition, doesn't the EIR also
6 acknowledge that O. mykiss above Bradbury Dam spill over
7 the dam during high flows? And you can check page 4.7-4
8 for that discussion.

9 MR. WILKINSON: I'm going to object on the ground
10 of relevance.

11 HEARING OFFICER DODUC: Mr. Wilkinson, please
12 come up to the microphone.

13 MR. WILKINSON: I don't understand the relevance
14 of the questions, so I will object on the basis they are
15 irrelevant to the issue, which is fairly narrow one about
16 whether the FEIR should be included within the
17 administrative record.

18 HEARING OFFICER DODUC: Ms. Kraus, your point in
19 this line of questioning?

20 MS. KRAUS: Earlier, the witnesses testified that
21 the EIR is meant to fully disclose information for the
22 Board members to make their public trust decision. And I
23 believe that there are statements in the EIR that are
24 inconsistent with the scope of the Board's public trust
25 decision. And that is what this line of questions is

1 meant to disclose.

2 HEARING OFFICER DODUC: I'll give you a little
3 leeway with this.

4 MS. KRAUS: Thank you. I appreciate that.

5 HEARING OFFICER DODUC: What was your question
6 again? It's been a while.

7 MS. KRAUS: Right now, they're looking to find
8 the statement about fish spilling over Bradbury Dam.

9 HEARING OFFICER DODUC: And your point in raising
10 that statement is?

11 MS. KRAUS: The issue being whether public trust
12 resources above the dam -- the EIR makes a statement that
13 public trust resources above the dam have not been
14 included because there are no project activities that
15 currently affect those resources.

16 HEARING OFFICER DODUC: All right. And your
17 point is?

18 MS. KRAUS: That there are place in the EIR that
19 discuss how the project affects resources above the dam.

20 HEARING OFFICER DODUC: And I understood from the
21 answer that discussion was in context of background
22 information, not as an analysis itself.

23 DR. KOUTNIK: This is background --

24 MS. KRAUS: The environmental setting is not
25 background. That's the description of --

1 DR. KOUTNIK: This is the background information
2 setting of genetic components of *O. mykiss* within the
3 Santa Ynez River. And the statement there is it's
4 presumably during high flows there is potential for this
5 migration. And that was based on somebody else's report.
6 We're just reiterating the information that came from
7 2010. So it is background information.

8 MS. KRAUS: Okay. But in the context of the EIR,
9 don't you describe the environmental setting with respect
10 to the project?

11 DR. KOUTNIK: Yes, of course.

12 MS. KRAUS: And the purpose of the environmental
13 setting?

14 DR. KOUTNIK: That is correct. And that's the
15 purpose.

16 MS. KRAUS: And along that same line, isn't there
17 a fairly extensive discussion about existing surface
18 diversions going all the way from Bradbury Dam up through
19 Juncal Dam and Jameson Lake, again the upper watershed?

20 MR. GIBSON: I think there is a description of
21 the watershed. But that doesn't make it an analysis of
22 the EIR.

23 MS. KRAUS: I didn't say analysis. I said
24 description.

25 MR. GIBSON: A description of what the watershed

1 consists of.

2 MS. KRAUS: Okay. Thank you.

3 So in terms of the scope of the project -- and
4 again going back to the hearing notice, the EIR states
5 that the hearing process has established an understanding
6 of the scope of the project with reference to the hearing
7 notice issued by the Board on September 25th, 2000 --
8 sorry -- excuse me -- September 25th, 2000, and revised on
9 August 13th, 2003. And if I can, I'd like to direct you
10 again to that hearing notice. And if I may ask you to
11 read and confirm this is the notice and the highlighted
12 pieces are on the back.

13 MR. GIBSON: All right.

14 HEARING OFFICER DODUC: I think instead of you
15 reading what's in the notice, I think we can put it up and
16 you can ask your questions, Ms. Kraus.

17 MS. KRAUS: Sure, except now he has my copy. If
18 you scroll just the second page, right there. Thank you.

19 HEARING OFFICER DODUC: And your question?

20 MS. KRAUS: I'm just trying to find the text.

21 Would you agree that this hearing notice confirms that
22 the scope of this hearing includes public trust resources
23 above Bradbury Dam?

24 MR. GIBSON: Yeah. The hearing notice -- for
25 everybody's attention to the second paragraph from the

1 bottom there, there is a statement that the hearing issues
2 broadly encompass considerations of measures necessary to
3 protect public trust resources above the dam. The
4 statement is there in the notice.

5 MS. KRAUS: Thank you.

6 There is discussion in the EIR about the
7 Settlement Agreement between CCRB, Parent District, ID
8 Number 1, and the City of Lompoc. Are you aware whether
9 this Settlement Agreement is final and effective?

10 MR. GIBSON: I assume you're referring to the
11 discussion on page 2.0-45 where it discusses the
12 Settlement Agreement. And it's our understanding that the
13 parties to the Settlement Agreement have all agreed, yes.

14 MS. KRAUS: Is it an effective agreement?

15 MR. GIBSON: Is it effective?

16 MR. WILKINSON: Objection.

17 HEARING OFFICER DODUC: Mr. Wilkinson.

18 MR. WILKINSON: Yes. Vague as to the word
19 "effective."

20 HEARING OFFICER DODUC: Sorry. I didn't hear.

21 MR. WILKINSON: The question is objectionable
22 because it's vague. It's not clear what the word
23 "effective" means. Does she mean is it being implemented?
24 Does she mean it has been signed by all of the parties to
25 the agreement?

1 HEARING OFFICER DODUC: All right. Before you
2 rephrase the question, Ms. Kraus, let me notice that your
3 initial 30 minutes have run out.

4 MS. KRAUS: This is my last question.

5 HEARING OFFICER DODUC: Okay. So please --

6 MS. KRAUS: Is the agreement being implemented?

7 MR. GIBSON: To the best of our knowledge, the
8 parties that have signed and agreed to the agreement, are
9 implementing the terms of the agreement. Again, to the
10 best of our knowledge.

11 MS. KRAUS: Can we pull up the August 13th, 2003,
12 hearing notice again?

13 HEARING OFFICER DODUC: Ms. Kraus, what page of
14 the notice.

15 MS. KRAUS: Just the first page.

16 Scroll down a little bit. Yes. Review that
17 highlighted paragraph and you'll see why I was using the
18 term "effective."

19 HEARING OFFICER DODUC: For those of us who do
20 not have the highlighted, Ms. Kraus --

21 MS. KRAUS: The paragraph that starts, "Key
22 provisions of the Settlement Agreement are not effective
23 and the parties may terminate the agreement, unless the
24 Water Resources Control Board adopts an order in this
25 proceeding that makes certain technical amendments to the

1 provisions governing the above narrows account without
2 material change."

3 HEARING OFFICER DODUC: And now that we have that
4 highlighted, your question is?

5 MS. KRAUS: After reviewing this portion of the
6 hearing notice, would you agree that the Settlement
7 Agreement is not being implemented?

8 MR. GIBSON: Well, I can't speak specifically as
9 to whether the parties are implementing, but it's our
10 understanding that it is being implemented.

11 Further, I think your statement here needs to be
12 clarified, as I think it may not be effective. Doesn't
13 say it's not effective. May not be effective. So without
14 knowing all the provisions, I can't speak to that.

15 MS. KRAUS: Would you agree that as of the time
16 of the Hearing Officer Silva's understanding in 2003, his
17 interpretation was that the agreement would not be
18 effective?

19 HEARING OFFICER DODUC: Before you answer that --
20 I see objections coming. Mr. Wilkinson and then Mr.
21 O'Brien.

22 MR. WILKINSON: It asks the witness to read the
23 mind of the Hearing Officer that was a part of the Board
24 seven years ago. I'm going to object on the bases it
25 calls for speculation.

1 MR. O'BRIEN: Join the objection.

2 HEARING OFFICER DODUC: I have to agree with the
3 objections, Ms. Kraus. Is there a different question you
4 would like to ask?

5 MS. KRAUS: Would you agree that the state of the
6 Settlement Agreement perhaps needs to be clarified by the
7 parties to the Settlement Agreement? I'll leave it at
8 that. Thank you.

9 HEARING OFFICER DODUC: That was a nice try.

10 MR. GIBSON: I would basically agree that the
11 parties implementing the agreement should speak to the
12 agreement. It's not within our purview.

13 MS. KRAUS: Thank you.

14 HEARING OFFICER DODUC: Anything else, Ms. Kraus?

15 MS. KRAUS: No. That's all.

16 HEARING OFFICER DODUC: Thank you very much.
17 That concludes all of the parties that wish to conduct
18 cross-examination.

19 Ms. Rose?

20 MR. ROSE: Yes. I have very brief redirect very
21 brief.

22 HEARING OFFICER DODUC: What would be the purpose
23 and focus of your redirect?

24 MR. ROSE: To clarify some points some response
25 that were made by the witnesses on three discrete points

1 that were raised in cross-examination. It shouldn't take
2 very long at all.

3 HEARING OFFICER DODUC: Three discrete points.

4 MR. ROSE: Three discrete points

5 HEARING OFFICER DODUC: I'm counting each one.

6 REDIRECT EXAMINATION

7 MR. ROSE: We'll go in the reverse order here.

8 And this should be again very brief.

9 But you were asked a question about whether the
10 FEIR addresses the Pacific institute's comments. Do you
11 recall that?

12 MR. GIBSON: Yes, I recall the question.

13 MR. ROSE: Are the Response to Comments part of
14 the FEIR?

15 MR. GIBSON: Yeah, Response to Comments are
16 contained in Volume I of the FEIR.

17 MR. ROSE: Thank you.

18 This is the discrete point number two. Couple
19 questions on this. And this goes to points brought up by
20 CalTrout attorney's and National Marine Fisheries Service
21 attorney, just for point of reference.

22 You were asked about -- asked questions about
23 conservation recommendations listed on page 2.0-38 of
24 Volume II. Do you recall that?

25 MR. GIBSON: Yes, I do.

1 MR. ROSE: Would you say that all those
2 conservation recommendation listed on page 2.0-32 are
3 studies or investigations?

4 MR. GIBSON: Yeah. We will agree to that point.

5 MR. ROSE: In your opinion, would conducting
6 studies of the types identified by the National Marine
7 Fisheries Service in these conservation recommendations
8 have environmental impacts as that's terms identified
9 under CEQA?

10 MR. GIBSON: Studies would probably not have any
11 environmental impacts.

12 MR. ROSE: In your opinion, would CEQA analysis
13 be required for ordering these types of studies?

14 MR. GIBSON: No, it would not.

15 MR. ROSE: Thank you.

16 And finally, discrete point number three. You
17 were asked questions by the attorney for Reclamation about
18 the FEIR and the information it was providing in regard to
19 the hearing issues. Do you recall questions along those
20 lines?

21 MR. GIBSON: Yes.

22 MR. ROSE: And in your opinion, was the FEIR
23 intended to provide all information for the Board to make
24 a determination on the hearing issues?

25 MR. GIBSON: The FEIR is part of the information

1 that the Board will consider, but not all the information
2 the Board will consider.

3 MR. ROSE: Thank you. Those are my three
4 discrete comments.

5 HEARING OFFICER DODUC: Reclamation, do you wish
6 to re-cross?

7 MS. AUFDEMBERGE: No, thank you.

8 HEARING OFFICER DODUC: Cachuma Conservation
9 District. Mr. O'Brien?

10 MR. O'BRIEN: No, thank you.

11 HEARING OFFICER DODUC: Mr. Wilkinson?

12 MR. WILKINSON: Yes, ma'am. One discrete point.

13 HEARING OFFICER DODUC: All right. Go ahead, Mr.
14 Wilkinson.

15 RECROSS-EXAMINATION

16 MR. WILKINSON: This is really for both Mr.
17 Gibson and Dr. Koutnik. You were asked a series of
18 questions by the attorney for the National Marine
19 Fisheries Service regarding things that could have been
20 included in the Final EIR. For example --

21 HEARING OFFICER DODUC: Hold on, Mr. Wilkinson.
22 Your re-cross needs to only be directed at Mr. Rose's --

23 MR. WILKINSON: The question was raised about
24 Response to Comments. That was the first point that was
25 raised by the attorney for the State Board. And I --

1 HEARING OFFICER DODUC: Response to Comments as
2 specific to the questions from Mr. Rose.

3 MR. WILKINSON: I'll try.

4 In connection with the response to comments
5 questions raised by Mr. Rose, is it your understanding
6 that if comments were received from the parties that the
7 Responses to Comments directed -- sorry the Responses to
8 Comments, in fact, responded to the issues that were
9 raised in the comments?

10 MR. GIBSON: Yes. For all the comments received,
11 the responses responded to the issues raised in the
12 specific comments, yes.

13 MR. WILKINSON: And if the Responses to Comments
14 did not deal with particular issues, is that an indication
15 of your understanding that the issue was never raised in
16 the comments themselves?

17 MR. GIBSON: If the issue was not raised, we
18 would not have responded to it. If it was raised, we did.

19 MR. WILKINSON: Thank you. That's all I have.

20 HEARING OFFICER DODUC: Those were interesting
21 questions, Mr. Wilkinson.

22 MR. WILKINSON: Probably as clear as mud.

23 HEARING OFFICER DODUC: Mr. Conant and Ms. Dunn
24 did not cross. So they're not allowed an opportunity to
25 re-cross; right? So anyway, I have to ask again Santa

1 Ynez River Water Conservation District, do you wish to
2 re-cross?

3 MR. CONANT: No.

4 HEARING OFFICER DODUC: City of Lompoc?

5 MS. DUNN: No.

6 HEARING OFFICER DODUC: Fish and Game?

7 MS. MURRAY: No.

8 HEARING OFFICER DODUC: NMFS?

9 MR. HYTREK: No, thank you.

10 HEARING OFFICER DODUC: And CalTrout, Ms. Kraus?

11 MS. KRAUS: No.

12 HEARING OFFICER DODUC: All right. Mr. Rose.

13 MR. ROSE: At this point, I'd like to ask the
14 FEIR be admitted into evidence.

15 HEARING OFFICER DODUC: I would assume there
16 would be some objections. Do you wish to come and make
17 the objections for the record?

18 MS. KRAUS: CalTrout objects to the admission of
19 the EIR into the record. We would like the opportunity to
20 present our two rebuttal witnesses.

21 HEARING OFFICER DODUC: That does seem to make
22 sense.

23 MS. KRAUS: Thank you.

24 HEARING OFFICER DODUC: With that, Mr. Rose,
25 we'll take your request under consideration.

1 And we will take a lunch break. And then when we
2 resume, I would like to hear first from rebuttal witness
3 Heather Cooley from CalTrout. I would like to get her
4 rebuttal done and cross. And that way, we will make room
5 for Ms. Cotton, if necessary, to do her surrebuttal
6 testimony today as well. All right. With that, we will
7 take a 45-minute lunch break and we will resume at 12:45.

8 (Whereupon a lunch recess was taken at 12:00 PM)

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PROCEEDINGS

12:46 P.M.

HEARING OFFICER DODUC: Welcome back, everyone.

Ms. Kraus, I would like to ask you to bring up Ms. Cooley for your rebuttal presentation.

MR. CONANT: While they're coming up, I want to clarify for the record one issue that came up before we adjourned. There was a question about whether the Settlement Agreement was effective. Is that Appendix B. of the EIR? And it is signed and it's determined to speak for itself. There is a paragraph that provides that certain provisions are not effective until the State Board acts on some technical amendments. But all of the rest of the provisions are effective. But it speaks for itself and it is in the record. And I just wanted that clarification to be made for the record.

HEARING OFFICER DODUC: Thank you, Mr. Wilkinson.

MS. KRAUS: I had a question of process for you before we start.

HEARING OFFICER DODUC: Okay.

MS. KRAUS: We have several exhibits associated with each of my witnesses. And I wanted to know if I should hand them out ahead of the witnesses testifying on when I move to introduce them.

HEARING OFFICER DODUC: Let's make sure if you're

1 going to be using them as part of your rebuttal testimony
2 the parties have copies.

3 MS. KRAUS: One will be the PowerPoint. And that
4 as the only one.

5 And the rest, just to clarify, it's nothing that
6 is a surprise. It's the testimony, Statement of
7 Qualification, PowerPoint, and the references associated
8 with each of the witnesses' testimony, which the parties
9 who wanted them asked for and received ahead of time. But
10 I didn't want anybody to be frightened because it is large
11 stack.

12 HEARING OFFICER DODUC: All right.

13 MS. KRAUS: So we'll wait until --

14 HEARING OFFICER DODUC: If they're already aware
15 of them. Are there any objections or do you wish to have
16 all those documents distributed right.

17 MR. O'BRIEN: I would like to have the
18 PowerPoint.

19 HEARING OFFICER DODUC: You'll see the
20 PowerPoint.

21 MR. WILKINSON: It's very hard to see, actually.
22 From here, it is.

23 HEARING OFFICER DODUC: Okay.

24 MR. O'BRIEN: To the extent I'm --

25 HEARING OFFICER DODUC: Do we have copies of the

1 PowerPoints?

2 MS. KRAUS: All the exhibits collated together so
3 we can pass them all out at once is that okay.

4 HEARING OFFICER DODUC: Pass them all out.

5 MS. KRAUS: Can you pass out Heather's, please?
6 Thank you.

7 HEARING OFFICER DODUC: I'll wait until I get my
8 copy.

9 HEARING OFFICER DODUC: If all parties received
10 copies, Ms. Kraus, please begin.

11 DIRECT EXAMINATION

12 By MS. KRAUS:

13 Q Please state your name for the record.

14 A My name is Heather Cooley.

15 Q Thank you. And --

16 HEARING OFFICER DODUC: It must be that
17 microphone. If you can please get very close to it.

18 MS. COOLEY: Is that better?

19 BY MS. KRAUS:

20 Q Go ahead and begin your presentation.

21 A Okay. Thank you. My name is Heather Cooley. I'm
22 Co-Director of the Water Program at the Pacific Institute.

23 I reviewed the Final EIR and I have identified
24 several deficiencies that affect its conclusion about
25 potential water supply impacts and feasibility of

1 conservation measures. I have four points that are
2 summarized here, and I'll go through each of these in my
3 presentation.

4 The first, the FEIR overstates future demand and
5 potential shortages under the proposed alternatives.

6 Second, the FEIR does not include cost effective
7 urban conservation potential available to water
8 contractors.

9 Third, that the FEIR does not adequately consider
10 the availability of water through alternative supplies.

11 And finally, that the FEIR does not consider the
12 potential for reducing agricultural water use.

13 On the first point about overstating future
14 demand of potential shortages, and there are two
15 sub-points with this.

16 First, that water demand projections used in the
17 FEIR are based on outdated estimates and ignore more
18 recent water demand projections supplied by the water
19 contractors, including in their 2010 Urban Water
20 Management Plans.

21 And secondly, that the demand projections in the
22 FEIR fail to integrate mandated water conservation
23 efficiency improvements, particularly a requirement to
24 reduce per capita demand by 20 percent by 2020.

25 This figure here shows water demand projections

1 in 2000. And in the FEIR, for the FEIR, most of the
2 demand projections are for 2020, although for Santa Ynez
3 the estimate is for 2025 and Montecito for is 2030.

4 Here, it shows in year 2000 demand was about
5 46,000 acre feet per year. And it projected in the FEIR
6 to go up to nearly 50,000 acre feet per year. As you can
7 see, the data sources for two of them, the Carpinteria and
8 the Goleta are actually taken from their 2005 Urban Water
9 Management Plans.

10 The other three are the Santa Ynez is from a
11 personal communication. Reference was not provided for
12 the Montecito estimate. And the Santa Barbara was from a
13 general plan update.

14 So these are what's included in the FEIR. But as
15 I'll show in the next slide, there are updated estimates
16 available.

17 This figure again shows the 2000 water demand and
18 then the demand in the FEIR, as can you see, in the second
19 column. However, for three of the water agencies, there
20 are updated estimates available through their 2010 Urban
21 Water Management Plans. The Carpinteria Urban Water
22 Management Plan was submitted in July of 2011 and the City
23 of Santa Barbara's was submitted in July of 2011. In both
24 of these and in all three, in fact, demand projections in
25 the 2010 Urban Water Management Plan are lower than are in

1 the FEIR.

2 Updated estimates were not available for
3 Montecito or Santa Ynez. But if we go ahead and assume
4 they're the same as what's in the FEIR, we can see that
5 the total demand using these updated estimates would be
6 around 45,000 to 46,000 acre feet. And that's
7 considerably less than what's included in the FEIR.

8 I will note that water supply estimates from the
9 2010 Urban Water Management Plans were included in the
10 FEIR. However, the updated water demand projections were
11 not included in the FEIR. When you add those in, you can
12 see the demand projections, and therefore the potential
13 water supply shortfalls would be smaller.

14 The next point I want to make is about SBX 7-7.
15 SBX 7-7 requires a reduction in per capita demand 20
16 percent by the year 2020. All of the Urban Water
17 Management Plans include estimates. Let me back up and
18 note that not every water agency will have to give a 20
19 percent reduction by 2020. It's a statewide number. And
20 there are some variations depending on the amount of
21 conservation that a particular agency has done in the
22 past.

23 That being said, all of the 2010 Urban Water
24 Management Plans include state mandated conservation. An
25 agency has to identify what their demand will be in 2020

1 with SBX 7-7. That was done, and that's one of the
2 reasons the estimates here for -- the demand estimates for
3 2010 are lower than previously. But because the FEIR does
4 not use the 2010 Urban Water Management Plans, in fact in
5 some cases is using the 2005 Urban Water Management Plans,
6 they are not including the State mandated water
7 conservation and efficiency.

8 So I would argue that the Urban Water Management
9 Plans, the 2010, are the latest and best available
10 information available in terms of water demand and should
11 be part of the decision made by the Board and at the
12 minimum should include State mandated water conservation
13 and efficiency.

14 Moving on to point two, the FEIR does not include
15 cost-effective urban water conservation potential. A
16 previous analysis done by the Pacific Institute indicates
17 a conservation potential of five to 7,000 acre feet of
18 water. The FEIR improperly disregards this and provides
19 no evidence to the counter of this.

20 Secondly, there are technological improvements
21 that have been developed since 2003 that suggest the
22 conservation potential could be even larger. There are
23 new technologies -- for example, in 2003, a high
24 efficiency clothes washer the most efficient was using
25 about 25 gallons per load. Today, high efficiency clothes

1 washers are using 15 gallons per load. There's big
2 technological improvements.

3 Likewise, high efficiency toilets, which will be
4 required after 2014, are using 1.28 gallons per flush,
5 which is less than what was included in the 2003 analysis.
6 So there have been a number of technological improvements
7 which increase potential conservation.

8 Finally, the FEIR wrongly concludes that each of
9 the water contractor's water rates provide a strong
10 incentive to conserve. In the next slide, I'll talk about
11 these water rates.

12 This shows residential water rates in 2012 for
13 each of the water agencies. Four of the five water
14 agencies have increasing block rates. So this figure
15 shows the rate structure type, increasing block rate or
16 uniform. Shows the fixed monthly service charge. And
17 here I'm showing the volumetric rate. So the rate per
18 unit thousand gallons.

19 Four of the five, as I had mentioned, have
20 increasing block rates, but one does not. The Santa Ynez
21 has a uniform block rate.

22 And certainly, some of the water agencies have
23 more conservation oriented rates. A conservation oriented
24 rate would suggest that there is a large increase between
25 going from one tier to the next, which sends a price

1 signal to the customer to reduce demand. But as you can
2 see here, the City of Santa Barbara as an example has a
3 fairly large increase between tiers and the tiers are
4 fairly small. So there are agencies in the area that have
5 fairly effective water rates. But there are agencies that
6 do not have effective rates.

7 I would point to Santa Ynez, which is using a
8 uniform block rate with relatively high fixed charges.
9 And I would point to Montecito, which is it does have an
10 inclining block rate and has very small increases between
11 each of the blocks. And the size of the block is very
12 large. So the \$5.21 per thousand gallons is up to 18,700
13 gallons, which is a significant amount of water. So many
14 water users would fall within that first tier. So
15 effectively, they're seeing a uniform volumetric charge.

16 So while some of the water agencies do have
17 effective rates, there are still room for improvement.
18 And therefore the conclusion each of them has a
19 conservation rate with the strong incentive is not
20 correct.

21 HEARING OFFICER DODUC: When you judge the
22 effectiveness of these rates, do you take into account the
23 type of users they are and the average use? Just because
24 the rates are different, I would hope there would be other
25 factors that would be considered as well.

1 MS. COOLEY: So -- yes. I think with the rate
2 the idea is -- and there are a lot of different ways you
3 can do rates. Typically, what you want to do is cover
4 essential uses of water in your first and second tier,
5 such that you encourage people to drop down into lower
6 tiers and therefore are using water efficiently. As part
7 of that, the size of that first tier becomes very
8 important. In the case of Montecito, if a large number of
9 users are simply falling from that first tier, it's not
10 sending -- providing any incentive or reward for dropping
11 into lower tiers.

12 HEARING OFFICER DODUC: Do you know how many of
13 the users falls within those tiers?

14 MS. COOLEY: No, I do not.

15 On to point three, the FEIR does not adequately
16 consider the availability of water through alternative
17 supplies, but there are potential supplies that are
18 available, including recycled water, rain water
19 harvesting, and stormwater capture that are not evaluated.
20 And these could be implemented to reduce or eliminate need
21 for Santa Ynez River water.

22 As an example, this figure shows current recycled
23 water use at about 1800 acre feet per year, with a total
24 supply of recycled water currently represents about three
25 percent of the supply. So it's fairly small.

1 Current recycled water capacity shown in the
2 column on the far right. As you can see, they're using
3 substantially less than even what the installed recycled
4 water capacity is. So there is potential to use that
5 existing capacity and even to exceed it. There are
6 agencies in California that are already doing this. As an
7 example, in the Irvine Ranch Water District, they're
8 meeting about 20 percent -- 22 percent of their water use
9 through recycled water. West Basin is currently doing
10 about seven percent, but has a plan to increase to 15
11 percent by 2020. So there is potential at the very least
12 to evaluate how much recycled water could be used for both
13 urban and for agriculture. And that is not adequately
14 shown in the EIR.

15 And my last point, the FEIR does not consider the
16 potential for reducing agricultural water use.
17 Agriculture -- and there is some work done at the Pacific
18 Institute in 2009 that suggests that there are a variety
19 of technologies and practices that can reduce water
20 requirements for agriculture. And in addition, recycled
21 water can be used to meet agricultural water demand.

22 In this figure, I show agricultural water demand
23 current among the contractors. Currently, about 7500 acre
24 feet per year. Most of those estimates are from 2010,
25 although for Montecito and Santa Ynez because they do not

1 have the updated Urban Water Management Plans, I used what
2 was available there.

3 The FEIR does not have any discussion about
4 potential agricultural water demand. There has been no
5 analysis of what that was. In fact, in the Urban Water
6 Management Plans, in most cases, water demand in the year
7 2010 was assumed to be the same as it will be in 2020 for
8 agricultural use. There has been sort of no real analysis
9 of what the potential is. And I would argue that there
10 should be an analysis. There should be an evaluation.
11 There has been implementation of some conservation in the
12 region. But there remains potential that could be
13 analyzed and implemented.

14 So to conclude the four points, the FEIR
15 overestimates future demand and potential shortages. Does
16 not include the latest and best available information on
17 water demand as presented in the 2010 Urban Water
18 Management Plans. The FEIR does not include cost
19 effective urban conservation potential available to water
20 contractors. There has been no real analysis of what that
21 potential is. That should be done and be part of this.
22 The FEIR does not adequately consider the availability of
23 water through alternative supplies. And the FEIR does not
24 consider the potential for reducing agricultural and water
25 use.

1 Thank you.

2 HEARING OFFICER DODUC: Does that complete
3 your --

4 MS. KRAUS: That completes Ms.
5 Cooley's testimony.

6 HEARING OFFICER DODUC: Great. Thank you, Ms.
7 Kraus.

8 We'll begin cross of Ms. Cooley with the Bureau.
9 Does Reclamation wish to cross?

10 MS. AUFDEMBERGE: No.

11 HEARING OFFICER DODUC: Mr. O'Brien, I see you're
12 already standing up.

13 CROSS-EXAMINATION

14 BY MR. O'BRIEN:

15 Q Good afternoon, Ms. Cooley.

16 A Good afternoon.

17 Q You mentioned SBX 7-7, which is legislation that was
18 adopted in 2009; is that correct?

19 A Correct.

20 Q And in your PowerPoint, you refer to a requirement to
21 reduce per capita demand by 20 percent by 2020; correct?

22 A Correct. That's a shorthand version of that.

23 Q SBX 7-7 requires a reduction of -- per capita
24 reduction of 20 percent by 2020 to apply on a statewide
25 basis; is that correct?

1 A That's correct.

2 Q The 20 percent requirement would not necessarily apply
3 to any particular water purveyor?

4 A Yes. I noted that in my testimony.

5 Q And you reviewed the specific reduction targets
6 generated by the parties involved in this proceeding under
7 SBX 7-7?

8 A I reviewed the numbers that were in the 2010 Urban
9 Water Management Plans, which includes compliance with SBX
10 7-7.

11 Q And those are all -- those target reductions were all
12 less than 20 percent; correct?

13 A That's correct.

14 Q You talked about the numbers relating to water demand
15 in the FEIR in comparison to the more recent numbers that
16 have become available with the publication of the revised
17 Urban Water Management Plans. And you went through in
18 your PowerPoint some differences between those two sets of
19 numbers.

20 My question to you is whether you have attempted
21 to analyze or determine whether use of that new set of
22 numbers would change the conclusion reached in the FEIR
23 that there are Class 1 water supply impacts associated
24 with certain of the alternatives that were analyzed?

25 A No, I did not evaluate what the impacts would be. I

1 simply pointed out that there were inconsistencies in the
2 use of the Urban Water Management Plans and that those new
3 numbers should be used for the analysis in the FEIR, as
4 opposed to the older numbers.

5 Q But you don't know as you sit here today whether if
6 you use those new numbers it would change the conclusion
7 in the EIR regarding the significance of water supply
8 impacts?

9 A I have not done that analysis.

10 Q Now, with respect to your testimony regarding
11 additional conservation measures that could be implemented
12 by the urban water purveyors that utilize Cachuma Project
13 water, you use the term in your testimony and in your
14 outline the term "cost effective"?

15 A Uh-huh.

16 Q Can I assume from your use of that term that you
17 believe cost effectiveness is a relevant consideration
18 when one is discussing urban water conservation measures?

19 A Yes, it is a relevant term.

20 Q And isn't it also true that the concept of feasibility
21 under CEQA law -- and I don't know if you don't know much
22 about CEQA law. You're certainly free to say that. But
23 there is also a concept under CEQA law of feasibility that
24 involves to some extent economic considerations.

25 A I'm not familiar with CEQA law.

1 Q Okay. You talked in your testimony about
2 opportunities to save 5,000 to 7,000 acre feet of water by
3 Cachuma contractors. I'd like to focus you in on the
4 urban contractors for purposes of this question. And I'd
5 like you to tell me specifically what conservation
6 measures you believe could be implemented by the urban
7 purveyors that utilize Cachuma Project water?

8 A There are a variety of conservations that could be
9 implemented. They include in terms of residences include
10 clothes washers, toilets, landscaping improvements,
11 including both improvements in application of water, but
12 then shifting towards lower or no water use landscapes.
13 There are clothes washers, facet aerators, shower heads.
14 There's also opportunities within the commercial
15 industrial and institutional sector. Many of the same in
16 terms of indoor as found in residential, but there are
17 also potential for cooling towers, restaurant spray
18 valves. There's dozens of opportunities for reducing
19 water use through conservation efficiency.

20 Q With respect to the urban retail water purveyors that
21 utilize Cachuma Project water, have you attempted to
22 determine the cost of implementing any of those measures
23 that you just described?

24 A The 2003 Pacific Institute analysis did look at the
25 cost, and they looked specifically -- that analysis looked

1 specifically at three measures. They looked at toilets,
2 ultra-low flush toilets at that time, front loading
3 clothes washers, and landscaping improvements. There was
4 a cost effectiveness analysis. I have done other cost
5 effectiveness analysis on many of these devices, not
6 specific to this particular area, but certainly more broad
7 on a statewide level.

8 Q I want to hone in on these specific urban water
9 purveyors that utilize Cachuma Project water. You said
10 you did some work back in 2003. That's almost ten years
11 ago. Is there anything more recent in terms of the cost
12 effectiveness analysis that you've performed with respect
13 to these Cachuma Project purveyors?

14 A No.

15 Q You also discussed some potential opportunities for
16 increasing water supply, including rain water harvesting,
17 stormwater capture, and recycled water use. Would you
18 also agree that cost effectiveness is a relevant
19 consideration with respect to these types of measures?

20 A Yes.

21 Q Have you performed any analysis of the cost
22 effectiveness or the economics of any of those measures
23 with respect to the urban retail water purveyors that
24 utilize Cachuma Project water?

25 A No, I haven't done a cost effectiveness analysis

1 specific to the Cachuma contractors.

2 Q Have you discussed with any of the staff of any of
3 those retail water purveyors practical or economic issues
4 associated with implementing any of those measures?

5 A No.

6 Q Now, rain water harvesting is a measure that would not
7 be effective in the event of a drought; is that correct?

8 A Could you explain why that's the case?

9 Q Well, let's say we have a pretty severe drought where
10 there is limited rainfall, such as 1976, '77. In that
11 sort of a situation, there wouldn't be any rain water to
12 harvest to speak of; isn't that correct?

13 A It depends on the size of your cistern. If you had
14 some carry-over capacity, then there could be water in
15 there. But even in a drought, you can get precipitation.
16 Doesn't mean there is no precipitation. So there is
17 potential when there is rainfall to capture that. Again,
18 depending on the size of your storage tank and how much
19 you use in the previous periods, there may be potential
20 there.

21 Q Do you have any idea how much potential there is for
22 supplementing the current water supply within the Cachuma
23 Project surface area with rain water harvesting as a
24 percent of the overall water use?

25 A I haven't done that analysis and I haven't seen anyone

1 else do that analysis.

2 Q Same question for stormwater capture. Do you have any
3 idea what percentage of the water supply could be
4 augmented through stormwater capture within the Cachuma
5 area?

6 A No, I have not done that analysis. And that was the
7 point in terms of bringing that up, is that analysis needs
8 to be done and included so it can be evaluated.

9 Q Now with respect to recycled water, you mentioned
10 Irvine Ranch. Irvine Ranch was a planned community that
11 was basically integrated extensive recycled water use from
12 the very beginning of the development; isn't that correct?

13 A In part, that is true. Although they've also done
14 quite a bit to encourage it even in areas that were
15 already developed.

16 Q Wouldn't you agree that Irvine Ranch from a physical
17 institutional standpoint is a much different situation
18 than you have within the Cachuma Project surface area?

19 A The conditions in any community I would say are
20 different. Irvine Ranch was one of the examples of
21 communities that have implemented recycled water. But
22 there are many communities in California that are doing
23 it, have done it, and are planning to do it.

24 Q But the feasibility of the use of recycled water is a
25 community-specific analysis; isn't that correct?

1 A That's correct.

2 Q Have you taken a look at the current uses and
3 potential additional uses of recycled water within the
4 City of Santa Barbara?

5 A I've looked in terms of what was presented in the
6 FEIR, and then I looked at some of the other documents
7 that talked about what the capacity was.

8 Q Do you have an opinion as to quantitatively how much
9 additional recycled water could be used within the city of
10 Santa Barbara on a cost effectiveness basis?

11 A No, I do not.

12 Q Do you have an opinion as to how much additional
13 recycled water could be used within the Goleta Water
14 District on a cost effectiveness basis?

15 A No. That was -- the point in bringing this up that
16 analysis is not included in the FEIR, nor is it
17 referenced.

18 MR. O'BRIEN: If I can just have a moment.

19 BY MR. O'BRIEN:

20 Q Now, as I understand the position of CalTrout in this
21 proceeding, essentially, the position is being taken that
22 there should be more water conservation occurring among
23 the urban and agricultural water uses within the Cachuma
24 Water Project; is that your understanding?

25 A My understanding is that the conservation and

1 efficiency is a potential mitigation measure, yes.

2 Q Okay. I guess my question is -- let's assume
3 hypothetically that all of the conservation that you and
4 your client are advocating occur within the Cachuma
5 Project service area were implemented. Would that water
6 that's saved go to mitigate the Class 1 water supply
7 impacts of the water purveyor or would that water saved go
8 to the fish?

9 A The destination of that water is not my determination.
10 For me, my purpose and my role and expertise is evaluating
11 the water demand and the potential for conservation. So I
12 have no sort of thoughts on how or where that should go.

13 Q Okay. Fair enough. Thank you.

14 HEARING OFFICER DODUC: Mr. Wilkinson?

15 MR. WILKINSON: Yes, thank you.

16 CROSS-EXAMINATION

17 BY MR. WILKINSON:

18 Q Good afternoon, Ms. Cooley.

19 A Afternoon.

20 Q I'm Greg Wilkinson. I represent the Santa Ynez River
21 Water Conservation District ID Number 1, principally the
22 agricultural district.

23 I had some questions for you regarding the 2009
24 report that you prepared. But I do have a clarification
25 question. Are you offering that report in evidence or is

1 your Exhibit 118 only those excerpts that were attached?

2 A It's just the executive summary, yes. We are offering
3 the executive summary into --

4 Q Only the executive summary?

5 A Yes.

6 Q Okay. Well, I'm going to give you a copy of the full
7 report. I'm going to have a FEW questions for you.

8 May I approach the witness?

9 HEARING OFFICER DODUC: Okay.

10 MR. WILKINSON: I wasn't sure. May I approach
11 the bench?

12 HEARING OFFICER DODUC: Sure. After your
13 questions this morning, I'm afraid to get near you.

14 (Laughter)

15 HEARING OFFICER DODUC: Let me understand, Ms.
16 Kraus, you will not be submitting the entire report into
17 the record?

18 MS. KRAUS: The executive summary is the full
19 exhibit that's being offered into the record.

20 MR. WILKINSON: And Ms. Doduc, we will not be
21 offering the entire report EIR. However, her opinions
22 regarding agricultural irrigation efficiency are based on
23 the report, not just the executive summary. So we have a
24 few questions for her about the report itself.

25 HEARING OFFICER DODUC: I will assume that Ms.

1 Kraus will speak up if she has concerns.

2 MR. WILKINSON: Thank you.

3 HEARING OFFICER DODUC: Go ahead.

4 BY MR. WILKINSON:

5 Q Ms. Cooley, am I correct that the report that you
6 prepared in 2009 analysis assumed if more farmers relied
7 upon efficient irrigation technology, improved irrigation
8 scheduling, and use CIMIS data, there would be an increase
9 in on-farm water use efficiency?

10 A So we didn't assume. We did an analysis. And we
11 looked at, as you mentioned, improvements in irrigation
12 technology, irrigation scheduling. But the third one was
13 regulated deficit irrigation. And that's a strategy where
14 you can provide less water than the water requirements as
15 a way of improving the quality of the plan.

16 Q But the effect of applying those three techniques was
17 an increase of efficiency in on-farm irrigation; is that
18 correct?

19 A Yes.

20 Q As an example, your 2009 paper relied upon a U.C.
21 Berkeley study that found potential water savings of 13
22 percent if irrigation scheduling practices were approved.
23 Do you recall that?

24 A Yes. We did a review of the literature and found
25 studies that indicated that savings potential and applied

1 water; correct.

2 Q And then am I also correct then that you applied this
3 13 percent savings from the Berkeley study to a base
4 scenario to reach your conclusion about region-wide water
5 savings?

6 A Yes.

7 Q Now, the 1996 study, this Berkeley study that we're
8 talking about, reported the potential savings on farm;
9 correct?

10 A To the best of my knowledge, yes.

11 Q Are you familiar with the concept of basin-wide
12 efficiency?

13 A Very familiar.

14 Q Basin-wide efficiency, unlike on-farm efficiency,
15 takes into consideration return flows to groundwater;
16 doesn't it?

17 A Correct.

18 Q And in some cases, basin efficiency can exceed field
19 or on-farm efficiency; isn't that right?

20 A That's correct.

21 Q And where basin efficiency exceeds the field or the
22 on-farm efficiency, conserving water doesn't necessarily
23 increase the available water supply; does it?

24 A What we evaluated was not necessarily the potential to
25 create new water. It was the potential to reduce the

1 amount of applied water, the total amount you're having to
2 apply to your field.

3 Q Is your answer to my question no?

4 A Could you repeat it just to make sure?

5 Q My question was: Where the basin efficiency exceeds
6 the field efficiency, the on-farm efficiency, conserving
7 water doesn't necessarily increase the available water
8 supply, does it?

9 A There are still opportunities for improving efficiency
10 or reducing evaporation even when basin efficiency exceeds
11 field efficiency.

12 Q Would you take a look at page 31 of your report full
13 report that I've given you?

14 A Yes.

15 Q In the last full paragraph on that page near the end,
16 I'll read it says, "In some cases, basin efficiency can
17 exceed field efficiency."

18 A Sorry?

19 Q "In these cases, conserving water does not necessarily
20 increase the available water supply"; is that correct?

21 A I'm not seeing it here. Okay, I see it now. I'm
22 sorry.

23 Q Let me read it again to you. "In some cases, basin
24 efficiency can exceed field efficiency. In these cases,
25 conserving water does not necessarily increase the

1 available water supply." Is that statement correct?

2 A Does not necessarily, that's correct.

3 Q Thank you.

4 One of the techniques that was studied, as I
5 understand it, in your 2009 report for increasing the
6 efficiency of agricultural water use is a switch from
7 flood irrigation to sprinkler and drip irrigation; is that
8 right?

9 A Yes.

10 Q And your report says that if that switch is made, it
11 would reduce agricultural water use by about three
12 percent?

13 A It varies. You mean statewide? Was that the -- it
14 varies in terms of what the efficiency improvement is.

15 Q Look at page 45 of your report. You talk about at the
16 bottom of 44 and then on the top of 45, you talk about
17 converting under the efficient irrigation technology
18 scenario nearly 3.4 million acres land irrigated by flood
19 which was converted to drip and sprinklers. This
20 conversion reduces agricultural water use by about 3
21 percent.

22 A Uh-huh.

23 Q And that's a statewide number, is it?

24 A Correct. And that is not -- just to be clear, that's
25 not converting all the farms. We chose a certain number

1 of percent of irrigated land to convert into the various
2 irrigation technologies. So there's --

3 Q Now you examined agricultural irrigation practices in
4 the Cachuma Project surface area?

5 A No.

6 Q You don't know, do you, whether flood irrigation is
7 practiced to any significant degree within the Cachuma
8 Project service area, do you?

9 A No. The point of submitting this was to suggest that
10 there are efficiency potential and that needs to be
11 evaluated. A detailed analysis needs to be conducted so
12 we know what the efficiency potential is, as opposed to
13 completely ignored.

14 Q Is it a fact also there are some hydrologic regions
15 that are already more efficient in their use of things
16 such as micro sprinklers and drip irrigation than the
17 efficiency rates that you assumed in your report?

18 A We use actual -- we used a study conducted by
19 Department of Water Resources that looked at the
20 irrigation technologies that are done in each hydrologic
21 region. So we used actual data at the hydrologic region
22 scale. There can be local and regional variations
23 different than that.

24 Q And one of the variations, one of the regions where
25 there is better efficiency than other regions is the

1 central coast region of California; isn't that correct?

2 A Correct.

3 Q And in fact, in the central coast region, which
4 encompasses the Cachuma Project service area and where
5 grapes are grown to a significant degree, farmers within
6 that area that grow vineyards are about 97 percent
7 efficient in terms of using drip irrigation; correct?

8 A I'm sorry. You say 97 percent efficiency. You mean
9 97 are using drip irrigation?

10 Q I was unclear. Ninety-seven percent of the farmers
11 within the central coast region are using drip already?

12 A I don't know.

13 Q Take a look at page 44 of the report. Let me read it
14 to you. "Nearly 97 percent of vineyards in the central
15 coast hydrologic region, for example, are irrigated using
16 drip." Is that accurate? That's what you said in your
17 report. Is it accurate?

18 A Yes.

19 Q Thank you.

20 A As far as the data indicates from the FEIR survey,
21 that's where that information came from.

22 Q Now would you do me a favor and take a look at page 37
23 of your report. On page 37 -- do you have it?

24 A Yes.

25 Q There is a table there that talks about results for a

1 base line scenario. And that is your analysis of the use
2 of water -- agricultural water as a sort of base line
3 estimate; is that right?

4 A Correct.

5 Q You have a figure there for the center line -- I
6 should say for the central coast. Do you see that?

7 A Yes.

8 Q And in an average year, your base line says that the
9 central coast irrigators use 1,080,000 acre feet of water;
10 did I get that right?

11 A Yes. Yes.

12 Q Would you do me a favor and then turn to page 45 of
13 your report? And there is a table there that presents the
14 results for the efficient irrigation technology scenario;
15 is that right?

16 A Correct.

17 Q Okay. And this is the part of your report that talks
18 about switching from one type of less efficient irrigation
19 to another type that's more efficient; correct?

20 A That's correct.

21 Q Okay. And Table 4 says the results for the central
22 coast show that in an average year using efficient
23 irrigation technology, the water use would be cut from
24 one-million-eighty to one-million-twenty?

25 A Correct.

1 Q It's a savings of about 60,000 acre feet?

2 A That's correct.

3 Q Now, am I correct then that even though 97 percent of
4 the vineyards along the central coast are already using
5 drip, the reduction in water use that you determined for
6 the central coast is about -- I've done the math -- about
7 5.5 percent; is that right?

8 A I haven't done the math myself. But if that's --

9 Q Does that about right to you?

10 A Of 60,000.

11 Q 60,000?

12 A That sounds about right. 5.8 percent.

13 Q So according to your report, even though the central
14 coast is already more efficient in its use of irrigation
15 technology in the state as a whole, the percentage
16 reduction in irrigation water that you've concluded could
17 occur through the use of efficient irrigation technology
18 is about twice the percentage of the state as a whole; is
19 that right?

20 A I think the problem is you're focusing on one
21 particular crop. There are other crops grown in the
22 region besides simply vineyards. And so even though 97
23 percent of vineyards may be using drip irrigation, there
24 are other sorts of crops that may not be using it. In
25 addition, you're using sort of broader hydrologic region

1 level data and making sort of assertions about what's
2 going on in Cachuma. And so there could be discrepancies
3 or variations within a particular region in terms of the
4 different practices in place.

5 Q Well, I'm simply using the numbers that you presented
6 in your table. You've already testified that you're not
7 familiar with the irrigation practices that are in
8 practice within the Cachuma Project service area, for
9 instance. How did you come up with a number for an
10 irrigation savings that's almost twice as large as the
11 statewide average as a whole for a region that we believe
12 you have indicated is relatively efficient.

13 MS. KRAUS: Objection. The witness has testified
14 she didn't do any calculations for the local area.

15 HEARING OFFICER DODUC: I think his question was
16 with respect to her calculations on Table 4, which is not
17 specific to the local area, but to the central coast
18 hydrologic region as a whole; is that correct, Mr.
19 Wilkinson?

20 MR. WILKINSON: That's correct.

21 THE WITNESS: For this, we used a model from the
22 Department of Water Resources looking at their water
23 demand. As an input, we put in the irrigation
24 technologies that are currently in place according to the
25 latest DWR survey on a hydrologic region. We then applied

1 the efficiency estimates in terms of the improvements in
2 efficiency that are shown -- sorry I didn't -- I don't
3 have the page number. Give me just a moment. Shown on
4 page 40 in terms of the Table 3. So use those level of
5 efficiency. And when you convert, that is where we got
6 the savings shown for wet, average, and dry year.

7 BY MR. WILKINSON:

8 Q So then it's your testimony that using the methodology
9 that you used, you've concluded that central coast region
10 is, in effect, twice as susceptible to improved irrigation
11 efficiencies as the state as a whole resulting from
12 improved irrigation technology?

13 I'm trying to understand this relationship
14 between the three-and-a-half percent you assume will occur
15 statewide to the almost six percent, five-and-a-half
16 percent that you believe will occur within the central
17 coast region through improved irrigation technology. I'm
18 trying to understand the basis for your figures.

19 A I think I just told you the basis of the figures.
20 They are using DWR survey data in terms of the irrigation
21 methods that are currently in place by crop type for that
22 particular hydrologic region. And then the irrigation
23 efficiency estimates that are shown in Table 3. I think
24 the methodology is clearly laid out in the report. And so
25 these are different scenarios based upon the assumptions.

1 And we've clearly presented what the assumptions were.

2 But beyond that, I can't --

3 Q And your report, Ms. Cooley, also relied on a survey
4 conducted by U.C. Berkeley, which evaluated water use in
5 fields to determine water applications; is that right?

6 A Excuse me?

7 Q This is the 1996 U.C. Berkeley survey.

8 A Could you be more specific on --

9 Q It's to determine, as I understand it from reading
10 your report, regarding improved irrigation schedule.

11 A Yes. That was a study -- if I can recollect --
12 looking at particularly at the use of CIMIS and some of
13 the benefits that farmers receive from implementing that.

14 Q And I think you testified that you took the 13 percent
15 savings that was determined from that study, and you
16 applied it across the irrigated lands within the various
17 regions, the hydrologic regions; is that right?

18 A Yes.

19 Q And the Berkeley study was conducted in 1997; is that
20 correct?

21 A Yes.

22 Q So when you used it in your 2009 report, it was
23 already twelve years old; correct?

24 A Yes.

25 Q And that study was based upon a survey of 55

1 individual farmers; wasn't it?

2 A Yes. That's correct.

3 Q How many of those farmers were from the central coast
4 region?

5 A I do not know off hand.

6 Q How many were from the Cachuma Project service area?

7 A I don't know off hand. The study looked at people who
8 had implemented CIMIS and looked at the savings.

9 Q Do you know whether any of the farmers that were
10 surveyed were from the central coast region?

11 A I do not recall.

12 Q Ms. Cooley, the third factor, as I understand it, that
13 you looked at in your paper was regulated deficit
14 irrigation. I think that's what you testified; correct?

15 A That's correct.

16 Q Now, the savings that are generated by RDI, regulated
17 deficit irrigation, are especially sensitive to local
18 conditions; aren't they?

19 A In terms -- could you be more specific in terms of
20 that?

21 Q Well, slightly higher or lower moisture content can
22 effect the success levels of regulated deficit irrigation.

23 A Certainly, it's an approach that there is variability
24 in terms of the savings potential depending on a variety
25 of factors, yes.

1 Q It's also true, isn't it, that there's relatively
2 little information about how many farmers are currently
3 practicing RDI?

4 A That is correct, yes. We use the available data to
5 try to account for that.

6 Q As we sit here today, Ms. Cooley, can you tell me the
7 percentage of farmers within the central coast practicing
8 regulated deficit irrigation in their crops?

9 A No, I haven't seen those numbers publicly.

10 Q I assume that same answer would be given for the
11 number of farmers or the percentage of farmers within the
12 Cachuma Project surface area?

13 A That's correct.

14 Q Have you discussed the use of RDI with any of the
15 Santa Ynez Valley farmers?

16 A No. I have not done an analysis on the Cachuma in
17 terms of the agricultural water savings or potential.

18 Q So is it -- as I understand it then, your position
19 that you can apply an estimate of on-farm water savings
20 from the RDI to an entire basin to estimate the net
21 transferable water of the basin?

22 A I don't believe we were looking at the net
23 transferable water. I think we were looking at the
24 potential to apply this technology as a way of reducing
25 applied water throughout the state.

1 Q Did you ever attempt to estimate the water savings
2 that would occur if the reuse of return flows to
3 groundwater basins was taken into account?

4 A No.

5 Q If reuse of return flows to groundwater had been
6 considered, isn't it true that there would be smaller
7 amounts saved because water would still be available for
8 use?

9 A Unfortunately, the data on return flows is often
10 lacking. So there are a lot of estimates or suggestions
11 about what that might be. But it's highly variable from
12 place to place, and there are really no great data
13 available on a statewide level.

14 Q And you haven't attempted to make that calculation for
15 the Cachuma Project surface area, have you?

16 A No. As I mentioned, I have not done an analysis
17 specific to the Cachuma area.

18 Q You testified also that recycled water can be used to
19 meet agricultural water demand; correct?

20 A It is a strategy that's used in parts of California,
21 yes.

22 Q Have you studied the availability of recycled water
23 for agricultural purposes anywhere within the Cachuma
24 Project service area?

25 A No, I have not.

1 Q Do you know, for example, whether there is any source
2 at all of tertiary treated water available for use within
3 the Santa Ynez region of the Cachuma service area?

4 A Using the data that was presented in the FEIR and in
5 supporting documentation, it suggests there is unused
6 capacity. But I have not specifically looked at whether
7 that could be used for agriculture.

8 Q Unused capacity within the Santa Ynez region?

9 A Yes. Unused with recycled water capacity. The
10 capacity was 4100 acre feet and currently using 1800 acre
11 feet.

12 Q Well, my understanding, Ms. Cooley, is that the only
13 wastewater treatment plant that is capable of serving
14 agriculture in the Santa Ynez area is a secondary plant.
15 Do you know that to be different?

16 A No, I do not.

17 Q Do you believe that secondarily treated wastewater
18 should be applied to crops within the Santa Ynez area?

19 A What I suggested in my testimony was that that needed
20 to be evaluated and included and considered for the FEIR.

21 Q And you haven't done that?

22 A I have not, no.

23 Q And you didn't make any comments about the possibility
24 of using secondary treated wastewater on crops within the
25 Cachuma service area?

1 A No. I made no statements about that.

2 Q Ms. Cooley, even assuming that secondarily treated
3 wastewater is capable of being used in the area around
4 Santa Ynez, do you have any idea at all how wastewater
5 from the Solvang plant, which is the only secondary
6 treatment facility in the region, would actually be
7 conveyed to crops within the Santa Ynez service area.

8 A No.

9 Q You haven't studied the cost of running the necessary
10 pipelines and pump stations and lifts and things of that
11 sort?

12 A No, I have not.

13 Q And you haven't looked at the elevation changes that
14 exist between the location of the Solvang plant and where
15 the grapes are growth in the Santa Ynez area?

16 A No.

17 Q Ms. Cooley, I have just a couple more questions for
18 you. I wonder if you would turn to page 67 of your
19 report. Do you have that?

20 A Yes.

21 Q Now am I correct that you have concerns, Ms. Cooley,
22 about the qualifications of members of the State Water
23 Resource Control Board?

24 MS. KRAUS: I'm going to object and ask how this
25 is relevant to Ms. Cooley's testimony.

1 MR. WILKINSON: It's part of her report, Ms.
2 Kraus.

3 MS. KRAUS: How does this pertain to the
4 agricultural?

5 HEARING OFFICER DODUC: Mr. Wilkinson, it may be
6 in her report, but it's not relevant to the four very
7 clearly specified issues that are the focus of her
8 rebuttal testimony. So I will sustain the objection.

9 MR. WILKINSON: That's all I have.

10 HEARING OFFICER DODUC: Thank you, Mr. Wilkinson.

11 I don't know if any of the other parties want to
12 cross-examine Ms. Cooley on this issue, but since I'm
13 tired of hearing it, let's get it clear on the record, Ms.
14 Cooley, that you have not conducted any studies specific
15 to the Cachuma service area and you don't have any
16 specific knowledge of conservation agricultural practices
17 or infrastructure in that area.

18 MS. COOLEY: That is correct.

19 HEARING OFFICER DODUC: Thank you. Let's not go
20 there any more.

21 Next, Mr. Conant?

22 MR. CONANT: No questions.

23 HEARING OFFICER DODUC: Ms. Dunn?

24 MS. DUNN: No questions.

25 HEARING OFFICER DODUC: Ms. Murray?

1 MS. MURRAY: No questions

2 HEARING OFFICER DODUC: Mr. Hytrek?

3 MR. HYTREK: No questions.

4 HEARING OFFICER DODUC: I could have saved that
5 speech.

6 Ms. Kraus, you're obviously not cross-examining
7 your own witness. All right. That concludes the cross
8 for Ms. Cooley. A moment, please.

9 (Off record.)

10 HEARING OFFICER DODUC: My counsel wants me to
11 ask you, Ms. Kraus, if you have any redirect or if you
12 wish to do redirect, what would be the focus area for your
13 redirect?

14 MS. KRAUS: I have just one discrete question.

15 HEARING OFFICER DODUC: Mr. Rose started that.
16 And the discrete area that you wish to explore?

17 MS. KRAUS: Demand.

18 HEARING OFFICER DODUC: All right. Go ahead.
19 You may do it from there since it's going to be one short
20 discrete question.

21 REDIRECT EXAMINATION

22 BY MS. KRAUS:

23 Q Ms. Cooley, regarding the updated demand projections
24 that you calculated, is that information that you think is
25 important for the Board to consider as part of its public

1 trust decision?

2 A Yes, I believe it's the most updated and best
3 available information currently available.

4 Q Thank you. That's all I have.

5 HEARING OFFICER DODUC: Thank you. Any re-cross?
6 I'm tossing that out to all parties. Not seeing any.
7 Good.

8 At this point, I would assume you want to
9 introduce some of your exhibits and move that it be --

10 MS. KRAUS: Yes, please. I would like to
11 introduce CalTrout Exhibit 101 through 119 and move for
12 their admission to the record.

13 HEARING OFFICER DODUC: Any objections? Not
14 hearing any, they've been moved.

15 (CalTrout Exhibits 101-119 were admitted
16 into evidence by the Hearing Officer.)

17 MS. KRAUS: Thank you.

18 HEARING OFFICER DODUC: At this point, I'm going
19 to change the proceeding a bit and ask that the parties
20 that wish to put on surrebuttal for Ms. Cooley testimony
21 assemble. So you're not done with rebuttal. I'm just
22 going to the surrebuttal for Ms. Cooley. That means I'm
23 expecting panel number two, Cotton, Bjork, Fitch, and
24 Mosby. And your counsel or counsels will have 30 minutes
25 to present your surrebuttal testimony.

1 MR. O'BRIEN: Thank you. I think Mr. Wilkinson
2 and I are going to split this. I'm going to do the urban
3 piece, and he's going to handle Mr. Mosby. My colleague,
4 Mr. Marsh, is passing out some exhibits, resumes for the
5 witnesses, and then one brief PowerPoint for Ms. Cotton.

6 HEARING OFFICER DODUC: Does everyone have the
7 handouts? I see Ms. Dunn shaking her head. Can someone
8 give Ms. Dunn a copy? While he's doing that you may
9 begin.

10 MR. O'BRIEN: Thank you.

11 DIRECT EXAMINATION

12 BY MR. O'BRIEN:

13 Q We'll start, Ms. Cotton, with you.

14 We have marked as an exhibit copy of your resume.

15 Ms. Heinrich, I don't know what we're using in
16 terms of exhibit numbers. Should I mark this just --

17 SENIOR STAFF COUNSEL HEINRICH: Are you not sure
18 what numbers are available?

19 MR. O'BRIEN: I'm not sure because of the prior
20 evidentiary hearing what sequence we're using. So perhaps
21 it would be safe to use something like a high number.

22 SENIOR STAFF COUNSEL HEINRICH: Maybe Mr. Mona
23 can check that real quick for us and see where you left
24 off.

25 MR. O'BRIEN: I'll go ahead and proceed. And we

1 can come back and deal with exhibit numbers.

2 BY MR. O'BRIEN:

3 Q Ms. Cotton, can you briefly describe your professional
4 background?

5 A Yes. I'm known for being really soft.

6 My professional background is I'm a Senior Water
7 Resource Manager for Kennedy/Jenks Consultants. I've been
8 in the water planning business for over 17, 18 years now.
9 I started my career at the Kern County Water Agency.
10 Moved to the Castaic Lake Water Agency and Kennedy/Jenks.
11 My fields of specialty are the State Water Project, urban
12 water planning, and modern conservation.

13 Q For purposes of today's testimony, you prepared a
14 PowerPoint presentation, did you not?

15 A Yes.

16 Q And that responds to the outline we received from Ms.
17 Cooley; correct?

18 A Yes.

19 Q Can you go ahead and walk you through that PowerPoint?

20 A This will be repetitive in terms of some of the prior
21 testimony, but I just want to briefly revisit the SBX 7-7
22 requirements.

23 As you heard before, it does mandate the State of
24 California as a whole reduce per capita demand by 20
25 percent by 2020. But it's been made clear that each urban

1 retail water supplier, which is a term in statute, must
2 calculate its own base line water use and demand reduction
3 targets. And each individual supplier might have a target
4 that's less than 20 percent.

5 It also allows water suppliers to reassess their
6 base line and target calculations in 2015 when they
7 prepare their 2015 Urban Water Management Plans. And they
8 can make adjustments to them. And it also allows them to
9 change the selected target methodology they used when they
10 prepared their plans in 2010. They do that one time.

11 SBX 7-7 supplies the per capita use based on
12 specific mandated calculation methodologies that are in
13 statute. And it doesn't apply to the gross demands of the
14 water suppliers.

15 Now, these two maps were provided by the
16 Department of Water Resources. They were actually shown
17 to the Water Committee and the Legislature almost exactly
18 two weeks ago. The Water Committee had requested some
19 update on how the State was progressing toward 20 percent
20 by 2020. So DWR prepared these.

21 As you can see, on the left side map, those are
22 the averages for base line water use to date. This has
23 all been collected from Urban Water Management Plans the
24 Department has reviewed today. You will see that the
25 coastal areas have much lower water use than the inland

1 areas. That's probably not to surprising to you.
2 Probably one of the main factors driving that is lower
3 evapotranspiration rates in the coastal areas. They are
4 cooler. Tend to receive more precipitation than in
5 northern portions. Inland areas obviously have much
6 higher ET rates.

7 Another factor is a demographic factor. Land use
8 and land prices in the coastal areas are much higher than
9 in the inland areas. Tend to drive smaller lot sizes. So
10 overall, the coastal hydrologic regions tend to be more
11 arid and more efficient than the inland areas, which
12 while they can be arid as well as have larger lot sizes
13 and higher ETA.

14 On the right-hand side is a map that the
15 Department's compiled to show the percentage reductions by
16 2020 on an average basis for each hydrologic region. You
17 can see the central coast hydrologic regions where these
18 agencies are located is required to achieve an overall
19 demand reduction of 15 percent by 2020. That compares
20 rather favorably with other hydrologic regions.

21 Just to show you on scale what that means, here's
22 a couple of examples from the Cachuma area. The Goleta
23 Water District has a base line water use of 117.
24 Hydrologic region base line right now is 147. Just for
25 comparison.

1 Their 2020 target is 111 per capita per day.
2 They happen to be an agency that because they were within
3 a certain percentage of the hydrologic region targets only
4 needs to reduce by five percent. That's built into the
5 statute. The City of Santa Barbara, slightly higher.
6 Their base line water use is 132 gallons per capita per
7 day. Their 2020 target is 117. They have to achieve an
8 11 percent reduction.

9 I should point out the hydrologic region target
10 for 2020 is 123. And those agencies are already -- their
11 targets are below that.

12 So DWR put this together to show currently where
13 the base lines and targets are in the state. This was
14 also shown to the Legislature. You can see 2020 over
15 there on the right.

16 So the average base line in the state is 198
17 gallons per capita per day. The average reported target
18 is 166, and the 20 percent reduction goal for the state is
19 158. So if you look on the left-hand scale, you'll see
20 that the agencies that I put for the Cachuma basin are
21 hovering right around and below 120 per capita per day.
22 They are well below these statewide averages.

23 Also wanted to touch on the fact that these
24 agencies are implementing cost effective water
25 conservation measures. They are members of the California

1 Urban Water Conservation Council. That Council was formed
2 through a Memorandum of Understanding that was signed in
3 1991. Basically just passed its 20th anniversary. It's
4 comprised of water agencies, environmental groups, and
5 other interested parties that voluntarily came together to
6 affect this MOU. Its purpose is to advocate and implement
7 cost effective water conservation measures in California.

8 I should point out I've been on the Board of the
9 Council for several years, as has Ms. Cooley. I'm
10 concurrently serving as Secretary Treasury. So the city
11 of Santa Barbara and Goleta Water District are
12 implementing all the cost effective BMPs according to the
13 precepts of the MOU, the cost effectiveness that was
14 referred to earlier in prior testimony. And that does
15 include a mandatory best management practice governing
16 rate structures. These do have a rate structure that
17 comports with that particular best management practice.

18 MR. O'BRIEN: They good. Thank you.

19 Our next witness is Rebecca Bjork.

20 Ms. Bjork, we've also marked your resume. Can
21 you just briefly tell us about that.

22 MS. BJORK: Yes. I'm the currently the water
23 Resource Manager for the city of Santa Barbara. In that
24 role, I am responsible for all of the city's water
25 resources, the water and wastewater, including the

1 management of the water supply and have been recently
2 very, very involved in our updating both our Long-Term
3 Supply Plan and our Urban Water Management Plan, which are
4 the basis for our future planning for water supply and
5 management.

6 MR. O'BRIEN: Ms. Bjork, you were here for the
7 testimony of Ms. Cooley, I believe; is that correct?

8 MS. BJORK: That's correct.

9 MR. O'BRIEN: Can you briefly respond to her
10 testimony relating to the FEIR analysis of future water
11 demand as it relates to city of Santa Barbara?

12 MS. BJORK: As I just mentioned, we just recently
13 at the city undergone not only an update of our Urban
14 Water Management Plan, but also what we consider the
15 underlying document, which is our internal planning
16 document, which is our Long-Term Water Supply Plan, which
17 is the policy document that provides the basis for our
18 long-term planning decisions.

19 And we do it in conjunction with our general plan
20 development. That process looked carefully at future
21 demand projections as well as future supplies and in doing
22 so evaluated potential growth and other issues that can
23 effect demand and supply.

24 And I believe that the numbers in the Final EIR
25 are very consistent with the numbers that we've developed

1 in our Long-Term Supply Plan and that are in our Urban
2 Water Management Plan.

3 MR. O'BRIEN: You also heard Ms. Cooley testify
4 that the FEIR does not include cost effective urban water
5 conservation measures that are potentially available to
6 water contractors. Can you respond to that?

7 MS. BJORK: As part of our supply planning
8 process, we looked carefully at water conservation
9 opportunities. And those numbers are imbedded in our
10 future demand projections. We believe that we are
11 implementing cost effective -- we have a long history of
12 implementing water conservation in the city, over 20
13 years. And our future demand projections count on
14 continued implementation of water conservation. So they
15 are imbedded our demand projections. The demand
16 projections are consistent with the numbers of the EIR.

17 MR. O'BRIEN: Do you have an opinion regarding
18 Ms. Cooley's assertion that at least five to 7,000 acre
19 feet of additional water could be conserved within the
20 Cachuma Project service area?

21 MS. BJORK: We have recently done a very
22 comprehensive evaluation of opportunities for additional
23 water conservation. And my review of those conservation
24 opportunities and projected water savings suggests that
25 Ms. Cooley's projections are quite optimistic. And I

1 would not expect the city would using cost effective
2 measures expect to recognize that level of savings or a
3 portion of that level of savings.

4 HEARING OFFICER DODUC: I'm sorry. On what basis
5 do you believe that it's overestimated?

6 MS. BJORK: We commissioned Madouse (phonetic),
7 who's a leading conservation expert in the state, to do a
8 comprehensive analysis. He looked at 94 conservation
9 opportunities, selected 23 to do more in-depth analysis of
10 opportunities for conservation, looked at the market
11 saturation level within the city of Santa Barbara and what
12 the opportunities for additional conservation would be,
13 did a measure by measure analysis and cost analysis of
14 what it would take to implement them, whether they are
15 cost effective or not, and then made projections about
16 what we would likely see in terms of additional
17 conservation if we implement them.

18 HEARING OFFICER DODUC: Thank you.

19 MR. O'BRIEN: And finally Ms. Bjork, Ms. Cooley
20 testified regarding certain alternative water supplies
21 that in her opinion are available on a cost effectiveness
22 basis, including recycled water, rain water, harvesting,
23 and stormwater capture. Can you briefly respond to that
24 testimony?

25 MS. BJORK: Certainly. With regard to stormwater

1 harvesting and rain water capture, we evaluated those as
2 conservation measures. We did evaluate them. The
3 opportunities for having any substantial supply is
4 extremely limited. They're very negligible and not cost
5 effective.

6 With regard to recycled water, again we had a
7 recycled water program in the city for over 20 years. We
8 have extensively developed it. We do have some limited
9 opportunity for development -- additional development of
10 the recycled water. It's very limited based on the types
11 of customers that are available. And it's included in our
12 future demand projections. And those are consistent with
13 the numbers in the FEIR.

14 MR. O'BRIEN: Thank you.

15 Our next witness is Christopher Rich. Mr. Rich,
16 we've also marked your resume. And I'll come back and
17 we'll identify them by number at the conclusion.

18 Can you just briefly describe your professional
19 background?

20 MR. RICH: Sure. My name is Chris Rich. I'm
21 currently the Water Supply and Conservation Manager at the
22 Goleta Water District. My department is responsible for
23 the district's overall water resource planning,
24 conservation and sustainability planning efforts, real
25 estate development review, public outreach, and public

1 information, as well as our grant programs.

2 MR. O'BRIEN: Mr. Rich, can you please respond to
3 Ms. Cooley's testimony to the effect that the FEIR
4 overestimates future water demand?

5 MR. RICH: Sure. I think that the thing to
6 remember about water planning is that it is kind of a
7 dynamic process. And it's always based on a range of
8 reasonable assumptions using the best data you have in
9 place at the time.

10 I think that the EIR -- the FEIR is consistent
11 with the Goleta Water District's current water demand
12 projections as outlined in our Urban Water Management Plan
13 as well as our reasonably updated Water Supply Management
14 Plan.

15 I would note that this is consistent. The demand
16 projections remaining consistent with the EIR and very
17 comfortable with them.

18 MR. O'BRIEN: I believe you saw the testimony
19 presented by Ms. Cooley where she presented a PowerPoint
20 slide with some numbers relating to future demand. Did
21 you see any issues with any of those numbers?

22 MR. RICH: I did notice a discrepancy I'd like to
23 point out. In the PowerPoint presentation relative to the
24 Goleta Water District's demand projections, it was
25 noted -- I didn't receive a copy of the presentation so I

1 don't know what page it's on. But it said that the
2 updated demand projections for the district -- the Goleta
3 Water District in our Urban Water Management Plan as
4 illustrated on page 2.9 in that particular presentation
5 was the page was 13,267 acre feet per year to 14,675 acre
6 feet per year.

7 In fact, that references Table 211 and 212 in our
8 Urban Water Management Plan, which do not include recycled
9 water and demand for recycled water. That demand is
10 included in the FEIR. And it's also included in reference
11 on the following page of our Urban Water Management Plan,
12 bringing the total projected demand to a much greater
13 number and one that using our bracketed approach to demand
14 forecasting fits squarely within what is predicted in the
15 FEIR of I believe it's 15,800 or so acre feet.

16 Our new tables -- not new but the tables in the
17 next page predict that by 2020 under our moderate
18 estimate, we'd see 15,240 acre feet of demand. And under
19 the kind of land use or higher basis of the estimates,
20 16,647 acre feet of demand.

21 And I would add those also include and account
22 for our required conservation under SBX 7-7.

23 MR. O'BRIEN: Just so the record is clear, you
24 were referring -- the numbers you were referring to were
25 out of your Goleta Water District's 2011 updated Urban

1 Water Management Plan?

2 MR. RICH: The updated Urban Water Management
3 Plan. Correct title is 2010. They were adopted a year
4 later. But it is our most recent Urban Water Management
5 Plan. Pursuant to state law, they're updated.

6 MR. O'BRIEN: The next issue relates to potential
7 for additional cost effective urban water conservation.
8 You heard Ms. Cooley's testimony in that regard. Can you
9 respond to that?

10 MR. RICH: Yeah. I think I'd like to respond to
11 say that there remain five to 7,000 acre feet of
12 additional conservation potential that that remains
13 speculative. And our Urban Water Management Plan, while
14 we're meeting our per capita targets, which are already
15 extremely low under our current base line, we actually see
16 overall water demand increasing, given land use patterns,
17 population growth, and so forth that we're predicting for
18 our area. That's based off of working with our local COG,
19 which does our regional growth forecast and population
20 estimates, as well as reviewing and working with local
21 land use agencies visive general plans and land use
22 development patterns.

23 MR. O'BRIEN: Do you have an opinion as to
24 whether Goleta Water District's current water rates and
25 rate structure provides a strong incentive to conserve?

1 MR. RICH: I believe the rate structure, which is
2 a tiered rate structure, provides a strong incentive to
3 conserve. We have recently updated our rate structure.
4 Just last year, we increased the volumetric rate just last
5 year. Previously, we had increased it again in 2007. And
6 since then, we've seen a continued decline in water sales,
7 one of the paradoxes of being a water utility. And I
8 believe it does provide a strong incentive to conserve.

9 We meet the council's requirement of 70 percent
10 of revenues at least coming from those volumetric sales.
11 And we also have a tiered meter charge, which is a
12 different approach, but one that provides enhanced
13 conservation benefits for customers that fall within those
14 tiers. And we work with on a daily basis customers that
15 are seeking opportunities to fall within the lower tiers
16 and save resources.

17 MR. O'BRIEN: And finally, quickly with respect
18 to alternative water supplies, can you please respond to
19 Ms. Cooley's testimony regarding the availability of, for
20 example, recycled water, rain water harvesting, and
21 stormwater capture.

22 MR. RICH: Sure. I would mention that Goleta
23 Water District is constantly evaluating its water
24 supplies. As I mentioned previously, we just recently
25 underwent a comprehensive Water Supply Management Plan

1 update process where we looked at identifying and
2 evaluating the economic feasibility and viability of our
3 supplies from a basis of providing service to customers.

4 We currently have a recycled water program that's
5 been in place for coming up on 20 years. We're very proud
6 of that program. We provide service to large golf course,
7 large areas of irrigation, as well as University of
8 California Santa Barbara, which is our largest customer.

9 I believe it was mentioned earlier, but the
10 central coast is a very arid region. And in times of
11 drought, the use of rain water harvesting from a volume
12 perspective really limits our ability to serve customers
13 substantially. 300,000 gallons is about an acre foot of
14 water. We sell anywhere from 14- to 15,000 acre feet of
15 water a year.

16 MR. O'BRIEN: Thank you.

17 Before I go to Mr. Mosby, Ms. Bjork I want to go
18 back and ask you a question I forgot to ask you.

19 Do you have an opinion as to whether the City of
20 Santa Barbara's current water rates and rate structure
21 provide a strong incentive to conserve?

22 MS. BJORK: Yes, they do provide a strong
23 incentive to conserve.

24 MR. O'BRIEN: Thank you.

25 MR. O'BRIEN: Mr. Mosby, we also have marked your

1 resume as an exhibit. Can you briefly describe your
2 professional background?

3 MR. MOSBY: Currently the General Manager of the
4 Montecito Water District. Been in that capacity since
5 2008. Prior to that, was the Engineer Manager for that
6 organization beginning in 1990.

7 MR. O'BRIEN: Can you please from the standpoint
8 of Montecito Water District respond to Ms. Cooley's
9 testimony to the effect that the FEIR overestimates future
10 water demand?

11 MR. MOSBY: The numbers provided in the FEIR are
12 accurate and do reflect the district's current analysis on
13 exactly what we provided, which was the demand numbers are
14 accurate as well as the shortage numbers are accurate.

15 MR. O'BRIEN: With respect to additional water
16 conservation that may be available within Montecito Water
17 District, Ms. Cooley's stated that the FEIR did not
18 adequately consider cost effective urban conservation
19 potential. Can you please respond to that?

20 MR. MOSBY: Montecito Water District has been
21 very aggressive in water conservation. In 2008, we did
22 adopt a conservation rate structure with multiple tiers.
23 Probably one of the only organizations now that also has a
24 second tier for agriculture or a certain allocation that
25 actually pay the urban rate. So we've been very

1 Q Dr. Zoldoske, I have handed you a couple of items,
2 actually three. The first is a copy of your curriculum
3 vitae?

4 HEARING OFFICER DODUC: Could you get a little
5 bit closer to the microphone?

6 BY MR. WILKINSON:

7 Q Dr. Zoldoske, I've handed you three items. The first
8 is a copy of your curriculum vitae. Do you recognize that
9 document?

10 A Yes, I do.

11 Q It's been marked, by the way. We don't have an
12 exhibit number for it. It will be the next in order of
13 the Cachuma exhibits. That is a true and correct copy; is
14 that right?

15 A Yes, it appears to be.

16 Q I've also handed you a copy of your outline of
17 testimony. Do you recognize that document?

18 A Yes, I do.

19 Q And is that a true and correct copy of the outline
20 that you provided to the State Board?

21 A This is what I developed.

22 Q And you authored that yourself?

23 A I did.

24 Q And finally, I have handed you a copy of a report that
25 is entitled "Agricultural Water Use in California, a 2011

1 Update." Do you recognize that document as well?

2 A Yes, I do.

3 Q And were you one of the co-authors of that
4 publication, Dr. Zoldoske?

5 A Yes, I was.

6 Q Now, on your curriculum, it's indicated that you are
7 the Director of the Center for Irrigation Technology. And
8 you've been the Director of the Center For Irrigation
9 Technology for the past 18 years. And you have worked at
10 the Center for approximately 30 years. Would you describe
11 for us what the Center for Irrigation Technology is?

12 A Sure. We are an independent testing laboratory
13 applied research facility and educational resource center
14 based at California State University Fresno.

15 I'm an employee of the University and have been
16 since 1983. We're dedicated to advancing water management
17 practices and irrigation technology. And our programs are
18 broken into four major areas, which include hydraulic
19 laboratory testing. So sort of a UL of irrigation
20 equipment, sprinklers, valves, anything that water flows
21 through or around. We do field testing of irrigation
22 technologies. We do analytical studies, like the exhibit.
23 And of course, we do education. We reach out to students
24 and the grower community.

25 MR. WILKINSON: I've noticed Dr. Zoldoske speaks

1 quickly. I'm wondering if the court reporter is able to
2 pick that up.

3 THE REPORTER: Yes, thank you.

4 BY MR. WILKINSON:

5 Q Dr. Zoldoske, I'd like to turn your attention to the
6 report "Agricultural Water Use in California, 2011
7 Update." Would you describe for us the circumstances that
8 surrounded the development of that document and what sort
9 of a genesis of what that was?

10 A Sure. Actually, it began back in 2008. In September,
11 there was a report I think published by the Pacific
12 Institute addressing agricultural water use and potential
13 savings. And upon reading that document, I conferred with
14 who I believe are the leading irrigation experts in
15 California in the academic side of the U.C. and CSU. We
16 decided to create a response. And that response was
17 published in October 2008, which led to the 2009
18 publication that Ms. Cooley has spoken about today.

19 And we looked at that and decided that a more
20 comprehensive report was in order to address what we
21 believe are some shortcomings and technical errors within
22 that study. So we completed this study in November 11th
23 of last year -- excuse me -- November of last year, 2011.
24 And that was the sort of genesis of conducting the study.

25 Q You've indicated in your testimony that this report

1 that I handed you, the 2011 updated report, was really a
2 response to an earlier publication or publications
3 actually from the Pacific Institute.

4 Could you briefly describe the differences in the
5 conclusions that you and your co-authors reached regarding
6 agricultural water conservation compared with the
7 conclusions raised by Ms. Cooley and her co-authors?

8 A Sure. There was a number of areas where -- and I'll
9 just focus on the three that we discussed today -- where
10 potential water savings might occur. And that would be
11 irrigation technology, irrigation scheduling, and then in
12 reducing crop demand or using RTI. And we believe that
13 they are, I guess, gross overestimates of potential water
14 savings in the Pacific Institute reports and that there is
15 significant double counting of water and potential savings
16 that sort of confound those numbers.

17 Q Now were you in the room when Ms. Cooley testified
18 about her conclusions regarding the potential for water
19 savings, particularly along the central coast?

20 A Yes, I was here.

21 Q From your roughly 30 years of experience dealing with
22 agricultural irrigation in California, Dr. Zoldoske, are
23 you familiar with the actual practices of irrigation that
24 are used along the central coast in California?

25 A Yes, I am. We have conducted research there, put on

1 workshops, seminars to assist growers in the technology
2 and irrigation, et cetera.

3 Q As part of your preparation to testify today, did you
4 examine also the irrigation practices that are used within
5 the Santa Ynez Valley and the larger Cachuma Project
6 service area?

7 A Yes. As preparation for today, I made a number of
8 phone calls to growers, irrigation suppliers, irrigation
9 dealers, U.C. advisors to try to update what I already
10 believe I knew about the region and that confirmed
11 primarily what I believed to be true.

12 Q Now you mentioned in your testimony the three items
13 that have been identified by Ms. Cooley as the source of
14 potential water savings in agriculture in California. One
15 was improved irrigation technology. Second was improved
16 irrigation scheduling. And the third is regulated deficit
17 irrigation. Do you recall that?

18 A Yeah. That's correct.

19 Q All right. Based upon your understanding of
20 irrigation practices and your knowledge of irrigation
21 management efforts in the central coast, particularly in
22 the Cachuma Project service area, do you agree that
23 substantial quantities of new water will be made available
24 within the Cachuma Project service area by the employment
25 of these three techniques?

1 A No, I do not.

2 I would like to define for the purposes of this
3 hearing new water, if I might. New water is water that is
4 actually saved presumably by the crop. It's not being
5 consumed by the crop and would be available for other
6 uses. That's not to be confused with water that is on the
7 basin level. Goes back to the ground water and is
8 subsequently pumped by other growers or municipalities or
9 other uses.

10 Q What I would like to do, doctor, is to please address
11 each of the three techniques and describe your
12 understanding of how those will or will not result in
13 measurable new water being created within the Cachuma
14 Project service area.

15 A Okay. Let's start with irrigation technology. And
16 I'm going to primarily focus on drip and sprinklers.
17 Those are industry standards for irrigating both
18 vineyards, which is primarily drip or exclusively drip
19 actually. And we get into vegetable production. It would
20 be largely drip, but there is some sprinklers being used.
21 And then with some of the tree crops, the avocados and
22 lemons, citrus, there is micro-irrigation which are very
23 small sprinklers.

24 So it looks to me from my phone calls and
25 discussions with growers in the region and other

1 professionals that the area is largely drip micro with
2 some sprinklers. And there was a hint that maybe there is
3 a little bit of hay being grown up on the hill. There may
4 be a little bit of flood. But it's so small and, to me,
5 insignificant at least in the idea of potential water
6 savings and adopting new technology. Essentially, the
7 growers have done a good job there.

8 Q And with regard to then improved irrigation schedule?

9 A Yeah. I want to address that. And back to the 2009
10 report. There is, as was noted earlier, this base line of
11 20 percent of CIMIS users. And I would just respond to
12 that that in our 2008 response to their initial
13 publication, we noted that we believe that that number at
14 that time was probably 33 percent. Yet, today that number
15 of 20 percent continues to be utilized as the percentage
16 of growers using CIMIS.

17 Just to make sure that something hasn't changed,
18 I actually called the author of that CIMIS 2002 study.
19 Talked to him yesterday, in fact. He again relayed the
20 fact that while it maybe 20 or 23 percent growers, there
21 is a large number of consultants that use CIMIS and goes
22 out and manage the irrigation schedule and recommend to
23 the growers. When you summarize, it's a third of the
24 growers appear to be using or actively using CIMIS if back
25 at the 2002 level. And if you update those numbers today,

1 it's a much larger. There's more folks using that.

2 The other piece I'd like to address on the
3 irrigation scheduling is that it appears to be anyone I've
4 talked to in the Santa Ynez area, they all use some level
5 of irrigation scheduling. And some of this will overlap
6 with the RDI. But it is safe to say that part of the
7 irrigation decision is looking at the plant, because
8 ultimately that is where the water needs to go.

9 And so there is a number of techniques, and I'll
10 speak to the vineyard. The tentacle length and where it
11 is on the plant, the distance between the months and all
12 those things are what the viticulturalist will look at to
13 determine when and how much water to supply. Other
14 growers will dig into the soil.

15 And sort of the last piece I find very curious
16 about the report is this focus on CIMIS. I would find it
17 hard to believe that anyone would irrigate just to CIMIS
18 data. You need to go out and verify in the field in fact
19 what the computer tells you is what water is in the
20 ground. This suggests that CIMIS by itself is just this
21 magic bullet and I think grossly overestimates its
22 application and purpose. It is an accounting method.
23 It's simply like writing checks and keeping your books at
24 home, but keep the bank statement every once in a while to
25 figure out what's really there in case you missed

1 something. That's why we dig into the soil and look and
2 make sure the moisture is there. I think it's safe to say
3 every grower in the Santa Ynez area uses some indicator as
4 to when the irrigate and helps that would be defined as
5 irrigation scheduling.

6 Q And finally with regard to regulated deficit
7 irrigation?

8 A Yes. I would say that, you know, it's not a new
9 concept. And invite you can see back in 1985 we were
10 looking at reducing the pipe water to grape vines to
11 control -- in that case, was a Chenin blanc, a white grape
12 that would rupture. We knew we could control the size of
13 the grape and its vigor by reducing the applied water. I
14 would say that that's a concept widely applied within the
15 wine grape industry. And again, if you go back to the
16 2009 report, it refers to a Mendocino study where nearly
17 100 percent of the wine grape growers are recognized using
18 regulated deficit irrigation.

19 And what we mean by that, plants will take all
20 the water you'll feed them. And so what you do is you
21 starve that plant of its needed water and you control the
22 size of the fruit, the vigor of the wine to -- with wine
23 grapes anyway -- to increase the grape quality, which
24 makes a better wine.

25 Not all growers will follow along that. Some

1 want more production. And I guess the best illustration I
2 can give you is the difference between two buck chuck and
3 Opus 1 wine. I'm almost certain two buck chuck you're
4 going to have to get 10 or 12 or 15 tons to the acre in
5 order get that bottle to pay for your production. And
6 then the Opus 1, three times an acre. That's fine if
7 you're getting 150 bucks a bottle.

8 There is a strategy and marketplaces these people
9 focus on. It's not just about trying to save water. It's
10 about trying to grow a grape for a particular market.

11 When you get into vegetables and cut flowers and
12 avocados, I cannot find any evidence that RDI is a
13 relevant practice to growing those particular crops.
14 Certainly, the short season vegetable crops you're trying
15 to grow big leafy head, lots of water, head of lettuce.
16 That's what the market demands. That's what the growers
17 produce.

18 I do not think RDI is appropriate for anything in
19 the region, except for the growing of wine grapes. In
20 that case, I think all the growers are aware of it. I
21 would say almost -- I would assume all of them apply less
22 than what the demand of the crop might demand for water,
23 but there's some that grow more production versus quality
24 of the grape.

25 Q Dr. Zoldoske, would you then sum up your testimony

1 regarding potential for increased water availability as a
2 result of these practices in the Cachuma Project surface
3 area?

4 A Sure. I'm going clarify what I call new water for the
5 hearing here.

6 New water, again, is water that can be saved and
7 used elsewhere. And not already being used someplace in
8 the system. So we start up with irrigation technology.
9 Not much to be gained there. The growers are actually
10 doing a pretty good job. And I would say the industry
11 practices are widely adopted there.

12 Irrigation scheduling I believe at least in the
13 wine grape area RDI is used and so less than the plant
14 would demand is being used. So clearly irrigation
15 scheduling is wildy utilized.

16 We get into vegetables, probably could do a
17 better job. But what's the fate of that water? It's a
18 shallow crop. Once it moves past the roots, it's my
19 understanding in some cases the water table is only 40
20 feet down. If you believe in gravity, that water going to
21 return to the groundwater and be available for other uses.
22 There is no net new water.

23 The only net new water possible, at least from my
24 perspective, is again to reduce the amount of applied
25 water to the crop. And I would maintain I believe the

1 wine grape growers are probably doing that at some
2 economic level that targets their particular product. And
3 it doesn't seem to be appropriate for the other major
4 crops in the region. So again, I don't think there's much
5 to be saved there. So the net savings is pretty close to
6 zero.

7 MR. WILKINSON: Thank you very much. That's all
8 we have.

9 MR. O'BRIEN: Hearing Officer Doduc, I would like
10 to get the exhibit numbers before I step down here.

11 HEARING OFFICER DODUC: Mr. Mona.

12 ENGINEER MONA: Based on our list of the exhibits
13 we have posted on the web.

14 For the Member Units, we would like to identify
15 them as Surrebuttal 2012 Member Unit 282 is qualifications
16 of Colton.

17 Surrebuttal 2002, Member Unit 283 is the
18 testimony of Cotton. The previous one was Cotton. I'm
19 sorry.

20 Member Unit 284, Surrebuttal 2012, is
21 qualifications of Rich.

22 The Surrebuttal 2012 Member Unit Number 285 is
23 the qualification of Mosby.

24 Surrebuttal 2012, Member Unit Number 286, is the
25 qualification of Bjork. I think I'm pronouncing that

1 correctly.

2 And finally, the Surrebuttal 2012 Member Unit
3 Number 287 is the curriculum vitae of Dr. Zoldoske. And I
4 don't have a copy of that.

5 MR. WILKINSON: We will get you a copy of that.
6 That's 286 is his CV?

7 ENGINEER MONA: 287 is the CV.

8 And previously for the CalTrout, we will identify
9 that as Rebuttal 2012 CalTrout 99, which is the testimony
10 of Cooley.

11 MR. O'BRIEN: Mr. Mona, I think we still need to
12 identify the Zoldoske outline of testimony and the report
13 there for agricultural water use.

14 ENGINEER MONA: Okay. I need copies of those,
15 too. We'll make that the next in line.

16 MR. WILKINSON: 288 and 289?

17 ENGINEER MONA: Correct.

18 SENIOR STAFF COUNSEL HEINRICH: CalTrout already
19 labeled their exhibits.

20 ENGINEER MONA: Did they?

21 SENIOR STAFF COUNSEL HEINRICH: Dana Heinrich. I
22 might beat you to it. I think already we labeled your
23 exhibits. We don't need to re-number them.

24 MS. KRAUS: I did.

25 HEARING OFFICER DODUC: Before we get to

1 cross-examination, does staff have questions for the
2 surrebuttal witnesses?

3 Just for planning purposes, why we go until 3:30
4 and then take a long break and plan on coming back and
5 staying until about 6:00. It's my hope we get done by
6 noon tomorrow. So that means we stay a little bit late
7 today and start a little bit early tomorrow.

8 But with that, I'll go ahead and ask if the
9 Bureau of Reclamation would like to conduct cross.

10 MS. AUFDEMBERGE: No.

11 HEARING OFFICER DODUC: All right. Ms. Conant?

12 MR. CONANT: No, thank you.

13 HEARING OFFICER DODUC: Ms. Dunn?

14 MS. DUNN: No, thank you.

15 HEARING OFFICER DODUC: Ms. Murray?

16 MS. MURRAY: No.

17 HEARING OFFICER DODUC: No. Mr. Hytrek?

18 MR. HYTREK: No, thank you.

19 HEARING OFFICER DODUC: And Ms. Kraus?

20 MS. KRAUS: Yes.

21 HEARING OFFICER DODUC: Why did I get a feeling
22 you would say yes?

23 CROSS-EXAMINATION

24 MS. KRAUS: Ms. Cotton, I'll try to go in order.

25 You testified sorry -- start over.

1 Do you think that the 2010 Urban Water Management
2 Plans represent the best available information regarding
3 demand for the water districts?

4 MS. COTTON: Compared to what?

5 MS. KRAUS: Prior projections.

6 MS. COTTON: I would answer that by saying that
7 there is a reason Urban Water Management Plans are done
8 every five years. They have to be updated on a fairly
9 frequent basis because, as Mr. Rich indicated in his
10 testimony, there is always changing information. And the
11 law was set to do that on purpose so that water agencies
12 had the ability to update their plans very frequently in
13 order to reflect conditions and changes to the service
14 area.

15 So each Urban Water Management Plan has the
16 potential for being very similar to the one before it or
17 very different. And so based on the best available
18 knowledge, what the agencies put together in their 2010
19 Urban Water Management Plans reflects good information
20 available at the time they did it. When 2015 comes they
21 will --

22 MS. KRAUS: On that point, you testified that SBX
23 7-7 allows the water suppliers to reassess their base line
24 and target calculations in 2015. So isn't that just on
25 the same schedule as they're required to update their

1 Urban Water Management Plans?

2 MS. COTTON: Yes. They did that in the
3 Legislature on purpose so agencies wouldn't be trying to
4 do multiple documents in a fairly short period of time
5 since these Urban Water Management Plans were actually due
6 by July 2011. They were giving an extension because of
7 increased work flow in doing all the calculations.

8 MS. KRAUS: Thank you.

9 Ms. Bjork, you testified that a comprehensive
10 study was conducted for the City of Santa Barbara
11 regarding potential water conservation.

12 MS. BJORK: That's correct.

13 MS. KRAUS: Was this a market penetration study
14 or market saturation study?

15 MS. BJORK: I believe it included market
16 saturation, but also looked at opportunities for
17 additional conservation measures.

18 MS. KRAUS: Okay. Based on that study that was
19 done, can you describe how many high efficiency clothes
20 washers there are in the service area?

21 MS. BJORK: No.

22 MS. KRAUS: Can you describe how many high
23 efficiency toilets there are?

24 MS. BJORK: No. I'm sorry we have a 73 market
25 saturation on efficiency toilets. That's based on our

1 2000 -- sorry. Thank you.

2 MS. KRAUS: And are those for -- on the toilets,
3 is that high efficiency or ultra-low flush?

4 MS. BJORK: High efficiency.

5 MS. KRAUS: Sorry?

6 MS. BJORK: I believe it's high efficiency, not
7 ultra-low flush.

8 MS. KRAUS: Okay. Do you know how many
9 restaurants use efficient toilets -- efficient pre-rinse
10 spray valves?

11 MS. BJORK: I can tell you, I don't have any
12 case-by-case specific information that I'm familiar with
13 to testify about right now.

14 MS. KRAUS: This is information that the study
15 looked at?

16 MS. BJORK: I believe it was included in the
17 study. It was a very comprehensive study looking at
18 actually trying to evaluate both the cost effectiveness
19 and the effectiveness of alternatives. So I know they
20 looked on account by account basis at water use.

21 MS. COTTON: Can I add something to that? I
22 think we should use the name of the firm is Maddaus Water
23 Management. And it's main proprietor, Bill Maddaus, is
24 well known in the state of California for urban water
25 conservation. I know Ms. Cooley knows him probably as

1 well I do.

2 MS. KRAUS: Thank you.

3 Dr. Zoldoske, the report that was handed out,
4 "Agricultural Water Use in California," does that include
5 any specific analysis of the Cachuma Project service area.

6 DR. ZOLDOSKE: No. It's a general overview of
7 the principles of basin versus -- I should say recoverable
8 versus irrecoverable fractions. That's a very important
9 tenet to understand irrigation efficiency.

10 MS. KRAUS: And have you done have you monitored
11 or murder return flows in the Cachuma Project service
12 area?

13 DR. ZOLDOSKE: No, I have not.

14 MS. KRAUS: Have you done a study of the
15 potential water savings that would be specific to the
16 Cachuma Project service area in the agricultural realm?

17 DR. ZOLDOSKE: Well, I have investigated the
18 technologies and the scheduling that the growers use and
19 find those to be well within the industry standard for
20 efficiency.

21 MS. KRAUS: When you saw you investigated it,
22 could you describe that investigation?

23 DR. ZOLDOSKE: Sure. I've talked to dealers
24 who -- and manufacturers provide equipment to the region
25 who designed systems. So I'm familiar with the types of

1 products that are going into the system. I talked to
2 growers to understand how they manage their crops.

3 So as I talked to a number of folks, including
4 U.C. folks. I talked to them as well try to get an
5 understanding of the level sophistication of what's going
6 on in the region.

7 MS. KRAUS: So you've had conversations with
8 individuals?

9 DR. ZOLDOSKE: I had conversations with equipment
10 suppliers, designers, dealers, and growers.

11 MS. KRAUS: And that's the scope of your
12 investigation?

13 DR. ZOLDOSKE: Yes.

14 MS. KRAUS: Thank you. I have no further
15 questions.

16 HEARING OFFICER DODUC: Staff, questions.

17 SENIOR STAFF COUNSEL HEINRICH: I have one
18 question and is for you, Ms. Bjork. Am I pronouncing that
19 right?

20 MS. BJORK: That's correct.

21 SENIOR STAFF COUNSEL HEINRICH: And I apologize
22 if you've already answered this and I missed it. It's
23 quite possible. But I have a question for you. This has
24 to do with the table that was actually in the Heather
25 Cooley rebuttal testimony and this is the table on demand.

1 MS. BJORK: Yes.

2 SENIOR STAFF COUNSEL HEINRICH: And the tables
3 shows the difference between the demand manager and the
4 FEIR and updated estimates based on 2012 Urban Water
5 Management Plans. I know you testified that you think the
6 figure in the FEIR is correct. But I'm not sure that I
7 heard in any way an explanation as to why there is that
8 discrepancy and why it is that the higher figure is the
9 correct figure.

10 MS. BJORK: And as I said earlier, we did a
11 long-term water supply plan that's actually a 20-year look
12 ahead that the city does as a policy matter. It's not a
13 requirement. But it's part of our management of our
14 resources. And that forms the policy basis as well as our
15 sort of planning scenario and planning projections for our
16 water demand and our water supplies.

17 And in looking at that, we use a slightly
18 different methodology than was used in the FEIR in that we
19 don't necessarily take worst-case assumptions for
20 supplies, but we use a safety factor that's supposed to
21 meet both supply and demand projections, you know, where
22 there may be not exactly right. For instance, this table
23 says 12,576 feet. I don't believe sitting here today we
24 can project out to one acre foot precisely. We look at
25 what's a reasonable estimate. And our long-term supply

1 plan number is consistent with the information in the FEIR
2 and it uses our planning methodology. That's really our
3 planning document.

4 The Urban Water Management Plan is a regulatory
5 document. It's how we are hoping to meet regulatory
6 environment and projecting five years to the future of a
7 lot of things that are factors that may change. So it's a
8 projection. It's not inconsistent with our long-term
9 supply plan projection and I think it's consistent with
10 information in the FEIR.

11 SENIOR STAFF COUNSEL HEINRICH: Thank you.

12 HEARING OFFICER DODUC: Any redirect of your
13 witnesses?

14 MR. O'BRIEN: No

15 MR. WILKINSON: No.

16 HEARING OFFICER DODUC: I assume at this time you
17 want to move your exhibits into evidence.

18 MR. O'BRIEN: Yes. Surrebuttal 282. And I
19 assume Mr. Wilkinson will want to move 282 through 289.

20 MR. WILKINSON: That's correct.

21 HEARING OFFICER DODUC: Any objections to that?
22 Not seeing any, we will so move those into the record.

23 (Surrebuttal Member Unit Exhibits 282-289
24 were admitted into evidence by the Hearing
25 Officer.)

1 MR. O'BRIEN: Thank you.

2 MR. WILKINSON: Thank you very much.

3 HEARING OFFICER DODUC: Now we're going back to
4 rebuttal. If I can ask Dr. Trush and Mr. Brumback to come
5 up. And Mr. Hytrek and Ms. Kraus.

6 ENGINEER MONA: Tam, may I make one statement
7 regarding the exhibits?

8 Parties, if you have these exhibits that you
9 submitted in hard copy electronically, please e-mail them
10 to us as soon as you can. Thanks.

11 HEARING OFFICER DODUC: And you will each have 15
12 minutes for your testimony.

13 MR. HYTREK: Procedurally, one question. I
14 wasn't aware that we were -- we needed to submit our
15 Statement of Qualification for our witnesses as an
16 exhibit. We had previously --

17 HEARING OFFICER DODUC: Please get closer to the
18 microphone. I believe we have your Statement of
19 Qualifications.

20 MR. HYTREK: Can we need to submit something
21 right now as evidence?

22 HEARING OFFICER DODUC: We can do it at the end.

23 MR. HYTREK: Okay.

24 HEARING OFFICER DODUC: But you submitted that as
25 part of our request?

1 MR. HYTREK: Yes, ma'am.

2 DIRECT EXAMINATION

3 BY MR. HYTREK:

4 Q Mr. Brumback, please state for the record your name
5 and position.

6 A My name is Darren Brumback, fisheries biologist
7 employed with the National Marine Fisheries Service
8 Southern California of office.

9 Q How long have you held that position?

10 A Approximately six years.

11 Q Please summarize your qualification relating to this
12 proceeding.

13 A I'm currently the NMFS Program Manager in regard to
14 the Cachuma Project consultation process, including the
15 2000 Biological Opinion as well as the re-initiated
16 consultation.

17 I have a degree -- a Bachelor's Degree of science
18 in fisheries with over 20 years of professional
19 experience. I'm a professional fisheries scientist
20 certified with the American Fisheries Society.

21 Q Are you familiar with Environmental Impact Report that
22 is the basis of this proceeding?

23 A Yes, I am.

24 Q Are you familiar with the 2000 Biological Opinion?

25 A Yes, I am.

1 Q So what, if anything, did you notice regarding the way
2 the Environmental Impact Report describes that Biological
3 Opinion?

4 A As provided in the Final Environmental Impact Report,
5 the Board considers the National Marine Fisheries
6 Services' 2000 Biological Opinion as a guiding principle
7 in the development of the FEIR and that through
8 incorporation of the requirements in the 2000 Biological
9 Opinion that the objective of protecting the endangered
10 species protected trust resources would be met.

11 However, National Marine Fisheries Services
12 recommends the Board not rely upon the analyses and
13 conclusions of the 2000 Biological Opinion because the
14 Cachuma Project is currently required to undergo
15 re-initiation of consultation under the Endangered Species
16 Act and which will result in a new Biological Opinion.

17 Q Did the Board's Final Environmental Impact Report
18 recognize the requirement to re-initiate consultation?

19 A Could you repeat that?

20 Q Did the Board's Environmental Impact Report recognize
21 the requirement to re-initiate consultation?

22 A Yes, it did. While the Board recognized the
23 requirement for re-initiation of consultation, the FEIR
24 states that given the consequence of not meeting the
25 desired steelhead population goals, which is not an

1 accurate statement.

2 Q Why is that not accurate?

3 A The basis or the reason for the requirement for
4 re-negotiation of consultation is because the amount of
5 take specified in the 2000 Biological Opinion has been
6 exceeded, as well as information indicates that the
7 project may be affecting the species in a manner or to a
8 degree not considered in the 2000 Biological Opinion.

9 Q So please explain how the amount of take has been
10 exceeded.

11 A Incidences of exceeding the amount of take, the annual
12 monitoring program that's conducted has exceeded take.
13 Unauthorized take occurred with an incident of not meeting
14 target flows -- minimum flows at the Alisal Bridge
15 approximately ten miles downstream from Bradbury Dam.

16 Additionally, new -- or information reveals that
17 the basis for reclamation not incorporating ramping rates
18 in regard to the water rights releases on the initiation
19 of those releases. The assumptions that were provided no
20 longer appear valid.

21 MR. CONANT: Objection.

22 HEARING OFFICER DODUC: Please come up.

23 MR. CONANT: The objection is looking at your
24 order of March 14th, I thought it was pretty clear that
25 you indicated that neither party shall be permitted to

1 present testimony concerning the impacts of water rights
2 releases pursuant the State Board Order 89-18 because
3 those issues were not addressed in the FEIR. So on that
4 basis, I believe that testimony concerning downstream
5 water rights release is not appropriate topic for
6 testimony.

7 HEARING OFFICER DODUC: A comment, Mr. Hytrek.

8 MR. HYTREK: The ruling was unless it was
9 specifically related to statements in the FEIR. And the
10 witness is specifically relating them to statements in the
11 FEIR.

12 MR. CONANT: I don't see that qualification in
13 the paragraph that I was referring to on Page 2.

14 HEARING OFFICER DODUC: Which specific -- could
15 you point out the specific statements in the FEIR to which
16 this witness is responding to?

17 MR. HYTREK: Which statements are you
18 specifically responding to?

19 MR. BRUMBACK: If I recall, the FEIR referenced
20 that, in particular, the Board Water Right Order 89-18
21 incorporated into all of the alternatives of the FEIR.

22 HEARING OFFICER DODUC: Help me understand again
23 your line of questioning. Is it to -- is it with respect
24 to the analysis of the -- I'm putting words in your mouth
25 again. Describe to me again what is it you're trying to

1 demonstrate with this line of questioning.

2 MR. HYTREK: Well, the witness started out by
3 testifying that the Final Environmental Impact Report
4 relies on certain conclusions under the 2000 Biological
5 Opinion and the 2000 Biological Opinion was being
6 re-visited or initiated. The consultation is being
7 re-initiated. So it's the reliance of the conclusions in
8 the FEIR on the Biological Opinion are questionable.

9 HEARING OFFICER DODUC: How does that relate
10 directly to the specific question that he is addressing
11 with respect to the water rights.

12 BY MR. HYTREK:

13 Q Well, again, why don't you explain how that relates?

14 A The purpose of my statement is to identify elements
15 that have triggered the requirement under the Federal
16 Endangered Species Act for re-initiation of consultation.

17 HEARING OFFICER DODUC: Are those conditions
18 imbedded in the base line and in all the alternatives?

19 MR. BRUMBACK: As I understand, all the
20 alternatives incorporate the previous existing Biological
21 Opinion or the current the 2000 Biological Opinion.

22 HEARING OFFICER DODUC: And it's my
23 understanding -- I'm going to grant the objection and ask
24 that you move on to your next line of questioning.

25 MR. CONANT: Thank you.

1 MR. HYTREK: Just a question. You're granting
2 the objection relating to discussion about the Water Order
3 89 --

4 HEARING OFFICER DODUC: The water rights.

5 BY MR. HYTREK:

6 Q The water rights.

7 So were there any other reason for re-initiation
8 of that order?

9 A Yes. In addition to exceeding the take associated
10 with the annual monitoring plan, the 2000 Biological
11 Opinion specified that if the proposed tributary passage
12 project fish passage project not completed by 2005 as
13 scheduled, initial re-consultation was required.

14 Q Now you discussed several instances at the
15 unauthorized take. Can you explain those?

16 A Yes. For the first item was the annual monitoring
17 plan, which is an ongoing program under Reclamation and
18 the Cachuma Member Units. Upon the listing of endangered
19 steelhead, the program was operated under a research
20 permit held by the biologist with the Cachuma Operations
21 and Maintenance Board.

22 At the time of the consultation and ultimately
23 the 2000 Biological Opinion, that biologist agreed to
24 relinquish that permit and Reclamation assumed the
25 responsibilities for the take limits that were transferred

1 into the Biological Opinion and Incidental Take Statement.

2 Those take limits and particularly for the
3 category of juveniles in the order of monitoring program
4 being trapping and capture and handling that those limits
5 have been exceeded now ten out of twelve years beginning
6 the first year -- the first season following the issuance
7 of the 2000 Biological Opinion. Grounds for re-initiation
8 of consultation, moving forward with the consultation that
9 will result in a new Biological Opinion.

10 Q Were there any other instances of unauthorized taking?

11 A Yes. In regard to the proposed and therefore required
12 maintenance of minimum flows, particularly at the Alisal
13 Bridge criteria were met. Those flows are required to
14 meet one-and-a-half cubic feet per second minimum flow at
15 the bridge following a spill -- the year of a spill and
16 the year following that exceeds 20,000 acre feet. Those
17 conditions were met. The incident occurred in 2007
18 resulting in I believe it was 25 days referencing the
19 reclamation January 2011 compliance report referencing the
20 FEIR approximately 25 days. It did not meet the criteria,
21 including several days of zero or no flow at the bridge
22 resulting in conditions and mortality of steelhead.

23 Q Can you explain why re-initiation of consultation is
24 important to this proceeding?

25 A As indicated earlier, the determinations under the

1 2000 Biological Opinion may no longer be valid. And the
2 new re-initiated consultation and new Biological Opinion
3 will consider the information obtained since the issuance
4 of the 2000 Biological Opinion, including monitoring
5 reports, NMFS' Final Recovery Plan, and associated
6 technical memorandum.

7 Q Now, can you explain some of the new information that
8 NMFS will be considering in this new Biological Opinion?

9 A Yes. We've been in the process of obtaining the
10 annual reports from Reclamation, which will be useful.

11 There are still some deficient reports. And in
12 particular, the Final Recovery Plan that the information
13 contained in there identifies the threats to the species
14 as well as actions necessary or the types of actions
15 necessary to address those threats, which will be used
16 in -- will be considered in determining the proposed
17 action if it's going to continue the threats or creates
18 new threats to the species, as well as the information in
19 the Recovery Plan can inform the development of measures
20 as necessary to ensure that the proposed action is not
21 likely to jeopardize the continued existence of the
22 species, as well as measures to minimize the impacts of
23 incidental take associated with the program and further
24 advise the development of conservation recommendations in
25 conjunction with the federal action agency, in this case,

1 Bureau of Reclamation, on ways to promote recovery of the
2 species.

3 Q Now in addition to the reasons for re-initiation of
4 consultation you've already discussed, is there any other
5 relevant information?

6 A Yes. Recent information in regard to the fish passage
7 supplementation flows that were proposed by Reclamation
8 are incorporated into or summarized in the 2000 Biological
9 Opinion and incorporated into the alternatives of the
10 Final Environmental Impact Report.

11 Q So what about that new information?

12 A Operations of the fish passage flows -- first of all,
13 it's an effort to facilitate migration of steelhead both
14 upstream and downstream by supplementing storms that are
15 otherwise altered by the project itself, by the Cachuma
16 Project water storage. It's based on an allocation of
17 3200 acre feet stored at Lake Cachuma and then released
18 upon achieving certain criteria. That criteria being in
19 general 25 cubic feet per second with the intent of if the
20 flows are held back and, yet, the lower watershed meets
21 that criteria, the intent of the use of that water is to
22 boost the storm, bringing up to a peak targeted at 150
23 cubic feet per second. And then allow for a general
24 recession of that flow down to 25 cubic feet per second
25 for a period of 14 days intended to provide a window of

1 passage.

2 Now, the information -- that account is
3 characterized in Reclamation Biological Assessment, which
4 is referenced in the FEIR as the flows or water required
5 to supplement flows would range between 300 and 1800 acre
6 feet, as I understand it, per year. The implementation of
7 this program that has occurred as demonstrated in
8 Reclamation's compliance report January 2011, the two
9 opportunities that they've had to exercise that have
10 demonstrated that that volume of water is actually used
11 per storm. And it's best characterized probably with
12 Reclamation meeting minutes from an Adaptive Management
13 Committee meeting in 2011 amongst I would say multiple
14 agencies and the water users that was characterized -- at
15 the time the 2000 Biological Opinion was developed, there
16 was the illusion that 3200 acre feet was a lot of water
17 and that the reality is it's only enough to supplement two
18 storms.

19 The point being is conditions may have changed.
20 The project may be affecting the species to a manner or
21 extent not considered in the 2000 Biological Opinion.

22 Q So you've already discussed compliance issues and
23 we're not going to discuss 89-19 releases. What else, if
24 anything, did you notice about how the EIR characterizes
25 the Biological Opinion?

1 A There was a direct reference -- this is going back to
2 the minimum flow requirements which triggers are met at
3 the Alisal Bridge.

4 My recollection is that the Final Environmental
5 Impact Reports specifically states that those criteria had
6 been complied with or successfully met since 2005 and
7 2006, which the Reclamation's January 2011 contains
8 information -- compliance report contains information
9 that, in fact, the targets were not met in both the year
10 2007 and 2008.

11 Q Are there any other issues that you noticed about the
12 EIR characterizes the Biological Opinion?

13 A Yes. And I'll try to say it without WR 89-18. The
14 FEIR makes a statement that the terms of any biological --
15 that Reclamation's responsibility under the terms of
16 Biological Opinion, those terms are not admitted upon
17 being incorporated into the water rights permit. However,
18 the Bureau of Reclamation has been consistent in their
19 reply that they, in fact, do not have the ability to alter
20 or deny water rights releases or -- excuse me -- a water
21 rights permit issued by the Board.

22 Q Why is that important to the fishery service?

23 A The way I understand the alternatives in the FEIR is
24 it's not just the water right releases I can't talk about
25 the -- it incorporates the releases for minimum flows,

1 main stem rearing flows, as well as the fish passage
2 supplementation flows. And therefore, the issuance of a
3 water right suggests -- or based on Reclamation's
4 interpretation of that suggests it could limit their
5 ability to modify or develop a proposed action to ensure
6 that their proposed activity does not jeopardize the
7 continued existence of the species and/or their ability to
8 implement measures to minimize the impacts of take.

9 Q Thank you.

10 HEARING OFFICER DODUC: Ms. Kraus.

11 MS. KRAUS: We have exhibits associated with Dr.
12 Trush's testimony. And we'll go ahead and pass them out
13 as we did before. One of them is a PowerPoint.

14 HEARING OFFICER DODUC: Mr. Wilkinson?

15 MR. WILKINSON: Yes, ma'am. We have an objection
16 to the testimony of Dr. Trush.

17 In Your Honor's March 14th, 2012, Order, you
18 indicated at that time that Dr. Trush's outline does not
19 contain enough detail to allow the other parties to fully
20 prepare prior to the hearing to respond to the proposed
21 testimony. And specifically, you indicated that Dr.
22 Trush's outline does not identify the data that you
23 reviewed, other than Appendix G of the FEIR, or describe
24 the analyses he conducted in support of his conclusion
25 that the FEIR contains erroneous conclusions with respect

1 to steelhead population status and trends. And I think
2 there was no question that Dr. Trush's initial outline did
3 not do that.

4 Now, in his revised outline, Dr. Trush added a
5 single paragraph. Otherwise, the outline is essentially
6 identical at least on the first page. They deleted some
7 material.

8 But the only additional thing that was provided
9 was a statement about something called a smolt to adult
10 return curve.

11 Now, in addition to that single paragraph, we
12 were provided copies of the data presumably that Dr. Trush
13 relied upon. This is what we were provided. It's in
14 excess of 400 pages. There was no indication of what data
15 from this 400 pages was used. There was no indication
16 provided as to how that data was analyzed. There was no
17 indication of any resulting conclusion from Dr. Trush in
18 the form of either graphical presentations, any kind of
19 written statement from Dr. Trush setting forth his
20 conclusions.

21 So what we've gone from is a situation where in
22 the initial outline we got nothing to in the second effort
23 we were buried in 400-plus pages of material with no
24 indication how that material was actually applied by Dr.
25 Trush to reach whatever conclusion it is he's going to

1 testify to. We don't think that constitutes compliance
2 with your Order. And we think that what this is is an
3 effort to evade telling us in advance what Dr. Trush is
4 going to say in any kind of detail at all.

5 And so the concern that you had in your Order of
6 March 14th that we were not able because of the absence of
7 data in the first instance to fully prepare has now been
8 repeated with just an avalanche of data with no indication
9 of how any of it was actually used by the doctor.

10 So we would object to the presentation of Dr.
11 Trush's testimony at all on the basis that the EDC
12 CalTrout people failed to comply with your order of March
13 14th.

14 HEARING OFFICER DODUC: Before I ask Ms. Kraus to
15 respond, does any other parties wish to express concerns
16 or objections?

17 MR. O'BRIEN: We would simply join the objection.

18 HEARING OFFICER DODUC: Mr. O'Brien has joined in
19 the objection.

20 MS. MURRAY: I do not object. I support the
21 testimony. And if you get around to the support, I'll --

22 MR. CONANT: We join the objection.

23 HEARING OFFICER DODUC: Ms. Kraus.

24 MS. KRAUS: Thank you.

25 HEARING OFFICER DODUC: Explain yourself.

1 MS. KRAUS: There was no attempt to evade here.
2 What we supplied we believe complied precisely with what
3 you requested. You asked us to have Dr. Trush describe
4 the analysis that he was going to conduct and that was the
5 paragraph that we included. We deleted the portions of
6 the outline that you identified as inappropriate. And we
7 supplied the data that Dr. Trush was going to rely on, as
8 you requested that we do and the parties requested. It
9 was not an attempt to avalanche the parties with data.
10 Those were the papers that Dr. Trush referenced in his
11 analysis.

12 HEARING OFFICER DODUC: Ms. Murray, do you wish
13 to add anything?

14 MS. MURRAY: Yes.

15 HEARING OFFICER DODUC: You were not overwhelmed
16 by the 400 pages of the data?

17 MS. MURRAY: No. And I do believe that, contrary
18 to what the objector said, there are statements in his
19 revised outline of rebuttal testimony that make it clear
20 what he is going to say. There was an intimation they had
21 no idea what he was going to say. I think he's clear on
22 his points. He has some references. They have an idea
23 with what he's going to say.

24 HEARING OFFICER DODUC: Mr. Wilkinson?

25 MR. WILKINSON: The outline -- the second attempt

1 dated March 14th is identical to the earlier outline that
2 was found to be unacceptable in your March 14th Order.

3 The only thing that has been added is the
4 italicized paragraph at the bottom that simply talks about
5 a smolt to adult return curve, predicts the chance of
6 adult anadromous *O. mykiss* return as a function of smolt
7 size and so on, so on.

8 There is no reference in that paragraph to any
9 data. There is no reference in that paragraph to any
10 conclusion. No reference to any methodology. You simply
11 cannot tell from that paragraph what Dr. Trush did, what
12 did he do it with, and what conclusions did he reach.
13 There's nothing there.

14 MS. KRAUS: May I respond to that?

15 HEARING OFFICER DODUC: Thank you, Mr. Wilkinson.

16 Yes, you may, Ms. Kraus.

17 MS. KRAUS: The hearing notice did not identify
18 any problems with the portions of our outline, items one
19 and items two, except for a lack of explanation about the
20 analysis. And that is what we supplemented. There was no
21 criticism of the detail in those items, except for the
22 lack of explanation of analysis.

23 HEARING OFFICER DODUC: All right. Thank you.

24 I mentioned earlier that I was going to take a
25 break at 3:30. We're going to take the break earlier so I

1 can consider all these objections and explanations. Let's
2 plan on resuming at 3:45.

3 (Whereupon a recess was taken.)

4 HEARING OFFICER DODUC: All right. Welcome back,
5 everyone.

6 After considering the objections and
7 counter-objection and support statements, I've decided to
8 allow Mr. Trush to continue. As my attorney has advised
9 me, pre-submittal of rebuttal testimony is not typically
10 required. And although I did make an attempt to try to
11 make things more efficient, I think it would not be
12 appropriate to remove Dr. Trush based on the information
13 that was submitted by him in advance.

14 So with that, Ms. Kraus, please go ahead and
15 bring Mr. Trush up. You're fine where you are from now.
16 When Ms. Kraus finishes with Mr. Trush, we'll ask the
17 other witness and Mr. Hytrek to come up for
18 cross-examination.

19 MS. KRAUS: Thank you.

20 DIRECT EXAMINATION

21 BY MS. KRAUS:

22 Q So we did hand out CalTrout exhibits for Dr. Trush's
23 testimony. And that includes PowerPoint presentation,
24 CalTrout 112. So everybody should have that.

25 Can you state for name for the record and go

1 ahead and give your presentation?

2 A My name is Dr. William Trush. And I'll be presenting
3 my testimony today regarding the monitoring data.

4 Did you want me to do a brief introduction?

5 Q Yes, please.

6 A I got my Ph.D. at Berkeley, geomorphologist soil
7 scientists, so of course I decided to do fish. And
8 they're quite good mentors.

9 I work right now in quite a few rivers. In the
10 past, the record decision on the Trinity River, lead
11 scientist for the Board on Mono Lake. Right now
12 developing a flow regime on the (inaudible) River for
13 steelhead; on the Panel for recovering steelhead on
14 Alameda; flow recommendation for the Shasta River, for the
15 lower Tuolumne, upper Tuolumne River. I'm doing a lot of
16 work on a lot of rivers with steelhead, both residents as
17 well as steelhead.

18 My particular specialty that I like the most is
19 combining geomorphology and soils and life history of
20 fish.

21 And today what I wanted to do -- the very
22 specific role that CalTrout asked me to take a look at and
23 that was to try to breathe some life or some
24 interpretation into the monitoring data because there was
25 a lot of conjecture or statements regarding positive

1 trends, there was no trends, and for me to take a look at
2 that.

3 But I want to preface anything that I do say on
4 the fact that I'm only concerned about O. mykiss the
5 steelhead. I'm not -- I did not take any time to look at
6 O. mykiss, the resident. And to do that, I had to focus
7 in on the smolt data and on the adult data. So I did not
8 look at the inventories of rearing habitat during the
9 summer where I can't distinguish them. So just to let you
10 know whenever I say O. mykiss, I mean steelhead.

11 The FEIR does not explain -- just reading one
12 line from my testimony -- the FEIR does not explain what
13 the reported steelhead monitoring results mean. And I
14 heard it stated earlier that a major purpose of the FEIR
15 was informative to inform the Board. And without some
16 quantitative strategy for evaluating what the smolt
17 numbers are, you have no idea what they mean. And
18 that's -- my life has been looking at those kinds of
19 things on life history and survivorship.

20 So we've got a standard. One of the graphics
21 taken out of the 2009 annual monitoring report. And the
22 green are the smolt numbers. And the purple are all
23 trapped fish heading downstream.

24 You can see the biggest year was 2006, the
25 summary of all three trapping sites. And then as a

1 steadiness after that, which 2007-2008, which is primarily
2 due to Hilton Creek. So I saw -- just as most layman
3 would look at that and I don't see a trend there.

4 Now, when I look at smolt data, it's easy to say
5 I don't see a trend there. I'd like to describe a little
6 bit about how I got to looking at the smolt data, and it
7 will give you some insight.

8 When I was doing my dissertation work, I was
9 counting numbers of adult steelhead going up a stream on
10 the South Fork, and my partner, who was getting his Ph.D.
11 at Davis, was looking at the summer habitat. So we
12 combined forces and said, if we have so many fish heading
13 out of the watershed, can we predict how many steelhead
14 are coming back? Very similar to this.

15 When we tried it out, we could never predict. I
16 would see 80 to 100 steelhead. And based on the
17 prevailing knowledge at the time, adding up all our fish
18 and giving it a typical survival rate, I could never
19 predict more than half the number of adults coming up.

20 I started looking around trying to figure this
21 thing out. This was in the 80s. And I found that -- and
22 it's been in the literature that for steelhead trout, size
23 means absolutely everything as far as coming back. A data
24 set that doesn't give you the size class of the smolts
25 going out isn't useless, but bordering on it. It's

1 extremely important if you're trying to make some rational
2 objective evaluation. You can have lots of little smolts
3 go out and almost no returning adults. And much fewer big
4 smolts going out and quite a few more returning adults.

5 And to give you a little idea what that looks
6 like, I cut out a smolt out of -- I won't say -- and this
7 is 175 millimeter smolt. And it's got, according to my
8 SAR, which I'll go into a little bit in detail, a three
9 percent survivorship. So I need about 35 of these to get
10 one adult.

11 If I take 150 millimeter, little different story.
12 You can see the difference in size. Not much. It takes
13 about 165 of these versus 35 of these. So that gives you
14 a little idea when I'm looking at the monitoring data I
15 want to see -- I need to see something like this.

16 And then here's 15 millimeter compared to the
17 175. This one needs about 670 for returning adult. So
18 when we look at the size class distribution of smolts
19 heading out of the watershed, there is a distribution of
20 these, not just a simple number.

21 Now, that number or that observations is nothing
22 new. I've had chats with Leo Shapovalov, my ultimate hero
23 in steelhead, best study ever done. And tons of people
24 knew about this beforehand. I use this smolt survivalship
25 curve that was developed over the years. The original

1 data I pulled out the South Fork Eel.

2 But there are other smolt survivorship curves
3 around. To just explain it, you can see there on the X
4 axis is fork length where the tail divides and on the Y
5 axis the smolt to adult return. So you can look up 170,
6 look at the lower limit and the dashed line of the upper
7 limit and get an idea of what would be the predicted
8 return from that size fish.

9 There are other smolt and adult return curves
10 around. This is the one I've used for a long time and
11 decided that it works well.

12 Now, let's take a look at some size class
13 distribution data. There was size class distribution data
14 for smolts -- maybe in other years, but the two I saw was
15 in water year 2008 and water year 2009. And here we have
16 the size class distribution for the smolts heading
17 downstream, in 2008, in Salsipuedes Creek. You see there
18 is a dominance in the 170 to 179 class. In fact, that's
19 really typical. 175 seems to be to be a very common
20 number for that central larger size of smolt. And the
21 size classes are broken up typically into ten millimeter
22 categories, as done here. The 2008-2009 monitor by Bureau
23 of Rec, really good reports. There was a lot of good
24 information in there.

25 Here's Salsipuedes Creek for 2009. Look at the

1 difference. So you can look and see where that dominance
2 was 170, 179. And then let's go to 2009. You can see
3 it's quite a bit smaller. And if we start -- and in a
4 minute, I'll show you what I did on it and how to do the
5 calculation for that.

6 Here's Hilton Creek, 2008. Quite a bit different
7 looking than Salsipuedes Creek. Much more information
8 there than just the number. A lot of small fish fanning
9 out, but a fair number of smolt sized fish that probably
10 most of them are smolts.

11 Notice there are a lot of bigger fish. And in my
12 testimony, I eliminated fish above 270 millimeters because
13 generally fish that get big tend to residualize. They
14 stay rather than heading back out to the ocean. So I used
15 data calling smolts from 100 to 270, even a little bit
16 smaller than that.

17 Here's Hilton Creek in 2009. Not that different.
18 And of course, this goes back to Hilton Creek was turned
19 into a perennial stream by reducing flows down it year
20 around. So you really do see that response.

21 Now, I guess my clandestine operational
22 calculations were quite simple. I went back to the smolt
23 to adult return curve for each one of those categories and
24 I said, okay, how many fish do I have between 170 and 180
25 millimeters. I go to my smolt curve and I read off three

1 percent survivorship. So I go to this curve, which I
2 didn't do, but let's say it's around 15. It did 15 for
3 the 170 to 180 class. I did 15 times three percent, and
4 that was my number of predicted adults for that size
5 class. I added them up, and that was my prediction.

6 In this case, I write it down to be sure here.
7 That predicted 2009 2.7 adults. So 304 downstream
8 migrants of which I assumed all were smolts -- I didn't
9 know which were smolts and which were not -- trying to be
10 conservative between 100 and 270, they were all smolts.
11 And I applied the curve I would expect to get
12 approximately 2.73 adults. That gives you some idea when
13 we see a count of 300. So it's important to be able to
14 have some feeling for what these numbers mean to see what
15 any trend might be out there.

16 Now, I did that -- I went back to the data from
17 water year 2001 to 2009. This was just straight out of
18 the 2008 and 2009 monitoring reports. And I didn't have a
19 size class distribution for all of these. So I you went
20 and I assumed on the high side to get as high a number as
21 I reasonably could even get. I said every smolt heading
22 out was 175 millimeters, which clearly it's not. But I
23 said it anyway. And I multiplied 175 by the three percent
24 to predict the adult return.

25 What I have pondered here on the right axis is

1 the number of smolts trapped per year in the three sites.
2 The solid line are the number of adults returning trapped.
3 And the dotted line was that estimate of 175 times the
4 smolt, the number of smolts, that size fish, times three
5 percent survivorship. You can see they came out weirdly
6 close. In fact, I wish they hadn't to not make it look so
7 fixed.

8 And in fact, take a look at 2006. You can see
9 that there is a big jump in the predicted curve. But
10 remember that I took the smolt data and said three
11 percent. I didn't say when those adults would be coming
12 back. I just gave out a number. But the very typical
13 steelhead life history is two years in salt water. And if
14 you move that dotted line over two years, you're almost
15 right on top of it, on what's been found.

16 I really wanted that curve to be below the
17 trapped, because you can't possibly get all the smolts
18 heading out of the watershed or all the adults coming up.
19 You have three traps. There can always be places you
20 aren't connecting. But never the less, this is what it
21 came out to be.

22 So the method -- there's nothing mysterious about
23 it. And it's quite simple to calculate.

24 So the last comment that I wanted to make was
25 with respect to the public trust. And the only number I

1 really have out there to hang on to at this point is the
2 NMFS minimum viable population. And I've been reading in
3 other testimony that we need 80 or 100 years or some large
4 number of years in order to see if we are going to get
5 that back.

6 And if I can give you an example or a lead in if
7 you want -- if I'm standing at the base of a dam and I
8 want to see if the steelhead can get over it. And I'm
9 standing there and I see it jumped, didn't make it.
10 Didn't make it. Dam is 100 feet high. And I don't need
11 80 years to sit there and to say, well, no. Didn't make
12 it. Nope, didn't make it. I wouldn't be a scientist if I
13 can.

14 What I would do is rather than stand there with
15 an incredible amount of patience and obviously nothing
16 else to do, I could go back to the lab, figure my pulse of
17 speed, how fast a fish could get out of the water, the
18 exact angle to get over the dam, double everything and I
19 get about 18 feet is the max I can get a steelhead to go.
20 And so I wouldn't have to wait 80 years.

21 That's exactly how I took a look at the
22 monitoring data on the Santa Ynez. Using my professional
23 judgment in looking at the numbers of very roughly the
24 number of miles of habitat -- and I'm really high like 100
25 miles of habitat. Very high rearing potential for the

1 Q Have more than 3,000 O. mykiss been monitored to
2 trapped since the 2000 BO?

3 A In what context, please?

4 Q In the context of the RPA of the BO?

5 A The more than 3,000, is that what you --

6 Q Yes.

7 A Is that per year or cumulatively for since the BO?

8 Q Cumulatively.

9 A To be honest, I haven't added up the most recent
10 monitoring report that we received. So I'm not sure.

11 Q Has any of the excess take under the BO under the 2000
12 BO been due to monitoring and trapping?

13 A Yes.

14 Q Was this monitoring and trapping required by the 2000
15 BO?

16 A The monitoring and trapping was proposed by
17 Reclamation and then incorporated into Biological Opinion
18 to allow for that amount of take.

19 Q But nonetheless, is part of the RPAs of the 2000 BO --

20 A It's included as the regional prudent measures as --
21 excuse me -- the monitoring reporting is required. The
22 actual collection of the data was proposed. And to
23 account for that amount of take, that was included in the
24 incidental take statement.

25 Q Could the increase in O. mykiss account for the

1 increase the take numbers under the monitoring and
2 trapping program?

3 A I'm not sure because the actual first point where the
4 numbers were exceeded occurred the first season following
5 issuance of the Biological Opinion.

6 Q Could you say that again?

7 A The first occurrence of exceeding the amount of take
8 to my understanding from the reporting from reclamation is
9 that occurred in 2001, which would have been the first --
10 the season following the issuance of the September 2011 --
11 excuse me -- September 2000 Biological Opinion.

12 Q Okay. I think so the first year there was monitoring
13 and trapping there was an increase in take under the
14 allowable take?

15 A There was an exceedance of the allowable take, yes.

16 Q Yes. Okay. And that's because -- well, the monitored
17 and trapped numbers exceeded the assumptions of the amount
18 of O. mykiss assumed to be in the system when the BO was
19 drafted; correct?

20 A They exceeded the numbers that were provided in the
21 incidental take statement, yes.

22 Q Is there a difference between take attributed to the
23 monitoring and trapping and take attributed to the project
24 operation?

25 A I'm not sure the context of your question.

1 Q The context is monitoring and trapping is simply
2 counting the fish in the system as opposed to attributable
3 to, say, a flow regime of the project?

4 A Okay. I'll try to answer the question. The
5 difference would be is, for example, the annual monitoring
6 had a specific take limit and therefore that take applies
7 to that activity. In regards to take associated to flow,
8 it would apply to that activity.

9 Q So the excess -- let's put it this way. Would you say
10 that the majority of excess take to date is attributable
11 to monitoring and trapping or attributable to project
12 operation specifically?

13 A The documented take that I'm aware of the higher
14 number of individuals taken is associated with the annual
15 monitoring, yes.

16 Q Thank you. How many take were fatalities?

17 A In which form of take?

18 Q Either, all?

19 A I actually don't have those figures in front of me.

20 Q Does 24 sound about right?

21 A I don't know.

22 Q Less than 50?

23 A Pardon?

24 Q Less than 50?

25 A This is legal take?

1 Q Yeah.

2 A I don't have the figures in front of me. I'm sorry.

3 Q Are you aware of any other projects completed by
4 Reclamation or the Member Units which are not part of the
5 RPA and the 2000 BO which also improve habitat for O.
6 mykiss on the tributary?

7 A Yes.

8 Q Could you explain what those are, please?

9 A Additional fish passage projects that were
10 constructed?

11 Q Yes.

12 A What would you like me to explain?

13 Q I guess is that the universe of projects that you're
14 aware of?

15 A Say that again.

16 Q Is that the generally the projects you're aware of
17 that are not part of the RPAs that have also been
18 completed by Reclamation and/or the Member Units?

19 A My recollection is I believe there were three fish
20 passage projects conducted on tributaries that were --
21 wait. Back up.

22 There is a question of whether or not they were
23 actually implemented by reclamation or by the Cachuma
24 operation and maintenance Board.

25 Q Okay. All right. Thank you very much.

1 HEARING OFFICER DODUC: Thank you.

2 Mr. O'Brien.

3 MR. O'BRIEN: Yield my time to Mr. Wilkinson.
4 Thank you.

5 HEARING OFFICER DODUC: In other words, you have
6 no cross-examination.

7 Mr. Wilkinson

8 MR. WILKINSON: I was going to say I accept it.

9 CROSS-EXAMINATION

10 MR. WILKINSON: Good afternoon, Mr. Brumback, Dr.
11 Trush. I'm Greg Wilkinson. I represent the Santa Ynez --

12 HEARING OFFICER DODUC: Mr. Wilkinson, please get
13 very close.

14 MR. WILKINSON: I represent the Santa Ynez River
15 Water Conservation District, Improvement District Number
16 1. ID Number 1 for short.

17 Mr. Brumback, I'd like to ask a few questions of
18 you to begin. I'd like to have a better understanding of
19 several of the statements that you made today and that
20 were also made in the revised outline of your testimony.

21 In your outline, you say that the Board's FEIR
22 should not rely on the analysis and conclusions in NMFS'
23 2000 Biological Opinion to determine whether the
24 endangered steelhead public trust resource is adequately
25 protected. Do you recall that statement?

1 MR. HYTREK: Objection. NMFS has not offered the
2 revised outline as evidence.

3 MR. WILKINSON: I'm just asking if he recalls the
4 statement made in his outline of testimony.

5 MR. HYTREK: I don't see how it's relevant to his
6 responses to his --

7 HEARING OFFICER DODUC: Gentlemen.

8 MR. HYTREK: -- testimony

9 MR. WILKINSON: Well --

10 HEARING OFFICER DODUC: In this case, I'll
11 overrule the objection. Again, he's just asking the
12 witness to reiterate what he believes was submitted in his
13 testimony.

14 MR. BRUMBACK: Could you repeat that, Mr.
15 Wilkinson?

16 BY MR. WILKINSON:

17 Q Yes. In your outline of testimony, you say the
18 Board's FEIR should not rely on the analysis and
19 conclusions in NMFS 2000 Biological Opinion to determine
20 whether the endangered steelhead public trust resource is
21 adequately protected. Do you recall making that
22 statement?

23 A I'm not sure if it's the exact wording, but I'll go
24 with that.

25 Q And then you listed a series of reasons why the Board

1 should not do that. Do you recall listing those reasons
2 in our outline?

3 A May I look it up?

4 Q Sure, please do.

5 A Yes, I see it.

6 Q Mr. Brumback, you're not suggesting by your testimony
7 today and the statements that were made in your outline of
8 testimony that the FEIR should have ignored the 2000
9 Biological Opinion issued by NMFS, are you?

10 A No. However --

11 Q I'll accept the "no." You can ask your counsel if you
12 have redirect.

13 You're not suggesting that the FEIR should have
14 disregarded the 2000 Biological Opinion when it attempted
15 to determine whether public trust resource, including the
16 steelhead, are being reasonably protected, are you?

17 A I don't recall making any statement about reasonably
18 being protected.

19 Q All right. I'm just simply asking the question.
20 You're not asserting that that Board should have ignored
21 the 2000 Biological Opinion when it makes a determination
22 whether the steelhead is being reasonably protected?

23 A I didn't make that statement.

24 Q Is that your position, Mr. Brumback?

25 A The context of my testimony was to the fact it is that

1 we are going over the re-initiation of consultation and
2 that there will be a new Biological Opinion that would
3 better inform the Board.

4 MR. WILKINSON: Ms. Doduc, I'm asking the witness
5 questions that can be answered with a simple yes or no. I
6 would appreciate it if you would direct the witness to do
7 that.

8 HEARING OFFICER DODUC: I believe the witness
9 has. You asked him earlier whether or not he believes the
10 2000 Biological Opinion should be ignored and he answered
11 no. And I think your further digging into the details of
12 how that BO could be used and various aspect of how the
13 reasonableness and the balancing aspect of the Board's
14 decision is just digging deeper into details of the
15 question the witness has already answered.

16 MR. WILKINSON: All right. Fine. I'll take
17 that.

18 BY MR. WILKINSON:

19 Q Mr. Brumback, you're the NMFS Project Manager for the
20 Cachuma Project Biological Opinion of 2000, aren't you?

21 A Correct.

22 Q And you're also the Project Manager for the
23 re-initiated consultation that's done with Reclamation; is
24 that correct?

25 A That's correct.

1 Q And as the Project Manager for the 2000 Biological
2 Opinion, you're aware, are you not, that the opinion has
3 been in effect for the past twelve years; correct?

4 A I'm aware it's been in place for the last twelve
5 years.

6 Q And it's only Biological Opinion that's ever been
7 issued by the National Marine Fisheries Service for the
8 steelhead on the Santa Ynez River, isn't it?

9 A I don't believe that's correct.

10 Q There is a prior Biological Opinion?

11 A I believe so.

12 Q All right. This is the most recent one; is that
13 correct?

14 A In regard to the Cachuma Project?

15 Q Yes.

16 A Yes.

17 Q There is nothing that's been issued since the 2000
18 Biological Opinion in terms of a newer Biological Opinion
19 for the Cachuma project, is there?

20 A Not that I'm aware of.

21 Q Now before the 2000 Biological Opinion was issued, Mr.
22 Brumback, it underwent an internal Section 7 consultation
23 within the National Marine Fisheries Service, didn't it?

24 A I'm not sure I understand what you're saying, Mr.
25 Wilkinson.

1 Q Is it the practice at the National Marine Fisheries
2 Service that before a Biological Opinion is issued, there
3 is an internal Section 7 consultation that takes place
4 within the agency itself?

5 A The Section 7 consultation process in this case
6 regarding another federal agency's action, the
7 consultation is among the National Marine Fisheries
8 Service and in this case, the Bureau of Reclamation.

9 Q Before the 2000 Biological Opinion was issued, it
10 underwent a thorough evaluation within the National Marine
11 Fisheries Service, didn't it?

12 A The analysis process that culminated into the 2000
13 Biological Opinion.

14 Q Is that a yes?

15 A Yes.

16 Q As far as you know, Mr. Brumback, the 2000 Biological
17 Opinion may be in effect a year from now; is that right?

18 A It may be.

19 Q And as the Project Manager for the re-initiated
20 Section 7 consultation, you're aware, aren't you, that a
21 biological assessment has to be issued by the Bureau of
22 Reclamation before the National Marine Fisheries Service
23 can issue a new Biological Opinion; is that right?

24 A Yes.

25 Q And has a biological assessment been prepared?

1 A No.

2 Q Is there a firm date for the preparation of a
3 biological assessment?

4 A Not that the National Marine Fisheries Service has
5 received. That's a no.

6 Q Are you aware as well that before a Biological Opinion
7 issues, there must be an effects analysis undertaken
8 within the National Marine Fisheries Service of the
9 biological assessment?

10 A Yes.

11 Q That effects analysis hasn't taken place either, has
12 it?

13 A No.

14 Q And if a jeopardy opinion is issued as part of the
15 Biological Opinion, is it your understanding as the
16 Section 7 coordinator that there has to be a reasonable
17 and prudent alternative to the proposed operation
18 development?

19 A If one is available.

20 Q And has that occurred?

21 A No.

22 Q Okay. And there's also the potential for court review
23 of a Biological Opinion once it's issued; isn't that a
24 fact? That's provided for under the Endangered Species
25 Act; correct?

1 A I'm not necessarily familiar with the formal court
2 review process.

3 Q There is a citizen suit provision of the Act that
4 provides for review, is there not?

5 A As far as I know, there is a citizen's suit provision,
6 yes.

7 Q Now, Mr. Brumback, I realize that you don't claim to
8 be an expert on the subject of CEQA, but is it your
9 understanding that in analyzing the affect of Cachuma
10 Project operations on the steelhead in developing the FEIR
11 that the Board and the staff could have ignored a
12 regulatory document like the 2000 Biological Opinion?

13 MR. HYTREK: Objection. That's beyond the scope
14 of his testimony. He has no basis of knowledge for it.

15 HEARING OFFICER DODUC: He answered the question
16 he does not believe we should ignore the 2000 Biological
17 Opinion. So sustained. Move on, please.

18 BY MR. WILKINSON:

19 Q Now you were here when Mr. Gibson testified, were you
20 not?

21 A Which one was Mr. Gibson?

22 Q Gentleman who testified this morning.

23 A I was here. I'm not sure who Mr. Gibson is.

24 Q Did I get the name wrong? Joe Gibson. Were you here
25 this morning when Joe Gibson testified as a witness for

1 the State Board?

2 A Oh, excuse me. Now you put the context to it. One of
3 the two gentlemen that were sitting up here, yes.

4 Q Yes. Did you hear Mr. Gibson's response to questions
5 about the different things that he relied upon in
6 developing the Final Environmental Impact Report?

7 A I listened to a portion of his testimony, but I don't
8 recall verbatim.

9 Q You don't recall that he testified he relied not only
10 upon the 2000 Biological Opinion, but also the Fish
11 Management Plan for the lower Santa Ynez River. Do you
12 recall that?

13 A I believe I heard that.

14 Q All right. Did you hear him say he also examined the
15 2004 and 2008 synthesis reports of available scientific
16 data?

17 A Actually, I didn't specifically hear that, but I will
18 take your word for it.

19 Q You don't have any reason to doubt Mr. Gibson's
20 testimony that he relied on a variety of documents in
21 addition to the 2000 Biological Opinion, do you?

22 A No.

23 Q Now, in the testimony you presented, you told the
24 Hearing Officer that the Final EIR should not have relied
25 upon the 2000 Biological Opinion because not all the

1 restoration actions were completed. Do you recall that?

2 A That was part of the reason.

3 Q I understand that. Do you recall that testimony?

4 A Yes.

5 Q Now, the purpose of the tributary restoration actions
6 described in the 2000 Biological Opinion was to expand
7 available habitat for the steelhead, wasn't it?

8 A Yes. As proposed by the Bureau of Reclamation.

9 Q What's your understanding of the amount of habitat
10 that was anticipated to be opened up through compliance
11 with the Biological Opinion?

12 A I don't recall the exact figures.

13 Q Do you recall reading Ms. Baldrige's estimate that it
14 was about 15 miles in her outline of testimony? Have you
15 reviewed that?

16 A Yes.

17 Q You don't have any reason to doubt her testimony in
18 that regard, do you?

19 A No.

20 Q Now, in fact, Reclamation in the Cachuma Member Units
21 have completed passage barrier removal projects on the
22 tributaries in the Santa Ynez River, haven't they?

23 A They have completed some, yes.

24 Q They removed passage barriers in addition to those
25 that were described in the Biological Opinion, haven't

1 they?

2 A Yes.

3 Q Those barriers were on Salsipuedes Creek, El Jaro
4 Creek, and Hilton Creek, weren't they?

5 A Not Hilton Creek.

6 Q Not Hilton Creek. Salsipuedes and El Jaro?

7 A Yes.

8 Q And the removal of those additional barriers opened up
9 additional habitat as well, didn't it?

10 A Presumably so.

11 Q Now you were told about the removal of additional
12 passage barriers in a memorandum that was provided to NMFS
13 by Reclamation. I think it's been referred to
14 colloquially as a tributary trade-off memo. Do you recall
15 that memo?

16 A Yes, I do.

17 Q And you were told then that there were additional
18 barriers removed, weren't you?

19 A Yes.

20 Q But you didn't mention that in your testimony today,
21 did you?

22 A No.

23 Q Mr. Brumback, do you have an understanding of the
24 total mileage of habitat that has been opened up by the
25 tributary removal projects that have been undertaken and

1 completed to date?

2 A I actually don't have those figures in front of me.

3 Q Would about 14 miles sound correct to you?

4 A If -- I would believe the figure you gave. Without
5 having compared it to what's actually down below that may
6 impede them from getting to the restored habitat.

7 Q I think the Figure 13.9 miles was described in the
8 outline of testimony of Ms. Baldrige. Do you have any
9 reason to disagree with that?

10 A I do not.

11 Q Now, you testified today that the FEIR should also not
12 have relied on the 2000 Biological Opinion because the
13 amount of take specified in the opinion for the annual
14 monitoring program has been exceeded. Was that it?

15 A That was another reason.

16 Q Now, the take that you've described occurs when
17 monitoring traps catch juvenile O. mykiss as they're
18 migrating out; correct? And also conceivably as they're
19 coming up; correct?

20 A Correct.

21 Q And when the traps catch the juvenile and the adult
22 fish, the catch is recorded and reported to NMFS, isn't
23 it?

24 A Eventually.

25 Q And if a captured fish die, that's also reported;

1 isn't it?

2 A Eventually, yes.

3 Q Isn't it a fact, Mr. Brumback, that the reported data
4 show that less than one percent of the fish that are taken
5 in the annual monitoring program die in the traps?

6 A That sounds like an acceptable figure.

7 Q In other words, more than 99 percent of the fish that
8 are taken in the monitoring program are released alive,
9 aren't they?

10 A Yes.

11 Q You didn't mention that in your outline of testimony
12 today, did you?

13 A I did not.

14 Q Mr. Brumback, isn't it possible that more fish are
15 being captured as part of the annual monitoring program
16 because more O. mykiss are being produced as a result of
17 the tributary improvement projects that have already been
18 completed by Reclamation and Member Units?

19 A Is there a context of time in that?

20 Q Sure. Let's take the period of time 1995 to the
21 present.

22 A Okay. I would agree, yes, there is the possibility.
23 But to qualify it with the first occurrence of exceeding
24 the take limits occurred in 2001.

25 Q I understand that. But we've seen also, have we not,

1 an increase since 1995 in the capture of fish in the
2 traps, right?

3 A There have been more fish captured, yes.

4 Q In fact, the numbers of increase, the amount of the
5 increase, would you say it's an order of magnitude more?

6 A Yes. Excuse me. Compare what time frame?

7 Q 1995 to the present.

8 A Yes.

9 Q You talked about an unauthorized take that occurred in
10 2007. Can you tell me how many fish died in 2007 as a
11 result of low flows at Alisal?

12 A My recollection from the incident report that was
13 produced by the Cachuma Operations Maintenance Board staff
14 were three confirmed or observed dead O. mykiss. And the
15 pool of the subject degradation, they observed a total of
16 five prior to finding the three confirmed dead ones.

17 Q Now, as a result of the low flows that occurred at
18 Alisal bridge that year, wasn't there a new protocol
19 developed for the Bureau of Reclamation for its operation
20 of Bradbury Dam that was intended to prevent low flows in
21 the future?

22 A Yes. I believe that was -- are you referring to the
23 2009 document?

24 Q I don't recall the date. I'm simply asking subsequent
25 to the take in 2007, there was a protocol developed,

1 wasn't there, to try to prevent that from occurring in the
2 future?

3 A Yes.

4 Q And that new protocol was incorporated into the
5 operations manual for Bradbury Dam, wasn't it?

6 A I'm not aware of the operations manual for Bradbury
7 Dam.

8 Q To your knowledge, sir, did the National Marine
9 Fisheries Service ever provide any comment on the
10 protocol?

11 A Not to my knowledge.

12 Q Isn't it true that the protocol that has been adopted
13 now has been followed in every dry year and higher
14 releases have been made for Bradbury Dam in every year
15 since 2007?

16 A Could you restate that question?

17 Q Can the reporter read it back?

18 (Whereupon the question was read back.)

19 THE WITNESS: No.

20 BY MR. WILKINSON:

21 Q In every dry year since 2007, hasn't the protocol been
22 followed, Mr. Brumback?

23 A I do not know.

24 Q Do you know whether there has been any unauthorized
25 take of steelhead at the Alisal Bridge since 2007?

1 A I'm not aware of any.

2 Q That's a no?

3 A That's a no.

4 Q Those facts weren't mentioned in your testimony today,
5 were they?

6 A No.

7 Q I'd like to go back to the take. The 2000 Biological
8 Opinion includes -- I think you mentioned -- an incidental
9 take statement. Did I get that right?

10 A That's correct.

11 Q And that take statement describes the amount of take
12 of steelhead that's allowed each year; correct?

13 A You're referring to the monitoring program in
14 particular?

15 Q No. I'm referring generally to the ITS, the
16 incidental take statement.

17 A Yes, I believe it is structured on an annual basis.

18 Q And as you're familiar with the opinion, the
19 incidental take statement provides that the number of
20 steelhead carcasses that are allowed to be collected in
21 any year is 15; isn't it?

22 A I don't have the figure in front of me, but I have no
23 reason to doubt you.

24 Q Let me get the Biological Opinion for you. May I
25 approach the witness?

1 HEARING OFFICER DODUC: Okay.

2 THE WITNESS: That is correct.

3 BY MR. WILKINSON:

4 Q Mr. Brumback, are you aware of any year since the
5 issuance of the 2000 Biological Opinion in which the
6 number of steelhead carcasses collected has exceeded 15?

7 A I'm not aware. No.

8 Q Mr. Brumback, as I understand your outline, you
9 contend that the FEIR inappropriately relied upon the 2000
10 Biological Opinion because the opinion was limited to
11 Reclamation's proposed action and also limited by the
12 jeopardy standard of the Endangered Species Act. Did I
13 get that right?

14 A I do not think I addressed that in my testimony.

15 Q Did you address it in you outline?

16 A It was in my outline, I believe.

17 Q Is that one of the reasons that you feel the FEIR
18 should not rely upon the 2000 Bio?

19 A Will you give me a moment to find that in my outline?

20 Q Sure.

21 A Since you're looking at it, can you direct me to it?

22 Q Page 2.

23 A Okay. I presume you're looking at the second bullet?

24 Q Yes.

25 A Yes.

1 Q Now, you've had, as you indicated, training in Section
2 7 consultation. Isn't it the case that Biological Opinion
3 do typically opine on the action proposed by the action
4 agency?

5 A I'm sorry I didn't hear the wording in that.

6 Q Isn't a fact that the Biological Opinions typically do
7 opine on the action proposed by the action agency?

8 A I'm not familiar with the word "opine."

9 Q They render an opinion on the action by the action
10 agency.

11 A Yes.

12 Q So the fact that NMFS' determinations in the 2000 BiOp
13 are limited to Reclamation's proposed action, it wasn't
14 particularly unusual, was it?

15 A No.

16 Q And isn't it also the case 2000 Biological Opinion did
17 not simply make a finding of no jeopardy; is that right?

18 A Say that again, please.

19 Q Did the 2000 BiOp, was it opinion simply one of no
20 jeopardy or did it say something in addition to that?

21 A It did say something in addition.

22 Q It also said, didn't it, there was a potential for
23 recovery?

24 A I don't remember that exact wording. Would you like
25 to show me?

1 Q Let me read it to you. This is from page 67 of the
2 Biological Opinion.

3 "Proposed Cachuma Project operations and
4 maintenance, if carried forward many years in the future,
5 will provide the small Santa Ynez River steelhead
6 population with improved critical habitat conditions in
7 the form of increased migration opportunity and better
8 access to spawning and rearing areas in the watershed
9 below Bradbury Dam, allowing the population to increase in
10 size. Therefore, the proposed project is likely to a
11 appreciably increase the likelihood of survival and
12 recovery of the ESU by increasing its numbers and
13 distribution."

14 Do you recall that?

15 A I recall reading that, yes.

16 Q So when the opinion was issued, it simply -- it did
17 not simply limit itself to a statement of no jeopardy, did
18 it?

19 A Not as stated.

20 Q Mr. Brumback, I'm interested in the statements you
21 made today about the effect of the decision by the State
22 Board on NMFS' ability to develop a revised Biological
23 Opinion. And I'd appreciate it if you could help me
24 understand your testimony.

25 Is it your testimony that to the extent the State

1 Board adopts flow criteria as part of its water rights
2 decision in this matter that decision will bind the
3 National Marine Fisheries Service?

4 A I'm sorry. Could you repeat that, please?

5 Q Try it again.

6 Is it your testimony that to the extent that the
7 State Board adopts flow criteria as part of its water
8 rights decision in this matter that the Board's decision
9 on those flow criteria will bind the National Marine
10 Fisheries Service; is that your testimony?

11 A My testimony was that it would limit the ability of
12 Reclamation in developing a proposed action.

13 Q It would not limit NMFS, would it?

14 MS. MURRAY: I'm going to object. I think it
15 calls for --

16 HEARING OFFICER DODUC: Ms. Murray, could you
17 please come up to the microphone?

18 MS. MURRAY: I object to that question. I think
19 it calls for a legal conclusion. This is not within the
20 parameters of his testimony or his expertise.

21 MR. WILKINSON: I think it very much was within
22 the parameters of his testimony. I'm trying to simply
23 understand better what his testimony was.

24 MS. MURRAY: I think

25 HEARING OFFICER DODUC: I'm sustaining the

1 objection.

2 Let me interrupt. We'll go ahead and put a stop
3 on the clock because you're about to reach your 30 minute
4 allowance, regardless of Mr. O'Brien's attempt to defer
5 his time.

6 I have to say as the Hearing Officer who will be
7 making a determination of whether the FEIR will be
8 included entered into the record, I'm finding this all
9 very unhelpful.

10 MR. WILKINSON: Okay.

11 HEARING OFFICER DODUC: And I think it's because
12 there is a basic misunderstanding -- misconception of what
13 the FEIR is and what it is not.

14 And with that, I'm going to turn to my legal
15 counsel and ask her to clarify that. And perhaps that
16 will help guide us in a more productive discussion.

17 SENIOR STAFF COUNSEL HEINRICH: Okay.

18 HEARING OFFICER DODUC: No pressure, Dana.

19 SENIOR STAFF COUNSEL HEINRICH: Well, I think
20 what you heard this morning from the witnesses who worked
21 on the FEIR is that it is a CEQA document. It evaluated
22 various public trust measures relative to base line
23 conditions.

24 And the purpose of the document was not to make
25 the Board's public trust determination for it. The

1 purpose of the document was not to evaluate whether the
2 measures that were analyzed in the document would protect
3 public trust resources as required under the law or keep
4 fish in good condition.

5 So there may have been some unfortunate word
6 choices in some of the responses to comment to the effect
7 that public trust resource would be protected under
8 various project alternatives. But what the consultants I
9 think attempted to clarify this morning was that they
10 meant that habitat conditions would be improved relative
11 to base line conditions. Not necessarily that public
12 trust resources would be adequately protected, which is
13 ultimately the issue that the Board will have to decide
14 based on the entire hearing record, not just the FEIR.

15 HEARING OFFICER DODUC: So with that, Dr. Trush
16 or Mr. Brumback, whichever one of you want to chime in, do
17 you have an opinion -- based on your experience and your
18 reading of the FEIR, do you have any concerns with the
19 findings in the FEIR of improvement from base line
20 condition?

21 DR. TRUSH: Yes.

22 HEARING OFFICER DODUC: Explain.

23 DR. TRUSH: Well, for one, there is the mixing of
24 residential versus trout versus the steelhead in some of
25 the results that are shown an increase, but it's not for

1 steelhead. So that gets very confusing.

2 But the adult return shows no trend at all for
3 the last ten years of ongoing operations. There is no
4 trend there at all.

5 HEARING OFFICER DODUC: Okay. Now that certainly
6 could be explored.

7 DR. TRUSH: As far as the smolt output, when you
8 look at the significance of that smolt output with respect
9 to the smolt to adult return curve, we're talking an
10 increase of just a couple of fish, which I could not
11 measure out in the field. Only a model can dream up a two
12 fish difference. So it's showing me that there is no
13 significant increase in smolt also.

14 Hilton Creek, which I did forget to mention --

15 HEARING OFFICER DODUC: I'm sorry. Wouldn't that
16 result -- regardless of the projects and the alternatives,
17 wouldn't that also show up in the base line as well?

18 DR. TRUSH: I'm not saying -- I'm not sure what
19 you said.

20 HEARING OFFICER DODUC: What I'm trying to
21 determine is, regardless of the 2000 Biological Opinion
22 and the new one that you all are working on, does the FEIR
23 correctly, adequately analyze the alternatives and the
24 impacts of the alternatives as compared to the base line
25 without the various projects at that time? And you all

1 have provided a lot of information, a lot of
2 documentation. But I have a feeling that all of that is
3 beyond the very narrow issue that I'm focusing on in terms
4 of making a determination on the FEIR.

5 MR. WILKINSON: I don't know that it will help
6 this particular colloquy that you're having, but I think
7 the witnesses that are going to be brought forward, Dr.
8 Hanson and Ms. Baldrige, will have some helpful testimony
9 in that regard. And I would ask them to keep your
10 question in mind when they testify.

11 HEARING OFFICER DODUC: Ms. Kraus.

12 MS. KRAUS: I was going to ask you to restate
13 that question. I couldn't hear it in its entirety. Or if
14 it could be read back.

15 HEARING OFFICER DODUC: Mr. Brumback, were you
16 going to say something?

17 MR. BRUMBACK: No, ma'am.

18 HEARING OFFICER DODUC: Let's do this. Mr.
19 Wilkinson, what additional line of questioning were you
20 thinking --

21 MR. WILKINSON: Of Mr. Brumback, none. I think
22 I'm done. I understand your concerns we're not helping
23 you in that regard. So I want to not continue that.

24 HEARING OFFICER DODUC: I appreciate that.

25 MR. WILKINSON: I would like some additional time

1 with Dr. Trush. I think I can finish Dr. Trush in 15
2 minutes total.

3 HEARING OFFICER DODUC: Please do so.

4 MR. WILKINSON: Thank you.

5 BY MR. WILKINSON:

6 Q Dr. Trush, in your revised testimony outline, you've
7 stated that -- and I'm quoting here -- "The flows
8 implemented under the 2000 BiOp will threaten the
9 continued survival of the Santa Ynez River O. mykiss, that
10 is, steelhead population." Do you recall that?

11 A Yes.

12 Q All right. Can you tell me, sir, what flows do you
13 believe are required from Bradbury Dam in terms of
14 releases in order to not threaten?

15 A I haven't made those calculations, no.

16 Q Can you tell me what the annual yield of the Cachuma
17 Project is?

18 A No, I can't.

19 Q Can you tell me approximately people are served with
20 water from the project?

21 A No, I can't.

22 Q Can you tell me approximately what the percentage of
23 the annual Cachuma yield is that is currently being
24 released for Lake Cachuma for steelhead purposes?

25 A No, I can't.

1 Q And you haven't performed any analysis of the flows
2 that you think might be required to --

3 A No. As I said, that's not what I was testifying on,
4 so it's difficult to do something I wasn't going to.

5 Q In the course of your work, Dr. Trush, have you talked
6 with anybody to determine whether alternative water
7 supplies are available to make up for any loss of Cachuma
8 yield that would be occasioned by the increase of
9 additional water for steelhead?

10 A If you're going to continue me asking me about what I
11 wasn't going to do, I did not.

12 Q No, sir. I'm asking what you've done.

13 A I did not do that.

14 Q Thank you.

15 Have you considered, Dr. Trush, in any way at all
16 in developing your testimony the impact of what you're
17 proposing in terms of potentially increased releases would
18 be on the people who rely on this project?

19 A No, I did not.

20 Q When I reviewed your Statement of Qualifications, Dr.
21 Trush, I did not see any reference to work on the Santa
22 Ynez River; is that right?

23 A That's true.

24 Q And I did not see in your Statement of Qualifications
25 any reference to work in California south of Mono Lake; is

1 that correct?

2 A I worked on the Santa Clara River.

3 Q Did work on the Santa Clara River. Thank you.

4 Have you done any field work at all in the Santa
5 Ynez River?

6 A No.

7 Q Can you tell me when you were first contacted by the
8 Environmental Defense Center with regard to this
9 proceeding?

10 A It was kind of two phases. I might be inaccurate.
11 But I think about this time last year.

12 Q About a year ago?

13 A Yes.

14 Q And prior to that contact, did you ever study Santa
15 Ynez River steelhead?

16 A I had made some comments along time ago for Jim
17 Edmonson.

18 Q Okay.

19 A And it was just as a student. And I knew Jim from
20 Mono Lake. And he asked me to take a look at some data.

21 Q That might have been in connection with the hearing
22 seven years or eight years ago?

23 A It might have very well been.

24 Q You're aware that the National Marine Fisheries
25 Service asserts jurisdiction over anadromous species, are

1 you?

2 A Yes.

3 Q And you're aware the National Marine Fisheries Service
4 has an interest in steelhead on the Santa Ynez River?

5 A Yes.

6 Q Do you know how long NMFS has played an active role
7 regarding steelhead issues on the river?

8 A I can't tell you how far back.

9 Q I don't want you to speculate.

10 I'd like to show you a letter that was sent in
11 December of 2007. And could we have copies distributed?
12 I'll wait until the copies are distributed.

13 HEARING OFFICER DODUC: As we're waiting, perhaps
14 you could describe what it is that's being distributed.

15 MR. WILKINSON: Sorry?

16 HEARING OFFICER DODUC: Could you describe what
17 it is that's being distributed?

18 MR. WILKINSON: It is a letter addressed to Diane
19 Riddle. It's a letter that was sent by Rodney McGuinness
20 to Ms. Riddle, the Division of Water Rights of the State
21 Board in December of 2007.

22 And Dr. Trush, I would like to direct your
23 attention to the third page. And second full paragraph
24 that's on that page has the number two and then a
25 parentheses. And I'm going to read it for the record. It

1 says, "In previous comments to the SWRCB and during the
2 2003 water rights hearing for this action, NMFS has
3 recommended that the 3(A)(2) flow regime be further
4 evaluated. We recognize, however, that this flow regime
5 has significant impacts on water supply and therefore are
6 not advocating it be analyzed or considered further by the
7 SWRCB at this time.

8 "We do, however, continue to support
9 implementation of the flows contained in NMFS 2000
10 Biological Opinion (BO) for the Cachuma Project. In this
11 regard, we are supportive of the 2000 Cachuma Project
12 Settlement Agreement, which serves to resolve
13 long-standing water rights concerns downstream of Bradbury
14 Dam and ensures implementation of flows contained in the
15 2000 BO."

16 Did I read that correctly, sir?

17 A Yes.

18 Q Thank you.

19 Now, Dr. Trush, based upon what I just read to
20 you -- and we'll have this marked as a Member Unit
21 exhibit -- is it your understanding that the regional
22 administrative was concerned about the water supply
23 impacts of a flow regime designated as (3)(A)(2)?

24 HEARING OFFICER DODUC: I think we have an
25 objection.

1 MS. MURRAY: I object. I object loudly and
2 clearly. This is not his testimony. He is not an
3 employee of NMFS. And this is beyond --

4 MS. KRAUS: He's testified to alternative
5 (3)(a)(2).

6 HEARING OFFICER DODUC: Sustained.

7 MR. WILKINSON: I was simply asking his
8 understanding of what was expressed.

9 HEARING OFFICER DODUC: Move on, please Mr.
10 Wilkinson or restate your question.

11 BY MR. WILKINSON:

12 Q When you worked with Mr. Edmonson of CalTrout, did you
13 help Mr. Edmonson develop a flow regime -- proposed flow
14 regime?

15 A I didn't say I worked for Mr. Edmonson. As a -- I
16 don't know what you call it -- a friend on the Mono Lake,
17 he said, "Take a look at some data and give me some
18 ideas." That's all I did. So I didn't discuss anything
19 other than -- didn't discuss it at all. I gave him some
20 ideas.

21 Q You weren't connected then with an earlier flow
22 regime?

23 A No. Not at all.

24 Q (3)(A)(2)?

25 A The first time I heard of that was from this CalTrout.

1 Q Thank you.

2 Dr. Trush, to address the concerns you have about
3 increasing the abundance of the steelhead, is it your view
4 that it's important to expand the geographic extent of
5 available fish habitat?

6 A Yes.

7 Q Expanding the habitat would help to minimize the risk
8 of catastrophic events?

9 A Yes.

10 Q And it would also help to accommodate the life history
11 of the species for habitat for spawning and more habitat
12 for rearing; is that true?

13 A Yes.

14 Q Are you familiar with any of the habitat improvement
15 projects that were undertaken by the Member Units?

16 A Yes. And including your earlier question on the 15
17 miles.

18 Q And would you agree with Ms. Baldrige's estimate of
19 that, as you understand?

20 A I don't have hands-on data. But again, I don't see
21 any reason why not.

22 Q Would you agree that it makes sense to prioritize the
23 potential habitat improvements that should be undertaken
24 in the watershed and to give priority to the areas where
25 there is the greatest positive impact that's likely to

1 occur.

2 A I have to think about that because the obvious answer
3 would seem yes. But steelhead life history, there is a
4 lot that happens in the steelhead's life history at
5 various parts of the watershed that may not seem as
6 important but can be more important. That was clear.

7 But when fish starts moving downstream, there's
8 probably much better things that you can do to improve
9 your adult return than opening up some of those miles.
10 Although, if I was a fish and working for the agency, I
11 would be out there making sure they could get up in the
12 tributaries. That's what fish do. In other words, to
13 make sure they those eggs get where they can in the
14 watershed.

15 But on the smaller streams and the intermittent
16 streams, they have a low potential for producing a lot of
17 large smolts. And by creating the environment downstream
18 in the main stem like it used to do, you get a much, much
19 bigger bang for your dollar by improving that environment
20 than opening up some miles upstream.

21 So maybe that's the trouble with Joe doctors;
22 they can't answer a simple question. But there are lots
23 of variables. And I'm always balancing that because the
24 life history of the steelhead is so plastic that to take
25 a -- in a somewhat simplistic view that, well, we'll just

1 open miles and everything can be better, not necessarily
2 true.

3 Q Is it your understanding that the actions that have
4 been taken by the Member Units have simply been aimed at
5 opening up the miles?

6 A Most of that has been for increasing spawning access.
7 And I applaud that. I think that's important.

8 Q You're aware of the flow chart also, are you not, in
9 the Biological Opinion?

10 A I'm aware of them. I didn't evaluate them.

11 Q Well, that's something that goes beyond simply opening
12 up miles, isn't it?

13 A Yes, it is.

14 Q Have you done any habitat mapping of the Santa Ynez
15 River?

16 A No.

17 Q From the work that you have done, are you aware of any
18 high value habitat downstream of Bradbury Dam that has
19 been ignored by Cachuma Member Units in their restoration?

20 A I don't have the familiarity. You're making me quite
21 aware that something has been missed. But looking at the
22 quality of the reports, my guess would be they've looked
23 for the good spots.

24 Q All right. I think that's all I have.

25 HEARING OFFICER DODUC: Thank you, Mr. Wilkinson.

1 Mr. Conant?

2 MR. CONANT: No. Mr. Wilkinson covered it all.

3 HEARING OFFICER DODUC: Ms. Dunn?

4 MS. DUNN: I agree.

5 HEARING OFFICER DODUC: Ms. Murray?

6 MS. AUFDEMBERGE: Excuse me, Chairman -- Hearing
7 Officer.

8 HEARING OFFICER DODUC: I'm sorry, yes.

9 MS. AUFDEMBERGE: This is Amy Aufdemberge for
10 Reclamation.

11 I spoke to you about this before, but I do have
12 to leave at 5:00, and I just wanted to make that clear for
13 the record. And I don't anticipate that we would be
14 missing out on any further. Have you stated what time
15 we'll be starting tomorrow?

16 HEARING OFFICER DODUC: We'll start at -- well,
17 I'm hoping to complete this panel today and hopefully get
18 a headway on the surrebuttal. Let's go for 9:00. I think
19 we can wrap it up within three hours tomorrow.

20 MS. AUFDEMBERGE: Thank you.

21 CROSS-EXAMINATION

22 MS. MURRAY: I'm going to go back and forth.

23 I wanted to first just ask you, Dr. Trush, one
24 question because I think it's an important one. Based on
25 your testimony at pages 7 and 8, is it correct to say that

1 it is your opinion that Hilton Creek is at or near its
2 carrying capacity for Southern California steelhead?

3 DR. TRUSH: Yes. With the flows that are being
4 released now.

5 MS. MURRAY: I think that's important in terms
6 of.

7 Mr. Brumback, I'll go quickly through these.
8 What is the goal or objective of the 2000 NMFS Biological
9 Opinion for the endangered Southern California steelhead?

10 MR. BRUMBACK: I'd rather state it as the purpose
11 of the 2000 Biological Opinion was to just that; render an
12 opinion from the agency in regard to the proposed action
13 on whether or not the Bureau of Reclamation had ensured
14 that their action was not going to result in jeopardy.

15 MS. MURRAY: Not going to result in jeopardy. If
16 your opinion would you say the purpose of that Biological
17 Opinion is to ensure the public trust fisheries resource
18 are maintained in good condition?

19 MR. BRUMBACK: The analysis under the Endangered
20 Species Act does not address public trust, only the
21 jeopardy standards.

22 MS. MURRAY: Okay. And there has been some
23 discussion about the take regarding monitoring. But it's
24 also your testimony that other than the take for
25 monitoring and trapping, there have been incidents of take

1 and exceedances of the take limits other than the
2 monitoring and trapping; is that correct?

3 MR. BRUMBACK: Correct.

4 MS. MURRAY: And in the FEIR, the Bureau of
5 Reclamation has submitted monitoring plans as required by
6 the 2000 Biological Opinion, specifically RPM 6, as it's
7 depicted in Table 2-4(a) of the FEIR?

8 MR. BRUMBACK: Yes. They have submitted reports.

9 MS. MURRAY: And has NMFS accepted all those
10 plans that have been submitted by the Bureau?

11 MR. BRUMBACK: NMFS has not accepted the
12 monitoring plan before the reports as meeting the intent
13 of the requirement in that term and condition.

14 MS. MURRAY: And RPM 6, the summary of it is in
15 Table 2-4(a). It says, "During the three years of water
16 rights releases, monitor steelhead downstream of Bradbury
17 to confirm they are not encouraged to move downstream;" is
18 that the monitoring we're referring to?

19 MR. BRUMBACK: That's correct.

20 MS. MURRAY: Dr. Trush, would you again please
21 turn to page eight of your testimony? And on this page,
22 you reference the 4,150 adults there. And it's my
23 understanding that this statement that NMFS has estimated
24 minimal viable population size for the Santa Ynez River is
25 an adult run of 4,150 adults. Is that correct?

1 DR. TRUSH: Yes.

2 MS. MURRAY: In your opinion, would the
3 requirements of the 2000 NMFS BO result in a
4 self-sustaining viable population of Southern California
5 steelhead in the Santa Ynez River?

6 DR. TRUSH: No.

7 MS. MURRAY: 4,150 adults. Okay. Thank you.

8 Based on your testimony and the data involved
9 included in your testimony, in your opinion, are there
10 sufficient numbers within each class size to prevent
11 extirpation of Southern California steelhead should a
12 catastrophic event take place?

13 DR. TRUSH: The reason why I'm pausing, I'm
14 trying to go through any catastrophes here. Steelhead's
15 so plastic, it's -- I have to take my hat off to them.
16 They can be repopulate as long as the catastrophe isn't
17 too broad of an area. In other words, I'm not trying to
18 hedge here. If you lost your population in all of Santa
19 Ynez and other populations are nearby, they do have the
20 ability to repopulate?

21 So it's a hard question for me to answer in an
22 objective way. If you ask me in my professional judgment,
23 which is a big mass and blur of experience and not a bunch
24 of papers that I can site, I think, yes, it would endanger
25 if you don't have a population that's of a minimum size.

1 MS. MURRAY: Okay. I'll take that.

2 I think this also was referred to by Mr.
3 Wilkinson. But based on your understanding of the number
4 of miles of habitat below Bradbury Dam and your general
5 population, general knowledge, do you believe there is
6 enough habitat available below the dam for all live stages
7 of Southern California steelhead to avoid extirpation?

8 DR. TRUSH: No.

9 MS. MURRAY: And Appendix G to the FEIR has some
10 data regarding the lower Santa Ynez River steelhead,
11 rainbow trout monitoring, and habitat restoration program
12 July 28th, 2010. Do you recall reading this appendix?

13 DR. TRUSH: No. I went through it, but precisely
14 recall, no.

15 MS. MURRAY: I'm going to let you -- just for the
16 purposes of Table 11 in Appendix G indicates not only
17 snorkel survey totals, but also water year types
18 indicating wet, wet, dry. I'm going to -- for purposes of
19 your recollection.

20 DR. TRUSH: Yes? You didn't give a question.

21 MS. MURRAY: So Table 11 of Appendix G indicates
22 snorkel surveys in water year types and Table 11
23 indicates -- is it correct to say that Table 11 indicates
24 that water year 2005, 2006, 2008, and 2010 were wet years?
25 Do you see that in the table?

1 DR. TRUSH: Yes, but I can't say that by looking
2 at this table.

3 And I made a point of not going to the snorkel
4 surveys, because it was mixing the juvenile and steelhead.
5 And trying to stay focused in my testimony, I dealt only
6 with what I was sure was steelhead data, which was the
7 adults and smolts.

8 MS. MURRAY: So let's use it just for the purpose
9 of the water year types for 2005, '06, and '08. And
10 assuming -- so page 2.0-40 of the FEIR references Appendix
11 G and the number of adult -- anadromous O. mykiss adults
12 capture 2005 to 2010. I believe that's the second page
13 that's tabbed. Peaked at 16 in 2008.

14 DR. TRUSH: Yes.

15 MR. WILKINSON: I'm going to object on the basis
16 of relevance. Dr. Trush indicated he apparently did not
17 rely on this table, nor did the data that's being referred
18 to.

19 I think this goes well beyond the narrow focus,
20 Ms. Doduc, that you tried to outline in your earlier
21 comments. I'm going to object on that basis.

22 HEARING OFFICER DODUC: Ms. Murray?

23 MS. MURRAY: It goes to steelhead abundance, the
24 16 adult steelhead that were peak in 2008. And he has
25 testified as to different sizes of adults -- or steelhead

1 and the abundance in general. And I have one more
2 question.

3 HEARING OFFICER DODUC: I'll go ahead and let her
4 continue.

5 MS. MURRAY: So looking at Appendix G, the table
6 there with 16 adults, and assuming the Table 11 of
7 Appendix G indicates 2005, '06, and '08 were wet years
8 with reservoir spills that resulted in flows above the
9 minimum flows in the BO, isn't it possible that that peak
10 of 16 anadromous Southern California steelhead adults were
11 positively responding to the higher spill flows instead of
12 the lower flows in the BO? Is it possible?

13 DR. TRUSH: It's possible, but there are other
14 explanations.

15 MS. MURRAY: I'm aware of the curve -- well,
16 actually you could probably say the curve of the 2006
17 going out and then returning.

18 DR. TRUSH: Yeah.

19 MS. MURRAY: That was another factor.

20 DR. TRUSH: That certainly showed up in the
21 graphic I had on the overhead.

22 MS. MURRAY: Do you think -- and you indicated
23 it's possible that the spills in the wet years contributed
24 to the high 16 -- high number of 16 adults coming back in
25 2008. Do you think it's likely?

1 DR. TRUSH: I can't say which one is more than 50
2 years, if that defines likely.

3 MS. MURRAY: I'll go with possible. That's it.

4 HEARING OFFICER DODUC: Thank you, Ms. Murray.

5 Does staff have questions for Dr. Trush and Mr.
6 Brumback?

7 Ms. Farewell?

8 ENVIRONMENTAL SCIENTIST FAREWELL: I have a
9 question for you, Mr. Brumback.

10 Do you have an estimate when the revised BO will
11 be completed?

12 MR. BRUMBACK: No, I do not.

13 ENVIRONMENTAL SCIENTIST FAREWELL: Okay. Thank
14 you.

15 HEARING OFFICER DODUC: Mr. Hytrek and Ms. Kraus,
16 are there discrete points upon which you would like
17 redirect?

18 MR. HYTREK: Briefly, ma'am. I have a couple of
19 discrete points.

20 HEARING OFFICER DODUC: Couple, two.

21 MR. HYTREK: Two, yes, ma'am.

22 HEARING OFFICER DODUC: Ms. Kraus?

23 MS. KRAUS: Have no redirect.

24 HEARING OFFICER DODUC: Thank you.

25 Mr. Hytrek, you may ask your two discrete points.

REDIRECT EXAMINATION

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BY MR. HYTREK:

Q Mr. Brumback, you heard mention of new protocols and adopted in an operations manual since the 2007 incident Alisal Bridge. Has NMFS analyzed the effects of the project on steelhead since that time?

A Not that I'm aware of. I have no documentation of that.

Q And you've heard discussion of some new tributary habitat improvement actions that have happened since failure to meet certain actions by the 2005 as described in the Biological Opinion. Has NMFS analyzed the effects of the project since those actions were completed?

A Could I ask you for clarification on that? Is it in regard to the Cachuma Project or those individual projects?

Q I'm sorry. Has NMFS analyzed the effects of the Cachuma Project on the steelhead since those improvement actions were completed?

A No.

Q That's all.

HEARING OFFICER DODUC: Ms. Aufdemberg has left. But does anyone left, Reclamation, wish to re-cross?

No.

Mr. O'Brien? Mr. Wilkinson? Anyone else?

1 At this point, I believe we have some exhibits to
2 move into the record, including one I believe Mr.
3 Wilkinson that you had as part of your cross?

4 MR. WILKINSON: I did, but I'm not sure that -- I
5 believe that was the letter to Diane Riddle. And I think
6 that would be Exhibit 290.

7 HEARING OFFICER DODUC: Okay.

8 MR. WILKINSON: Is that correct? Maybe Mr. Mona
9 tell us.

10 ENGINEER MONA: That's correct.

11 MS. KRAUS: I believe that we objected to the
12 question and you sustained it. So I would object to the
13 entry of this as an exhibit.

14 HEARING OFFICER DODUC: I'm trying to remember
15 now what was the question.

16 MS. KRAUS: This was a question related to
17 Alternative (3)(a)(2) and because that was outside the
18 scope of Dr. Trush's testimony.

19 DR. TRUSH: Whether I was evaluating flows or
20 not. I said that wasn't what I was doing.

21 MS. KRAUS: Both Ms. Murray and I objected at the
22 same time.

23 HEARING OFFICER DODUC: Was that the only
24 question, Mr. Wilkinson, that you used this document for?
25 I believe it might have been.

1 MR. WILKINSON: I had intended a whole lot of
2 questions I was going to use it for, but that was the only
3 question.

4 HEARING OFFICER DODUC: In that case, then the
5 objection is sustained. We will not move that one into
6 the record.

7 Mr. Hytrek, let's begin with you. Do you have
8 any to move into the record?

9 MR. HYTREK: Well, ma'am, I had asked a
10 clarifying question about whether we needed to move the
11 Statement of Qualification of Mr. Brumback into --

12 HEARING OFFICER DODUC: Let's go ahead and move
13 it since you've already it.

14 MR. HYTREK: We move it be admitted.

15 HEARING OFFICER DODUC: Any objections? Not
16 hearing any, it's so moved.

17 (Whereupon the above-referenced document was
18 admitted into evidence by the Hearing Officer.)

19 MR. HYTREK: That's all we had.

20 HEARING OFFICER DODUC: You do not wish to move
21 the outline of his testimony into the record?

22 MR. HYTREK: No ma'am.

23 HEARING OFFICER DODUC: It's already in the
24 record. Never mind. I moved that already.

25 Ms. Kraus?

1 MS. KRAUS: I would move to admit CalTrout
2 Exhibits 120 through 130 into the record.

3 HEARING OFFICER DODUC: Any objections?

4 MR. WILKINSON: Yes.

5 HEARING OFFICER DODUC: Mr. Wilkinson?

6 MR. WILKINSON: I'm looking for the exhibit
7 number.

8 HEARING OFFICER DODUC: Hold on. Don't talk
9 until you're at the microphone.

10 MR. WILKINSON: I'm sorry?

11 HEARING OFFICER DODUC: Microphone.

12 MR. WILKINSON: We have no objection to the
13 material that was part of the PowerPoint that was
14 discussed by Dr. Trush.

15 But the other exhibits that are being proposed
16 for admission are a whole series of studies that were not
17 the subject of any testimony by the witness. And on that
18 basis, we don't believe they are appropriate for admission
19 into the record.

20 HEARING OFFICER DODUC: Ms. Kraus?

21 MS. KRAUS: The other exhibits are the studies
22 that he relied on to develop his testimony. They were
23 identified and provided to those who requested them,
24 including Mr. Wilkinson, almost two weeks ago. And they
25 include the Cachuma agency's own data. So I would again

1 move to have them admitted into evidence.

2 MR. WILKINSON: Well, the exhibits included as
3 well a whole series of papers that were not the subject --
4 a technical memorandum, Bureau of Reclamation -- I'm
5 sorry -- Department of Interior Bureau of Reclamation
6 letters, a paper on steelhead growth, Alameda Creek --

7 HEARING OFFICER DODUC: Okay. Let's do this, Mr.
8 Wilkinson. Ms. Kraus, walk me through 120. Is CT 120 is
9 the testimony itself?

10 MS. KRAUS: Summary of his testimony.

11 HEARING OFFICER DODUC: 21 is --

12 MS. KRAUS: Statement of Qualification.

13 HEARING OFFICER DODUC: 122 is the PowerPoint?

14 MS. KRAUS: Correct.

15 HEARING OFFICER DODUC: 123, explain to me how
16 that is used specifically.

17 DR. TRUSH: The Atkinson, et al, has a copy of
18 the smolt to adult return curve in there and also
19 information regarding using the 150 and 175 millimeter
20 smolt sizes.

21 HEARING OFFICER DODUC: But it is simply a study
22 that you relied upon?

23 DR. TRUSH: Yes.

24 HEARING OFFICER DODUC: What about 124?

25 DR. TRUSH: The same thing as well, to show the

1 effect of growing downstream was highly important in
2 Southern California streams.

3 HEARING OFFICER DODUC: 125 same?

4 DR. TRUSH: Ditto.

5 HEARING OFFICER DODUC: 126, 127, 128, 129.

6 DR. TRUSH: Those are the annual --

7 MS. KRAUS: The annual monitoring reports from
8 the Cachuma agencies. One from 2008. One from 2009.
9 One -- CalTrout 128 is et al.

10 HEARING OFFICER DODUC: Okay. But they're simply
11 studies and information that you've used in preparing your
12 testimony, which we will have into the record.

13 With that, I will sustain the objection and allow
14 only CT 120, 121, and 122.

15 (Whereupon CT Exhibits 120-122 were admitted into
16 evidence by the Hearing Officer.)

17 MR. WILKINSON: As to 120, I thank you for the
18 ruling. But as to 120, we did not see this before today.
19 It seems to be cumulative with his testimony. So -- and
20 it's not his testimony outline. So I'm not quite sure
21 what this document is.

22 MS. KRAUS: It's a summary of his oral testimony.

23 HEARING OFFICER DODUC: Your objection is noted
24 but overruled. We'll include 120.

25 MR. WILKINSON: Thank you.

1 MS. MURRAY: Can I just ask the basis we found --

2 HEARING OFFICER DODUC: Ms. Murray, come up to
3 the microphone.

4 MS. MURRAY: The basis for the Cachuma agency's
5 2008 and 2009 monitoring reports, I think they're
6 important information in here. The reason --

7 HEARING OFFICER DODUC: I'm sorry. What are you
8 talking about?

9 MS. MURRAY: So CalTrout 126 and 127, it's my
10 understanding you're not allowing those into the record?

11 HEARING OFFICER DODUC: Correct.

12 MS. MURRAY: And the reason for that?

13 HEARING OFFICER DODUC: We do not need to have
14 the studies in the record as long as we have the
15 testimony.

16 DR. TRUSH: Can I interject? Almost the entire
17 PowerPoint, those were taken from those two documents.

18 HEARING OFFICER DODUC: And the information is in
19 the PowerPoint.

20 DR. TRUSH: Okay.

21 HEARING OFFICER DODUC: And the PowerPoint is
22 being submitted into the record.

23 MS. MURRAY: Okay.

24 HEARING OFFICER DODUC: All right. Thank you.
25 Let's ask now since we're moving quickly ahead,

1 panel number one, Hanson and Baldrige. What I would like
2 to do is get through your surrebuttal testimony today and
3 then start off tomorrow with the cross.

4 MR. WILKINSON: I think that's doable.

5 HEARING OFFICER DODUC: It should be since you
6 only have 30 minutes.

7 MR. WILKINSON: We will use our time as wisely
8 also possible.

9 I believe we have a PowerPoint for Ms. Baldrige.

10 HEARING OFFICER DODUC: Do you have any handouts
11 of this?

12 MR. WILKINSON: Here we go. I think you will
13 have the PowerPoints up there that we'll be using. But I
14 have a few preliminary questions for Ms. Baldrige.

15 DIRECT EXAMINATION

16 BY MR. WILKINSON:

17 Q Ms. Baldrige, you are currently employed as a
18 fisheries biologist with Cardno Entrix; is that correct?

19 A That's correct.

20 Q And did you previously testify as an expert witness in
21 the 2003 State Board hearings?

22 A I did.

23 Q For approximately how many years have you been
24 involved as a fisheries biologist in steelhead issues
25 relating to the Santa Ynez River?

1 A I started working on steelhead in 1993.

2 Q So almost 20 years?

3 A Yeah.

4 Q Was your Statement of Qualifications previously
5 provided to the Board as an exhibit in these proceedings?

6 A Yes, it was.

7 Q And do you have an outline of your testimony?

8 A I do.

9 Q We will mark that as our next in order.

10 HEARING OFFICER DODUC: Have all the parties
11 received copies?

12 MR. WILKINSON: Yes, they have.

13 BY MR. WILKINSON:

14 Q Ms. Baldrige, you have a copy of your outline of
15 testimony. Is that an accurate copy to your knowledge?

16 A Yes, it is.

17 Q Did you prepare that outline yourself?

18 A I did with the assistance of my staff, who authored at
19 my direction.

20 Q Would you please summarize for the Hearing Officer the
21 testimony presented in your outline?

22 A Sure. Thank you very much.

23 The testimony that I have relates to the FEIR and
24 how it used the underlying biological information that has
25 been developed in the Santa Ynez since 1993.

1 My testimony is that the FEIR relies on much more
2 than the 2000 Biological Opinion. And it relies on the
3 Santa Ynez -- lower Santa Ynez River Management Plan,
4 which was the precursor to the Biological Opinion. In the
5 Board action -- we started working on this from 94-5 we
6 did a -- excuse me -- from 94-5 -- Board Order 94-5 asked
7 us to a collect additional information in the basin for
8 the Board to be able to address the public trust issues.
9 So we began in earnest preparing Santa Ynez River Fisheries
10 Management Plan.

11 We did that through a collaborative process where
12 we had the Santa Ynez River Technical Advisory Committee
13 was operational and Department of Fish and Game chaired
14 that Committee and the Bio Subcommittee. We had involved
15 from National Marine Fisheries Service, many of the other
16 federal agencies, Fish and Wildlife Service, the Forest
17 Service. We had additional involvement from some of
18 the -- all of the Cachuma Member Units participated, City
19 of Solvang, Lompoc, as well as land owners and the Santa
20 Barbara Fish and Wildlife Commission, CalTrout, Urban
21 Creeks Council. They all participated in the development
22 of the Fisheries Management Plan.

23 That plan includes all -- the original plan was
24 done in 1999 and included almost all of the actions that
25 ended up in the biological assessment and then were

1 reflected later in the Biological Opinion, with the
2 exception of the fish passage supplementation flows.
3 Those flows were developed in consultation with National
4 Marine Fisheries Service during the time of preparation of
5 the Biological Opinion. And I was working for the
6 Reclamation at that time working with NMFS staff and Dr.
7 Hanson on developing the final proposed action for the
8 Biological Assessment and Biological Opinion.

9 So it is my testimony that the Biological Opinion
10 has roots in the public trust assignment that we got from
11 the State Board.

12 There has been some testimony that because of
13 re-consultation, the State Board should not rely on the
14 information in the Biological Opinion. I disagree. I
15 think that the Biological Opinion has been implemented.
16 There has been some issues where things have been finished
17 late or we weren't able to accomplish what we had set out
18 to accomplish in several instances. But I don't believe
19 that that really causes the FEIR to have any flaws.

20 The tributary projects were included in the
21 Fisheries Management Plan, and they were we were moving
22 forward diligently to implement those. But because of
23 litigation and some changes in project design that came
24 from NMFS and Fish and Game over the requirements for fish
25 passage as well as the unavailability of grant funding had

1 slowed that program.

2 We found there were two projects; one because of
3 litigation and another because we discovered it had a
4 fairly low habitat value and high cost we're not going to
5 be able to be constructed. And we started working
6 diligently on finding other opportunities within Santa
7 Ynez River to be able to fulfill the obligation that we
8 set forth in the Fisheries Management Plan and was
9 reflected in the Biological Opinion.

10 And I think it's been represented previously that
11 we do have -- we committed to 15 miles of habitat. We've
12 currently done 13.9. We have plans to complete the 1.1.

13 And the most recent barriers that we did on
14 Quiota Creek -- and let me spell that for you.
15 Q-u-i-o-t-a. We removed the two barriers that were full
16 passage barriers. The ones that we have remaining are
17 only partial barriers. So the mileage is assessable in
18 Quiota Creek under certain flows. But we did intend to
19 finish those projects and make it accessible under all
20 flows.

21 The graph I have up there shows the cumulative
22 stream miles that we worked on. You can see there is a
23 small amount that we need to go forth to complete that.

24 The other criticism that we've had -- and go to
25 the next slide. Thank you.

1 The other criticism that we have of the
2 compliance with the Biological Opinion is the exceedance
3 of incidental take. And there has been, as has been
4 testified previously, the amount of incidental take has
5 been exceeded. And we did start exceeding that very early
6 on in the program.

7 This is a graph that shows the downstream
8 captures from the trapping program. And I started it in
9 1995. And this is for Hilton Creek. And then I moved --
10 I divided it into the smolts, the juveniles, which are
11 less than 150, and then what we call adults, which are
12 greater than 150. But some of those fish greater than 150
13 may end up actually being smolts as well. It's difficult
14 to tell when it's high drainage in Hilton Creek whether
15 fish leaving that drainage would be able to take on
16 characteristics of smolting or not. So I just clarified
17 the record in showing all of the different age classes of
18 fish, and Dr. Trush talked about several of those.

19 Q Ms. Baldrige, are you saying that at 150 centimeters
20 in length -- millimeters in length it's difficult, if not
21 impossible, to tell whether you're dealing with resident
22 trout or a steelhead?

23 A Yes. Even a fish -- we have Southern California
24 streams are known for producing smolts up to ten inches.
25 So it's very variable.

1 And I do agree with Dr. Trush the larger the
2 fish, the greater the survival rate and the more
3 contribution it would have to the population returning.
4 But it's very difficult to tell when you're looking at a
5 fish is it a smolt or not, particularly when it's high up
6 in the basin.

7 The capture and handling of the fish has exceeded
8 the take limits. But there is a fairly sizable jump, as
9 you can see in 2006, where we start exceeding. So we were
10 capturing about 500 fish then, and we continue to capture
11 at that rate until we have the decline that we're seeing
12 in 2010 and 2011 when fewer fish that we're capturing in
13 the traps then.

14 The total number of juveniles that we have
15 captured through the years adding up all of them in not
16 only in Hilton Creek but in the other trapping program
17 would be about 3,490. About 719 fish that are classified
18 as adults.

19 Q Ms. Baldrige, do you have any thoughts as to why the
20 trapping numbers have declined in 2010 and 2011?

21 A The 2010 and 2011 decline, it's related to the fish
22 that -- well, in those years, we are -- it's wet years,
23 and I think the we have the traps out a little bit. It's
24 hard to say from the trapping information exactly what's
25 going on with those. I think the question -- what might

1 be better illustrated when we get to the standing crop
2 information associated with Dr. Hanson's testimony.

3 I guess in my testimony I also have the steelhead
4 mortalities associated with the trapping program. And I
5 show that we have 16 juvenile mortalities and we have
6 eight adult mortalities, which gives us the number of 24
7 mortalities total for trapping program.

8 And I think I guess the other thing is there was
9 a number that was crossed out that we were about one
10 percent -- for juveniles were less than one percent, were
11 .45 percent and for adults were 1.1 percent. So I think
12 it's a very successful trapping program. I don't think
13 the trapping program, although it does exceed take, I
14 don't think take on the adults -- we had a couple times
15 when we've had more mortalities than adults. I don't
16 think it's adversely effecting the population.

17 I guess the other thing, I'll say we did have an
18 accidental mortality of three fish five years ago. I
19 don't think that should effect the conclusions in the EIR.
20 As it was alluded to earlier, there was a very dry year
21 and there was some difficulty in trying to figure out how
22 to manage the system to meet that reclamation release
23 through the flow. And we figured out they were going
24 to -- weren't going to be able to recover the amount of
25 flow at Alisal. There were 70 CFS to try to bring it up.

1 Unfortunately, that flow did not reach the pool
2 where the fish were before there was a mortality. But as
3 alluded to, that incident, like many others, where we find
4 that we aren't able to manage a system effectively, there
5 was a remedial measure put in place. So we're trying to
6 ensure that from time from now forward, we'll be able to
7 meet or exceed the target flows.

8 I guess I should say something about the target
9 flows. When we were negotiating and working on the
10 Biological Opinion with National Marine Fisheries Service
11 and getting the final things together, we agreed the
12 target flows were targets and the flows could fall below
13 those for short time periods for exceed them for short
14 time periods. The amount of time that the flow was not
15 met at Alisal in 2007 would definitely be a violation of
16 the terms of the Biological Opinion.

17 But short time frames were not considered a
18 violation of that because they are target flows. And it's
19 a long way from the dam to Alisal, difficult to manage.
20 We have a lot of evapotranspiration that goes on in that
21 reach. We have some other pumping and many reasons why
22 the flow might be slightly less or slightly more than what
23 the reclamation target was.

24 I guess I would also like to say that fish
25 passage count, in my review of the record, has been

1 managed exactly as it was described in the proposed --
2 revised proposed action for the Biological Opinion and the
3 modifications. And I can see Darren and I are going to
4 have some conversations as we move forward with
5 consultation.

6 Darren was correct in his characterization -- or
7 Mr. Brumback was correct in his characterization that we
8 target 25 CFS as the instigator for making the releases.
9 And we want to provide 14 days of continuous flow above 25
10 CFS.

11 We also follow the regression of flow from a
12 station above the Santa Ynez so that the dam does not
13 interfere with how long the flow is provided or what the
14 flows would be.

15 We did an extensive analysis. In fact, it was
16 done by Al Isheretti (phonetic) during the time frame of
17 developing the Biological Opinion on what the target
18 flows, how the passage flows could be used and how far the
19 amount would go. And he used the very long period of
20 about 50 years of record that came up with the numbers
21 that we had, which was the expected range of release was
22 300 CFS to 1800 acre feet per storm event. We have had
23 only two years where we've been able to implement the
24 passage flows.

25 In fact, could we go -- if we could have -- can

1 we go forward in the PowerPoint presentation? I've been
2 ignoring it. I've got control of my own destiny here.
3 And I'll skip those and go back to these.

4 Here's an example of flow that we have for the
5 passage flow. You can see that we hit the 25 CFS here.
6 We started the release of the passage flow. Comes up
7 here. It doesn't reach 150, because 150 is an
8 instantaneous flow and these are average daily flows. But
9 we release water to get it up to 150, and then we begin to
10 follow the recession curve down to get down to this part.
11 So you can see that these spikes were here. So this is
12 the part where we're providing the passage flow, and it
13 exceeds 25 CFS. This part is to help fish move into the
14 basin. So it's an attraction flow for them.

15 So this would have been the project operation
16 without the passage flow. That's the flow that the fish
17 would have seen. This is what we were able to provide
18 using the passage supplementation account.

19 As I mentioned, we've been in a really wet period
20 which has been interesting. We've had spill years in
21 January '06, '08, '09 and '11. When we have the spill
22 year's when we fill up the passage count and then we use
23 the passage count in the next year that is a normal year.
24 For spill years, we don't supplement passage in spill
25 years according to the Biological Opinion.

1 So I guess in conclusion, I think the passage
2 flows have been functioning as they were portrayed in the
3 Biological Opinion.

4 I guess the other thing that I would say is when
5 you look back from back to 1990, here's the '96 graph, you
6 go back to my captures in '95, in 1993, the river was dry.
7 Before the State Board began, summertime flows were zero.
8 Hilton Creek dried up every year. There was a very
9 different structured river out there. The rewatering of
10 the upper part of the Santa Ynez and Hilton Creek really
11 came out of the Fisheries Management Plan. And that
12 started -- we had some preliminary water that we used
13 early on in the system and not in '95. We started making
14 some releases from the water that we've been allocated for
15 studies. In '97, we were able to do a little more water
16 in the stream.

17 By '99, we had a Hilton Creek watering system in
18 place that also allowed us to put water into upper Santa
19 Ynez. And the Biological Opinion came along in 2000
20 really re-structured some of those releases. And we had a
21 triggering event that happened about 2005 where we went to
22 the longer term flows, which really helps support and
23 sustain the habitat in the 154 reach, above 154, and
24 Hilton Creek. In the Fisheries Management Plan, those
25 were the targeted sections where we felt we had the best

1 habitat available for fish. So that was where part of our
2 emphasis has been.

3 So I see -- in these numbers, I see an increase
4 in fish. This is the upstream steelhead trout that were
5 being captured. And you can see if you look at '96,
6 Hilton Creek is the red line. The main stem is the blue
7 line. And Salsapuedes is the green line. Our actions
8 affect the red line. There hasn't been very much trapping
9 down in the main stem, although my graph shows it was
10 zero. It really started in 2006 was the first year that
11 we were able to put the traps in. We can't trap
12 consistently there because when the flows get to be too
13 high, the traps come out.

14 In 2007 was a very dry year. It's kind of an
15 interesting year. There weren't really very many fish
16 moving in the Santa Ynez in the dry year, which is kind of
17 expected. There weren't a lot flow keys for them. You
18 can see we had good populations in both. In fact, if you
19 look back, you can see that in Hilton Creek 2007 is when
20 we caught the most fish. We trapped every single day
21 because we didn't have any flows that would prevent us.
22 So when you correct the number of fish you catch by the
23 number of days you trap, that's kind of what this graph,
24 catch the efforts, and it levelizes the effort through
25 time.

1 And you can see that we have had an up-tick in
2 captured fish in Hilton Creek. We don't really have the
3 opportunity to sample our main reach in the 154 reach
4 because there is a private property owner there that has
5 refused access to us. So we have very limited
6 opportunities to take a look at the 154 reach, which was
7 the primary management zone.

8 Let's see. I guess I have one more graph more
9 that I would like to share with you. I think that the
10 Reclamation and the Member Units have done a good job of
11 implementing the program. And they've been given --
12 wherever they've had a choice, they've chosen the fish.
13 And for example, in the 2007 example that we looked at
14 Alisal where we had an evaluation of in-stream flow, they
15 immediately set out in developing a protocol that would
16 ensure that that didn't happen again. And the way that
17 they did that was to over-release. So that water comes
18 directly out of the yield.

19 We had a situation where we were unable to get
20 the surcharge gates in time where we actually expected to
21 have them. Those were going to trigger the long-term flow
22 and the start passage supplementation program. Well, in
23 2004, the Member Units wrote a letter committing that the
24 next year, even if the gates weren't in place, they would
25 implement the long-term flows. And that water would come

1 out of yield.

2 So I think there's been lots of opportunities for
3 the Cachuma members and Reclamation to say, "Well, we
4 couldn't do it." But they've always found a way to make
5 it work. And they always found a way to make the fish
6 whole.

7 This is a cumulative expenditures chart. This
8 shows all the work they've done out there. And much of it
9 the tributary projects have been done in partnership with
10 Department of Fish and Game and the grant funding
11 available through their programs. But you can see once
12 again we've been making great strides in making sure we're
13 meeting our obligations. And to date, they've spent
14 collectively about \$20 million in the Santa Ynez River
15 implementing these programs.

16 Q Ms. Baldrige, considering the question that was raised
17 or the statement made by the Hearing Officer about
18 analyzing changes against the base line, do you believe
19 there has been a measurable increase in the habitat miles
20 that have been put up?

21 A Yes. I believe there's been a measurable increase not
22 only in the aquatic habitat but in the riparian habitat
23 that's growing along the river.

24 Q Has there been a measurable increase in the base line
25 of the numbers of fish that have been trapped?

1 A Yes, I believe there has been an increase in the
2 number of fish. I think that's one of the reasons why we
3 have such high exceedances of our take for the trapping
4 program.

5 Q And measured against the base line, do you believe the
6 data will also show there has been a measurable increase
7 in the abundance of steelhead?

8 A Yes.

9 Q O. mykiss?

10 A O. mykiss and steelhead. I think there's some
11 confusion about O. mykiss and steelhead. And I think the,
12 you know, recent recovery plan recognizes that there is a
13 resident form of O. mykiss that's in the streams and does
14 contribute to the anadromous population. I think it's
15 difficult to try to take a population where -- I was
16 explaining it to my daughter one time. I said, this
17 little fish goes to the ocean and this little fish stays
18 home. They're both from the same red. And that's really
19 kind of how O. mykiss is. They're very plastic, which is
20 why they do so well in adverse circumstances. And when
21 you look at the conditions that the O. mykiss and the
22 Santa Ynez have weathered since the project was built, it
23 was pretty remarkable that we have the fish there that we
24 do.

25 MR. WILKINSON: Thank you.

1 HEARING OFFICER DODUC: Mr. Wilkinson, before you
2 continue, were you intending to submit Ms. Baldrige's
3 PowerPoint as a separate exhibit?

4 MR. WILKINSON: Yes, we were.

5 HEARING OFFICER DODUC: Okay. We'll mark that as
6 our next in order. We've got Ms. Baldrige's testimony
7 outline and her PowerPoint. So yes, we will submit both
8 of those.

9 HEARING OFFICER DODUC: I ask because this last
10 graphic was not in the testimony.

11 MS. MURRAY: Last two.

12 MR. WILKINSON: Most of the PowerPoint exhibits
13 are within the outline. But you're right, the last graph
14 was not in the outline. And we will submit that as a
15 separate exhibit as well.

16 MS. BALDRIGE: There were two others that I
17 showed. Let me go back to those -- that were not in my
18 original outline. Those were the two captured efforts
19 graphs for the downstream and upstream. Those were not
20 also included.

21 MR. WILKINSON: It would be I believe 291, 292,
22 and 293. It would be the graph that you see on the screen
23 now. An additional graph that was similar to that. And
24 then the cost per the cumulative. Otherwise, the elements
25 of the PowerPoints are already in the outline.

1 BY MR. WILKINSON:

2 Q Dr. Hanson, the time is getting short, so I would like
3 to move to your testimony. You've also testified
4 previously in this proceeding, have you not?

5 A Yes, I have.

6 Q Approximately how many years have you been involved in
7 steelhead issues on the Santa Ynez River?

8 A I began working on the Santa Ynez in 1993. So
9 approximately 20 years.

10 Q Were you also involved in the development of the 2000
11 Biological Opinion resulting in it issued by the National
12 Marine Fisheries Service?

13 A I assisted in both the Biological Assessment as well
14 as participated in the Section 7 consultation that led to
15 the Biological Opinion.

16 Q Were you involved as well in the development of the
17 Fish Management Plan for the lower Santa Ynez River?

18 A Yes, I was.

19 Q Were you also involved in the development of the
20 Memorandum of Understanding in 1993 and 1994 that were
21 developed to initiate protection measures for the
22 steelhead?

23 A Yes, I was.

24 Q Did you as part of your preparation for the hearing
25 today review the outlines and testimony prepared by Dr.

1 Trush and Mr. Brumback?

2 A Yes, I did.

3 Q And were you here when they presented their testimony
4 today?

5 A Yes, I was.

6 Q Now, as a result of the review of their outlines, did
7 you prepare your own outline of testimony for this
8 proceeding?

9 A Yes, I did.

10 Q And do you have a copy of that in front of you?

11 A I do.

12 Q Is that a true and correct copy?

13 A Yes, it is.

14 Q And did you prepare that yourself?

15 A I prepared this with the assistance from Ms. Baldrige.

16 Q Dr. Hanson, would you please summarize your testimony?

17 A I will. Given the late hour, I'll be brief.

18 I do want to focus -- originally, I was going to
19 focus on specific comments with regard to Dr. Trush and
20 Mr. Brumback. But I'm going to focus more on your
21 question of what has been the chronology and how have
22 things changed on the river with respect to steelhead
23 populations and habitat that have been the result of these
24 various actions.

25 And beginning in 1993, a group of us started

1 looking at steelhead and resident trout on the Santa Ynez
2 River. It was a wet year. We had evidence that there
3 were adult steelhead that had returned to the river. And
4 we began a series of collaborative investigations looking
5 at limiting factors, looking at opportunities, developing
6 a strategy for how best to move forward. And that
7 strategy ultimately developed into what we call a Fish
8 Management Plan. And Ms. Baldrige has briefly talked
9 about that.

10 The Fish Management Plan then became the core in
11 terms of identifying the various actions that would be
12 taken to protect and improve habitat conditions for
13 steelhead and resident trout on the lower Santa Ynez
14 River. That Fish Management Plan also became the core
15 element of what was then the Biological Assessment. It
16 became then the core elements of the proposed project that
17 was the subject of the Section 7 consultation of the
18 Biological Opinion. And it is the core element of the
19 FEIR alternatives. So it sets out a long-term strategy
20 for how best to manage and improve conditions on the Santa
21 Ynez River for steelhead.

22 And in developing that plan, we focus not just on
23 flows. In-stream flows were one key element. But we had
24 a variety of other aspects that we wanted to look at as
25 well:

1 Expansion of access to suitable habitats within
2 the main system and key tributaries.

3 The removal of passage barriers and impediments
4 to allow these fish better migration.

5 Expansion of habitat in Hilton Creek through the
6 supplementation of water supplies to take a stream that
7 historically prior to this project dried up in the summer
8 and is now a perennial stream with cold water supplied by
9 reservoir storage.

10 We have in-stream flows that are released from
11 the Cachuma Project to support spawning and juvenile
12 rearing in the main stem river as well as Hilton Creek.

13 We have a flow supplementation to facilitate fish
14 passage, both upstream migration of adults and attraction
15 as well as downstream migration of juveniles. We have an
16 extensive monitoring program that's been alluded to as
17 part of these proceedings.

18 As a result of those actions, we've observed an
19 increase in the access of what I'll call O. mykiss. Dr.
20 Trush focused on the smolt stage. Ms. Baldrige focused on
21 the trapping.

22 O. mykiss is that plastic life history of
23 steelhead rainbow trout that includes both resident fish
24 as well as the anadromous life history. They're
25 indistinguishable in terms of physically being able to

1 look at a fish in the river at various times of the year
2 and say this is a steelhead and that's not. That's
3 particularly problematic in the juvenile stage.

4 So in the analysis that I'm going to talk about,
5 I did use the snorkel survey data, visual observations
6 that are made each fall. And these have been expanded to
7 include areas that were not sampled but were
8 representative of areas that were. And so this is a
9 standing crop estimate for each of the years going back to
10 1995. This is Figure 1 from my testimony.

11 And going to your question, you can look at 1995,
12 1999. Those are the years prior to really implementing
13 aggressive measures on the river to improve habitat
14 conditions. Keeping in mind, these are both resident and
15 anadromous life history forms, but you can see that there
16 has been substantial increase from that base line
17 condition that is reflected in this ongoing monitoring.
18 We started out with roughly 500 fish. Now the latest data
19 is in the range from about 4,000 to almost 14,000 fish as
20 a standing stock estimate in the fall.

21 I agree with Dr. Trush in terms of the smolt to
22 adult returns. Steelhead that entered the ocean have high
23 mortality rates. The size of the steelhead smolts at the
24 time of ocean entry is an important facet. We considered
25 those factors when we were designing the program to

1 provide habitat diversity to allow for juvenile rearing
2 over a larger geographic area, to allow spatial diversity
3 of that habitat, to provide opportunities for the
4 steelhead and the rainbow trout to utilize different parts
5 of the watershed downstream of the dam for different life
6 history attributes.

7 And those various actions I think are paying
8 dividends. They're paying dividends in terms of
9 increasing access to suitable habitat. They're paying
10 dividends in terms of observations of increased migration,
11 successful reproduction in variety of these different
12 habitats, juvenile growth and survival, and these
13 estimates of sanding crop over time.

14 I do agree with the earlier testimony that there
15 have been two events in which resident or anadromous
16 steelhead were lost. We had mortalities, three that
17 occurred down in the Alisal reach. And those have been
18 the subject of not only intense monitoring, but also the
19 refinement of our management and our operational
20 strategies to avoid those kind of circumstances in the
21 future. And the monitoring data is proving that we have
22 been successful in subsequently avoiding those kinds of
23 operations.

24 When you look at these kind of data, they reflect
25 a variety of factors. They reflect the factors that we've

1 talked about that are part of the Fish Management Plan,
2 part of the implementation of the Biological Opinion. But
3 they also reflect other factors. They reflect factors
4 like natural hydrologic conditions, predation, ocean
5 conditions. So there are a variety of influences that all
6 effect the population dynamics of these fish that are
7 inhabiting the Santa Ynez River. We're in the
8 relatively early stages of rebuilding this run, rebuilding
9 these habitats.

10 And as part of that early stage, it's not
11 unexpected that we would have relatively low returns.
12 That's something that you would expect. But the trends
13 that we're seeing I think are promising, the trends and
14 habitat, the trends in abundance, the trends in trapping
15 are all consistent with the kind of conservation strategy
16 and the sorts of milestone objectives that we were looking
17 for to help us track progress as this program was being
18 implemented.

19 That's not to say that we have achieved recovery
20 by any stretch of the imagination. Dr. Trush talked about
21 the viable salmonid population. When we were putting
22 together our strategy, we gave consideration to
23 conservation planning principles, the PCEs, or primary
24 constituent elements were considered as part of our
25 development. They include freshwater spawning, freshwater

1 rearing, migration corridors. We gave consideration to
2 the lagoon. We looked at the viable salmonid population
3 goals of abundance, productivity, spatial structure, and
4 diversity. Those were all elements that we gave
5 consideration to as we collaboratively develop this Fish
6 Management Plan.

7 Ms. Baldrige is correct; that development
8 occurred in a very collaborative, very open process. We
9 had NMFS, Fish and Game, CalTrout, the Bureau, State Board
10 staff attended the meetings. It was a good process. And
11 I think it led to a good product in terms of developing a
12 robust strategy and a robust plan that we could move
13 forward with. Not just to meet a minimum standard, but to
14 really contribute to the public trust and to contribute to
15 the Santa Ynez to restoring a system that can in fact
16 contribute to recovery of the Southern California
17 steelhead.

18 HEARING OFFICER DODUC: Thank you, Dr. Hanson.
19 We have your written testimony. And your 30 minutes are
20 up. So were there any last comments you wanted to make?

21 DR. HANSON: No, I think I'll conclude on that.

22 MR. WILKINSON: Thank you.

23 HEARING OFFICER DODUC: Any additional items we
24 need to cover today?

25 All right. Thank you, all. We'll see you back

1 here at 9:00. We'll begin with cross-examination by the
2 Bureau of Reclamation, if they have any. If not, we'll
3 begin with Mr. O'Brien.

4 (Whereupon the hearing recessed at 5:54 PM)

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