



1 APPEARANCES

2 CALIFORNIA WATER RESOURCES BOARD

3 Division of Water Rights

4 Board Members Present:

5 Tam Doduc, Co-Hearing Officer  
6 Felicia Marcus, Chair & Co-Hearing Officer  
7 Dorene D'Adamo, Board Member

8 Staff Present:

9 Dana Heinrich, Senior Staff Attorney  
10 Andrew Deeringer, Senior Staff Attorney  
11 Conny Mitterhofer, Supervising Water Resource Control  
12 Engineer  
13 Jean McCue, Water Resources Control Engineer  
14 Hwaseong Jin

15

16 PART 2

17 For Petitioners:

18 California Department of Water Resources:

19 James (Tripp) Mizell  
20 Jolie-Anne Ansley

21

22 The U.S. Department of the Interior:

23

24 Amy L. Aufdenberge, Esq.

25

26 INTERESTED PARTIES:

27 For California Sportfishing Protection Alliance (CSPA),  
28 California Water Impact Network (C-WIN), and  
29 AquAlliance:

30 Michael Jackson

31 For State Water Contractors:

32 Stefanie Morris

33

1 APPEARANCES (Continued)

2 INTERESTED PARTIES (Continued):

3 For California Water Research:

4 Deirdre Des Jardins

5 For Pacific Coast Federation of Fishermen's  
Associations and Institute for Fisheries Resources:

6 Tom Stokely

7  
8 For The Environmental Justice Coalition for Water,  
9 Islands, Inc., Islands, Inc., Local Agencies of the  
10 North Delta, Bogle Vineyards/Delta Watershed Landowner  
11 Coalition, Diablo Vineyards and Brad Lange/Delta  
12 Watershed Landowner Coalition, Stillwater  
13 Orchards/Delta Watershed Landowner Coalition, Brett G.  
14 Baker and Daniel Wilson, SAVE OUR SANDHILL CRANES,  
15 Friends of Stone Lakes National Wildlife Refuge, The  
16 County of Yolo:

17 Osha Meserve

18 For Clifton Court, L.P.:

19 Suzanne Womack

20 For The City of Roseville, Sacramento Suburban Water  
21 District, San Juan Water District, The City of Folsom,  
22 and Yuba County Water Agency:

23 Ryan Bezerra

24 For Grassland Water District:

25 Ellen Wehr

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1 Thursday, March 1, 2018 9:30 a.m.

2 PROCEEDINGS

3 ---000---

4 CO-HEARING OFFICE DODUC: Good morning,  
5 everyone. Welcome back.

6 For the record, I was not late, but we allowed  
7 some time for people who were trapped trying to get  
8 into the parking garage.

9 Mr. Jackson, welcome. Glad you survived that  
10 debacle.

11 MR. JACKSON: Thank you.

12 CO-HEARING OFFICE DODUC: Welcome back to the  
13 Water Right Change Petition for the California WaterFix  
14 Project.

15 I am Tam Doduc. To my right is Board Chair  
16 and Co-Hearing Officer Felicia Marcus. I believe we  
17 will be joined sometime today by Board Member Dee Dee  
18 D'Adamo.

19 To my left are Andrew Deeringer, Conny  
20 Mitterhofer and Hwaseong Jin.

21 We're also being assisted today by Miss Perry,  
22 Mr. Hunt, Mr. Baker.

23 All the faces look familiar. Do you need the  
24 evacuation instruction?

25 All right. I can skip that.

1           To the second announcement, which actually has  
2 a little more excitement to it today:

3           As always, speak into the microphone and begin  
4 by identifying yourself and your affiliation.

5           It has been brought to my attention that we're  
6 having some Webcasting issues, so yesterday as well as  
7 perhaps into today, there might be problems with the  
8 Webcast. However, the video recording is intact and  
9 either has been or will soon be uploaded to our  
10 website, and, obviously, we will have the transcript.  
11 So there will be a complete recording of yesterday's  
12 and today's exciting proceedings. Rest assured. You  
13 won't be missing anything.

14           Please take a moment and, if you haven't done  
15 so, put all your noise-making devices on silent or  
16 vibrate.

17           Let me get to a couple housekeeping matters  
18 before we turn to Mr. Stokely. I don't see Miss Nikkel  
19 in the room but I'm sure she'll get wind of this.

20           We had a discussion yesterday about the  
21 transcript and making the transcript for yesterday's  
22 cross-examination, in particular, by Mr. Obegi  
23 available as soon as possible so that she may file her  
24 written objection on hearsay ground to parts of his  
25 cross-examination.

1           We have checked, and I believe we might be  
2 able -- at least we are attempting to get a final copy  
3 of the transcript just for yesterday by March 7th,  
4 so -- or -- or around there. So we will certainly  
5 notify the service list for the availability of the  
6 transcript when it is available as well as a deadline  
7 for submitting any written objections based on  
8 Mr. Obegi's cross-examination yesterday. And as  
9 promised Mr. Obegi, he will also have some time to  
10 respond to those written objections.

11           Another housekeeping matter:

12           We received a request from Mr. Porgans. I  
13 believe he is Group Number 40. Anyone remember?  
14 Anyway, he's a group to come.

15           We received a request from him, I believe it  
16 was either last night or this morning, that he would  
17 like to conduct cross-examination of this panel if his  
18 health allows him to make an appearance here today.

19           I would like to offer -- For those of you who  
20 have been here in Part 1, I think you were aware of the  
21 tremendous personal sacrifice and challenge Mr. Porgans  
22 has made in order to be part of this hearing.

23           Since he has estimated he will not need a lot  
24 of time for his cross-examination -- at most, he said,  
25 20 to 30 minutes -- I would like to propose that we

1 allow Mr. Porgans the option of submitting his  
2 cross-examination questions in writing and then for  
3 Petitioners' witnesses to respond in writing.

4           We have not discussed this with him. I don't  
5 know if it's acceptable to him, but I wanted to make  
6 that option available to him given his health issues.

7           Are there any objections to that?

8           MR. MIZELL: The Department has no objection  
9 to that.

10          CO-HEARING OFFICE DODUC: Miss Morris?

11          MS. MORRIS: Can I talk?

12          CO-HEARING OFFICE DODUC: Yes, you may talk.

13          MS. MORRIS: Thank you.

14          Stefanie Morris, State Water Contractors.

15          I don't object to them being submitted in  
16 writing to the extent that everyone's allowed to object  
17 to the nature of the questions and that there's some  
18 ruling before answers have to be submitted.

19          CO-HEARING OFFICE DODUC: That is well noted.  
20 So hopefully someone will get ahold of Mr. Porgans. Of  
21 course, if he comes today and is able to conduct  
22 cross-examination, then this is moot. But I do want to  
23 offer him that opportunity.

24          If he so wishes to do so, he may submit his  
25 cross-examination questions to the service list by



1 5 p.m. today. The Department's witnesses may have  
2 until 5 p.m. Friday to respond in writing.

3 Any objections to those questions maybe filed  
4 by noon Friday.

5 MR. MIZELL: Just for clarity, is that Friday  
6 as in this week Friday?

7 CO-HEARING OFFICE DODUC: Friday of this week  
8 because I hope to wrap up this panel this week.

9 MR. MIZELL: (Nodding head.)

10 CO-HEARING OFFICE DODUC: Is that suitable?

11 MR. MIZELL: I -- I think --

12 CO-HEARING OFFICER DODUC: Heads-on possible.

13 MR. MIZELL: -- it would depend on the  
14 question.

15 CO-HEARING OFFICE DODUC: Exactly. Let's --  
16 Let's set the deadline right now for Friday of this  
17 week -- tomorrow -- at 5 p.m., and I base that on  
18 Mr. Porgans' request that he has very little  
19 cross-examination that would take only 20 to 30  
20 minutes, if that. I'm quoting his request now.

21 So, obviously, if the questions come in and  
22 they're more extensive than that, then, Mr. Mizell, I  
23 will entertain requests from you via e-mail, I suppose.  
24 Actually, no, we're getting it today.

25 Yes, I will entertain a request from you

1 tomorrow for an extension to reply, if necessary, an  
2 extension of time to file objections, if necessary.

3 Ms. Morris.

4 MS. MORRIS: Thank you.

5 I'm just curious how the witnesses who are  
6 outstanding to be cross-examined through Friday are  
7 going to have a chance to draft responses when they're  
8 going to be sitting on the stand all day tomorrow again  
9 being cross-examined.

10 CO-HEARING OFFICE DODUC: It depends on the  
11 questions, which is why I have allowed Mr. Mizell  
12 tomorrow, after seeing the questions submitted by  
13 Mr. Porgans by 5 p.m. today, to request additional  
14 time, if necessary.

15 Like I said, this might be moot. Mr. Porgans  
16 may be here later this afternoon. But our staff will  
17 try to reach them and make that offer.

18 All right. Thank you.

19 Are there any other housekeeping matters?

20 Mr. Mizell.

21 MR. MIZELL: Yes. This isn't technically a  
22 housekeeping matter, so if we're done with  
23 housekeeping, I would like maybe 30 seconds of your  
24 indulgence.

25 CO-HEARING OFFICER DODUC: Okay. Are we done

1 with housekeeping?

2 You may indulge.

3 MR. MIZELL: Thank you very much.

4 So, yesterday, in response to an objection by  
5 Miss Ansley regarding a Draft RPA for Shasta  
6 temperature management -- temperature control, that is,  
7 Hearing Officer Doduc, you -- you made a comment  
8 comparing it to the California WaterFix setting is in  
9 the California WaterFix draft.

10 California WaterFix is not draft. This  
11 Project has been adopted by the Department. It has a  
12 Final Biological Opinion from both the National Marine  
13 Fisheries and U.S. Wildlife Service and Final ITP.

14 So I would just like to put on the record that  
15 there's no comparison being made between the finality  
16 of the Draft RPA for Shasta temperature management and  
17 the California WaterFix.

18 Thank you for giving me that 30 seconds.

19 CO-HEARING OFFICE DODUC: So noted. And now  
20 you have asked, you have opened the door for others to  
21 comment.

22 Miss Des Jardins.

23 MS. DES JARDINS: I did want to point out that  
24 the Federal part of California WaterFix is not final.  
25 There's no Record of Decision, and the Federal

1 Biological Opinions state that the preferred  
2 alternative is subject to change.

3 Thank you.

4 CO-HEARING OFFICE DODUC: Thank you,  
5 Miss Des Jardins.

6 Mr. Jackson.

7 MR. JACKSON: I would agree with what  
8 Ms. Des Jardins just said.

9 No longer -- The Biological Opinions are no  
10 longer final. The environmental document may or may  
11 not be final.

12 But I would like to point out that I do agree  
13 with your interpretation yesterday that the California  
14 WaterFix is still a draft because we still are adding  
15 data to the Project Description that has never been  
16 final in this activity.

17 CO-HEARING OFFICE DODUC: Miss Meserve.

18 MS. MESERVE: Good morning. Osha Meserve for  
19 Land, et al.

20 Just briefly, I'd also point out that I agree  
21 with the statements made previously as well as the fact  
22 that the Biological Opinion issued by Fish and Wildlife  
23 Service actually doesn't permit the construction of the  
24 intakes or the operation of the Project. And so  
25 discussing the issue of Biological Opinions as being

1 final and complete is incorrect.

2 CO-HEARING OFFICER DODUC: All right. Final  
3 words, Mr. Mizell? And I am going to keep my opinions  
4 to myself from now on.

5 MR. MIZELL: Yes.

6 Misstatements of the record aside, I would  
7 like to restate here again that the Department -- and  
8 the Department is the only party that I'm permitted to  
9 speak for so I'm not speaking for Reclamation.  
10 Miss Aufdemberge is to do that.

11 The Department has adopted as its final  
12 project the California WaterFix H3+.

13 CO-HEARING OFFICE DODUC: Although, for the  
14 record, certain aspects of the Project based on  
15 real-time operation, based on studies still to be  
16 conducted, based on adaptive management are still . . .  
17 What is the proper word? Are still underway.

18 MR. MIZELL: I would agree with your -- your  
19 additions there.

20 Adaptive management is a component of the  
21 Final Project adopted by the Department called the  
22 California WaterFix.

23 CO-HEARING OFFICER DODUC: All right. I think  
24 that that's it.

25 Mr. Stokely, thank you for your patience.

1           If you would begin by, first of all,  
2 addressing your cross-examination to Dr. Ohlendorf so  
3 that he might take his leave, and if you could also  
4 outline the topics --

5           MR. STOKELY: Sure.

6           CO-HEARING OFFICE DODUC: -- of your  
7 cross-examination.

8           MR. STOKELY: Can you hear me okay?

9           CO-HEARING OFFICE DODUC: Yes.

10          MR. STOKELY: I just wanted to, first of all,  
11 ask the witnesses to speak slowly and clearly, because  
12 I don't hear very well and the sound isn't very good up  
13 here and this is my bad ear, so . . .

14          I'm Tom Stokely representing Group 38, the  
15 Pacific Coast Federation of Fishermen's Associations  
16 and the Institute for Fisheries Resources.

17          I will ask Dr. Ohlendorf questions first about  
18 his selenium modeling and adaptive management to  
19 control selenium.

20          Then I will talk to Ms. White regarding  
21 Trinity River operations and implementation of CWF H3+  
22 with CVP operations as it relates to the Trinity River.

23          Dr. Wilder, I will be talking to him about  
24 reasonable protection for Trinity River fisheries as  
25 well as Lamprey in all the affected rivers.

1 I'll be asking Mr. Reyes regarding his  
2 modeling assumptions related to the Trinity River as  
3 well as South-of-Delta deliveries under CWF H3+.

4 I'll be asking Dr. Greenwood questions about  
5 mitigation for construction of the North Delta intakes.

6 And that's it, unless I do ask a question and  
7 one of the witnesses I address cannot answer it, well,  
8 I would expect one of the other witnesses to answer the  
9 question.

10 CO-HEARING OFFICE DODUC: Thank you. Please  
11 proceed.

12 (Continued on next page, nothing omitted.)

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1 HARRY OHLENDORF,  
2 MIKE BRYAN,  
3 ELLEN PREECE,  
4 KRISTIN WHITE,  
5 AARON MILLER,  
6 RICK WILDER,  
7 MARIN GREENWOOD,  
8 NANCY PARKER,  
9 ERIK REYES,  
10 TARA SMITH,  
11 EN-CHING HSU  
12 and  
13 MARIANNE GUERIN,  
14 called as witnesses by the Petitioners,  
15 having previously been duly sworn, were  
16 examined and testified further as follows:  
17

18 CROSS-EXAMINATION BY  
19 MR. STOKELY: Okay. Dr. Ohlendorf, your  
20 testimony talks about various models that you used to  
21 evaluate selenium for the various alternatives,  
22 including No-Action.  
23 Did the CWF H3 and/or Alternative 4A have  
24 higher selenium concentrations in Bass and Sturgeon  
25 compared to No-Action?



1           Your -- Your model -- Your -- Your testimony  
2 talked about the models, but it didn't actually give  
3 any of the results, so I'm asking you: Did your  
4 modeling show that there were -- was going to be more  
5 selenium in Bass and Sturgeon for the CWF H3  
6 alternative, H3+?

7           WITNESS OHLENDORF: That's correct.

8           The focus of my testimony was on development  
9 and refinement of models. It did not go into impact  
10 evaluation for water quality or biological effects.  
11 And those are covered by other members of the panel,  
12 Dr. Bryan for water quality and Dr. Greenberg (sic) for  
13 aquatic biology.

14           MR. STOKELY: So I should ask them the  
15 question of whether CWF H3+ had more selenium  
16 bioaccumulation in these two fish species?

17           Is there another panel member who could answer  
18 that question?

19           WITNESS BRYAN: Yes. This is Dr. Bryan. I  
20 can answer that question.

21           The modeling that was conducted, that  
22 Dr. Ohlendorf developed the model, then the modeling  
23 output we used for the water quality chapter,  
24 Chapter 8.

25           So, yes, there were increases in models of

1 concentration on the order about 1 percent or less.

2 MR. STOKELY: Okay. And that was for both  
3 Bass and Sturgeon?

4 WITNESS BRYAN: Correct.

5 MR. STOKELY: Okay. Back to Dr. Ohlendorf.  
6 You looked at Sturgeon impacts in your models.  
7 Were you looking at Green Sturgeon or White  
8 Sturgeon?

9 WITNESS OHLENDORF: The . . . values simply  
10 used for modeling were generally developed for Sturgeon  
11 by Presser and Luoma in their 2013 paper.

12 And what we used from their publication was  
13 the uptake factors assuming a -- a diet that included  
14 clam as well as crustaceans -- a mixture of crustacean  
15 and clam diet -- and it was not specific to one  
16 species, as I recall.

17 But in their publication, they gave the  
18 dietary transfer factors that I think would be  
19 representative of the Sturgeon in the Western Delta.

20 MR. STOKELY: Are you aware that Green  
21 Sturgeon or -- Or let me rephrase this.

22 Do -- Is there a difference between Green  
23 Sturgeon and White Sturgeon response to selenium  
24 bioaccumulation? For instance, is one species more  
25 susceptible or having greater impacts from selenium?

1           WITNESS OHLENDORF: I think that was addressed  
2 in the Appendix 5.F of the Biological Assessment and  
3 would refer you to that -- that for discussion about  
4 the details.

5           MR. STOKELY: Okay. So you're going to refer  
6 me to that chapter but you don't know if there's a  
7 difference between the two?

8           WITNESS OHLENDORF: Again, the -- the focus of  
9 my testimony was on development of the model, not the  
10 effects assessment.

11          MR. STOKELY: Thank you.

12          Are you involved at all in the Selenium  
13 Monitoring and Management Plan, AMM27? Are you  
14 familiar with that?

15          WITNESS OHLENDORF: I am somewhat familiar  
16 with it. Again, it's outside the realm of my  
17 testimony, and that would be Dr. Bryan, I believe, who  
18 would be addressing that.

19          MR. STOKELY: Okay. So you're familiar with  
20 AMM27, Dr. Bryan?

21          WITNESS BRYAN: Yes.

22          MR. STOKELY: Does that Selenium Monitoring  
23 and Management Plan seek to reduce selenium  
24 concentrations and loading flowing into the Delta or  
25 does it seek to decrease available organic material in

1 the Delta that could potentially combine with  
2 bioavailable selenium in Delta waters?

3 WITNESS BRYAN: I am only familiar to the  
4 point that it is an environmental commitment or an AMM  
5 associated with the EIR. I'm not --

6 MR. STOKELY: Okay.

7 WITNESS BRYAN: I'm not familiar with the  
8 details of it.

9 MR. STOKELY: Okay. Then I will skip a couple  
10 of questions here and ask you something else.

11 I'll ask this of you, and maybe somebody else  
12 can answer it:

13 Does any -- Do you or any of the other  
14 witnesses have proposals for conditions for Water  
15 Rights Permits that would address the effects of  
16 increased bioavailable selenium due -- due to WaterFix  
17 operations?

18 So are there any conditions being proposed  
19 that would affect selenium due to water operations?

20 WITNESS BRYAN: That would be beyond my  
21 expertise. Maybe somebody else on the panel can  
22 address that.

23 MR. STOKELY: I guess not. Okay.

24 In the AMM27, do you know when DWR would  
25 prepare a comprehensive Selenium Monitoring Program?

1 Do you know when that program -- monitoring program  
2 would be completed?

3 WITNESS BRYAN: I don't know the details of  
4 that.

5 MR. STOKELY: Okay. And . . .

6 And this is for -- for you as well --  
7 Dr. Bryan; is it? I can't see your name tag there.

8 WITNESS BRYAN: Yes.

9 MR. STOKELY: Can you just lift it up for a  
10 minute so I can see?

11 Okay. B-R-Y-A-N. Thank you. At least I can  
12 see, though I can't hear.

13 This is for you, but somebody else may be able  
14 to answer, maybe not.

15 Does the California WaterFix version of the  
16 product -- Project still contain a BDCP Implementation  
17 Office or is that a reference to a previous BDCP  
18 organization for Habitat Conservation Plan version of  
19 the Project?

20 There was an Implementation Office that was  
21 part of the BDCP. Is that still part of the Project?

22 CO-HEARING OFFICE DODUC: I'm somewhat  
23 confused by the question.

24 Is that office mentioned in any of the  
25 testimony?

1 Are you familiar with that office?

2 WITNESS BRYAN: I'm not familiar.

3 MR. STOKELY: Okay. Strike that.

4 I think that's all for -- for you two for now,  
5 so thank you. And have safe travels, Dr. Ohlendorf.

6 My next questions are for Ms. White.

7 Ms. White, you state in your testimony that  
8 you're available to answer technical questions  
9 regarding the use of the CalSim II model and to  
10 analyzed CVP operations and how components from the  
11 model within operationalized in the CVP; correct?

12 WITNESS WHITE: That's correct.

13 MR. STOKELY: So I'm going to ask you some  
14 questions about CVP operations as it relates to the  
15 Trinity River now as well as in the future.

16 Is the Trinity River integrated into the --  
17 the Trinity River Division integrated into the Central  
18 Valley Project?

19 WITNESS WHITE: Yes.

20 MR. STOKELY: Okay. So does that mean that  
21 Trinity River water can be used in place of Shasta or  
22 Folsom water to meet CVP water and power deliveries and  
23 environmental needs both north and south of the Delta;  
24 is that correct?

25 WITNESS WHITE: There are a significant number

1 of factors that would go into saying whether or not  
2 that can or cannot happen.

3           In general, there may be opportunities that  
4 Trinity River water can be used in place of water from  
5 another reservoir, but there's a lot of controls on  
6 when Trinity River water can be moved in, whether or  
7 not it's beneficial from a power standpoint, and  
8 whether or not that same water can be reduced from  
9 another source. So that would be a pretty complex  
10 question.

11           I think it would depend on the exact situation  
12 as to whether or not that's possible.

13           MR. STOKELY: Okay. But, in general, you can  
14 use Trinity water at least for some of these purposes.  
15 Obviously, you couldn't use it for meeting water supply  
16 demands on the American River.

17           WITNESS WHITE: I would say, in general,  
18 Trinity's integrated into the CVP and -- and we can  
19 operate it with the other facilities.

20           MR. STOKELY: Okay. Thank you.

21           You mention that there are constraints with  
22 use of Trinity River water, and I believe yesterday you  
23 mentioned one of them was the Trinity River Record of  
24 Decision; correct?

25           WITNESS WHITE: That's one of the -- the

1 operating criteria we have on the Trinity system.

2 MR. STOKELY: Okay. You operate the Trinity  
3 River Division in any particular end-of-September cold  
4 water carryover storage for Trinity Reservoir?

5 WITNESS WHITE: Can you be more specific? On  
6 an annual basis or . . .

7 MR. STOKELY: Yeah. Actually, if could you  
8 bring up, Mr. Hunt, or is it Miss Perry?

9 Miss Perry, could you bring up PCFFA-109.

10 (Exhibit displayed on screen.)

11 MR. STOKELY: Actually, I'm going to change  
12 that. I apologize, Ms. Perry. I'm going to ask you to  
13 bring up . . .

14 Hang on one minute here.

15 I'll go ahead and bring that one up.

16 (Exhibit displayed on screen.)

17 MR. STOKELY: PCFFA-109 and Page 43.

18 (Exhibit displayed on screen.)

19 MR. STOKELY: Have -- Have you seen this  
20 before, this Biological Opinion --

21 Excuse me. Scroll down again or up again.

22 (Exhibit displayed on screen.)

23 MR. STOKELY: Are you familiar with this  
24 document? It's a 2000 Biological Opinion by the  
25 National Marine Fisheries Service for the Trinity River



1 Fishery Restoration Program.

2 WITNESS WHITE: I am not.

3 MR. STOKELY: You're not familiar with it.

4 Okay.

5 Could you please go to Page 43.

6 (Exhibit displayed on screen.)

7 MR. STOKELY: There's a paragraph in there on  
8 Trinity minimum carryover storage.

9 It basically talks about a minimum carryover  
10 storage of 600,000 acre-feet there on Line 4.

11 And so you're not familiar with this document.

12 And do you operate to meet that 600,000 acre-foot  
13 end-of-September carryover storage?

14 MR. MIZELL: Objection: The witness has  
15 indicated she's not familiar with the document. It's a  
16 62-page document, and this one sentence, it appears  
17 that the question is referring to, may be caveated in  
18 other places of the document.

19 There may be other details the question would  
20 need to know -- or the witness would need to know in  
21 order to answer a question about a document she's  
22 unfamiliar with.

23 CO-HEARING OFFICE DODUC: I sustain the  
24 objection, but I wonder -- Hold on, Miss White.

25 This document aside, do you know how the

1 Trinity River would be operated with respect to  
2 maintaining the minimum carryover storage?

3 WITNESS WHITE: Yes, I -- I can speak to  
4 operations. I'm not sure -- I'm just not familiar with  
5 this document, so I'm not --

6 CO-HEARING OFFICER DODUC: Okay. Perhaps,  
7 Mr. Stokely, if you can reframe your questions --

8 MR. STOKELY: Sure.

9 CO-HEARING OFFICER DODUC: -- with that in  
10 mind.

11 MR. STOKELY: Are there any -- Is there  
12 any . . . cold water carryover storage criteria that  
13 you try to operate the Trinity River Division to meet?

14 WITNESS WHITE: So, where I'm getting a little  
15 bit hung up when I was asking for clarification is  
16 "cold water storage" versus "storage."

17 MR. STOKELY: Total storage.

18 WITNESS WHITE: For total storage, 600,000  
19 acre-feet is typically a number that we keep in mind.  
20 We don't operate to that so we don't plan to pull  
21 Trinity down to 650 in those -- or whatever low point  
22 we expect that to be in September and October.

23 But we try to keep it in mind as a -- as a --  
24 a minimum, that beyond that, we -- sorry -- that beyond  
25 that, we -- we think we would have issues with meeting

1 temperatures down the Trinity River.

2 MR. STOKELY: Okay. Thank you.

3 Could we bring up PCFFA-102, please.

4 (Exhibit displayed on screen.)

5 MR. STOKELY: And Page 3, Footnote 5 at the  
6 bottom.

7 This is the -- a table from the Water Quality  
8 Control Plan --

9 (Exhibit displayed on screen.)

10 MR. STOKELY: -- for the north coast region.

11 And on Page 3, Footnote 5, talks about --

12 (Exhibit displayed on screen.)

13 MR. STOKELY: There we go.

14 -- "Daily Average Not to Exceed," and it's got  
15 some temperature objectives there for the Trinity River  
16 for the period July through December 31st.

17 Do you . . . Are you familiar with these  
18 temperature objectives?

19 MR. MIZELL: Objection.

20 CO-HEARING OFFICE DODUC: Mr. Mizell.

21 MR. MIZELL: This isn't about the content of  
22 the question, but if the questioner could please  
23 authenticate this document by showing a footer or  
24 something that would indicate that it's truly from the  
25 North Coast Water Quality Control Plan.

1 CO-HEARING OFFICE DODUC: Mr. Stokely.

2 MR. STOKELY: Well, I pulled it off the  
3 website for the North Coast Regional Water Quality  
4 Control Board.

5 I also participated in the hearings in 1990  
6 through '92 to have these objectives adopted by the  
7 Regional Board, by the State Board, and approved by the  
8 U.S. EPA.

9 We do have a letter in the PCFFA . . .

10 Let me find it here.

11 Let's see. That last one was PCFFA-109.

12 (Exhibit displayed on screen.)

13 MR. STOKELY: So we have a letter from the  
14 U.S. EPA, and I can't seem to find it.

15 CO-HEARING OFFICE DODUC: Approving the Basin  
16 Plan?

17 MR. STOKELY: Yeah. It was -- It was a letter  
18 from the EPA approving the Basin Plan Amendment.  
19 And --

20 CO-HEARING OFFICE DODUC: Miss White, are you  
21 familiar with the Regional Board's requirements?

22 WITNESS WHITE: I am not familiar with the  
23 specifics of the Regional Board requirements. I'm  
24 aware that there's a temperature target on the Trinity  
25 River.

1 MR. STOKELY: Do you -- I guess you're not  
2 fa -- familiar necessarily with this, but do you try  
3 to -- Do you -- Let me ask you this:

4 Do you consider those temperature objectives  
5 up there to be requirements for the Bureau to operate  
6 by?

7 WITNESS WHITE: I would be able to speak on  
8 whether these specific requirements are the  
9 requirements or not. I'm -- I'm sorry.

10 MR. STOKELY: Okay.

11 CO-HEARING OFFICE DODUC: Can you articulate  
12 what the temperature requirements are to which  
13 operations try to achieve?

14 WITNESS WHITE: I'm not familiar with the  
15 specifics of location and exact temperature.

16 Typically, our Operations Office has a number  
17 of -- of experts and they track the specifics on each  
18 river system.

19 MR. STOKELY: Okay. Thank you.

20 Moving to my next question.

21 Could you please bring up PCFFA-104.

22 And I'm going to give you a little context on  
23 this one.

24 (Exhibit displayed on screen.)

25 MR. STOKELY: This is an article from the

California Reporting, LLC - (510) 224-4476  
www.CaliforniaReporting.com

1 Trinity Journal a couple of years ago where it was  
2 discussing the Temporary Urgency Change Petition for  
3 DWR and the Bureau for the recent drought.

4           And that particular -- Why don't we actually  
5 go to PCFFA-103, first, Page 61.

6           And this Temporary Urgency Change Petition  
7 2015-0043 --

8           (Exhibit displayed on screen.)

9           MR. STOKELY: -- contained direction from the  
10 State Board for the Bureau to develop a Plan of  
11 Operations for 2016, I believe it was, that would  
12 require a Folsom 200,000 acre-foot end-of-October  
13 carryover storage and 1.6 million acre-feet for Shasta.

14           So, let's see, that would be . . .

15           Scroll down a little bit. It would be the  
16 bottom third of the page.

17           (Exhibit displayed on screen.)

18           MR. STOKELY: Okay. It's in highlight there.

19           (Reading):

20           "Among other provisions, the plan  
21 shall provide for a minimum end of  
22 October 2016 storage level in Shasta  
23 Reservoir. As a planning target, the  
24 plan shall provide for at least  
25 1.6 million acre-feet for an end of

1           October 2016 storage level."

2           Are you familiar with this TUCP and these  
3 requirements?

4           MR. MIZELL:   Objection.

5           CO-HEARING OFFICE DODUC:   And your objection,  
6 Mr. Mizell?

7           MR. MIZELL:   It's something that we went over  
8 at length in Part 1.

9           But the Draft TUPCs are not a component of the  
10 California WaterFix.  As we talked about in Part 1,  
11 they don't have a hearing under the Opera -- the  
12 Proposed Operational Criteria that we're putting forth  
13 with the California WaterFix.

14           This particular document, as recited by the  
15 questioner, pertains only to the last year in a  
16 multiyear historically critical drought, and,  
17 therefore, really has no significance here in  
18 discussing the Operational Criteria.

19           CO-HEARING OFFICE DODUC:   It might not be in  
20 the Operational Criteria being proposed by the  
21 Department, or Petitioners, but one of the key issues  
22 for us in Part 2 is determining what conditions, if  
23 any, we might impose on any approval of this Project.

24           So, I'm going to allow the question based on  
25 that.

1 MS. AUFDEMBERGE: This is Amy Aufdemberge for  
2 the United States Department of Interior.

3 I just want to reiterate -- and an objection  
4 on this line of question as well -- that operations of  
5 the CVP for drought relief is not before the Board.

6 CO-HEARING OFFICE DODUC: Are you expecting  
7 that, should the WaterFix be improved and implemented,  
8 that we will not enter into any more droughts?

9 If drought is a possibility, then drought  
10 conditions --

11 MS. ANSLEY: I would --

12 CO-HEARING OFFICER DODUC: -- are things that  
13 we will have to consider as part of any terms of  
14 approval.

15 MS. AUFDEMBERGE: I would expect that droughts  
16 would not be caused by the Cal WaterFix and,  
17 therefore --

18 CO-HEARING OFFICE DODUC: But the California  
19 WaterFix will be conducted during periods of drought.

20 Objection's overruled.

21 Mr. Stokely.

22 MR. STOKELY: So please go to Page 64, top of  
23 the page. It should have -- just talk about the Folsom  
24 requirement.

25 (Exhibit displayed on screen.)



1 MR. STOKELY: And what I'm trying to get at  
2 here, Ms. White, is a question about how Folsom and  
3 Shasta operations can impact Trinity operations.

4 So in the case of this TUCP, the State Board  
5 imposed a minimum storage for the end of October for  
6 200,000 acre-feet at Folsom, 1.6 million acre-feet at  
7 Shasta, but they did not put a minimum carryover  
8 storage on Trinity.

9 So, under these kind of circumstances, if the  
10 WaterFix were in place and there was a minimum  
11 carryover storage at Shasta and Folsom, would that  
12 require Reclamation to rely more heavily on Trinity?

13 WITNESS WHITE: I think I understand your  
14 question.

15 With this specific reference, if I remember  
16 correctly, Trinity River operations as well as Folsom  
17 operations weren't modified based on this.

18 I think the hydrology supported meeting  
19 200,000 acre-feet, and that wasn't a specific -- we  
20 didn't change all the operations in order to meet that  
21 for 2016.

22 As a more general question of --

23 MR. STOKELY: It is.

24 WITNESS WHITE: -- not related to 2016 and  
25 this TUCP:

1           As I mentioned before, the Project is  
2 integrated, so, by that nature, the operation of one  
3 facility or the limitation of one facility can affect  
4 another facility.

5           MR. STOKELY: Okay. Thank you. You answered  
6 my question.

7           And then one final question for you.

8           With construction and implementation of  
9 CWF H3, is it possible that CVP Delta exports . . .  
10 could be -- could allow increased -- or -- Let me  
11 restate that.

12           With construction and implementation of  
13 CWF H3, would that reduce limitations on Delta pumping  
14 that might allow increased Trinity diversions to the  
15 CVP and subsequently affect the storage in Trinity  
16 Lake?

17           MR. MIZELL: Objection.

18           CO-HEARING OFFICE DODUC: First of all, the  
19 correction is "CWF H3+" --

20           MR. STOKELY: Oh.

21           CO-HEARING OFFICE DODUC: -- when referring to  
22 the proposal.

23           MR. MIZELL: I withdraw --

24           CO-HEARING OFFICER DODUC: And, Mr. Mizell,  
25 objection?

1 MR. MIZELL: I withdraw my objection. That's  
2 the only thing I wanted to point out.

3 MR. STOKELY: Sorry. I thought I said it  
4 right but . . .

5 CO-HEARING OFFICE DODUC: I have -- I have  
6 challenges keeping up with all the acronyms, too.

7 MR. STOKELY: May I call it the Proposed  
8 Project? Or I'll just call it CWF H3+.

9 CO-HEARING OFFICER DODUC: All right.

10 MR. STOKELY: Thank you.

11 WITNESS WHITE: I'm sorry. Now I've been  
12 thrown off. Can you repeat --

13 MR. STOKELY: Okay.

14 WITNESS WHITE: -- the question?

15 MR. STOKELY: Would construction of and  
16 implementation of CWF H3+ potentially reduce  
17 limitations on Delta exports that could allow increased  
18 Trinity diversions to the CVP?

19 And subsequently decrease storage in Trinity  
20 Lake.

21 WITNESS WHITE: So -- So that question implies  
22 that the sole operation of Trinity is for supporting  
23 South-of-Delta exports, which is a mission before --  
24 There a number of limitations and -- and drivers for  
25 how Trinity is operated, including temperature

1 management on the Sacramento, including power supply.

2           That's our big power maker because of the drop  
3 from Lewiston into the Sacramento River. And then  
4 water supply including Delta requirements are -- are a  
5 part of how that's operated.

6           So, under the California WaterFix, there are  
7 no proposed -- proposed changes to any of the upstream  
8 criteria, and none of those restrictions would -- would  
9 be altered.

10           So we're not -- we're not seeing that as a  
11 potential operation.

12           MR. STOKELY: Okay. Let me rephrase the  
13 question.

14           Would construction and operation of CWF H3+  
15 reduce limitations on Delta exports and allow increased  
16 Delta exports over the No-Action Alternative?

17           WITNESS WHITE: Are you -- So, the modeling  
18 results are showing that there -- I'm believe I'm  
19 looking at the modelers -- that there's an overall  
20 increase in total South-of-Delta exports over the  
21 No-Action?

22           Is that . . . Is that the question?

23           WITNESS REYES: I would say, for Delta  
24 exports, it would be reduced.

25           WITNESS WHITE: No, I'm sorry. We should get

1 clarification.

2           When you say "Delta exports," do you mean  
3 South-of-Delta as in through the Delta or -- or total  
4 combined --

5           MR. STOKELY: Total --

6           WITNESS WHITE: -- exports?

7           MR. STOKELY: -- combined exports from the  
8 Delta.

9           WITNESS REYES: The Delta WaterFix Project is  
10 a (sic) excess capacity Project, as it's intended.  
11 It's not meant to affect storage.

12           MR. STOKELY: Okay. It's intended not to, but  
13 will the Project --

14           WITNESS REYES: Well, if I could add: We have  
15 plots in my presentation that show Trinity storage  
16 exceedance for the end of May and the end of September.  
17 And compared to the No-Action case, CWF H3+ is almost  
18 identical to the same result as No-Action.

19           So I don't see the Project causing any effects  
20 on storage in Trinity.

21           MR. STOKELY: Well, that's the modeling, but  
22 that's not actual operations.

23           So, again, would CWF H3+ reduce -- or --  
24 reduce current restrictions on Delta exports that could  
25 allow for increased releases from upstream reservoirs

1 north of the Delta?

2 WITNESS WHITE: I think I'm -- I'm struggling  
3 with that because it complies that there's an ability  
4 to move more stored water as compared to all the other  
5 operational constraints on the Project, and that's not  
6 what we're seeing in the modeling.

7 So I'm -- I'm not sure how else to answer  
8 that.

9 The -- The CVP combined with the SWP is a very  
10 complex system. There are a lot of things that control  
11 operations. And we're not -- we're not seeing any  
12 increase in the movement of stored water based on  
13 implementation of the California WaterFix.

14 MR. STOKELY: Okay. Thank you.

15 Let me ask Mr. -- Is it Rayess (phonetic) or  
16 Raise (phonetic)?

17 WITNESS REYES: Reyes.

18 MR. STOKELY: Reyes.

19 Mr. Reyes, does CWF H3+ propose changes to  
20 Trinity River operations compared to No-Action? Are  
21 there some differences, even though they may not be  
22 significant? Are there some changes in Trinity River  
23 operations that you modeled compared to No-Action?

24 WITNESS REYES: No. The CWF H3+ has the same  
25 exact criteria as the No-Action as far as Trinity is

1 concerned.

2 MR. STOKELY: Okay. Could you please,  
3 Ms. Perry, bring up PCFFA-106.

4 (Exhibit displayed on screen.)

5 MR. STOKELY: Are you -- Mr. Reyes, are you  
6 familiar with this Record of Decision by the Bureau of  
7 Reclamation?

8 WITNESS REYES: Maybe not by this name. Is  
9 this -- Is this what people refer to as the Trinity  
10 ROD?

11 MR. STOKELY: No. This is actually called --

12 WITNESS REYES: Okay. Then I'm --

13 MR. STOKELY: -- the Long-Term Plan --

14 WITNESS REYES: -- not familiar with this.

15 I'm not familiar with this.

16 MR. STOKELY: Okay. So, is it correct to say  
17 that you did not include any modeling for this Record  
18 of Decision by Reclamation?

19 CO-HEARING OFFICE DODUC: I can hear the  
20 objection now.

21 Go ahead, Mr. Mizell.

22 MR. MIZELL: Yes.

23 Objection: Misstates the witness' testimony.  
24 He simply said he's not familiar with the document.

25 CO-HEARING OFFICE DODUC: Sustained.

1 MR. STOKELY: Okay. All right. We'll go to  
2 Mr. -- or, excuse me -- Dr. Wilder now.

3 And could we bring up Mr. Wilder's signed --  
4 Dr. Wilder's signed testimony, which I believe is  
5 DWR-1013; is that correct?

6 WITNESS WILDER: (Nodding head.)

7 (Exhibit displayed on screen.)

8 MR. STOKELY: Okay. And I'm just going to  
9 state something because you've already asked this --  
10 been asked this question.

11 But, Mr. Wilder, in your testimony on

12 Page 2 --

13 If you could go to Page 2, please, Lines 25 to  
14 27.

15 (Exhibit displayed on screen.)

16 MR. STOKELY: And also on Page 3, Lines 1 and  
17 2.

18 You state that (reading):

19 ". . . CWF H3+ is reasonably protective  
20 of" several listed species and "unlisted  
21 species of primary concern upstream of  
22 the Delta."

23 On Page 5 --

24 If you could go to Page 5, please, Lines 1  
25 through 9.



1 (Exhibit displayed on screen.)

2 MR. STOKELY: -- you list the species that you  
3 looked at.

4 And I do not see all of the Trinity River  
5 species listed, so I was wondering:

6 Does your statement above include all  
7 important native fish species in the Trinity River  
8 downstream of Lewiston Dam?

9 Or maybe if you could please name the species  
10 in the Trinity River that you examined downstream of  
11 Lewiston Dam.

12 WITNESS WILDER: Yeah. They're not mentioned  
13 here, but they -- they were under consideration. They  
14 are Chinook Salmon, Steelhead and Coho Salmon and, of  
15 course, the River -- and the -- the Pacific Lamprey --  
16 or Lamprey.

17 MR. STOKELY: Okay. Not Green Sturgeon?

18 WITNESS WILDER: Green Sturgeon as well.

19 MR. STOKELY: Okay. Was there any request  
20 made by the applicants to the National Marine Fisheries  
21 Service or the California Department of Fish and  
22 Wildlife for a Section 7 consultation or Incidental  
23 Take Permit, respectfully, for Trinity River Coho  
24 Salmon, which are known federally as the Southern  
25 Oregon/Northern California Coho?

1           Is there any application made for compliance  
2 with the Federal or State endangered species laws?

3           WITNESS WILDER: Sorry. I heard two questions  
4 there.

5           First, you asked if someone had requested it;  
6 and, secondly, you asked if there was an application  
7 for it.

8           Are those --

9           MR. STOKELY: Well, was there an application  
10 made?

11           WITNESS WILDER: I -- I don't work for either  
12 of those agencies, so I'm -- I don't know. There could  
13 have been.

14           MR. STOKELY: Does anybody on the panel know  
15 if there was any application made?

16           WITNESS WHITE: Can you be more specific?  
17 Coho are covered under a different permit. Can you be  
18 more specific about what you're asking?

19           MR. STOKELY: Sure.

20           The previous exhibit that I showed you, you  
21 weren't familiar with, was the 2000 Biological Opinion  
22 by the National Marine Fisheries Service on the Coho,  
23 the Southern Oregon/Northern California Coho.

24           And so I was wondering if this Project had  
25 applied for compliance for that particular species,

1 both at the State or the Federal level.

2 Did you say something?

3 WITNESS WHITE: I just -- thanks for the  
4 clarification.

5 I don't know. I just didn't understand if you  
6 were talking about this Project or if there was any  
7 application in general.

8 MR. STOKELY: Sorry if I wasn't clear.

9 Okay. So nobody knows the answer to that  
10 question.

11 Let's go to Page 4, Lines 20 to 23.

12 (Exhibit displayed on screen.)

13 MR. STOKELY: And you -- Mr. -- Dr. Wilder,  
14 you state that CWF H3+ may potentially impact flows or  
15 temperatures on the Sacramento, Trinity, American and  
16 Feather Rivers and Clear Creek; correct?

17 WITNESS WILDER: Yes, that's correct.

18 MR. STOKELY: Okay. And then if we could go  
19 to Page 12, please, Lines 13 to 15.

20 (Exhibit displayed on screen.)

21 MR. STOKELY: Okay. What you talk about here  
22 is --

23 If you can just scroll up a little bit so we  
24 can get the header there on that section.

25 (Exhibit displayed on screen.)

1           MR. STOKELY:  Okay.  So you mentioned that  
2 there were three tools used to evaluate flow-related  
3 effects of the Project on Salmonids:  The modeled mean  
4 flow rate comparison; Sacramento Ecological Flow; and  
5 SALMOD.

6           Did you apply any of those three tools to the  
7 Trinity River's native Salmonids?

8           WITNESS WILDER:  Yes, I did.  I looked at  
9 the -- the first of the three, the modeled mean flow  
10 rate comparisons.

11          MR. STOKELY:  So number one.  Okay.

12          Do you know if SALMOD has been applied to the  
13 Trinity River . . . Fishery?

14          WITNESS WILDER:  I -- I don't know.

15          MR. STOKELY:  Okay.  Okay.  Let's go to

16 Page 21 of your testimony.

17          (Exhibit displayed on screen.)

18          MR. STOKELY:  You talk about . . .

19          Never mind.

20          Let's go to Page 39, please, Lines 17 and 18.

21          (Exhibit displayed on screen.)

22          MR. STOKELY:  You state here that (reading):

23                 "CVP will maintain reasonably  
24 protective . . . flow and temperature --  
25 flow and water temperature conditions for

1 upstream spawning, rearing, and migration  
2 of Pacific and River Lamprey."

3 Correct?

4 WITNESS WILDER: That's correct.

5 MR. STOKELY: I wanted some clarification on  
6 Page 40, Lines 19 to 22, please.

7 (Exhibit displayed on screen.)

8 MR. STOKELY: Oops. Too far.

9 MS. PERRY: Sorry.

10 (Exhibit displayed on screen.)

11 MR. STOKELY: Okay. So you talk here about  
12 exposure of fish to redd -- or of -- of Lamprey to  
13 dewatering; is that correct in this paragraph here?

14 WITNESS WILDER: Yes, that's correct.

15 MR. STOKELY: And I was a little unclear. You  
16 say (reading):

17 "However, for Pacific Lamprey, the  
18 number of cohorts exposed under H3 would  
19 be 90 percent -- 92 percent lower than  
20 those under the (sic) NAA in the Trinity  
21 River at Lewiston and 93 percent greater  
22 than those under the (sic) NAA in the  
23 Feather River below Thermolito Afterbay."

24 Could you please explain maybe in layman terms  
25 what that means. Does that mean there's a benefit to

1 Trinity River fish and an impact to Feather -- or  
2 Feather River Lamprey?

3 WITNESS WILDER: I -- I wouldn't go so far as  
4 to draw a conclusion right there. It does say that  
5 the -- the cohort exposure as I measured it is lower in  
6 the Trinity River and higher in the Feather River.

7 MR. STOKELY: So there would be less impacts  
8 in the Trinity and greater impacts in the Feather; is  
9 that correct?

10 WITNESS WILDER: Again, I wouldn't -- I  
11 wouldn't draw the conclusion of impacts.

12 In fact, if we could go down to Line 26.

13 (Exhibit displayed on screen.)

14 WITNESS WILDER: I explain there that this  
15 93 percent is really just the result of a -- a  
16 mathematical artifact when you're working with very  
17 small numbers.

18 When you take the relative difference of  
19 two -- of -- of two small numbers, let's say, or at  
20 least the one that -- that you're comparing to, you end  
21 up with a very large percentage.

22 And I then go on to explain that this -- this  
23 93 percent reduction that we see in the Feather River  
24 really only accounts for 37 of the 648 total  
25 hypothetical cohorts that I have in my example, which

1 accounts for only five-point -- which -- which adds up  
2 to only 5.7 percent of the total cohorts.

3 MR. STOKELY: Okay. Thank you.

4 Page 41, Lines 8 to 28, please.

5 (Exhibit displayed on screen.)

6 MR. STOKELY: And you state here that . . .

7 that (reading):

8 "CWF H3+ is reasonably protective of  
9 rearing flows."

10 And you talk about that in relation to  
11 stranding of Lamprey ammocetes.

12 But then you go on in Lines 13 to 28. You  
13 state several exceptions that would indicate stranding  
14 of ammocetes in the American, Trinity and Feather  
15 Rivers that are greater than 5 percent.

16 You have a range of nine to I think it's  
17 52 percent.

18 Can you explain how reasonable protection is  
19 inferred from CWF H3+ when there is greater than  
20 5 percent ammocete stranding noted in these rivers in  
21 certain circumstances?

22 WITNESS WILDER: Sure.

23 We need to take a -- take a step back and --  
24 and realize that the analysis that we conducted,  
25 there -- there is no estimate for stranding risk that's

1 been done in terms of going into the river and  
2 estimating that like there has been for other species,  
3 such as Chinook Salmon.

4           As a result, we took -- took the approach of  
5 looking at reductions in river flows of -- I think the  
6 range was between 50 percent and 90 or 95 percent. And  
7 I looked at -- at -- in 5 percent increments at each of  
8 the -- in each of the -- the locations that we  
9 analyzed.

10           What I indicate here in the first example is  
11 that the -- in the large majority of those cases, we  
12 find really small flow reductions.

13           I go on to list the cases where we do find  
14 those reductions. And taken on the whole, given all of  
15 the locations within the rivers, all of these  
16 hypothetical flow reductions, that the -- the effect  
17 would -- would not be unreasonable and would --  
18 sorry -- the -- the protection would be reasonable to  
19 Pacific Lamprey.

20           MR. STOKELY: So are these flow reductions  
21 that you said were hypothetical, are those proposed  
22 under CWF H3+? Or are those just theoretical  
23 modeling --

24           WITNESS WILDER: Those --

25           MR. STOKELY: -- exercises that you did?



1           WITNESS WILDER: Those reductions are -- are  
2 based on CalSim outputs, which is the simulation we  
3 used for the changed condition, over 82 years.

4           MR. STOKELY: So those flow reductions are  
5 potential -- may potentially occur under CWF H3+  
6 depending on hydrology?

7           WITNESS WILDER: As -- As good as the model is  
8 that predicts that, yes.

9           MR. STOKELY: Okay.

10          WITNESS WILDER: I think I need to clarify one  
11 thing.

12          This is -- This is month-over-month flow  
13 reductions, so these are not instantaneous changes,  
14 like, overnight. This is -- you know, considers a  
15 ramping rate -- or does not consider a ramping rate,  
16 which certainly is in place in all the rivers. So when  
17 you see these large month-over-month reductions, they  
18 wouldn't be this immediate.

19          And so stranding risk, you know, Pacific  
20 Lamprey presumably can move if they're going to be  
21 stranded or dewatered, and, therefore, I would -- I  
22 would rec -- or I would conclude that the effects  
23 that -- that I found here would certainly be less in  
24 reality.

25          These aren't stagnant species that -- that

1 wouldn't be able to respond to -- to changes in flow  
2 and then stage.

3 MR. STOKELY: So are you saying that the -- if  
4 the -- there are ramp rates for these flow reductions,  
5 that the Lamprey ammocetes in the gravel are able to  
6 migrate to areas that are better indicated?

7 WITNESS WILDER: Yeah. I'm saying that they  
8 can -- they can emerge. They're -- They're not -- You  
9 know, they're not eggs, which is the case with redd  
10 dewatering, so they could -- they could actually move.

11 MR. STOKELY: Okay. Thank you.

12 Do you know if Lamprey in the various rivers  
13 affected by CWF H3+ are important to Native Americans  
14 for ceremonial or -- and/or subsistence purposes?

15 WITNESS WILDER: Yes, I believe they are.

16 MR. STOKELY: Okay. Thank you.

17 Could we please to go to line . . .

18 Let's see. You already talked about that.

19 Let's go to . . . Page 46, Lines 2 through 6.

20 (Exhibit displayed on screen.)

21 MR. STOKELY: And you mention that you  
22 evaluated days that exceed temperatures outside the  
23 suitable range of temperatures for the Sacramento, but  
24 then you looked at months of temperature exceedances  
25 for the Feather, American, Trinity, and Stanislaus

1 Rivers; correct?

2 WITNESS WILDER: That's right. And that's  
3 because the -- the time step for the temperature model  
4 we used in Sacramento was a daily time step, and for  
5 other months was monthly for the FEIR/EIS.

6 MR. STOKELY: Okay. Do you know if there are  
7 any daily temperature models available for those other  
8 rivers, the Feather, American, Trinity, and Stanislaus?

9 WITNESS WILDER: Yes, there are. And we used  
10 those for our modeling under the Biological Assessment.

11 MR. STOKELY: But not for the EIR/EIS.

12 WITNESS WILDER: That's correct. We -- The --  
13 The . . .

14 Yes, that's correct.

15 MR. STOKELY: Okay. Can the use of the  
16 average monthly water temperature models mask daily  
17 average fluctuations outside the suitable range of  
18 sensitive life stages for these species?

19 Maybe let me clarify:

20 For instance, if the daily average is  
21 56 degrees but the first two weeks of the month average  
22 62 degrees, and the last two weeks of the month average  
23 50 degrees, you've got a monthly average of 56, but  
24 could there be an impact to the sensitive fish life  
25 stage that would not be shown in the monthly model?

1 WITNESS WILDER: Yes, that's true.

2 MR. STOKELY: Okay. Let's go to Page 48,  
3 Lines 3 through 7.

4 (Exhibit displayed on screen.)

5 MR. STOKELY: You state that, WaterFix --

6 (Reading):

7 "CWF H3+ is reasonably protective of  
8 (sic) coldwater reservoir species in  
9 upstream reservoirs."

10 And you state further that (reading):

11 "The results of the analysis  
12 indicated that, other than Trinity Lake,  
13 none of the reservoirs had an increase  
14 between the No-Action Alternative for  
15 either H3 or H4 in the number of years  
16 with reduced coldwater habitat for any of  
17 the reservoirs, and Trinity Lake had a  
18 small increase for H3 only."

19 Is that correct?

20 WITNESS WILDER: Yes, that's correct.

21 MR. STOKELY: Okay. You mentioned on Lines 10  
22 to 12 that (reading):

23 "The only exception was for H3 at  
24 Trinity Lake. The carryover volume of  
25 Trinity Lake dropped below the threshold

1 in 13 years for H3 as opposed to 12 years  
2 for the No-Action Alternative."

3 When you talk about H3 in relation to the  
4 Trinity River here with one additional year going  
5 through the threshold, does that also apply to CWF H3+?

6 WITNESS WILDER: I would have to take a look  
7 at the model outputs but it's . . .

8 I don't know. I mean, the one-year difference  
9 is -- is -- is entirely possible that -- that that  
10 would occur in the CWF H3+ modeling scenario. It's  
11 equally possible that it wouldn't. One year is -- is a  
12 very small number.

13 MR. STOKELY: Okay. So, you are indicating  
14 that there would incrementally be less cold water in  
15 Trinity Lake under CWF H3+?

16 WITNESS WILDER: Not necessarily. You know,  
17 it's -- It's a -- It's a model scenario, and one year  
18 is -- You know, I couldn't -- I can't really draw  
19 conclusions on one -- a -- a difference of one year.

20 I would not say that there's a large effect or  
21 even a -- a small effect based on one diff -- the  
22 difference of one year.

23 MR. STOKELY: But I asked you: Incrementally,  
24 would there be less cold water in Trinity Lake under  
25 CWF H3+. I didn't ask you if it was significant. I

1 just asked you: Does this statement mean that in --  
2 there would be additional years under CWF H3 where  
3 there would be less cold water in Trinity Lake, or an  
4 additional year out of the 82-year period?

5 WITNESS WILDER: If we didn't consider any  
6 potential for real-time operations, then -- which --  
7 which the model does not, then -- then, yes, the model  
8 results show that.

9 But in reality, there's plenty of opportunity  
10 to avoid that in real -- during real-time operations.

11 MR. STOKELY: Ms. White, do you agree with  
12 that statement?

13 WITNESS WHITE: One of the controlling factors  
14 in reservoir releases in CalSim is reservoir balancing  
15 where the -- the model is trying to look at reservoir  
16 storage between the CVP reservoirs and determine  
17 which -- which reservoir to draw from. And when we  
18 make minor -- minor changes, it can affect that  
19 balancing.

20 I'm going to look at the modelers to  
21 explain -- explain that in more detail.

22 But often we see very minor effects in -- in  
23 reservoir storage where one reservoir is a little bit  
24 different from another because of that, in -- in which  
25 case it's not a -- I would call it modeling -- modeling

1 artifact. It's not an intention to operate Trinity  
2 differently or operate any other reservoir differently.  
3 It's -- It's more how the mod -- how the model chose to  
4 pick and choose where water came from.

5 And I'm hoping I have the modeling backup  
6 on -- on those details.

7 WITNESS PARKER: What Kristin says is true.

8 But I wanted to point out something that I  
9 think is a misunderstanding here.

10 Mr. -- Dr. Wilder's testimony says that none  
11 of the reservoirs had an increase between the No-Action  
12 or either H3 or H4.

13 In the number of years with reduced coldwater  
14 habitat for any of the reservoirs, Trinity Lake had a  
15 small increase for H3 only. H3 is not the same as H3+.

16 My translation would be that H3+ did not have  
17 an increase, or he would have mentioned that.

18 MR. STOKELY: Okay. So you're saying that the  
19 H3 that's discussed here does not -- is not the same as  
20 CWF H3+?

21 WITNESS PARKER: That is true. That is  
22 correct.

23 MR. STOKELY: Okay.

24 WITNESS PARKER: Did you want to hear about  
25 reservoir balancing? Does that matter now?

1 MR. STOKELY: Could you repeat that?

2 WITNESS PARKER: Do we want to discuss  
3 reservoir balancing? That might not matter now.

4 MR. STOKELY: I didn't understand.

5 WITNESS PARKER: Never mind.

6 MR. STOKELY: That's okay.

7 Let's see. Dr. Wilder, can a reduction in  
8 Trinity Lake coldwater storage lead to increased  
9 downriver temperatures that might negatively impact  
10 Salmonids or other native species?

11 WITNESS WILDER: In a hypothetical situation,  
12 sure.

13 MR. STOKELY: Okay. Do you know what happens  
14 to various life stages of Chinook, Coho and Steelhead  
15 when the water gets too warm out of the range of  
16 acceptable temperatures? What happens to those fish?

17 WITNESS WILDER: There's a -- There's a range  
18 of potential effects ranging from sublethal effects  
19 to -- all the way to mortality.

20 MR. STOKELY: Okay. Thank you.

21 Let's go to State Water Board 24, bottom of  
22 Page 61 and the top half of Page 62.

23 (Exhibit displayed on screen.)

24 MR. STOKELY: That's State Water Board 24?

25 MS. PERRY: Could you repeat that?



1 MR. STOKELY: I was looking for Water Order  
2 90-5.

3 Did I give the wrong citation?

4 CO-HEARING OFFICE DODUC: 24.

5 CO-HEARING OFFICER MARCUS: 24.

6 MR. STOKELY: 24.

7 MS. PERRY: Sorry.

8 MR. STOKELY: I guess I'll wait next time to  
9 give you the page number before you get to the  
10 document.

11 (Exhibit displayed on screen.)

12 MR. STOKELY: Here we go. And Page 61 at the  
13 bottom.

14 (Exhibit displayed on screen.)

15 MR. STOKELY: Yeah. Maybe scroll up just  
16 another line or two.

17 (Exhibit displayed on screen.)

18 MR. STOKELY: Excuse me. Scroll down a line  
19 or two -- sorry -- so you can see the bottom of Page 61  
20 and the top of Page 62.

21 (Exhibit displayed on screen.)

22 MR. STOKELY: Okay. Dr. Wilder, this is Water  
23 Order 90-5. It set a daily average temperature for the  
24 Trinity River in the Bureau's Permits at 56 degrees at  
25 Douglas City between September 15th and October 1st,

1 and 56 degrees at the confluence of the North Fork  
2 Trinity River between October 1st and December 31st.

3 Are you familiar with this Permit term and  
4 condition that Reclamation has that was imposed on them  
5 in 1990 by the State Board?

6 WITNESS WILDER: Only insofar as I -- I've  
7 heard it mentioned. I'm not really familiar with this  
8 document, but yes.

9 MR. STOKELY: Okay. When you modeled, did  
10 you -- Or I guess I'd ask the modelers this question.

11 When you modeled, did you take into account  
12 this requirement on Reclamation's water rights?

13 I'd like to ask Mr. Reyes.

14 WITNESS REYES: Temperature requirements  
15 aren't specifically modeled in -- in the CalSim model.  
16 It's -- There are temperature models that look at the  
17 resulting operations and then, from that, there are --  
18 are determined temperatures, but it's not a  
19 requirement -- or it's not something that can be  
20 operated to within the CalSim model.

21 MR. STOKELY: Um-hmm. Perhaps it can't be  
22 operated to.

23 But in the environmental documents, did you  
24 identify how many days you might be in or out of  
25 compliance with this requirement for each alternative?

1           WITNESS REYES: I'm not familiar with -- with  
2 that part of the document. I -- I don't deal with  
3 temperatures too much in my professional experience.

4           MR. STOKELY: Would it be safe to say that you  
5 didn't identify the number of days in compliance with  
6 this because you used the monthly model -- temperature  
7 model for the Trinity, so you couldn't have?

8           WITNESS REYES: I'm just saying, I don't know  
9 what was identified in the EIR. If -- If they looked  
10 at this or not, specifically, I'm not aware.

11          WITNESS WILDER: If -- If we could hopefully  
12 save some time by going to the BA, DWR-1142,  
13 Appendix 5.C.

14          CO-HEARING OFFICE DODUC: Hold on.  
15 Let's . . .

16          WITNESS WILDER: It's 1142.

17          CO-HEARING OFFICE DODUC: Look, there are  
18 parties going on out there. That's where I want to be.

19          MR. STOKELY: Pardon me?

20          CO-HEARING OFFICE DODUC: There's a party  
21 going --

22          MR. STOKELY: Yeah.

23          CO-HEARING OFFICER DODUC: -- on right behind  
24 you.

25          MR. STOKELY: That's why I can't hear

1 anything.

2 We should go over there for lunch.

3 WITNESS WILDER: Appendix 5.C.

4 (Exhibit displayed on screen.)

5 WITNESS WILDER: So these are the -- the  
6 modeling results for BA H3+ which falls within H3/H4  
7 that were modeled during the FEIR/EIS.

8 Could you search for Table 5.C.7.

9 (Exhibit displayed on screen.)

10 WITNESS WILDER: I apologize. There are no  
11 page numbers associated with that.

12 5.C.7.

13 (Exhibit displayed on screen.)

14 WITNESS WILDER: So this table shows the --  
15 the model results for Trinity River below Lewiston Dam.

16 It's a large table with a lot of numbers, but  
17 I'll direct you to -- So -- So this shows a lot of  
18 exceedances by month. It shows a lot of exceedances at  
19 the very top of -- for each month as well as the -- the  
20 long-term average, which is across all 82 water --  
21 water years, and then below that is by water year type.

22 And then for each month, it shows the NAA, the  
23 PA, or the BA H3+ as we're referring to it, and  
24 differences and percent differences.

25 And I'd like you to focus on those differences

1 and percent differences. We can look at the long-term  
2 averages or we could go for each water year type.

3 But you'll see -- You'll see extremely small  
4 numbers here.

5 And what I'm trying to get at is that there  
6 are next to no differences in Trinity River water  
7 temperatures under the Project versus without.

8 For each month, splitted up by water year  
9 type, it's -- it's the same answer. If anything, you  
10 can see in re -- in October, there's reduction.

11 MR. STOKELY: So when it says minus 4 percent  
12 or --

13 CO-HEARING OFFICE DODUC: I think your  
14 microphone is off.

15 MR. STOKELY: When it says minus 4 percent or  
16 1 percent, that's a decrease in temperatures; is that  
17 correct?

18 WITNESS WILDER: That's correct.

19 MR. STOKELY: Okay.

20 WITNESS WILDER: Under the Project.

21 MR. STOKELY: I'm not sure you answered my  
22 previous question.

23 Can a monthly model mask daily impacts to the  
24 fish?

25 WITNESS WILDER: I believe I said yes.

1 MR. STOKELY: Okay. Excuse me. My memory's  
2 failing me. Okay.

3 CO-HEARING OFFICE DODUC: But the chart is  
4 helpful. Thank you.

5 WITNESS WHITE: I -- This is Kristin.

6 I would also like to add just in response to  
7 daily versus monthly.

8 We do have some temperature control at  
9 Trinity, particularly when we get into lower reservoir  
10 elevations by releasing colder water. So, there's also  
11 a daily operation real-time -- real-time operation  
12 aspect to -- to operating and releasing water at that  
13 facility.

14 MR. STOKELY: Is it possible that, by opening  
15 the auxiliary outlet on Trinity Dam when storage is  
16 very low, that you could exhaust the cold water in the  
17 reservoir?

18 Could you run out of cold water like you did  
19 at Shasta?

20 WITNESS WHITE: I -- I guess it's possible to  
21 operate, anyway. That wouldn't be an operational  
22 scenario that Reclamation would intend to do.

23 MR. STOKELY: Okay. Let's go to State Water  
24 Board-102, which is the 2016 Final EIR/EIS.

25 CO-HEARING OFFICE DODUC: And as we're going

1 there, Mr. Stokely, I would like to give the court  
2 reporter a rest around 11:00 or just before, so if  
3 there's a good time to break in your cross-examination.

4 MR. STOKELY: Okay. I will do that.

5 CO-HEARING OFFICE DODUC: Perhaps before you  
6 get to Dr. Greenwood.

7 MR. STOKELY: Pardon?

8 CO-HEARING OFFICE DODUC: Perhaps before you  
9 get to Dr. Greenwood, we'd like to take a break.

10 (Exhibit displayed on screen.)

11 MR. STOKELY: Okay. Let's go to Page 762 of  
12 the .pdf.

13 (Exhibit displayed on screen.)

14 MR. STOKELY: Yesterday, Dr. Wilder, you and  
15 Mr. Reyes could not recall what the Trinity Lake  
16 carryover storage target was that you analyzed in the  
17 modeling, and I'm just going to refresh your memory on  
18 that.

19 So, let's see, this is Page -- Is that 762 of  
20 the .pdf?

21 WITNESS REYES: If I can maybe speed things  
22 up.

23 If you want to see what's in the modeling, is  
24 this -- Yeah. This is the right document.

25 If you go to Appendix 5.A. And it's the

1 CalSim modeling assumptions. I think it's.

2 CalSim II under the modeling assumptions.

3 (Exhibit displayed on screen.)

4 WITNESS REYES: And if you could go to

5 Page 73.

6 (Exhibit displayed on screen.)

7 WITNESS REYES: So there in about the middle

8 of the page, it says, "Trinity River," and then you

9 have minimum -- minimum flow below Lewiston Dam and

10 then Trinity Reservoir end-of-September minimum

11 storage.

12 And it says, "Trinity EIS preferred

13 alternative 600,000 acre-feet as able," and it's the

14 same under the No-Action case, which is the same in H3+

15 and -- and all the modeling scenarios, actually.

16 MR. STOKELY: Okay. Thank you.

17 I think this line of questioning may have

18 petered out because of one of the answers.

19 Okay. Let's . . . go to Mr. Reyes' slide

20 show, DWR-1028.

21 (Exhibit displayed on screen.)

22 MR. STOKELY: Oh, excuse me. Slide 45,

23 please.

24 (Exhibit displayed on screen.)

25 MR. STOKELY: Mr. Reyes, as I understand it,



1 this is results of the end-of-September storage in  
2 Trinity Lake for the various alternatives, No-Action,  
3 H3, BA H3+.

4           The proposed action is in magenta there,  
5 CWF H3+; is that correct?

6           WITNESS REYES: Yes, that's correct.

7           MR. STOKELY: And if you go over to the far  
8 left there, it looks to me like the -- the black line,  
9 which is the No-Action Alternative, is higher than any  
10 of the other alternatives -- is that correct? -- even  
11 though it looks very small on this figure? Is that  
12 correct that the --

13           WITNESS REYES: As I see it, in the very far  
14 left, they're the same, and then there is a blip there  
15 where the black line goes above the other lines,  
16 including the magenta line. And I think that probably  
17 represents one year.

18           And then, after that, the magenta line goes  
19 above the black line up till, you know, where it  
20 crosses at about --

21           MR. STOKELY: Okay. So, for Dr. Wilder:

22           For that part on the far left, they all  
23 start -- On the vertical axis there, they all start the  
24 same, but then CWF H3 dips below the No-Action  
25 Alternative there briefly before it goes up above the

1 line.

2           So that -- Does that indicate that there is  
3 less storage in Trinity Lake under those very low  
4 storage conditions?

5           I thought I heard you say that that dipping  
6 below the line may be one year that -- that there was  
7 less storage in Trinity Lake under the CWF H3+.

8           WITNESS REYES: Right. There's one year in  
9 the sequence at this exceedance level -- that's maybe  
10 the best way to say it -- is, there -- they may not be  
11 the exact same year.

12           But at this exceedance level, there is one  
13 case under -- I'm assuming it's one case. It may be  
14 different. But that -- It looks like it's one year as  
15 far as exceedances are concerned, that it's lower at  
16 this exceedance level than it is for the No-Action  
17 case.

18           MR. STOKELY: So based on this figure, would  
19 you say that, at least in one year out of the 82-year  
20 trace that you looked at, Trinity Lake storage is  
21 incrementally lower than it would be under No-Action in  
22 that one year?

23           WITNESS REYES: At that one exceedance level,  
24 yes.

25           MR. STOKELY: Thank you.

1 I'm done with this line now.

2 I just wanted to . . . ask Dr. Greenwood, so  
3 now's a good time for a break.

4 CO-HEARING OFFICER DODUC: All right. So  
5 let's go ahead and take our 15 -- 14-minute break. We  
6 will return at 11:10.

7 (Recess taken at 10:56 a.m.)

8 (Proceedings resumed at 11:10 a.m.):

9 CO-HEARING OFFICE DODUC: Please take your  
10 seats. It is 11:10.

11 We are resuming with Mr. Stokely.

12 MR. STOKELY: Thank you, Hearing Officer  
13 Doduc.

14 I wanted the staff -- I had one more question  
15 for Mr. Reyes, actually, clarification.

16 If the staff could bring up State Water  
17 Board-102, Chapter 11, Page 762.

18 CO-HEARING OFFICE DODUC: And as staff is  
19 bringing that up, let the record show that we're now --  
20 we have been joined by Senior Staff Counsel Dana  
21 Heinrich.

22 MR. STOKELY: It would be State Water Board  
23 102, Chapter 11.

24 (Exhibit displayed on screen.)

25 MR. STOKELY: Okay. And if you could go to

1 .pdf Page 762, please.

2 (Exhibit displayed on screen.)

3 MR. STOKELY: Page 11-762?

4 Oh, excuse me. It's Page 11-762. I'm not  
5 sure which . . . Hmm.

6 I guess I don't have the right reference here.

7 WITNESS BRYAN: Is it 11 dash 762?

8 MR. STOKELY: Yes. It's 11 . . . Let me see  
9 what page it says here.

10 Yes, Page 11-762. Thank you.

11 (Exhibit displayed on screen.)

12 MR. STOKELY: There we are.

13 If you could go to the paragraph that's  
14 Lines 3 to 14.

15 I just want to clarify for the record --

16 (Exhibit displayed on screen.)

17 MR. STOKELY: -- and verify with Mr. Reyes:

18 It talks about the carryover storage of  
19 600,000 acre-feet part of the Trinity River Restoration  
20 Agreement.

21 And then it goes on in Lines 8 and 9 to say  
22 (reading):

23 "The Trinity Reservoir carryover  
24 storage threshold was (sic) selected to  
25 be less 750,000 acre-feet . . ."

1           Is that correct, Mr. Reyes? You had said  
2 earlier it was 600,000 acre-feet.

3           WITNESS REYES: I don't really know what  
4 context that -- that 750,000 acre-feet is being called  
5 out. I think it's -- It seems to be referring to a  
6 threshold, but I don't know what threshold that's meant  
7 to be measuring.

8           And I'm not -- I'm not intimately familiar  
9 with this document. This is an Aquatic Resources  
10 appendix, I believe, or chapter, and it's really not my  
11 expertise.

12          WITNESS WILDER: Yeah. Maybe I can clarify:

13          This -- This is a -- a threshold that we used  
14 for the coldwater reservoir species analysis. It's  
15 independent of -- of what you're asking of Mr. Reyes.

16          MR. STOKELY: Okay. But the 750,000  
17 acre-foot -- acre-feet is the threshold that you had to  
18 measure impacts.

19          So when you found under -- was found under H3  
20 that there was one additional year, 13 instead of 12  
21 out of the 82 years, this was the criteria that was  
22 being used, the 750,000 acre-feet?

23          That's the way I read it.

24          WITNESS WILDER: It's been awhile since I've  
25 looked at this.

1 I believe you are correct.

2 MR. STOKELY: Okay. Thank you. That was all  
3 on that.

4 Dr. Greenwood, I just had a couple of  
5 questions for you and then we can get on to the next  
6 cross-examiner.

7 Could you please bring up DWR-1012.

8 (Exhibit displayed on screen.)

9 MR. STOKELY: And Page 14, Line 11.

10 (Exhibit displayed on screen.)

11 MR. STOKELY: And you talk about (reading):

12 "Habitat loss will be mitigated by a  
13 total of yearly 1828 acres of  
14 restoration."

15 Is that correct, Dr. Greenwood?

16 WITNESS GREENWOOD: Yes. In this context,  
17 this is specifically referring to shallow water  
18 habitat --

19 MR. STOKELY: Okay.

20 WITNESS GREENWOOD: -- in relation to -- back  
21 to Delta Smelt.

22 MR. STOKELY: Okay. Could we please go to  
23 Page 22 now.

24 (Exhibit displayed on screen.)

25 MR. STOKELY: And Lines 3 and 4.

1           You mention that CWF -- on Line 3 (reading):  
2           ". . . CWF H3 (sic) includes  
3           approximately 1750 acres of shallow water  
4           habitat mitigation to offset effects  
5           related to potential restricted Delta  
6           Smelt access . . ."

7           I was just wondering, are the 1750 acres and  
8 the 1828 acres the same or are they additive?

9           WITNESS GREENWOOD: They are -- The 1750 is a  
10 subset of the 1828.

11          MR. STOKELY: Okay. Thank you.

12          And then let's go to Page 33.

13          (Exhibit displayed on screen.)

14          MR. STOKELY: Line 22.

15          (Exhibit displayed on screen.)

16          MR. STOKELY: And you mention (reading):

17                 "The losses of tidal perennial  
18                 habitat . . ."

19          I believe this is related to Salmon habitat.

20          And it talks about 154.8 acres of habitat  
21 mitigation; is that correct?

22          WITNESS GREENWOOD: Yes.

23          MR. STOKELY: Does -- Is there any overlap  
24 between that habitat mitigation and the mitigation  
25 acreage for Smelt?

1           WITNESS GREENWOOD: Yes. I -- I believe that  
2 that could part of the overall Smelt acreage, depending  
3 on the criteria, specifically areas that would be  
4 suitable for -- finding areas that would be suitable  
5 for Delta Smelt as well as for Salmonids in this case.

6           MR. STOKELY: Okay. And then one final  
7 question:

8           Are any of these habitat mitigation measures  
9 already included in other requirements, such as  
10 previous Biological Opinions?

11           Is there -- Is -- Is there any double-dipping  
12 going on, so to speak, where this acreage that's  
13 mitigation for CWF H3+, is any of that mitigation  
14 already required under any other permit?

15           WITNESS GREENWOOD: No. This is specific to  
16 CWF H3+.

17           MR. STOKELY: Okay. Thank you.

18           That's all my questions. I'm done.

19           CO-HEARING OFFICE DODUC: Thank you,  
20 Mr. Stokely. Thank you for driving all this way to  
21 join us.

22           MR. STOKELY: Thank you. Thank you for having  
23 me.

24           CO-HEARING OFFICE DODUC: Miss Des Jardins,  
25 you are up.



1 MR. MIZELL: Hearing Officer Doduc, if I  
2 might. Tripp Mizell, DWR.

3 Miss Des Jardins, in order to try and expedite  
4 things, has provided DWR with her exhibits on a USB  
5 drive.

6 Our witnesses do not have screens and do not  
7 have computers.

8 If there is a lengthy document, we are trying  
9 to pull these up on one of our attorneys' computers, at  
10 which point we may find that we need to pass the  
11 computer to them in order for them to review the  
12 document. I just didn't want that to become a problem  
13 should it be done.

14 CO-HEARING OFFICE DODUC: Thank you.

15 MS. DES JARDINS: I just wanted to add: This  
16 is much easier for me than trying to make paper copies  
17 of the documents.

18 CO-HEARING OFFICE DODUC: I never object to  
19 being paperless.

20 MS. DES JARDINS: Likely --

21 CO-HEARING OFFICE DODUC: Miss Des Jardins,  
22 before you begin your cross-examination, we would like  
23 to take a lunch break sometime between noon and 12:30,  
24 depending on when there is a natural break in your line  
25 of questioning.

1 MS. DES JARDINS: Okay.

2 CO-HEARING OFFICE DODUC: So please keep that  
3 in mind.

4 MS. DES JARDINS: Okay. And as far as -- My  
5 name is Dierdre Des Jardins with California Water  
6 Research.

7 Are my cross exhibits loaded?

8 Okay. And I have assembled questions on: The  
9 reservoir -- reservoir modeling; on adaptive  
10 management; on the proposed Operations Plan and the  
11 current Operations Plan; and some on real-time  
12 operations proposed and current real-time operations;  
13 some on model assumptions about sharing of export  
14 capacity; and some information on the export-to-inflow  
15 ratio, and . . .

16 So let's start -- Since Mr. Stokely just asked  
17 questions, let's pull up DWR-1028, which is Erik Reyes'  
18 PowerPoint, and Page 43.

19 (Exhibit displayed on screen.)

20 CROSS-EXAMINATION BY

21 MS. DES JARDINS: So, Mr. Reyes, this is your  
22 graph of Oroville and-of-six -- end-of-September  
23 storage under the CWF H3 modeling plus (sic) and other  
24 modeling runs; correct?

25 WITNESS REYES: Yes, that's correct.

1 MS. DES JARDINS: So this is -- These -- These  
2 end-of-September targets are sensitive to the Oroville  
3 carryover storage targets; correct?

4 MR. MIZELL: Objection.

5 CO-HEARING OFFICE DODUC: And the objection  
6 is?

7 MR. MIZELL: Vague as to the use of the word  
8 "sensitive" with regards to the model.

9 I just want to make sure that the witness and  
10 the questioner use it in the same manner.

11 MS. DES JARDINS: Mr. Reyes, is there a common  
12 understanding of model sensitivity to a parameter?

13 WITNESS REYES: I don't know if it's a common  
14 understanding, but if -- if by "sensitive" you mean  
15 that the model result is driven by a model criteria,  
16 then I guess that's the understanding I have of what  
17 you mean by --

18 MS. DES JARDINS: Yes.

19 WITNESS REYES: -- "sensitive."

20 MS. DES JARDINS: Yes.

21 So if you vary the Oroville carryover storage  
22 targets, it would vary these curves as well; is that  
23 not correct?

24 WITNESS REYES: It would in this sense: That  
25 the target is a target and it's not a -- a

1 hard-and-fast rule.

2           The Oroville storage is essentially operated  
3 to meet the various requirements upon it, including  
4 fish and wildlife requirements, flood control, meeting  
5 deliveries for -- for various contractors or -- or  
6 water rights holders.

7           And so there is a target carryover to try to  
8 assist in -- in planning for the following year, making  
9 sure that there's enough storage in Oroville to meet  
10 its obligations in the following year.

11           However, it is adapting or operating to the  
12 climate conditions as well, so it's -- it's largely  
13 depending on the supply that's available.

14           MS. DES JARDINS: Mr. Reyes, aren't there very  
15 specific numeric assumptions in the model about  
16 Oroville carryover storage charts?

17           WITNESS REYES: Yes, there's an Oroville  
18 carryover target rule which sets the target, but,  
19 again, that target is a target, not a -- a  
20 hard-and-fast rule.

21           MS. DES JARDINS: Let's pull up Exhibit  
22 DDJ-243.

23           (Exhibit displayed on screen.)

24           MS. DES JARDINS: This is the -- the Oroville  
25 September target from the CWF H3+ . . . modeling.

1           Mr. Reyes, did you -- are you -- are you aware  
2 of this in the model?

3           MR. MIZELL:  Objection.

4           CO-HEARING OFFICE DODUC:  Grounds?

5           MR. MIZELL:  Yes.  We've had no authentication  
6 that this code is what the questioner purports it to  
7 be.  I'd like a little more foundation laid before  
8 Mr. Reyes has to respond.

9           MS. DES JARDINS:  We could go to the link on  
10 the website, but I believe it only goes to an FTP site.

11           So this is evidence that you have submitted  
12 for this proceeding, but I think it's just going to an  
13 FTP site.

14           We can go and try and download what you have  
15 submitted for the --

16           CO-HEARING OFFICE DODUC:  Let me ask  
17 Mr. Reyes --

18           MS. DES JARDINS:  Yeah.

19           CO-HEARING OFFICE DODUC:  -- if this looks  
20 familiar to you.

21           WITNESS REYES:  It looks like Russell code,  
22 which is the code that informs the CalSim model, and it  
23 looks roughly familiar.

24           I've -- Yeah, it -- it looks familiar.  I  
25 don't know if it's the exact code that's used in

1 this -- in our modeling for CWF H3+ or for the  
2 No-Action but it looks familiar, yes.

3 MS. DES JARDINS: I need to be able to examine  
4 these witnesses on the actual assumptions in the  
5 modeling, and the modeling needs to be provided in a  
6 way that I could do so.

7 CO-HEARING OFFICER DODUC: All right.

8 MS. DES JARDINS: I downloaded this and copied  
9 it verbatim, so --

10 CO-HEARING OFFICE DODUC: All right,  
11 Miss Des Jardins. Hold on.

12 MS. DES JARDINS: Yeah.

13 CO-HEARING OFFICER DODUC: Miss Morris?

14 MS. MORRIS: Thank you.

15 I think the issue is that obviously it is  
16 model code. The issue is what modeling run is it? And  
17 there were several that were on the FTP site.

18 And so absent some clarification -- And in the  
19 past in Part 1, we asked modeling -- I know because I  
20 had to learn how to do it -- we had to walk through and  
21 verify which -- which modeling runs we were pulling up  
22 to look at the code.

23 So perhaps to make this easier than having to  
24 do that, Miss Des Jardins could state what she pulled  
25 this from and all of the answers could be based on the

1 fact that there's an understanding that this is H3+ or  
2 this is the No-Action Alternative, and then the record  
3 would reflect that questions were being asked on -- on  
4 that understanding.

5 But she would need to clarify which modeling  
6 run.

7 CO-HEARING OFFICE DODUC: That sounds like a  
8 reasonable request.

9 Miss Des Jardins.

10 MS. DES JARDINS: I'm willing to go to the  
11 link on the website, since they've made this an issue.

12 CO-HEARING OFFICE DODUC: But hold on.

13 MS. DES JARDINS: Yeah. Let's go --

14 CO-HEARING OFFICER DODUC: Before --

15 MS. DES JARDINS: -- to the --

16 CO-HEARING OFFICER DODUC: Before --

17 MS. DES JARDINS: -- website and pull --

18 CO-HEARING OFFICE DODUC: Miss Des Jardins,  
19 before we do that --

20 MS. DES JARDINS: Yeah.

21 CO-HEARING OFFICER DODUC: -- can you identify  
22 which modeling run this is from?

23 MS. DES JARDINS: This was from CWF H3+, which  
24 I believe is Exhibit DWR-1077.

25 I was trying to save some time in

1 cross-examination but we could go to DWR-1077. I

2 believe that then --

3 CO-HEARING OFFICE DODUC: Hold on.

4 MS. DES JARDINS: -- we can extract --

5 CO-HEARING OFFICE DODUC: Hold on.

6 MS. DES JARDINS: Yeah.

7 CO-HEARING OFFICE DODUC: Mr. Jackson.

8 MR. JACKSON: Yes. I -- I understand the --

9 the concept of the problem.

10 This is impenetrable to most humans but  
11 clearly can be understood at some level by these --

12 CO-HEARING OFFICER DODUC: Nonhumans?

13 MR. JACKSON: -- wonderful people in the room.

14 Miss Jardins (sic) understands it, I'm  
15 convinced, and, well, I don't.

16 The -- It seems to me that after it's  
17 authenticated and -- And if you want authentication,  
18 she can do that. It'll take awhile.

19 But it seems to me that we should go forward  
20 to -- in -- in concept of time, not -- I mean --  
21 arguing about ".5 previous Sep S6."

22 CO-HEARING OFFICE DODUC: I understand. I  
23 understand --

24 MR. JACKSON: Okay.

25 CO-HEARING OFFICER DODUC: -- Mr. Jackson.



1 MR. JACKSON: Thanks.

2 CO-HEARING OFFICE DODUC: Let me turn to my  
3 counsel.

4 I believe that in previous cross-examination  
5 in various parts of this hearing, we have allowed  
6 cross-examination prior to authentication of various  
7 documents.

8 Or was there a specific request for  
9 authentication previously?

10 MS. HEINRICH: I'm sorry. I don't remember.

11 CO-HEARING OFFICE DODUC: I mean, we have  
12 allowed people to conduct cross-examination --

13 MS. DES JARDINS: I think you --

14 CO-HEARING OFFICE DODUC: Hold on.

15 -- on the basis of their assertion that this  
16 is the source of the material that they pulled from,  
17 and then, you know, we went on from there; right?

18 It has been awhile since Part 1.

19 MR. MIZELL: Yes. I believe that Miss Morris  
20 correctly stated that we have done that in the past.  
21 We have moved forward with questioning based on the  
22 assertion that the document is what the questioner  
23 purports it to be. And as Miss More indicated, I would  
24 now agree from the Department's perspective.

25 We now have an exhibit number that

1 Miss Des Jardins has identified that this code is  
2 asserted to have come from, which is DWR-1077.

3 I think as long as we allow the witness  
4 clarifying questions so that he's able to ascertain for  
5 himself which aspect of the code he's looking at, so  
6 there may be a bit of a back-and-forth conversation  
7 going on, which is not typically the case.

8 But this code looks to be a bit  
9 object-oriented. I want the questioner (sic) just to  
10 be allowed to be certain that he's delving into the  
11 object that he understands it to be.

12 CO-HEARING OFFICE DODUC: That applies to all  
13 witnesses on all cross-examinations, not just  
14 Miss Des Jardins.

15 If you need clarification, please feel free to  
16 ask for clarification. If you do not know, please feel  
17 free to say you do not know.

18 Miss Des Jardins.

19 MS. DES JARDINS: Yeah. I'm going to at this  
20 point lodge an English vs. City of Long Beach objection  
21 to Exhibits DWR-1074, DSM-II hydromodeling files;  
22 DWR-1075, CalSim BA H3+ model files; DWR-1076, DSM-II  
23 BA H3+ modeling files; DWR-1077, CWF H3+ modeling  
24 files; DWR-1078, DSM-II CWF H3+ modeling files;  
25 DWR-1081, U.S. temperature modeling files; and

1 DWR-1082, U.S. temperature modeling files NAA, because  
2 the exhibits are not provided in a format suitable for  
3 an exhibit. They are not provided in a format that is  
4 human-readable or that is accessible for any kind of  
5 cross-examination.

6           And English vs. City of Long Beach says  
7 they're therefore relying on a process which is  
8 external to this proceeding for extraction of the data.  
9 And, in that sense, they are relying on information  
10 outside the record.

11           And Mr. Bezerra earlier asked for this, at  
12 least the outputs to be provided in human-readable  
13 format. They have not been.

14           This shows the difficulty of any Protestant.  
15 This is simply taking something verbatim from the code  
16 as to --

17           CO-HEARING OFFICE DODUC: All right. Let me  
18 interrupt and ask:

19           Were you or were you not able to download the  
20 modeling programs, extract them, and prepare for your  
21 cross-examination?

22           MS. DES JARDINS: That was a process which is  
23 outside this hearing and which requires somebody with a  
24 significant amount of --

25           CO-HEARING OFFICE DODUC: I'm sorry. How is

1 that outside this hearing if the . . . the information  
2 was provided in order to . . .

3 MS. DES JARDINS: Mr. Reyes, are you able to  
4 authenticate this exhibit at this --

5 CO-HEARING OFFICE DODUC: Hold on.

6 MS. DES JARDINS: -- point?

7 CO-HEARING OFFICE DODUC: Hold on.

8 MS. DES JARDINS: I can't even authenticate  
9 that this is from --

10 CO-HEARING OFFICER DODUC: How --

11 MS. DES JARDINS: -- DWR-1077.

12 CO-HEARING OFFICE DODUC: Hold on.

13 MS. DES JARDINS: Yeah.

14 CO-HEARING OFFICER DODUC: We --

15 MS. DES JARDINS: Sorry.

16 CO-HEARING OFFICE DODUC: -- have -- We have  
17 established that you went to great length to download,  
18 extract information upon which you are now attempting  
19 to conduct cross-examination.

20 We are allowing you to proceed with that  
21 cross-examination and I think, as Mr. Jackson  
22 mentioned, you are one of the rare intellectual non --  
23 being in this room who would understand all that code.

24 So you were able to access information, you  
25 were able to frame the lines of questioning for your

1 cross-examination, and I assume you understood that  
2 information you extracted.

3           So we are not preventing you from conducting  
4 your cross-examination.

5           MS. DES JARDINS: It's just the issue is if  
6 Mr. Reyes is even able to authenticate --

7           CO-HEARING OFFICE DODUC: Miss Des Jardins --

8           MS. DES JARDINS: -- this Exhibit.

9           CO-HEARING OFFICE DODUC: -- you cannot -- No  
10 one, not just you, can just pop up a document and  
11 expect a witness to have -- to authenticate it. That  
12 is not -- That is not expected --

13           MS. DES JARDINS: I --

14           CO-HEARING OFFICER DODUC: -- again in this  
15 matter.

16           MS. DES JARDINS: I --

17           CO-HEARING OFFICE DODUC: We are proceeding  
18 with your cross-examination.

19           MS. DES JARDINS: I'm talking about --

20           CO-HEARING OFFICE DODUC: Miss Morris.

21           MS. DES JARDINS: -- Exhibit DWR 1077.

22           Is there any way to authenticate what's in  
23 this file --

24           MS. MORRIS: Thank you.

25           CO-HEARING OFFICER DODUC: Miss Morris.

1 MS. MORRIS: To the --

2 MS. DES JARDINS: -- or do you wish to  
3 authenticate it?

4 MS. MORRIS: To the extent the motion -- And I  
5 understand we're proceeding on the basis that this is  
6 indeed the model output --

7 CO-HEARING OFFICER DODUC: Um-hmm.

8 MS. MORRIS: -- for H -- CWF H3+.

9 To the extent the Board is considering the  
10 oral motion, I'm not sure I caught everything that  
11 Miss Des Jardins said.

12 But to many of those . . . Sorry.

13 To many of those exhibits, the Board has  
14 already moved those into evidence and, therefore, the  
15 objection is not timely.

16 And if the Board is going to consider the  
17 remainder, it would be possibly better to do it in  
18 writing so that we can all understand exactly what, if  
19 anything, we're responding to if that motion stands.

20 CO-HEARING OFFICE DODUC: Miss Ansley? Oh,  
21 okay.

22 Miss Womack.

23 MS. WOMACK: Yes. Suzanne -- Suzanne Womack,  
24 Clifton Court L.P.

25 I am supposed to receive things by mail, and I

1 did receive a copy from DWR, Miss Truman --

2 I'm -- I get bad with the names, but I do the  
3 copy of the e-mail.

4 -- saying that they sent me a -- a hard copy  
5 by e-mail of this -- of this information.

6 And so I wrote back and I asked to receive a  
7 real copy, and I asked that it be in a readable form  
8 that I could understand and I've heard nothing.

9 CO-HEARING OFFICE DODUC: I would ask you to  
10 take that up with DWR.

11 MS. WOMACK: Are there differences? I mean,  
12 am I supposed to get something that's --

13 CO-HEARING OFFICE DODUC: I don't even know  
14 what it is that you requested and what they have sent  
15 you.

16 MS. WOMACK: Oh, the -- What the -- The  
17 modeling. The -- What Dierdre's talking about, right,  
18 Dierdre, because we talked --

19 MS. DES JARDINS: I -- I believe that --

20 CO-HEARING OFFICE DODUC: Hold on. Hold --

21 MS. DES JARDINS: Yeah.

22 CO-HEARING OFFICER DODUC: -- on.

23 Again, I will leave it to you to figure out  
24 the sharing of documents.

25 I want to now focus on Miss Des Jardins'

1 cross-examination.

2 MS. WOMACK: Okay. So it's okay that I get  
3 something that says I received a hard copy by e-mail.

4 CO-HEARING OFFICE DODUC: That's for you --

5 MS. WOMACK: Because that's --

6 CO-HEARING OFFICE DODUC: Miss Womack, that's  
7 for you to work out with the Department.

8 MS. WOMACK: Well, I've objected. This is --  
9 This is your hearing that I -- you know --

10 CO-HEARING OFFICE DODUC: Miss Womack, we have  
11 made arrangements. We have directed that you be  
12 provided documents.

13 MS. WOMACK: And it's very helpful.

14 CO-HEARING OFFICE DODUC: And right now, I  
15 don't know if Mr. Mizell or Miss Ansley can even answer  
16 the question of what documents you requested and what  
17 was provided to you, and I don't want to further  
18 disrupt Miss Des Jardins' cross-examination.

19 MS. WOMACK: Okay. I -- Would you like me to  
20 put it on the E -- to send the -- what they sent to me  
21 and --

22 CO-HEARING OFFICE DODUC: No.

23 MS. WOMACK: -- what I've sent to them?

24 CO-HEARING OFFICE DODUC: I would like you to  
25 confer with DWR outside of this hearing on what it is



1 that you think you --

2 MS. WOMACK: Modeling.

3 CO-HEARING OFFICER DODUC: -- did not receive  
4 from them and straighten that out between you.

5 Right now, we are focusing on  
6 Miss Des Jardins' cross-examination.

7 MS. WOMACK: Okay. All right. I just wanted  
8 to be sure.

9 MS. DES JARDINS: I --

10 CO-HEARING OFFICE DODUC: And,  
11 Miss Des Jardins, are you still pursuing your  
12 objection, motion, whatever it was, even though we are  
13 acknowledging that you have the right to use those  
14 documents right now to conduct your cross-examination?

15 MS. DES JARDINS: May I ex -- May I explain  
16 just a minute?

17 The exhibits I objected to have not been moved  
18 into evidence. And as someone with a computer  
19 background, it's -- There's a fundamental issue of  
20 information being provided in a raw data format that's  
21 not human-readable and not accessible.

22 The code extraction is one thing. There's  
23 another issue with the actual output about things like  
24 flows near Clifton Court Forebay that Miss Womack might  
25 be interested in.

1           And, yes, I do intend to pur -- pursue it  
2 because I believe it's an issue for every environmental  
3 group in this proceeding that don't have a professional  
4 modeler to extract, for example, the end-of-September,  
5 you know, 82-year period of carryover storage for  
6 Oroville, and they will not have access to it, because  
7 of it.

8           CO-HEARING OFFICE DODUC: Miss Morris.

9           MS. MORRIS: I just for the record would like  
10 to remind the Hearing Officers that, in Part 1, DWR did  
11 not submit raw modeling, and they were chastised by  
12 other participants, and then they did submit it and  
13 make it available.

14           The modeling summaries are included, which is  
15 readable output. I think I can mostly read the output  
16 and understand it to support their case in chief.

17           So those portions have been provided in  
18 readable output. And most likely the Department only  
19 included the raw modeling in this instance so as to not  
20 have to face motions to strike their witnesses'  
21 testimony because it wasn't included.

22           CO-HEARING OFFICE DODUC: Mr. Jackson.

23           MR. JACKSON: Since -- Since both  
24 Ms. Des Jardins and Miss Morris are super-human  
25 individuals, I can testify that -- And I'm not

1 testifying.

2 I can assert that I would support  
3 Miss Des Jardins' motion on behalf of CSPA, C-WIN, and  
4 AquAlliance. I assume but don't know for sure that it  
5 would be also supported by a number of environmental  
6 organizations who don't have an attorney here today.

7 So I think the motion and the testimony are  
8 two different things.

9 And so I would, I guess, suggest that the  
10 motion be put in writing and all of us have a chance to  
11 look at it, but that we go on with the hearing for  
12 cross-examination.

13 CO-HEARING OFFICE DODUC: Did you say go on  
14 with the hearing? Oh, thank you, Mr. Jackson.

15 MR. JACKSON: For cross-examination. I --  
16 I --

17 CO-HEARING OFFICE DODUC: Thank you,  
18 Mr. Jackson. In fact, I was about to go there.

19 At this time, the Petitioners have not yet  
20 moved -- It's not the time to move exhibits into the  
21 record in any case. And the window for objections  
22 continue until such time that they move their exhibits  
23 into the record.

24 So between now and then, whatever that might  
25 be, Miss Des Jardins, please submit a written

1 objection/motion and we will -- we will take it under  
2 consideration.

3 But for now, let's turn back to your  
4 cross-examination.

5 MS. DES JARDINS: Thank you.

6 And --

7 CO-HEARING OFFICE DODUC: Miss Ansley, did you  
8 have something to add?

9 MS. ANSLEY: I just have a small request and I  
10 thank you for that ruling. We would appreciate seeing  
11 anything in writing.

12 If -- If -- I would request that if cases are  
13 cited in the future orally by representatives, that  
14 they would provide the case cites as well for that.  
15 That would be helpful for --

16 CO-HEARING OFFICE DODUC: And she will do  
17 that --

18 MS. ANSLEY: -- for the motions.

19 CO-HEARING OFFICE DODUC: -- in her written  
20 motions; all right?

21 MS. DES JARDINS: I apologize. It's a complex  
22 intersection of technical and legal issues.

23 So, Mr. Reyes, assuming that I did extract  
24 this from Exhibit DWR-1077, and this is the carryover  
25 storage target, I direct you to . . .

1           It -- This defines the carryover storage  
2 target for Oroville in the CalSim code; correct?

3           WITNESS REYES: I believe it does. But could  
4 you just -- If you know the name of this file, could  
5 you let me know the name of this file?

6           MS. DES JARDINS: Yeah. It's . . . It's  
7 Oroville . . .

8           Just a second. I believe I've got it open on  
9 my laptop.

10          It's -- Yeah. It's orovillerulecurv.russell,  
11 C-U-R-V.russel.

12          WITNESS REYES: Thank you.

13          And --

14          MS. DES JARDINS: And it's in Common North of  
15 Delta Feather.

16          WITNESS REYES: Thank you. That's -- That was  
17 going to be my next question. Thank you.

18          MS. DES JARDINS: Yeah.

19          It's dated 2015, and it -- I believe it's  
20 common -- This is the implementation of the Oroville  
21 rule curve.

22          And if you haven't changed this since the --  
23 since the files were submitted for Part 1, so this is a  
24 carry-on for that?

25          WITNESS REYES: That's correct. As we stated

1 in Part 1, you know, Cal WaterFix does not propose to  
2 change upstream operations, so it should be the same.

3 MS. DES JARDINS: So it -- This says  
4 (reading):

5 "0.5 times SWP allocation final."

6 So this -- So it's like the percent of  
7 Table A. And then it looks at the previous September  
8 minus a thousand.

9 It's -- So it's -- it's whatever's -- The  
10 carryover storage target is whatever's there over a  
11 million acre-feet; correct?

12 WITNESS REYES: So . . .

13 I'll just say this: This is the code that  
14 represents, you know, an operation that is meant to be  
15 the Oroville carryover target.

16 And Mr. Miller may be able to chime in, but  
17 the -- the rule is essentially . . .

18 When setting the rule curve -- And you do this  
19 beginning in the allocation season. So this is for the  
20 following year.

21 You look at the previous September's Oroville  
22 storage. And so whatever that storage value is, let's  
23 say it's 2 million.

24 And the amount above a million -- in this  
25 case, it would be exactly a million -- so 2 million

1 minus 1 million.

2           You take .5 of that times also the allocation  
3 of this coming year. So if it's an allocation of  
4 50 percent, so now you have .5 times .5 times  
5 1 million. That becomes 250,000 acre-feet.

6           And then you add that to 1 million, which is  
7 that 1,000 there at the front. And so the rule curve  
8 for the coming year would be 1,250,000 acre-feet or  
9 1.25 million.

10           MS. DES JARDINS: Thank you.

11           And just to clarify it for a non-technical  
12 witness -- technical audience, can we pull up Exhibit  
13 DWR-902 . . . from Part 1.

14           902.

15           (Exhibit displayed on screen.)

16           MS. DES JARDINS: And -- Yeah. Don't zoom in.  
17 100 percent, please.

18           (Exhibit displayed on screen.)

19           MS. DES JARDINS: Yeah. Okay. Scroll down.

20           (Exhibit displayed on screen.)

21           MS. DES JARDINS: Keep going.

22           (Exhibit displayed on screen.)

23           MS. DES JARDINS: Keep going.

24           (Exhibit displayed on screen.)

25           MS. DES JARDINS: Keep going.

1 (Exhibit displayed on screen.)

2 MS. DES JARDINS: Keep going.

3 (Exhibit displayed on screen.)

4 MS. DES JARDINS: Keep going.

5 (Exhibit displayed on screen.)

6 MS. DES JARDINS: Assumptions for 2012. Go  
7 down to that page.

8 (Exhibit displayed on screen.)

9 MS. DES JARDINS: And there, it says --  
10 This -- Mr. Leahigh testified about this in Part 1.

11 Lake Oroville storage target is 1 million  
12 acre-feet plus F, where F is the fraction of total  
13 allocate -- total allocations, times the amount of  
14 storage you have over 1 million acre-feet the previous  
15 September.

16 So -- So -- So this is the actual operations  
17 and control decision document that -- that that number  
18 is reflecting; correct?

19 CO-HEARING OFFICE DODUC: Is there an  
20 objection, Mr. Mizell?

21 MR. MIZELL: I'm wondering if Mr. Reyes can  
22 tell from her question where on this page of numbers  
23 she's --

24 MS. DES JARDINS: It says under "reservoir  
25 targets."



1 Zoomed in.

2 (Exhibit displayed on screen.)

3 MS. DES JARDINS: The Lake Oroville storage  
4 target indicates that.

5 And this is from 2012 from an actual OCL  
6 Office setting of targets.

7 WITNESS REYES: So, I would just like to say  
8 I'm not too familiar with this document. But if I read  
9 that line, Lake Oroville storage target equals  
10 1 million plus F times 3.045 million acre-feet minus 1  
11 million! where F equals one-half times of possible  
12 Table A.

13 That's -- That's -- As I read that, that seems  
14 to match what I just described.

15 MS. DES JARDINS: Yes.

16 Mr. Miller, you are in the Operations and  
17 Control Office; correct?

18 And this is the type of numeric forecasting  
19 that you do to determine the Oroville carryover storage  
20 target?

21 WITNESS MILLER: Yeah. I think Mr. Leahigh  
22 had covered this in great detail in --

23 MS. DES JARDINS: Part 1.

24 WITNESS MILLER: -- Part 1 Rebuttal maybe.

25 MS. DES JARDINS: Yes.

1           The issue is that Mr. Leahigh indicated that  
2 this had changed, and that the floor was 1.3 million  
3 acre-feet.

4           Now . . . So, Mr. Reyes, this doesn't  
5 match -- This new modeling that you submitted doesn't  
6 match what your -- what Mr. Leahigh testified in Part 1  
7 was the current carryover storage target.

8           MR. MIZELL: Objection.

9           CO-HEARING OFFICE DODUC: Mr. Mizell.

10          MR. MIZELL: Yes. We're going to object to  
11 the use of alleged testimony that we aren't able to  
12 review at this time. We have no idea if Mr. Leahigh  
13 did testify as the questioner asserts or not.

14          We'd like to see some offer of proof that that  
15 is indeed what Mr. Leahigh said, as well as the context  
16 in which he said it.

17          MS. DES JARDINS: I --

18          CO-HEARING OFFICE DODUC: Sustained.

19          Let's pull that up if you have that citation.

20          MS. DES JARDINS: Let's just . . .

21          CO-HEARING OFFICE DODUC: Mr. Jackson.

22          MR. JACKSON: I thought I heard an answer to  
23 the question. I think maybe Mr. Miller does know  
24 whether it's changed from what Mr. Leahigh testified  
25 to.

1 CO-HEARING OFFICE DODUC: I would like to see  
2 what it was that Mr. Leahigh testified to, for -- to  
3 refresh my recollection if nothing else.

4 MS. DES JARDINS: Please pull up Exhibit  
5 FOR-12.

6 (Exhibit displayed on screen.)

7 MS. DES JARDINS: Just a minute. This  
8 is . . .

9 So go down to Page 17, please.

10 (Exhibit displayed on screen.)

11 MS. DES JARDINS: Um . . .

12 CO-HEARING OFFICE DODUC: I'm sorry. I  
13 thought you were looking for Mr. Leahigh's testimony.

14 MS. DES JARDINS: Yes. I discuss it here.

15 No. You know, I don't have a citation for  
16 that. I will -- I will get that to you. Let's go on.  
17 I will get you the actual cite -- page number.

18 So I would like to go -- But . . .

19 Mr. Miller, do -- So the carryover storage  
20 targets for Oroville do change periodically; correct?

21 MR. MIZELL: I'm going to object as asked and  
22 answered in Part 1. The questioner's even indicated  
23 that Mr. Leahigh covered this topic in Part 1.

24 CO-HEARING OFFICE DODUC: Hold on. Hold on,  
25 Mr. Mizell.

1 I'm hoping that she is asking that just to lay  
2 the foundation for her next question, so let's -- let's  
3 wait and see.

4 Answer the question, please, Mr. Miller.

5 WITNESS MILLER: I'm sure Mr. Leahigh  
6 explained it in much greater detail than I -- I can.

7 But based on . . . evaluation of things like  
8 in-basin use and -- from, like, Delta requirements,  
9 and -- and so forth, those are re-evaluated.

10 MS. DES JARDINS: So CalSim essentially  
11 assumes a single fixed carryover storage target; is  
12 that not correct, Mr. Reyes? For Oroville.

13 WITNESS REYES: No, that's not correct.

14 It's -- Like I said, it's based on --

15 MS. DES JARDINS: Well --

16 WITNESS REYES: So you have two things  
17 changing there: You have the previous September  
18 storage changing, and the allocation that changes every  
19 year. So it's not fixed to any one number --

20 MS. DES JARDINS: Well --

21 WITNESS REYES: -- if that's what you mean.

22 MS. DES JARDINS: -- let me clarify.

23 There's a single fixed rule -- carryover rule  
24 that's -- that's defined by that equation.

25 So there is one rule that is assumed to be

1 the -- the rule curve for Oroville, and this is subject  
2 to change over time in reality.

3 WITNESS REYES: Much like anything in any  
4 model, it's an assumption about current operations, and  
5 that's what we are discussing in this proceeding.

6 It's the No-Action case -- We're assuming that  
7 the -- the current operations are not changing. And --  
8 And that's what we've also assumed for Cal WaterFix in  
9 terms of upstream storage criteria -- or operations  
10 criteria, I should say. It's not changing.

11 And like Mr. Miller said, you know, I think  
12 the SWP may evaluate something like that as things  
13 change.

14 If we get different requirements or different,  
15 you know, obligations that the -- the reservoir must  
16 meet, then the Department and SWP may choose to modify  
17 their operations, but I don't think that's what we're  
18 talking about here.

19 We're talking about the current operations and  
20 then how the model implements those operations.

21 And the model, you know, it's -- it's  
22 implementing this fixed rule because we have to assume  
23 something.

24 And in real-time, even that -- that target,  
25 even though they have a rule, I mean, it's -- it's --

1 it's up to them if they're going to strictly adhere to  
2 that. And even that, I said it's a target. So the  
3 hydrology's going to dictate where Oroville ends up in  
4 storage, largely.

5 But this is just a part of operations to give  
6 them a guideline to operate to.

7 MS. DES JARDINS: So, Mr. Reyes or Mr. Miller,  
8 it's not proposed that Oroville carryover storage  
9 targets be part of this Permit; correct? Be part of  
10 this approval or part of the Project?

11 MS. ANSLEY: Objection: Vague and ambiguous,  
12 as to "part of this Project."

13 I believe Mr. Reyes just testified --

14 CO-HEARING OFFICE DODUC: Miss --

15 MS. ANSLEY: -- that there is no -- Under the  
16 California WaterFix, there's no projected change in  
17 Oroville.

18 And I'll let him clarify what I'm saying, but  
19 Oroville storage operations.

20 MS. DES JARDINS: I --

21 (Cellphone rings.)

22 CO-HEARING OFFICE DODUC: Somebody.

23 Oh, no, it's not Miss Aufdemberge again.

24 MS. DES JARDINS: Okay. So -- So, Mr. Reyes,  
25 I guess what I would say -- Mr. Miller, this is

1 proposed -- This is -- setting Oroville carryover  
2 storage target has been part of internal to operations  
3 and control; correct?

4 CO-HEARING OFFICE DODUC: Miss Morris?

5 MS. MORRIS: I'm just going to object.

6 I think this question assumes facts not in  
7 evidence. It also doesn't discuss or acknowledge that  
8 the carryover targets are not set by DWR, but there's  
9 certain rules for Oroville and how it operates that  
10 have nothing to do with the Water Rights Permits and  
11 have everything to do with the Army Corps of Engineers.  
12 And none of anything in this question acknowledges  
13 that.

14 And so it's vague and ambiguous and it's going  
15 to lead to an unclear record.

16 CO-HEARING OFFICE DODUC: Miss Des Jardins,  
17 what was your question again?

18 MS. DES JARDINS: I -- That was really strange  
19 testimony. And I --

20 CO-HEARING OFFICE DODUC: I'm sorry. Hold on.  
21 Hold on.

22 MS. DES JARDINS: Yeah.

23 So Miss Morris just got up and basically  
24 testified that the Oroville carryover storage targets  
25 are set by the Army Corps of Engineers, which simply is

1 not true. I can ask Mr. Miller --

2 CO-HEARING OFFICER DODUC: Hold on.

3 MS. DES JARDINS: -- about it.

4 CO-HEARING OFFICE DODUC: Hold on.

5 Miss Morris stated an objection.

6 MS. DES JARDINS: Yeah.

7 CO-HEARING OFFICE DODUC: And I have now  
8 forgotten your initial question to begin with, so could  
9 you repeat --

10 MS. DES JARDINS: Well --

11 CO-HEARING OFFICER DODUC: -- for me your  
12 question.

13 MS. DES JARDINS: -- let me clarify it.

14 So I was asking Mr. Miller the current process  
15 for setting the Oroville carryover storage target rule,  
16 which computes the carryover storage target as a  
17 function of the storage in the previous September.

18 That rule curve setting -- Miss -- It's  
19 currently done by DWR in the Operations and Control  
20 Office internally; correct?

21 CO-HEARING OFFICE DODUC: I assume you've  
22 either withdrawn your objection or it's overruled.

23 MS. MORRIS: It's a different question.

24 CO-HEARING OFFICER DODUC: Okay. It's a  
25 clearer question.



1 WITNESS MILLER: Are you talking about the --  
2 like, the formula?

3 MS. DES JARDINS: Yes. Internally, there's a  
4 carryover -- carryover storage rule curve, but yes.

5 WITNESS MILLER: Yes.

6 And so that formula goes into the forecasts --  
7 forecasted water supply to the -- to our customers for  
8 the end-of-September storage.

9 WITNESS REYES: I'd also like to add that it's  
10 a -- it's an operating principle that -- that the SWP  
11 is using but it's not a rule -- it's not a regulation.  
12 It's not a requirement, you know.

13 This is just something that -- that the SWP  
14 uses to help balance their system, but it's not a  
15 requirement by, you know, any regulatory agency for us  
16 to meet. It's -- It's just an operational rule.

17 MS. DES JARDINS: So -- So, the assumptions in  
18 the model are not regulatory, and it's an operational  
19 rule that is subject to change; correct?

20 WITNESS MILLER: It -- It -- It helps balance  
21 the -- the risks, and our . . .

22 We -- We -- The most important part of our job  
23 is to make sure that we supply the water to our -- our  
24 in-basin use requirements as part of D-1641, and our  
25 other obligations to the system before making

1 deliveries to our customers. And so that formula helps  
2 guide our operations to meet those goals.

3 MS. DES JARDINS: Thank you.

4 I wanted to move on, and I'll -- I'll finish  
5 up with some of my carryover storage chart attempts.

6 Let's go back to DWR-1028.

7 (Exhibit displayed on screen.)

8 MS. DES JARDINS: Page 44 --

9 (Exhibit displayed on screen.)

10 MS. DES JARDINS: -- is the Trinity  
11 end-of-September storage, and Page 45 --

12 (Exhibit displayed on screen.)

13 MS. DES JARDINS: -- is the -- There's Folsom  
14 and Trinity end-of-September storage and . . .

15 Ms. White -- Ms. Parker, these -- these  
16 results are sensitive to Reclamation's carryover  
17 storage targets; correct?

18 WITNESS PARKER: So, the way that storage --  
19 Well, we don't have storage targets for CVP reservoirs  
20 in CalSim in the way that I think you're talking about  
21 storage targets.

22 Reclamation calculates an allocation within  
23 the model. And then based on that allocation, we try  
24 to manage the combined operations of all of our storage  
25 facilities over an irrigation season.

1           But, again, the -- what you're calling -- or  
2 what maybe has a variable name of a storage target in  
3 CalSim is really an operational touchstone to not let  
4 one reservoir plummet while the other one stays up high  
5 and that kind of thing.

6           We don't operate to specifically try to get to  
7 that place by the end of the year because we don't have  
8 a crystal ball in the model that knows exactly what  
9 hydrology conditions will be present in April and May  
10 and June and July, and, therefore, what releases need  
11 to be made to meet Delta criteria.

12           But on a -- On an aggregate basis, those  
13 storage targets that are identified help to smooth the  
14 operation of the CVP to meet all of our obligations  
15 within the system, but they are not -- they are not  
16 targets in the sense that you were using that word.

17           They're targets in the sense that they help  
18 the system to balance itself, but we are not, like,  
19 saying: "Okay. If we do not hit 2,384 feet in -- or  
20 thousand acre-feet in Shasta at the end of September in  
21 1972, then we've violated a condition."

22           So I think that's the sense that you're using  
23 this in. At least that's the -- that's the  
24 understanding I have, but that's not the way the model  
25 works.

1 MS. DES JARDINS: All right.

2 WITNESS PARKER: Does that help?

3 MS. DES JARDINS: Miss Parker, I'm aware -- So  
4 you have -- With Reclamation the way it's done in  
5 CalSim, you have a delivery target and you divide  
6 the -- your projected water supply into delivery and  
7 carryover; correct?

8 WITNESS PARKER: In -- Well, the -- the table  
9 is called Del Coverage Table (phonetic) --

10 MS. DES JARDINS: Yes.

11 WITNESS PARKER: -- but we don't use the  
12 carryover column.

13 MS. DES JARDINS: Yes. You don't --

14 WITNESS PARKER: It's not even calculated.

15 MS. DES JARDINS: Right.

16 Can we pull up Exhibit FOR-108 and . . .

17 Miss Parker, I looked extensively for  
18 documentation of --

19 (Exhibit displayed on screen.)

20 MS. DES JARDINS: -- Reclamation's rules for  
21 reservoir carryover storage.

22 And what I could find referred back to the '92  
23 OCAP. And I'm going to ask you if that's still  
24 approximately correct.

25 This is a copy of the 1992 CVP Operations

1 Criteria . . . Plan, and I'd like to go to Page 96.

2 (Exhibit displayed on screen.)

3 CO-HEARING OFFICE DODUC: Miss Ansley?

4 MS. ANSLEY: Can we -- Can I suggest that we  
5 ask the witness whether she's familiar with this  
6 document and whether this document is still -- let's  
7 just for a better use of word -- is still operative and  
8 then Miss Des Jardins can frame her questions  
9 however -- in context with that.

10 CO-HEARING OFFICE DODUC: Miss Parker?

11 WITNESS PARKER: I am not familiar with this  
12 document other than knowing that it exists.

13 Ms. White can testify as to whether or not we  
14 are still operating to this --

15 MS. DES JARDINS: Can --

16 WITNESS PARKER: -- document.

17 MS. DES JARDINS: -- we go to actually  
18 Page 96. This is on Page 97. It's .pdf Page 96.

19 (Exhibit displayed on screen.)

20 MS. DES JARDINS: 96. It's again back on 95.

21 (Exhibit displayed on screen.)

22 MS. DES JARDINS: Is that FOR-108? I've got  
23 it pulled up on my screen. It's got the exact page.

24 FOR . . .

25 This is FOR-108.

1 CO-HEARING OFFICE DODUC: Yeah, um-hmm.

2 MS. DES JARDINS: Okay. Go to .pdf Page 96.

3 (Exhibit displayed on screen.)

4 MS. DES JARDINS: I am not sure because I  
5 pulled up the exact . . .

6 I apologize. I'll -- I'll try and straighten  
7 this out. But I have the exact page open -- on the  
8 website open on my laptop.

9 This is FOR-108 on the website; correct?

10 Yeah. I'm not sure why mine is different, but  
11 I will work out this out as a technical issue.

12 And I think this would be a good time to  
13 break.

14 CO-HEARING OFFICER DODUC: All right. We will  
15 return at 1:10.

16 (Lunch recess at 12:10 p.m.)

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1 Thursday, March 1, 2018 1:10 p.m.

2 PROCEEDINGS

3 ---000---

4 (Proceedings resumed at 1:10 p.m.:)

5 CO-HEARING OFFICE DODUC: All right. It's  
6 1:10. I'm interrupting the debate on whether  
7 Miss Morris is friend or foe to Mr. Bezerra so that we  
8 may resume the hearing.

9 And I gather that's a couple of housekeeping  
10 items we need to address?

11 MS. WOMACK: Just a quick one. Do -- I know  
12 you can't know but do you think I'm going today?

13 CO-HEARING OFFICE DODUC: I expect so. Unless  
14 Miss Des Jardins takes the rest of the afternoon, I  
15 believe . . .

16 Actually, you know what? Hang on. Let me  
17 correct my . . .

18 After Miss Des Jardins is Miss Suard. You  
19 know, I'll tell you what: If Miss Suard and --  
20 Miss Suard is not -- Actually, Mr. Porgans also.

21 I don't think they would mind, since they're  
22 not here, if I get to you after Miss Des Jardins.

23 MS. WOMACK: Okay. If that's -- If that's  
24 possible, that would be wonderful. Thank you.

25 CO-HEARING OFFICE DODUC: Unless they come and

1 object.

2 MS. WOMACK: I understand.

3 CO-HEARING OFFICER DODUC: All right.

4 Mr. Bezerra.

5 MR. BEZERRA: Thank you.

6 Ryan Bezerra.

7 I was watching the Webcast beforehand. I  
8 didn't quite understand what we're doing in relation to  
9 Miss Des Jardins' objection or motion concerning the  
10 modeling. I do think it's important. It's a rather  
11 large elephant in the middle of this hearing.

12 CO-HEARING OFFICE DODUC: Stop. I don't want  
13 to hear any more arguments.

14 MR. BEZERRA: That's fine.

15 CO-HEARING OFFICER DODUC: I've requested or  
16 directed her to file it in writing and people will have  
17 the appropriate chance to respond to that.

18 MR. BEZERRA: Okay. And so that's -- She's  
19 filing in writing and we get 24 hours after that.

20 CO-HEARING OFFICE DODUC: Depends on how  
21 extensive her filing is. I don't know.

22 MR. BEZERRA: Thank you.

23 CO-HEARING OFFICER DODUC: Um-hmm.

24 MS. DES JARDINS: I'm tried to trim them down,  
25 Miss Doduc.



1 CO-HEARING OFFICER DODUC: Thank you.

2 Okay. Mr. Bezerra, since I have you here, I  
3 think I'm -- Well, let's -- let me check with  
4 Mr. Mizell.

5 It is still my hope that we are able to  
6 dismiss this panel by the end of the day tomorrow. And  
7 I don't want -- I'm not committing you to it, but at  
8 this time, do you expect to have redirect?

9 MR. MIZELL: I will attempt to make redirect  
10 very limited but I would say --

11 CO-HEARING OFFICER DODUC: Okay.

12 MR. MIZELL: -- one to two questions.

13 CO-HEARING OFFICER DODUC: Okay. Because I'm  
14 looking at Miss -- Miss Des Jardins has requested two  
15 hours, so another, I would say, to 2:30 at the  
16 earliest.

17 And then Miss Womack has requested an hour, so  
18 that's 3:30.

19 MS. WOMACK: Mine could be -- I can come down  
20 to maybe a half hour. Just depends on --

21 CO-HEARING OFFICER DODUC: 3:00.

22 MS. WOMACK: I'm doing my best.

23 CO-HEARING OFFICER DODUC: Okay. 3:00.

24 And then Grassland has requested 40 minutes,  
25 so we're now looking at 4 o'clock, around there.

1 And Mr. Porgans may or may not be here.

2 And Miss Suard has informed us that she is  
3 coming.

4 So let me go ahead and make the call right now  
5 that we are not going to get to Group 7 today. In the  
6 event that we somehow miraculous -- miraculously finish  
7 early -- I think everyone would be grateful -- today.

8 And, in fact --

9 MR. BEZERRA: So I have --

10 CO-HEARING OFFICE DODUC: -- they might  
11 want -- Unless you want to start your cross today.

12 MR. BEZERRA: We were anticipating  
13 Mr. Hitchings would start for Group 7.

14 I suppose I could get into something, but  
15 that's how we were planning to do it.

16 I do have one request: If you can send me by  
17 pneumatic tube back to my office so I didn't have to go  
18 back outside --

19 (Laughter.)

20 MR. BEZERRA: -- in order to get there.

21 CO-HEARING OFFICE DODUC: Mr. Bezerra, if --  
22 if I had that power, just assured, I would use it on  
23 you first.

24 MR. BEZERRA: Oh, thank you very much.

25 CO-HEARING OFFICE DODUC: Or an experiment.

1 (Laughter.)

2 CO-HEARING OFFICE DODUC: For an experiment.

3 Because you always have to have a, you know, test  
4 subject first.

5 Mr. Mizell, any objection to concluding  
6 today -- well, as far as we can go -- before we get to  
7 Group 7? I think, given what I expect will be pretty  
8 lengthy cross-examination by Group 7, at least three to  
9 four hours, your witness might appreciate a respite.

10 MR. MIZELL: Yes. You do not hear me object  
11 to concluding early today.

12 CO-HEARING OFFICER DODUC: Okay. All right.

13 With that, Mr. Bezerra, Group 7 will be on  
14 tomorrow.

15 Miss Des Jardins, we're back to you.

16 MS. DES JARDINS: Yes.

17 We were able to resolve the technical issue.

18 Thank you very much to the staff.

19 So, my name is Dierdre Des Jardins for  
20 California Water Research.

21 And can we pull up Exhibit Friend -- Friend --  
22 FOR-108, please. And it's Document Page 68, .pdf  
23 Page . . .

24 (Exhibit displayed on screen.)

25 MS. DES JARDINS: Yeah.

1           So in water supply for the upcoming year it  
2 says (reading):

3           "Reclamation -- No -- No reliable  
4 forecasts exist which are capable of  
5 predicting hydrologic" --

6           CO-HEARING OFFICE DODUC: Hold on. Hold on.  
7 Let me find it.

8           Where are you?

9           MS. DES JARDINS: Water -- It's under a bold  
10 heading Water Supply for the Upcoming Year.

11           CO-HEARING OFFICER DODUC: Okay. Where in  
12 that?

13           MS. DES JARDINS: "No reliable forecasts" --  
14 The paragraph starts out --

15           CO-HEARING OFFICE DODUC: Oh, the beginning of  
16 the paragraph. Okay.

17           MS. DES JARDINS: (Reading):

18           "No reliable forecasts exist which  
19 are capable of predicting hydrologic  
20 conditions for the upcoming water year."

21 I'm going to skip over this a little.

22 It says (reading):

23           "Reclamation does not have a  
24 standing policy on carryover storage;  
25 rather, it has established annual

1 carryover storage objectives as part of  
2 the process of allocating CVP water  
3 supplies. Carryover objectives consider  
4 existing water demands, forecasted water  
5 supply, cold water supplies, power system  
6 requirements and other CVP capabilities.  
7 Carryover storage objectives also  
8 consider the risks of continued droughts  
9 and possible impacts beyond the end of  
10 the current water year. In carrying out  
11 CVP operations, carryover storage is  
12 considered flexible."

13 And, Ms. White, maybe you could enlighten me.

14 If -- Is -- Is this still a valid ex --  
15 expression of Reclamation's carryover storage?

16 CO-HEARING OFFICE DODUC: I believe Mr. Mizell  
17 is about to voice an objection.

18 MR. MIZELL: I would like to voice an  
19 objection.

20 One, I'd like to know if the witness is even  
21 aware of what document this is. We didn't see the  
22 cover page, to my knowledge. And also, we haven't  
23 determined that Miss White is even familiar with it.

24 I'd also like to request that she be given  
25 time to read the entire section of whatever was just

1 read into the record.

2 CO-HEARING OFFICE DODUC: Sure.

3 Let's go ahead and, first of all, identify  
4 what this document is and --

5 MS. DES JARDINS: Let's -- Let's go back up to  
6 Page 1. I did introduce it before.

7 (Exhibit displayed on screen.)

8 MS. DES JARDINS: So this -- I did introduce  
9 it before lunch but maybe you've forgotten.

10 This is a copy of the 1992 (reading):

11 "Central Valley Project Operations  
12 Criteria and Plan."

13 And I know this has been revised many times,  
14 but in searching online for documentation of what  
15 Reclamation's actual published external document --  
16 available documentation on what Reclamation's actual  
17 policy on carryover storage is, I found references to  
18 the '92 OCAP, and this -- you know, this was what I was  
19 able to find.

20 So that's why I'm reading it and asking if  
21 this is still reflective of the current policy or if  
22 it's changed.

23 CO-HEARING OFFICER DODUC: Okay. So let's  
24 stop there.

25 Mr. Mizell.

1 MR. MIZELL: It -- It's moot at this point. I  
2 simply wanted to see the title page, not to elicit a  
3 whole nother line of testimony by the questioner.

4 CO-HEARING OFFICE DODUC: All right.

5 Ms. White, are you familiar with this  
6 document?

7 WITNESS WHITE: I -- I generally knew it  
8 existed but I don't think I've ever read it and  
9 certainly not any time recent where I would remember  
10 the context of that this section is referring to.

11 CO-HEARING OFFICE DODUC: Do you need more  
12 time to read this paragraph? I guess is what  
13 Miss Des Jardins --

14 MS. DES JARDINS: Yeah.

15 CO-HEARING OFFICER DODUC: -- wanted you to  
16 verify.

17 WITNESS WHITE: Well, I guess it depends on  
18 what I'm questioned on.

19 MS. DES JARDINS: The -- The specific question  
20 was about (reading):

21 "Reclamation does not have a  
22 standing policy on carryover storage;  
23 rather, it has established annual  
24 carryover storage objectives as part of  
25 the process of allocating CVP water

1 supplies."

2 CO-HEARING OFFICE DODUC: Are you asking if  
3 that is still the --

4 MS. DES JARDINS: Is -- Yeah.

5 CO-HEARING OFFICER DODUC: -- standard  
6 practice?

7 MS. DES JARDINS: Is that still -- "and it  
8 refers to (reading):

9 "In carrying out CVP operations,  
10 carryover storage is considered  
11 flexible."

12 So is that still -- Is this still reflective  
13 of CVP policy on carryover objectives?

14 MS. AUFDEMBERGE: This is Amy Aufdemberge,  
15 Department of Interior.

16 I just want to object. This document's from  
17 1992, and I think the witness said that she hasn't read  
18 it in a long time.

19 And it wasn't her that stated that she just  
20 needed to read this paragraph. She said she didn't  
21 know the entire context of this paragraph.

22 CO-HEARING OFFICE DODUC: I understand.

23 Putting aside the con -- the -- this document  
24 is old and all that.

25 Where Miss Des Jardins is trying to get



1 affirmation, I believe, is: Based on Miss White's  
2 knowledge of current CVP operations, does the -- does  
3 this description still apply?

4           And if you need more time to read the  
5 description, then certainly we'll take that time.

6           She's not asking you to testify regarding the  
7 document itself but your knowledge of current CVP  
8 operations.

9           MS. DES JARDINS: Is -- Is -- Is carryover  
10 storage still considered flexible?

11           WITNESS WHITE: The -- The sentence that you  
12 read implies that the driver of -- of setting CVP  
13 operations and carryover is -- is in developing our  
14 allocations, which at the time that this was developed  
15 was probably very appropriate.

16           This is prior to CVPIA, it was prior to  
17 D-1641, and it was prior to the 2008-2009 Biological  
18 Opinions.

19           So, at that time, I think this was a very --  
20 probably an appropriate way to say how we -- how we  
21 thought about carryover storage.

22           However, with the numerous objectives that we  
23 have now, the system's operated in a much more . . .  
24 I'll say, balanced manner where we're trying to figure  
25 out how to use all this -- the water supplies of the

1 CVP to meet all these sometimes competing objectives  
2 and hopefully issue an allocation on top of that.

3 I'm not aware of a written policy on carryover  
4 storage targets, as they -- as they're used in  
5 allocations. But carryover object -- Carryover in  
6 general is a concept that we just in developing our --  
7 our annual operations forecast and our -- and our  
8 allocations partly with the thought of needing -- of  
9 considering that the -- the future year might be a  
10 drought, or a first year, of a new drought, or a  
11 continuation of a drought, and that we have all these  
12 numerous requirements on top of that.

13 So, it's probably a long way that, yes, this  
14 is outdated, but I'm not aware of a carryover storage  
15 policy that's been written down.

16 MS. DES JARDINS: Miss White, I know that  
17 Shasta is highly constrained by NMFS' BiOp and -- and  
18 the temperature group, and there's a whole thing.

19 What about -- What about Trinity?

20 WITNESS WHITE: I'm sorry. What -- What was  
21 the question?

22 MS. DES JARDINS: Is Trin -- What about  
23 Trinity River storage is -- I mean, is that more -- is  
24 that carryover storage more flexible in . . .

25 WITNESS WHITE: So Trinity's got a lot of

1 restrictions on the ability to pull the water over.

2           So we have the Trinity Restoration Program  
3 that controls the downstream releases along with any --  
4 any other things that have been passed.

5           And, then, in order to divert water from the  
6 Trinity, there are a lot of operational limitations:

7           So one being how much can we pull over?

8           What are our generate capacities that are  
9 available at that time at Carr Power Plant?

10           Also, what's the temperature that we're  
11 pulling over and what temperature are we targeting in  
12 Sacramento River? Sometimes Trinity water can be  
13 warmer; sometimes it can be cooler. So we have to take  
14 that into consideration as to -- as to what we're  
15 pulling over.

16           And then -- And then what -- how we're meeting  
17 our requirements.

18           So, Trinity carryover is a -- is a  
19 consideration, but there's also a lot of restrictions  
20 on just how much you can pull over from Trinity.

21           MS. DES JARDINS: Okay. Let's go back --  
22 circle back to DWR-1028, Page 44.

23           (Exhibit displayed on screen.)

24           MS. DES JARDINS: Yeah. Trinity -- I  
25 believe . . .

1           Try 45.

2           (Exhibit displayed on screen.)

3           MS. DES JARDINS: So, the assumptions in the  
4 model that -- that drive these results don't -- sound  
5 like they don't completely reflect the complexity of  
6 what you're describing.

7           MS. ANSLEY: Is that a question?

8           MS. DES JARDINS: Yes.

9           WITNESS WHITE: I don't -- I don't know that  
10 I'd fully agree with that.

11           The CalSim modeling is developed to try to  
12 mimic how operational decisions are made in a long-term  
13 planning sense, not necessarily real-time, or day to  
14 day.

15           And there are rules in CalSim that -- that are  
16 meant to reflect how those decisions are made, but I  
17 would look to modelers to talk about those rules  
18 specifically.

19           MS. DES JARDINS: Miss Parker.

20           WITNESS PARKER: So, modeling assumptions that  
21 control the operation of Trinity Reservoir include  
22 required flows along Trinity and Trinity River.

23           They include -- It's not really a flood  
24 control tool but it's safety of dams storage criteria  
25 that prevents the dam from -- the reservoir from

1 exceeding safety of dams limitations.

2           There are -- So Trinity does not have the --  
3 Its -- Its refill capacity is lower than the refill  
4 capacity on Shasta and certainly on Folsom.

5           So the amount of water that is imported from  
6 the Trinity Basin into the Sacramento Basin is  
7 typically based on the water supply that is available  
8 in the Trinity River.

9           We do have -- In CalSim, there are reservoir  
10 levels. And one of the lower levels in Trinity is that  
11 600,000 acre-foot level.

12           Again, this doesn't function as a target  
13 storage. We're not trying to get to 600, but it does  
14 attempt to preserve 600 when that is hydrologically  
15 feasible. So that's an operational constraint.

16           All of those things, taken as a whole, then  
17 you mix in the operation that we don't want to be  
18 importing water into the Sacramento Basin when we've  
19 got excess flows in the Delta, for example.

20           On the other hand, if there's an opportunity  
21 for -- If -- If there's higher storage in Trinity and a  
22 lower-storage situation in Shasta, we will pull water  
23 from the Trinity.

24           So there's a -- there's a reservoir balancing  
25 aspect to this. There's certainly physical capacities

1 that are built in that control the water from --  
2 through Carr Power Plant, Spring Creek tunnel, the  
3 operation of Whiskeytown and Clear Creek. All of that  
4 gets taken into consideration.

5 So, does that help to clarify what the  
6 operating rules are for Trinity --

7 MS. DES JARDINS: Somewhat.

8 WITNESS PARKER: -- and that system?

9 MS. DES JARDINS: Thank you. I think that's  
10 enough.

11 Could we go -- I did -- I did get the  
12 transcript for Mr. Leahigh's statement and I wanted to  
13 circle back to Mr. Reyes.

14 On May 9th -- Could we go -- pull up the  
15 May 9th, 2017, transcript, Page 16.

16 MR. HUNT: If you can give us a minute.

17 MS. DES JARDINS: Yeah.

18 MR. JACKSON: I just wanted to point out that  
19 the clock is still running.

20 CO-HEARING OFFICE DODUC: Stop the clock,  
21 please.

22 MS. DES JARDINS: Yeah.

23 I do have -- I'm not sure what I did with  
24 my . . .

25 I do have a -- I -- I do have the document. I

1 could put it on the memory stick as well.

2 MR. HUNT: No. It'll --

3 MS. MESERVE: I just e-mailed it to them.

4 MR. HUNT: Yeah.

5 MS. DES JARDINS: Okay.

6 MR. HUNT: Just another 10 seconds.

7 CO-HEARING OFFICE DODUC: Thank you,  
8 Miss Meserve.

9 (Exhibit displayed on screen.)

10 MS. DES JARDINS: There we go.

11 Okay. So go to Page 16 at 23. You are on  
12 Page 16.

13 Just scroll down. Page 16. Let's go down to  
14 23.

15 (Exhibit displayed on screen.)

16 MS. DES JARDINS: Mr. Leahigh says --  
17 testifies that the equation changed. Mr. Shutes asks  
18 when the last time the equation changed.

19 So Leahigh says (reading):

20 "So, the last time it would have  
21 changed is when -- We essentially have  
22 now a fix in place, so I'm trying to  
23 remember exactly which year. So either  
24 last year or the year before were -- we  
25 actually revised that first number. For

1 this year, we're actually" --

2 Let's go to the next page.

3 (Exhibit displayed on screen.)

4 MS. DES JARDINS: (reading):

5 "-- using 1.3 million acre-feet

6 rather than 1.0.

7 "So, like I said, we're continuously

8 reevaluating the details of the -- this

9 expression of the policy . . ."

10 So, Mr. Reyes, Mr. Leahigh testified in 2017,

11 May 9, 2017, that either in 2016 or 2015 they had

12 changed the -- the 1 million acre-foot number in that

13 equation that's in the CalSim model.

14 So, I'm wondering why you didn't update that

15 number in the new version of the modeling . . .

16 CO-HEARING OFFICE DODUC: Mr. Mizell?

17 MR. MIZELL: (Shaking head.)

18 CO-HEARING OFFICE DODUC: No? Okay.

19 MS. DES JARDINS: . . . to reflect what the

20 actual current operations are.

21 WITNESS REYES: I actually wasn't aware of

22 this change.

23 And as I read it, I don't know if that's

24 saying that it -- it permanently changed that criteria.

25 It was in 2016, which was a wetter year type. And I



1 don't know if it was a single-year modification to that  
2 rule or -- or if it's a rule that had been conveyed  
3 down through the modeling. I don't -- I don't know.

4           Maybe Mr. Miller could weigh in.

5           WITNESS MILLER: Like Mr. Leahigh, I'm having  
6 trouble remembering the first time that was -- what  
7 year that was.

8           But it was in response to a -- Actually, it  
9 was in response to a -- a -- a capacity issue with  
10 the -- the reservoir through the . . . the river  
11 outlets.

12           And since then, I believe 1.3 is our -- is  
13 what we're currently using to forecast the . . .  
14 allocations to the State Water contractors.

15           MS. DES JARDINS: ~~Wasn't that rule basically~~  
16 ~~put in place because of the problems that you had~~  
17 ~~during -- during the recent drought?~~

18           CO-HEARING OFFICER DODUC: Miss --

19           MR. MIZELL: Objection.

20           CO-HEARING OFFICE DODUC: -- Morris or  
21 Mr. Mizell.

22           MR. MIZELL: Assumes facts not in evidence.

23           We haven't discussed any problem that  
24 occurred. There's been no foundation laid for that  
25 line -- assertion at this point.

1 I'm happy if the witnesses could answer the --  
2 the question without the implication that there's been  
3 a problem that triggered the --

4 CO-HEARING OFFICE DODUC: So we'll strike that  
5 part about "problems."

6 Do you know, Mr. Miller, whether that was in  
7 response to the drought situation?

8 WITNESS MILLER: I -- I -- I don't remember if  
9 it was due to the drought situation.

10 CO-HEARING OFFICE DODUC: Mr. Jackson.

11 MR. JACKSON: Would it refresh anybody's  
12 recollection to look at Line 11 to 12?

13 MS. DES JARDINS: Yeah. Let's scroll down.

14 (Exhibit displayed on screen.)

15 MR. JACKSON: Where he explains that it was  
16 made in response to a change in infrastructure, not the  
17 drought.

18 CO-HEARING OFFICE DODUC: Thank you,  
19 Mr. Jackson.

20 So, Miss Des Jardins, your next question now  
21 that we've seen this.

22 MS. DES JARDINS: Okay. So -- So this is  
23 fine.

24 I would like to go to Exhibit DDJ-102,  
25 Page 17.

1           It's -- It's in my submitted exhibits, so, you  
2 know, it's on the web page.

3           You're still having a problem. I'll -- I can  
4 come back to those questions later.

5           So let's go back to Exhibit DWR-1028.

6           (Exhibit displayed on screen.)

7           MS. DES JARDINS: And let's go to Page 28.

8           MR. HUNT: I'm sorry. Can you repeat that  
9 page again?

10          MS. DES JARDINS: 28.

11          (Exhibit displayed on screen.)

12          MS. DES JARDINS: So, Mr. Reyes, these are the  
13 calculations of the export/inflow compliance. Is -- 28  
14 is March through June.

15          Scroll -- Let's look at Page 29.

16          (Exhibit displayed on screen.)

17          MS. DES JARDINS: August through January.

18          Page 30.

19          (Exhibit displayed on screen.)

20          MS. DES JARDINS: February.

21          Mr. Reyes, doesn't your graph show the  
22 export/inflow ratio using the new calculation which --  
23 which calculates the inflow downstream of the intakes?

24          WITNESS REYES: So, for the Cal WaterFix H3+,  
25 as was discussed at length in Part 1, the -- In Part 1,

1 it was in regards to H3 and H4, but it's the same in  
2 H3+.

3           The inflow portion is downstream of the  
4 intakes, and the export portion of this calculation is  
5 the through-Delta export.

6           MS. DES JARDINS: So when it shows, for  
7 example, that you're exporting 35 percent of the Delta  
8 inflow, if you used the inflow at Freeport, you might  
9 have significantly higher exports -- export ratio;  
10 correct?

11           WITNESS REYES: No. I'm not following you.

12           MS. DES JARDINS: If you used the Decision  
13 1641 definition of inflow, which calculates the  
14 export-to-inflow ratio based on inflow at Freeport, not  
15 at Hood, then it would include the -- it -- it would  
16 not -- it would not be downstream of your new intakes,  
17 and the -- the inflow would be higher and the exports  
18 would be higher as well; isn't that correct?

19           WITNESS REYES: I believe the -- the  
20 definition in -- in 1641 for the exports is the -- the  
21 South Delta piece and then the inflow is above where  
22 the intake currently -- or the intake would  
23 theoretically.

24           So in that case, if you adhere strictly to  
25 1641, then the inflow would be higher, the exports

1 would be the same, and so it would be a lower  
2 percentage of -- of exports to inflow.

3 MS. DES JARDINS: We pulled the data and did  
4 those calculations, and we found that --

5 MR. MIZELL: Objection.

6 CO-HEARING OFFICE DODUC: Objection sustained.

7 MS. DES JARDINS: All right. All right.

8 Anyway, I'll go to -- Let's go to Exhibit DDJ-245.

9 (Exhibit displayed on screen.)

10 MS. DES JARDINS: And I wanted to go  
11 into -- And this is a copy of the biological  
12 explanation of the propo -- joint water users proposed  
13 Bay-Delta standards submitted by the California Urban  
14 Water Agencies, San Luis and Delta-Mendota Water  
15 Authority, Kern County Water Agency and Tulare Lake  
16 Basin Water Storage District, November 3rd, 1994.

17 This was the biological submission --  
18 biological explanation and the justification for --  
19 included the justification for many terms that ended up  
20 in the '95 Water Quality Plan.

21 And this is from the State Water Board  
22 proceedings record.

23 And I'd like to go to Page 42.

24 (Exhibit displayed on screen.)

25 MS. DES JARDINS: Line . . .

1           It cites biological objective which is to  
2 (reading):

3           ". . . Reduce fish, egg, and larvae  
4 entrainment."

5           And it states (reading):

6           "One of the intended benefits" --

7           And this is highlighted (reading):

8           "Exports may increase during periods  
9 when higher volumes of fresh water are  
10 flowing through the Delta without  
11 increasing the risk of adverse biological  
12 effects, and, correspondingly, exports  
13 should decrease during those years when  
14 fresh water inflow to the Delta is  
15 decreased and a larger percentage of fish  
16 and other aquatic organisms are  
17 geographically distributed further  
18 upstream . . ."

19           CO-HEARING OFFICE DODUC: Hold on,  
20 Miss Des Jardins, before your objections are start.

21           To whom are you going to be directing this --

22           MS. DES JARDINS: So I'm --

23           CO-HEARING OFFICE DODUC: Hold on.

24           I would like to know if that person or person  
25 is familiar with this document.

1 MS. DES JARDINS: Yeah.

2 I would like to ask . . . Mr. Wilder  
3 about -- And -- And there is testimony about the  
4 biological function of the export-to-inflow ratio.

5 And I believe, Mr. Reyes, you saw that the  
6 export-to-inflow ratio is only related to South Delta  
7 entrainment, but this shows that the original intention  
8 was --

9 CO-HEARING OFFICER DODUC: Okay. Before  
10 you -- Before you testify.

11 MS. DES JARDINS: Okay. So --

12 CO-HEARING OFFICE DODUC: Mr. -- Mr. Reyes and  
13 Dr. Wilder are --

14 MS. DES JARDINS: Yeah. That's --

15 CO-HEARING OFFICER DODUC: -- familiar --

16 MS. DES JARDINS: -- the two I would ask.

17 CO-HEARING OFFICE DODUC: Are familiar with  
18 this document?

19 Do we -- Do you need to see the title page  
20 again?

21 WITNESS REYES: I don't need to see the title  
22 page because I'm not familiar with the document.

23 CO-HEARING OFFICE DODUC: Dr. Wilder?

24 WITNESS WILDER: Same with me, and this is  
25 outside of the scope of my testimony.

1 I think you might have meant Dr. Greenwood.

2 MS. DES JARDINS: Let's try Dr. --

3 Dr. Greenwood.

4 WITNESS GREENWOOD: I may have seen this  
5 document, but I don't recall the specifics of it.

6 I would need to look at it in more detail  
7 to -- to . . . understand exactly what it's saying.

8 MS. DES JARDINS: Would . . .

9 You testify in your testimony that you think  
10 that the CWF H3+, which includes this change to the  
11 export-to-inflow calculation, would still be  
12 protective.

13 And you're not -- You're not aware of the  
14 original biological purpose, as stated in this  
15 document.

16 MR. MIZELL: Objection.

17 CO-HEARING OFFICE DODUC: Objection on what  
18 grounds, Mr. Mizell?

19 MR. MIZELL: The questioner just misstated  
20 Dr. Greenwood's last answer in terms of his familiarity  
21 versus a reliance upon it.

22 He's indicated that he is vaguely familiar but  
23 would need to read the document more thoroughly to  
24 develop an opinion.

25 That is -- That is not to say that he did not



1 rely upon concepts that may or may not be included in  
2 this document, which he would need to review in order  
3 to confirm.

4 CO-HEARING OFFICE DODUC: Understood.

5 MS. DES JARDINS: Dr. Greenwood --

6 CO-HEARING OFFICE DODUC: So -- So,  
7 Miss Des Jardins, based on that objection, which I'm  
8 sustaining, please reframe your question.

9 MS. DES JARDINS: Dr. Greenwood, in preparing  
10 your testimony that this would -- that the CWF H3+  
11 would provide reasonable protection, were you familiar  
12 with the -- with the original biological justification  
13 for the export-to-inflow ratio?

14 WITNESS GREENWOOD: I'm generally familiar,  
15 but my -- my -- my analyses aren't dependent explicitly  
16 on an export-to-inflow ratio.

17 They're assessing effects based on the  
18 conditions that are resulting from the Projects, from  
19 CWF H3+ operations as modeled.

20 So, be that South-of-Delta entrainment or  
21 through-Delta survival for juvenile Salmonids, so  
22 they're not explicitly considering export-to-inflow  
23 ratio as any form of predictor, I guess.

24 MS. DES JARDINS: Okay. Thank you.

25 So the next thing I'd like to go to is

1 the . . .

2 Just a minute.

3 CO-HEARING OFFICE DODUC: And as  
4 Miss Des Jardins is gathering her thoughts, I've been  
5 advised that our Internet is down so the Webcast may be  
6 impacted.

7 But for Miss Womack and whoever else is going  
8 to be conducting cross-examination today, you should  
9 not be relying on documents that are only accessible  
10 through the Internet.

11 MS. DES JARDINS: Oh, boy.

12 I want to pull up Exhibit SWRCB-106,  
13 Appendix E.

14 (Exhibit displayed on screen.)

15 CO-HEARING OFFICE DODUC: Oh, maybe it's back  
16 up.

17 MS. MITTERHOFER: Yeah. It's in and out.

18 MS. DES JARDINS: Then let's go to Page 2.

19 (Exhibit displayed on screen.)

20 MS. DES JARDINS: Let's -- So this defines the  
21 unlimited pulse protection scenario, Dr. Greenwood.

22 So let's go down to Page 3.

23 (Exhibit displayed on screen.)

24 MS. DES JARDINS: And it states that -- It  
25 cites the definition -- It cites the definition in the

1 BA of the unlimited pulse protection. And it says that  
2 (reading):

3 "The following operational framework  
4 serves as an example . . .

5 "A fish pulse is defined as combined  
6 catch of Xp winter-run and spring-run  
7 sized Chinook Salmon in a single day at  
8 specified locations.

9 "A fish pulse is considered over  
10 after X consecutive days with daily  
11 combined catch of winter- and spring-run  
12 sized Chinook Salmon less than Xp at or  
13 just downstream of the new intakes."

14 And (reading):

15 "Post-pulse bypass flow operations  
16 will be determined through initial  
17 operating studies evaluating the level of  
18 protection provided at various levels of  
19 pumping."

20 (Lighting dimmed.)

21 CO-HEARING OFFICE DODUC: Is that better?

22 MS. DES JARDINS: Yeah.

23 So, Dr. Greenwood, are you familiar with these  
24 definitions in the NMFS Final BiOp?

25 MS. ANSLEY: I have an objection to lodge

1 first.

2 CO-HEARING OFFICE DODUC: Go ahead,  
3 Miss Ansley.

4 MS. ANSLEY: I'd like to object to the -- the  
5 way that Miss Des Jardins is framing questions now.

6 She had sort of a characterization of the --  
7 of what this is in the beginning, like the purpose or  
8 reason that a thing was here. Then we'd have a long  
9 reading in of the bullet point.

10 If she could -- I guess this is Dr. Greenwood  
11 who's presumably maybe familiar with this document.

12 If she'd ask her questions without  
13 characterizing, testifying, and then reading large  
14 portions of the document into the testimony, that would  
15 be great if she has a specific question.

16 But I'm objecting because I think that this  
17 is -- what this does is, it -- it reads into the record  
18 not only text of documents in the record but it starts  
19 off always with a characterization of the purpose, so  
20 that, then, the question isn't ever to that original  
21 characterization.

22 I'm sorry. I can try and read back what her  
23 question was on the realtime, but that's a general  
24 objection to the way these questions are framed.

25 CO-HEARING OFFICER DODUC: All right. So the

1 framing of the question.

2           If you would go directly to the question that  
3 you wish to ask, and if necessary, we will backtrack  
4 and lay the foundation, but do not testify or assert  
5 your opinion regarding the document that you are  
6 presenting, Miss Des Jardins. Perhaps that will help  
7 speed things along.

8           MS. DES JARDINS: I was just trying to --

9           CO-HEARING OFFICE DODUC: Rather than arguing  
10 it, let's go ahead and ask the question that you wanted  
11 to ask of Dr. Greenwood.

12           MS. DES JARDINS: I was just trying to look at  
13 the definition of the unlimited pulse protection and --

14           CO-HEARING OFFICE DODUC: Now that the  
15 definition is up, your question is?

16           MS. DES JARDINS: Yeah.

17           So I -- Let's look at (reading):

18                   "A fish pulse is defined as combined  
19 catch of Xp winter-run and spring-run  
20 sized Chinook Salmon in a single day of  
21 specified locations."

22           Dr. Greenwood, are -- you've -- you're  
23 familiar with this definition in the NMFS BiOp?

24           WITNESS GREENWOOD: I'm familiar.

25           This is describing an example. The actual

1 operational framework is described in the ITP, the  
2 Department of Fish and Wildlife ITP, which gives a  
3 number for -- instead of Xp.

4 MS. DES JARDINS: Yeah. But in the NMFS BiOp,  
5 Xp is not yet defined; correct?

6 WITNESS GREENWOOD: Here, it's Xp.

7 I think we would need to look again at  
8 the . . .

9 This is an appendix. We'd need to look at the  
10 proposed action description from the NMFS BiOp just to  
11 confirm that that also says Xp.

12 MS. DES JARDINS: Thank you.

13 So . . . do -- So you believe this is defined  
14 where in the NMFS BiOp?

15 WITNESS GREENWOOD: The second appendix. I  
16 don't recall if it's Appendix B or Appendix 2.

17 Sorry. Appendix A2, "Description of the  
18 Proposed Action."

19 MS. DES JARDINS: Yeah. Let's go to  
20 Appendix A2.

21 (Pause in proceedings.)

22 MS. DES JARDINS: And let's look for -- Do a  
23 search for "UPP."

24 (Pause in proceedings.)

25 MS. DES JARDINS: UPP space.

1 (Pause in proceedings.)

2 MS. DES JARDINS: Or UPP whole words, yeah.

3 (Pause in proceedings.)

4 MR. MIZELL: Or UPP space, yeah. Select  
5 "whole word."

6 (Pause in proceedings.)

7 MS. DES JARDINS: I don't -- It doesn't look  
8 like it's actually defined in that appendix.

9 WITNESS GREENWOOD: Perhaps, then, it was just  
10 cross-referencing the ITP, in which case it would be  
11 Department of Fish and Wildlife Incidental Take Permit.

12 MS. DES JARDINS: Dr. Greenwood, are you  
13 familiar with a Consistency Determination?

14 WITNESS GREENWOOD: I'm familiar with . . .

15 I assume you're meaning Consistency  
16 Determination. Well, are you meaning Consistency  
17 Determination under California Endangered Species Act?

18 MS. DES JARDINS: Yes. Let's pull up Exhibit  
19 DDJ-239.

20 (Exhibit displayed on screen.)

21 MS. DES JARDINS: So, let's zoom out, please.

22 (Exhibit displayed on screen.)

23 MS. DES JARDINS: Thank you.

24 Yeah. Let's go -- So this is a California  
25 Department of Fish & Game Consistency Determination

1 from 2009.

2 Let's scroll down, please.

3 (Exhibit displayed on screen.)

4 MS. DES JARDINS: And it states under  
5 "Determination" (reading):

6 "DFG has determined that the BO,  
7 including all RPA agreements (sic) and  
8 the related incidental take statement, is  
9 consistent with CESA because the  
10 mitigation measures . . . meet the  
11 conditions set forth in Fish & Game  
12 Code . . . subdivision (b) and (c) for  
13 DFG to authorize incidental take of CESA  
14 and listed species."

15 So it is generally possible for -- There  
16 was -- At the time this Consistency Determination was  
17 done, were you aware that -- Were -- Are you aware of  
18 this Consistency Determination in 2009?

19 WITNESS GREENWOOD: I'm generally aware of it,  
20 yes.

21 MS. DES JARDINS: And that this -- There was a  
22 Habitat Conservation Plan in effect at the time, and  
23 that the Federal BiOps provisions were -- beca --  
24 became controlling because of a Consistency  
25 Determination?



1 WITNESS GREENWOOD: I'm not familiar with  
2 that.

3 MS. DES JARDINS: So in evaluating -- In  
4 evaluating whether this was protective or not, you  
5 weren't familiar with the Consistency Determination  
6 that happened in -- that -- how the Consistency  
7 Determination overrode the CALFED Habitat Conservation  
8 Plan.

9 WITNESS GREENWOOD: I'm not --

10 MS. DES JARDINS: All right.

11 WITNESS GREENWOOD: -- familiar.

12 MS. DES JARDINS: Okay. Thank you.

13 I next wanted to go to the Operations Plan  
14 and . . .

15 Just a minute. I've got to find my way.

16 And I'd like to go to Exhibit SWRCB-107, which  
17 is the ITP.

18 (Exhibit displayed on screen.)

19 MS. DES JARDINS: And I'd like to go to  
20 .pdf -- docu -- Page 66, please.

21 CO-HEARING OFFICE DODUC: You know, the  
22 Internet is working only because I announced that it  
23 wasn't.

24 (Laughter.)

25 MS. DES JARDINS: And can we scroll down a

1 little, please.

2 (Exhibit displayed on screen.)

3 MS. DES JARDINS: I'm looking for -- Can we  
4 zoom out to 100 percent?

5 (Exhibit displayed on screen.)

6 MS. DES JARDINS: And it says, "Actual" --  
7 Under the top, it says (reading):

8 "Actual operations will also rely on  
9 real-time operations . . ."

10 And it says (reading):

11 "A Test Period Operations Plan will  
12 be developed by the Permittee and  
13 Reclamation in coordination with CDFW,  
14 NMFS and U.S. Fish and Wildlife Service  
15 prior to the initiation of the Test  
16 Period and operation of the North  
17 Delta . . . Intakes, which will detail  
18 implementation of operational criteria  
19 presented in this permit."

20 So you're familiar with this Operation Plan  
21 req -- requirement?

22 WITNESS GREENWOOD: Is the question to me?

23 MS. DES JARDINS: Yes.

24 WITNESS GREENWOOD: Yeah, I'm familiar with it  
25 as it's -- Not the -- Not details, but just with the

1 general requirement, yes.

2 MS. DES JARDINS: And it says (reading):

3 "Additionally a Full Project  
4 Operations Plan will be developed by the  
5 Permittee and Reclamation in coordination  
6 with CDFW, NMFS, U.S. Fish and Wildlife  
7 Service before the Test Period ends and  
8 Full Project Operations commence, which  
9 will detail implementation of operational  
10 criteria presented in this permit."

11 WITNESS GREENWOOD: Yes, I'm aware of that as  
12 it says there.

13 MS. DES JARDINS: So this is part --  
14 Developing this Operations Plan is part of the adaptive  
15 management program?

16 Isn't that -- Would that be correct?

17 WITNESS GREENWOOD: I'm not sure if that's --  
18 would technically fall under adaptive management as  
19 such.

20 I would -- I would need to look into the  
21 details of what might be described, adaptive management  
22 versus some other technical -- I mean, some other  
23 definition.

24 MS. DES JARDINS: Are you aware that the  
25 Decision 1641 also requires an Operations Plan?

1 WITNESS GREENWOOD: Requires an Operations  
2 Plan of -- of what? Sorry.

3 MS. DES JARDINS: Okay. Let's pull up Exhibit  
4 SWRCB-21, which is Decision 1641 Revised.

5 And it's Page 104 .pdf, document Page 92.

6 (Exhibit displayed on screen.)

7 MS. DES JARDINS: And it says (reading):

8 "In supporting the JPOD proposal,  
9 DFG requested that the SWRCB condition  
10 its approval of the JPOD. The condition  
11 would require completion of the operating  
12 plan before the JPOD could be used to  
13 export water at diversion rates up to the  
14 physical capacities of the export  
15 facilities. DFG explained that certain  
16 export facility operations, including  
17 unconditional use of joint points, could  
18 adversely impact Delta fisheries,  
19 including species protected under CESA,  
20 and that it expects the operating plan to  
21 protect fish and to meet other CALFED  
22 goals."

23 So you weren't familiar with this requirement.

24 MR. MIZELL: Objection.

25 MS. DES JARDINS: Or were -- were you familiar

1 with --

2 CO-HEARING OFFICE DODUC: Hold on. Hold on.

3 The grounds of your objection, Mr. Mizell?

4 MR. MIZELL: I will withdraw the objection if  
5 the witness (sic) rephrases as she was about to.

6 CO-HEARING OFFICER DODUC: Exact.

7 MS. DES JARDINS: Were you familiar with this?

8 WITNESS GREENWOOD: I'm not familiar with this  
9 particular . . . section, or I'm not familiar with  
10 this, no.

11 MS. DES JARDINS: Let's go to Page 115.

12 (Exhibit displayed on screen.)

13 MS. DES JARDINS: And it states in Condition 2  
14 (reading):

15 "The second stage is use of the JPOD  
16 for any authorized purpose under the  
17 permits, up to the limits specified in  
18 the current USCOE permit. Use of the  
19 JPOD . . . will be subject to the  
20 preparation and implementation of an  
21 operations plan acceptable to the  
22 Executive Director of the SWRCB that  
23 provides adequate protection to aquatic  
24 resources and other users -- legal users  
25 of water."

1           Were you aware of this requirement?

2           WITNESS GREENWOOD: I'm not aware of that  
3 requirement.

4           MS. DES JARDINS: Okay. And it does say  
5 (reading):

6                     "The third stage of the (sic) use of  
7 the JPOD for any authorized purpose under  
8 the permits, up to the physical capacity  
9 of the pumping plants."

10          Also requires an Operations Plan.

11          You aren't aware of this.

12          WITNESS GREENWOOD: I'm not familiar with  
13 the -- these details.

14          MS. DES JARDINS: Okay. I'd like to go to  
15 Exhibit DDJ-233.

16                     (Exhibit displayed on screen.)

17          CO-HEARING OFFICE DODUC: May I ask why you're  
18 asking Dr. Greenwood these questions and not  
19 Mr. Miller?

20          MS. DES JARDINS: Yeah. Mr. Miller, actually.  
21 Thank you.

22          Mr. Miller, are you familiar with those  
23 Decision 1641 requirements?

24          WITNESS MILLER: I'm familiar with -- that  
25 there are certain requirements to JPOD as specified in

1 D-1641, as listed here.

2 MS. DES JARDINS: Yeah. And that one of them  
3 was an Operations Plan . . . that DFG required?

4 MR. MIZELL: Objection: Misstates the  
5 requirement.

6 It was a requirement of the State Water Board,  
7 not of DFG.

8 MS. DES JARDINS: Permit, yeah.

9 CO-HEARING OFFICE DODUC: So corrected.

10 MS. DES JARDINS: Can we pull up Exhibit  
11 DWR-1000.

12 CO-HEARING OFFICE DODUC: Did you want an  
13 answer to that question?

14 MS. DES JARDINS: Yes. Thank you.

15 WITNESS MILLER: I mean, I would have to -- I  
16 would have to review this -- this section. It's been  
17 awhile since I've actually looked at it.

18 Typically, that's done by other folks in our  
19 office in terms of making sure all those criteria --  
20 all the . . . all the needed conditions are done before  
21 doing JPOD.

22 MS. DES JARDINS: Okay. Mr. Miller, can I  
23 pull up Exhibit DWR-1000, which is your Statement of  
24 Qualifications.

25 (Exhibit displayed on screen.)

1 MS. DES JARDINS: It's . . . Scroll down.

2 (Exhibit displayed on screen.)

3 MS. DES JARDINS: So it says from July 2006 to  
4 January 2014, you were (reading):

5 "Senior Engineer, specialist, of SWP  
6 Special Studies Section. Duties included  
7 analysis of SWP operations under proposed  
8 and present operating and regulatory  
9 conditions."

10 WITNESS MILLER: Yes, it does.

11 MS. DES JARDINS: So when you looked at  
12 existing regulatory conditions, did you consider the  
13 Fisheries Protection Plan?

14 MR. MIZELL: Ob -- Objection: I believe we're  
15 misreferencing the name of the condition we just  
16 reviewed in D-1641, not to mention I would like more  
17 specificity, if we could, on the timeframes in which  
18 she's requesting Mr. Miller attest to his use or  
19 familiarity with the JPOD condition that we just went  
20 over in D-1641.

21 CO-HEARING OFFICE DODUC: Miss Des Jardins,  
22 please make that connection.

23 MS. DES JARDINS: Well, between July 2006 and  
24 January 2014, it says you were the Senior Engineer and  
25 specialist of the SWP Special Studies Section.



1           It also says, during this period, when it said  
2 your "Duties included analysis of SWP operations under  
3 proposed and present operating and regulatory  
4 conditions," if you considered the Fisheries Protection  
5 Plan requirement.

6           WITNESS MILLER: So, typ -- typically, it's  
7 the Bureau who's doing joint point at our facility. So  
8 when -- when I am looking at State Water Project  
9 operations, I'm -- I don't remember ever using joint  
10 point -- or looking at joint point at Jones Pumping  
11 Plant.

12           MS. DES JARDINS: Okay. I would . . . like to  
13 ask -- let's -- about the modeling assumptions.

14           Mr. Reyes, don't they assume equal sharing of  
15 export capacity . . . under the JPOD?

16           MR. MIZELL: Objection.

17           CO-HEARING OFFICE DODUC: Mr. Mizell.

18           MR. MIZELL: Yes. At this point, it has not  
19 been established that JPOD in any given year is a  
20 component of the modeling output produced for  
21 California WaterFix H3+.

22           The JPOD is a distinct operational component  
23 of the State Water Project. So I think we need to  
24 establish foundationally, first, if JPOD existed in any  
25 of the specific years considered under the CWF H3+

1 modeling and then the question --

2 CO-HEARING OFFICE DODUC: So let's stop right  
3 there.

4 Was it?

5 WITNESS REYES: I believe joint point  
6 operation assumptions are in the modeling, yes.

7 MS. DES JARDINS: I -- I would like to refresh  
8 the memory of the modelers.

9 Let's go to Exhibit SWRCB-102, the  
10 Final EIR/EIS, and I'd like to pull up Appendix 5A  
11 Section B.

12 (Exhibit displayed on screen.)

13 MS. DES JARDINS: That's it.

14 And I'd like to go to Page 77.

15 (Exhibit displayed on screen.)

16 MS. DES JARDINS: And this is under Existing  
17 Conditions and No-Action Alternative.

18 See where it says "CVP-SWP coordinated  
19 operations," Mr. Reyes? And it says (reading):

20 "Sharing of total allowable export  
21 capacity for project-specific priority  
22 pumping.

23 "Equal sharing of export capacity  
24 under SWRCB D-1641 . . ."

25 WITNESS REYES: Yeah, I see that line.

1 MS. DES JARDINS: Okay. And so let's go down  
2 to Page 160. This is --

3 (Exhibit displayed on screen.)

4 MS. DES JARDINS: -- existing conditions for  
5 No-Action Alternative.

6 Now, this table is a little hard to read, but,  
7 again, if you look, it says (reading):

8 "CVP-SWP coordinated operations" and

9 "Sharing of total allowable export  
10 capacity . . .

11 "Same as Existing Conditions."

12 Let's go over and -- scroll over (reading):

13 "Same as No Action Alternative."

14 (Exhibit displayed on screen.)

15 MS. DES JARDINS: So isn't this -- I mean,  
16 this documents that this was an assumption in all of  
17 the modeling for the Final EIR/EIS; isn't that correct?

18 WITNESS REYES: I guess I'm a bit confused.

19 Were you asking about JPOD? It sounded like you said  
20 that --

21 MS. DES JARDINS: Well, what is --

22 WITNESS REYES: -- JPOD was being shared  
23 equally.

24 MS. DES JARDINS: What does "equal sharing of  
25 export capacity under SWRCB D-1641" mean?

1           WITNESS REYES: What that means is: If there  
2 is a -- an aspect of D-1641 that limits exports -- for  
3 instance, the ratio -- then, in that instance, if the  
4 ER ratios limiting exports to be 9,000 cfs, as an  
5 example, the Projects try to share that capacity  
6 equally, so it would be 4500 cfs to each Project.

7           MS. DES JARDINS: And that's -- But if -- The  
8 total export capacity of Banks and Jones is around  
9 15,000 cfs; isn't that correct? Not -- Limited by, of  
10 course, regulatory conditions.

11           WITNESS REYES: The -- Yeah. The pumping  
12 capacities of Banks and Jones together, yes, is about  
13 15,000 cfs. Like you say, they're re -- they're  
14 limited to Permit conditions and -- and -- and  
15 regulations.

16           MS. DES JARDINS: So "equal sharing" --  
17 Doesn't "equal sharing of export capacity" by the  
18 Bureau mean that the Bureau would at times use Banks?  
19 Like, if -- if you could export the -- at times the  
20 full 15,000 cfs, wouldn't the Bureau have to use the  
21 JPOD to --

22           CO-HEARING OFFICE DODUC: Let me ask a  
23 clarifying question.

24           My understanding is that the use of JPOD under  
25 CWF H3+ scenario is something that you haven't

1 determined yet.

2 So are you able to answer --

3 WITNESS REYES: Well --

4 CO-HEARING OFFICER DODUC: -- her question?

5 WITNESS REYES: -- it's -- it is assumed that  
6 there are no changes to those conditions of JPOD  
7 because, like we said in 1641, in order for that to be  
8 modified, new terms of that would have to be set.

9 I don't think that's been done and no one's  
10 made applications to do such, at least I don't believe.

11 And as far as what Miss Des Jardins is  
12 referring to, when we're saying that the export  
13 capacity's being shared, it's when exports are being  
14 limited by 1641 specifically. That's what that -- that  
15 item is calling out. It's not saying they're sharing  
16 facility capacities, which we don't do necessarily.

17 And then JPOD is a special condition where one  
18 project may use unused capacity from the other project  
19 under certain terms that are -- are listed in 1641.

20 MS. DES JARDINS: What are the assumptions in  
21 the modeling about sharing of capacity at Banks?

22 I'm looking first to establish what the  
23 assumptions are in the modeling and, second, what --  
24 what the actual proposal is.

25 WITNESS REYES: So Banks generally is used for

1 the SWP. And the only time that you might see some CVP  
2 usage of the Banks capacity is under the JPOD program.

3 MS. DES JARDINS: Yes. So . . .

4 I would like to -- As far as use of the new  
5 facility, I'd like to put up -- pull up Exhibit  
6 DDJ-231.

7 (Exhibit displayed on screen.)

8 MS. DES JARDINS: And can we scroll out to  
9 100 percent, please.

10 (Exhibit displayed on screen.)

11 MS. DES JARDINS: So this is a letter to Santa  
12 Clara Valley Water District, dated September 15, 2017.

13 And I was going to ask Ms. White about this.

14 It says (reading):

15 "Reclamation supports a proposal by  
16 which" --

17 CO-HEARING OFFICE DODUC: Hold on. Hold on.  
18 Hold on.

19 A letter to them from whom?

20 MS. DES JARDINS: Let's go -- go -- Yeah.

21 Let's go back up.

22 Let's go -- Let's go down to who it's signed  
23 by.

24 (Exhibit displayed on screen.)

25 MS. DES JARDINS: Scroll down.

1 (Exhibit displayed on screen.)

2 MS. DES JARDINS: By David Murillo, the  
3 Regional Director for the -- Reclamation.

4 CO-HEARING OFFICE DODUC: And are you familiar  
5 with this letter?

6 WITNESS WHITE: Yes, I believe I am.

7 MS. DES JARDINS: Can we go back to Page 1,  
8 please.

9 (Exhibit displayed on screen.)

10 MS. DES JARDINS: I just would like to ask a  
11 question.

12 So it says (reading):

13 "Reclamation supports a proposal by  
14 which CVP contractors independently  
15 determine whether to participate in the  
16 CWF by contracting directly with . . .  
17 DWR or other appropriate entity for the  
18 ownership of the available capacity of  
19 the CWF."

20 So, Ms. White, I mean, this was the status of  
21 Reclamation's participation in roughly September 2017.

22 Can you comment on how Reclamation might  
23 participate in sharing the capacity of CWF?

24 CO-HEARING OFFICE DODUC: Before you answer, I  
25 don't know if there's an objection.

1           The microphone -- You keep holding on to the  
2 microphone.

3                                 (Laughter.)

4           MS. ANSLEY: I'm waving it.

5           CO-HEARING OFFICE DODUC: You're waving it.

6           Either you or Mr. Mizell, I can't tell whether  
7 you're just playing with it or about to voice an  
8 objection.

9           MS. ANSLEY: That's true. It's a very good  
10 point. I will put it down. I will let -- It's off.

11          CO-HEARING OFFICE DODUC: Miss Aufdemberge.

12          MS. AUFDEMBERGE: So now I -- I lost sight of  
13 the question.

14          MS. DES JARDINS: I'm just asking -- So it is  
15 a question with the modeling about the sharing of  
16 capacity of the -- of the WaterFix, the North Delta  
17 diversions.

18          This was the most recent information, was that  
19 this would be -- this would be the model for sharing --  
20 for actual sharing of capacity. And I was trying to  
21 ask Miss White if this was still correct.

22          WITNESS WHITE: I'd like to clarify.

23          This letter addresses ownership of capacity in  
24 financial terms about who is paying for -- for  
25 ownership of the facility. It's -- It's actually not



1 addressing operations.

2           And there's a -- an operational accounting  
3 process later mentioned in this, to clarify that.

4           MS. DES JARDINS: Well, let's scroll down,  
5 then, and look at the operational accounting process.

6           (Exhibit displayed on screen.)

7           MS. DES JARDINS: So, it has some stuff . . .

8                   "DWR will hold title of the CWF  
9 facilities and may split the capacity of  
10 the CWF between SWP and CVP at 55 percent  
11 and 45 percent respectively. If so, CVP  
12 South of Delta and contractors would  
13 acquire from DWR up to the entire  
14 45 percent of the capacity of the CWF for  
15 conveyance of CVP water."

16           So that -- Ms. White, that's the proposal --  
17 That was the proposal September 2017 that CVP would  
18 have up to a 45 percent share?

19           WITNESS WHITE: I would not characterize this  
20 letter as a proposal. This was a letter to outline  
21 Reclamation's understanding at the time of how  
22 financial participation would be made from the CVP  
23 contractors.

24           MS. DES JARDINS: But it says how they might  
25 split the capacity. And this specifically rec --

1 discusses not just finances but how the CVP contractors  
2 would split the capacity of the North Delta diversions.

3 WITNESS WHITE: I can understand the -- the  
4 confusion, but this letter as a whole is talking about  
5 financial participation. This is not an Operations  
6 Plan.

7 MS. DES JARDINS: I'm trying to ascertain from  
8 you: What is your understanding of the proposed  
9 capacity sharing for the North Delta diversions?

10 WITNESS WHITE: I think that's something that  
11 Reclamation and DWR intend to discuss and work out over  
12 the next decade or so before this cons -- before this  
13 facility is constructed and operated.

14 MS. DES JARDINS: But it's not determined at  
15 this point.

16 WITNESS WHITE: That's correct.

17 MS. DES JARDINS: I'd like to bring up Exhibit  
18 FOR-80.

19 (Exhibit displayed on screen.)

20 MS. DES JARDINS: Let's zoom out 100 percent.

21 (Exhibit displayed on screen.)

22 MS. DES JARDINS: And this -- Miss --  
23 Miss White, Westlands Water District voted -- This is  
24 Official Statement of Westlands Water District  
25 (reading):

1 ". . . Voted by a margin of 7-1 to not  
2 participate in the California WaterFix."

3 Miss White, are you aware of this vote?

4 CO-HEARING OFFICER DODUC: Hold on.

5 MR. MIZELL: Objection.

6 CO-HEARING OFFICE DODUC: Hold on. I --

7 Mr. Mizell.

8 MR. MIZELL: And I recognize that this will  
9 not change the fact that the witness will answer the  
10 question, but for the record, I would object to this  
11 line of questioning based on hearsay.

12 CO-HEARING OFFICE DODUC: Miss Morris?

13 MS. MORRIS: Stefanie Morris, State Water  
14 Contractors.

15 I would again object to the characterization  
16 by the questioner of the letter. And just please ask  
17 the question because I think that's a  
18 mischaracterization of what the letter actually says.

19 CO-HEARING OFFICE DODUC: I'm sorry. Letter?  
20 This is a press release, it looks like.

21 MS. MORRIS: Sorry.

22 MS. DES JARDINS: Press release.

23 CO-HEARING OFFICE DODUC: Press release.

24 MS. MORRIS: Let me be clear.

25 Of Exhibit FOR-80.

1 CO-HEARING OFFICER DODUC: All right.

2 MS. DES JARDINS: I -- I just --

3 CO-HEARING OFFICE DODUC: Hold up. Hold on.

4 MS. DES JARDINS: I'm sorry.

5 CO-HEARING OFFICE DODUC: The hearsay

6 objection is noted.

7 Miss Des Jardins, I think, just to be clear on  
8 the record and to help me, please explain how this line  
9 of questioning would -- is responsive to what are the  
10 key -- or more than one -- the key issues for Part 2.

11 MS. DES JARDINS: The question here is about  
12 the sharing of capacity for the North Delta diversions.  
13 And I'm just looking at modeling assumptions and what  
14 we know now about what -- what the modeling assumptions  
15 are and what we know now about how correct the modeling  
16 assumptions are.

17 So I -- I wanted to ask about --

18 CO-HEARING OFFICE DODUC: So would it be fair,  
19 Miss Des Jardins, to say that you are exploring  
20 possible . . . conditions for approval? Are you  
21 exploring . . .

22 MS. DES JARDINS: To the extent that the  
23 modeling -- This is basically to the extent the  
24 modeling -- if the modeling assumes a 45 percent,  
25 55 percent share, that there -- there are

1 potentially -- There's a -- a major CVP contractor here  
2 which has an allocation of a full contract for  
3 1.15 million acre-feet, and they voted to not  
4 participate in the Project.

5 I just read from the press release.

6 CO-HEARING OFFICER DODUC: Okay. Okay.

7 MS. DES JARDINS: And so -- so the question  
8 is --

9 CO-HEARING OFFICE DODUC: Yes.

10 MS. DES JARDINS: -- how does that affect  
11 this, you know, potentially? And what is determined  
12 about -- about sharing of North Delta diversions and,  
13 you know, this could potentially shift -- What could  
14 this do to the operations that are in the modeling  
15 that's before the Board?

16 CO-HEARING OFFICE DODUC: Thank you for taking  
17 the time to explain your logic.

18 Now, let's hear from Miss Ansley.

19 MS. ANSLEY: I was going to say: I believe  
20 this line of questioning was asked and answered. She  
21 asked Miss White what the intention was, like, the  
22 intention.

23 She talked to Mr. Reyes looking at what the  
24 modeling assumptions are.

25 She may want to maybe clear that up, but I

1 think she's asked the two people in the room on those  
2 two lines of questioning.

3 CO-HEARING OFFICE DODUC: Thank you.

4 Miss Morris.

5 MS. MORRIS: I would add an objection for  
6 relevance.

7 The modeling shows that South-of-Delta exports  
8 with and -- with the Project combined. So as to  
9 whether or not it's relevant for Part 2, the same  
10 water's moving through whether it's 55, 45, 75, 25. It  
11 doesn't have any change on the conditions -- the  
12 modeling conditions that were -- are relevant for  
13 Part 2 in terms of public trust and fishery issues.

14 CO-HEARING OFFICE DODUC: Mr. Bezerra.

15 Aren't you glad I did not transport you back  
16 to your office?

17 MR. BEZERRA: Maybe.

18 I -- I want to support Miss Des Jardins here.

19 I think this is directly relevant to whether  
20 or not this Project is in the public interest.

21 You have the largest CVP contractor issuing an  
22 Official Statement about its position on this Project.  
23 They are testifying later in this hearing about how  
24 this Project is in the public interest because it may  
25 serve them.

1           And as to the -- So, the point about how the  
2 two Projects may share capacity in the WaterFix makes  
3 an enormous difference as to how much water gets sent  
4 to what parts of the State of California.

5           So if there are no answers, or whatever -- If  
6 there are answers about how the Project would get  
7 shared, it makes an enormous difference about how much  
8 water goes to the west side of the San Joaquin Valley  
9 versus goes to the Los Angeles Metropolitan area.

10           So I think these modeling assumptions and how  
11 relevant and how realistic they are and what intention  
12 the two Projects have about sharing that capacity goes  
13 directly to the public interest issues identified in  
14 the Notice of Hearing.

15           CO-HEARING OFFICE DODUC: Mr. Jackson.

16           MR. JACKSON: CSPA, et al. supports the  
17 introduction later --

18           CO-HEARING OFFICER DODUC: All right.

19           MR. JACKSON: -- of this document on the  
20 grounds that were expressed by both Miss Des Jardins  
21 and by Mr. Bezerra just now, and two others.

22           The two others are that without the Central  
23 Valley Project water --

24           CO-HEARING OFFICE DODUC: I'm sorry. We  
25 should have stopped the clock while all this was

1 happening.

2 MS. DES JARDINS: Then add a lot of time.

3 CO-HEARING OFFICE DODUC: We'll add an extra  
4 10 minutes.

5 Okay. Go ahead, Mr. Jackson.

6 MR. JACKSON: Without the Central Valley  
7 Project and their contractors involved in the Project,  
8 the -- the -- the first additional question -- or  
9 reason is, I don't believe that DWR has the ability --

10 CO-HEARING OFFICE DODUC: No.

11 MR. JACKSON: -- to --

12 CO-HEARING OFFICER DODUC: Do not express your  
13 opinion, Mr. Jackson.

14 MR. JACKSON: No. All right.

15 CO-HEARING OFFICER DODUC: Stick --

16 MR. JACKSON: I'll -- I'll rephrase the  
17 objection.

18 CO-HEARING OFFICE DODUC: Actually, you know  
19 what? Do me a favor and -- and -- and -- and do what  
20 Mr. Bezerra did.

21 I'm putting you on a shiny pedestal again.

22 And link it to the key issues that are before  
23 us in Part 2.

24 MR. JACKSON: Yes. The key issue is public  
25 trust and public interest.



1           And in terms of the public interest first.  
2 DWR alone does not have the water to deliver that would  
3 be necessary for the operation of H3+ and -- and  
4 the . . . approval of the Project.

5           And in allowing it to be built without water  
6 to support it --

7           CO-HEARING OFFICER DODUC: Okay. Now  
8 you're -- you're going beyond what's necessary.

9           MR. JACKSON: Right. Okay. You -- You -- You  
10 got the water part.

11          CO-HEARING OFFICE DODUC: Yes.

12          MR. JACKSON: The -- And the second reason is  
13 that without the involvement of the . . . the Central  
14 Valley Project, there is a -- a whole public interest  
15 question about who gets to pump what in the Delta and  
16 who is senior in the Delta if they're not both in the  
17 Project.

18          So, for public interest and public trust, I --  
19 I think this is a significant development and should be  
20 reflected in the record.

21          CO-HEARING OFFICE DODUC: Final words,  
22 Miss Ansley, or Miss Aufdemberge, or Mr. Mizell?

23          They're all tossing the hot potato around.  
24 Nobody wants to take it.

25          MS. ANSLEY: No. It's we all want to take it

1 maybe.

2 (Laughter.)

3 MS. DES JARDINS: Glad that we stopped the  
4 clock.

5 CO-HEARING OFFICE DODUC: I think we did, and  
6 added 10 minutes, yes.

7 MS. ANSLEY: After listening to the  
8 objections, I'd like to reiterate that the intentions  
9 of the modeling questions have indeed been asked and  
10 answered.

11 Asking our witnesses to speculate regarding  
12 statements by Westlands, which our timely objection to  
13 hearsay, is speculative. Westlands themselves will be  
14 here, you know, subject to cross-examination.

15 I want to reiterate that this line of  
16 questioning has been asked and answered to the  
17 appropriate witnesses.

18 CO-HEARING OFFICE DODUC: I understand your  
19 objection. I . . . will note the hearsay for now  
20 because we're -- I am told this is not the time to --  
21 to rule on hearsay objections. That's appropriate when  
22 cross-examination exhibits are being introduced.

23 Witness testimony about a document is not  
24 hearsay, according to my counsel there.

25 MR. DEERINGER: Just to -- May I offer a

1 clarification?

2           So the -- I may have misused the term  
3 "introduced." I meant introduced into the evidentiary  
4 record, which happens at the close of the case in chief  
5 part of this phase.

6           CO-HEARING OFFICE DODUC: Right.

7           I am allowing this line of questioning because  
8 it does relate to key hearing issues. However, I  
9 acknowledge Miss Ansley's point that these witnesses  
10 can only answer to the extent that they have knowledge.

11           So, Miss Des Jardins, proceed, but keep in  
12 mind they may be limited.

13           Mr. Mizell.

14           MR. MIZELL: Yes. This is not a further  
15 objection.

16           I would like to maybe seek some additional  
17 clarification from Mr. Deeringer.

18           Does that mean that objections to hearsay at  
19 the time that the cross-examination exhibits are  
20 submitted in evidence will still be considered timely?

21           Because there's a rule of timeliness under the  
22 Water Code, and that's what we're trying to protect  
23 against.

24           Or Government Code. Sorry.

25           CO-HEARING OFFICE DODUC: I'm glad I'm not a

1 lawyer.

2 MR. DEERINGER: Yes. If you raise a hearsay  
3 objection at the time that the cross exhibit is being  
4 introduced into the evidentiary record, it will be  
5 considered timely.

6 MR. MIZELL: Thank you.

7 CO-HEARING OFFICE DODUC: All right. Now,  
8 we'll restart the clock and we'll turn back to  
9 Miss Des Jardins.

10 MS. DES JARDINS: And this is how a scientist  
11 started to learn the law.

12 But -- Let's see.

13 (Reading):

14 ". . . The Westlands Water District Board  
15 of Directors voted by a margin of 7 to 1  
16 to not participate in the California  
17 WaterFix."

18 I wanted to -- So, Miss White, you were aware  
19 of this vote?

20 WITNESS WHITE: Yes, I heard about this.

21 MS. DES JARDINS: And does is potentially  
22 affect CVP participation in the Project?

23 WITNESS WHITE: I think that's pretty hard to  
24 say what a vote in 2017 dictates how water will move  
25 through a facility that won't be constructed for over a

1 decade. I think there's a lot can happen between now  
2 and then.

3           And our modeling assumptions are that DWR and  
4 Reclamation will coordinate to operate the facility to  
5 divert excess water that couldn't have otherwise been  
6 diverted and then develop a -- a plan on how to share  
7 that, which may consider financial accounting at that  
8 time, but that's something that would be developed over  
9 the next decade.

10           MS. DES JARDINS: But at this point in time,  
11 you don't know what Reclamation's share of the North  
12 Delta diversions will be -- what proportion of that  
13 that's conveyed will be CVP water; is that correct?

14           WITNESS WHITE: Yes, I think that's correct.  
15 I don't know how DWR and Reclamation will negotiate an  
16 agreement in the future.

17           MS. DES JARDINS: I'd like to pull up Exhibit  
18 DDJ-228, please.

19           (Exhibit displayed on screen.)

20           MS. DES JARDINS: And this is Reclamation's  
21 meeting minutes on a -- coordinated long-term  
22 operations, Reinitiation of Consultation. There was a  
23 stakeholder kickoff meeting.

24           And are you -- You're familiar with the  
25 Reinitiation of Consultation, Miss White?

1 WITNESS WHITE: I'm generally aware. I don't  
2 know if I attended this --

3 MS. DES JARDINS: Let's --

4 WITNESS WHITE: -- meeting or not.

5 MS. DES JARDINS: Let's go to Page 2.

6 And I just wanted to ask --

7 (Exhibit displayed on screen.)

8 MS. DES JARDINS: Let's scroll down a little  
9 bit.

10 (Exhibit displayed on screen.)

11 MS. DES JARDINS: And then it says (reading):

12 "How does the scope of this  
13 Initiation (sic) of Consultation fit in  
14 what the ongoing ESA consultation for  
15 California WaterFix?

16 And it says (reading):

17 "Reclamation has not defined the  
18 exact approach to this Reinitiation of  
19 Consultation; however, there is a basic  
20 assumption that if the Project period  
21 extends to 2070, then WaterFix may be  
22 operable and this Project would have to  
23 consider/model according to WaterFix  
24 impacts on CVP-SWP."

25 So, Miss White, I mean, are you involved in

1 any way in the Reinitiation of Consultation? Do you  
2 know about this?

3 WITNESS WHITE: I -- I am somewhat involved in  
4 this process. It's -- My office is not leading. It's  
5 a different office.

6 However, this is from early 2017, and I think  
7 there had been numerous public -- I don't know if  
8 they're public scoping meetings or -- or public  
9 meetings about how -- The -- The focus in the approach  
10 to Reinitiation of Consultation has -- has shifted  
11 somewhat.

12 I don't -- I think this statement is probably  
13 still appropriate, but -- but there have been a lot of  
14 changes for that process over the past year.

15 MS. DES JARDINS: So -- But Reclamation is in  
16 a NEPA process right now that includes -- that  
17 change -- includes Reinitiation of Consultation. And  
18 the modeled operations include over the long term the  
19 WaterFix potential -- as a potential diversion  
20 structure.

21 WITNESS WHITE: Potentially?

22 I'm struggling because I don't remember the  
23 exact text of the NOI -- the Notice of Intent that was  
24 issued recently.

25 I want to say that it would consider other

1 facilities, and WaterFix might have been one of them.  
2 I don't remember if it -- if it committed to including  
3 that in the analysis or not.

4 MS. DES JARDINS: Okay. Thank you.

5 And let's go to Page 3.

6 (Exhibit displayed on screen.)

7 MS. DES JARDINS: And . . . It says, with  
8 respect to regulatory steps and projects (reading):

9 "CDFW is developing Permits for  
10 SWPC's operations. The current  
11 consistency determination is satisfied by  
12 complying with the existent BOs."

13 It says (reading):

14 "DFW will evaluate redoing species  
15 authorizations versus doing another  
16 consistency oper -- determination."

17 It says (reading):

18 "The CESA process will consider  
19 WaterFix, address adaptive management, or  
20 allow peer review. NEPA and CESA should  
21 have meaningful interplay and the  
22 processes will be concurrent."

23 So I -- I just -- So there's a NEPA process,  
24 and then there's CDFW's CESA process under the ITP.

25 And is this -- It says they should have



1 meaningful interplay.

2 MS. ANSLEY: Is there a question?

3 MS. DES JARDINS: Is -- Is this -- Is it -- Is  
4 it true it was -- is -- So the concept back then was  
5 that the processes should have meaningful interplay.  
6 Is -- Would that be correct?

7 MS. ANSLEY: Objection.

8 CO-HEARING OFFICE DODUC: I'm sorry. I need  
9 to hear the question again.

10 MS. DES JARDINS: Is the NEPA and -- the NEPA  
11 process on the Reinitiation of Consultation and the  
12 CESA process by CDFW on the State Water Project -- It  
13 says that they should have meaningful interplay; is  
14 that correct?

15 MS. ANSLEY: Is she asking to affirm that?

16 MS. DES JARDINS: Is that -- Is that -- Is  
17 that a correct interpre -- Is that a correct  
18 interpretation of -- of that time period?

19 MS. ANSLEY: Obje -- Objection.

20 Is that a correct interpretation of that time  
21 period or --

22 MS. DES JARDINS: Well, she --

23 MS. ANSLEY: -- what's stated on the page?

24 Is -- This is vague and ambiguous and I don't  
25 believe she said she was involved in this meeting.

1           And I do have a particular problem with  
2 reading long excerpts into the record and then not sort  
3 of specifically asking a question.

4           I understand that this question eventually  
5 went to meaningful interplay, but she -- I mean, I  
6 think "meaningful interplay" --

7           MS. DES JARDINS: Can we stop the clock again?

8           CO-HEARING OFFICE DODUC: Hold on. Hold on.

9           Miss White, do you have any understanding of  
10 what would constitute meaningful interplay between NEPA  
11 and CESA?

12          WITNESS WHITE: I -- I don't know what -- what  
13 that would be. And I wasn't -- I wasn't in this  
14 meeting and, as I said before, this process has -- has  
15 shifted a little bit and the Notice of Intent that was  
16 issued reflects the -- the current process. So I'm  
17 not --

18          CO-HEARING OFFICE DODUC: You cannot answer.

19          WITNESS WHITE: I'm not the lead. I can't  
20 really answer how that process looks like now or what  
21 the intent of the statement during this meeting was.

22          CO-HEARING OFFICER DODUC: Okay.

23          MS. DES JARDINS: Ms. White, is there -- is  
24 there any indication -- Is -- Is there any schedule at  
25 this point that Reclamation would issue a Record of

1 Decision on the WaterFix EIS?

2 WITNESS WHITE: I think . . .

3 CO-HEARING OFFICE DODUC: That's such a very  
4 good question.

5 Thank you, Miss Des Jardins.

6 WITNESS WHITE: So let me first -- I want to  
7 be clear that I am not a decision-maker who'd be able  
8 to decide when a Record of Decision would be made, but  
9 it's certainly a policy call.

10 And I believe our -- our management has said  
11 that they wanted to wait until after this hearing was  
12 concluded in order to understand what the Permit terms  
13 and conditions might be before issuing a Record of  
14 Decision.

15 Whether or not that's how our management will  
16 proceed is not up to me, so -- But that's the last  
17 statement that I had heard.

18 MS. DES JARDINS: Okay. So at this point, we  
19 don't know, and there is this other NEPA process.

20 So . . .

21 Correct?

22 MS. AUFDEMBERGE: Objection.

23 MS. DES JARDINS: Yeah, okay.

24 Well -- So -- So this NEPA process will also  
25 determine long-term coordinated operations of the

1 Project; isn't that correct?

2 WITNESS WHITE: If I remember correctly --  
3 and, again, I'm not the lead on this Project -- the  
4 Notice of Intent said -- indicated it was going to be  
5 more programmatic to look at a whole-scale approach.

6 I don't know -- I don't know to what extent  
7 that -- that approach is intended to look at  
8 operations.

9 I'm -- I'm sorry. I'm just not the lead on  
10 this Project.

11 CO-HEARING OFFICER DODUC: Okay.

12 MS. DES JARDINS: Okay. Thank -- Thank you.  
13 That's enough.

14 Let's -- Let's pull up Exhibit DDJ-244.

15 (Exhibit displayed on screen.)

16 MS. DES JARDINS: And this is about COA. This  
17 is COA modeling results.

18 This is a PowerPoint from the Operations and  
19 Control office.

20 And let's go to Page 3.

21 (Exhibit displayed on screen.)

22 CO-HEARING OFFICE DODUC: And -- I'm sorry.  
23 Yes.

24 MS. DES JARDINS: The Department of Water  
25 Resources Operations and Control.

1           This was under -- obtained under a Public  
2 Records Act request.

3           And I -- I was -- This was some documentation  
4 about how the COA percentages are and --

5           CO-HEARING OFFICE DODUC: Do we know who made  
6 the presentation, who the author is?

7           MS. DES JARDINS: It was John Leahigh. I'm  
8 not sure if it's reflected in the .pdf.

9           CO-HEARING OFFICE DODUC: Mr. Mizell.

10          MS. DES JARDINS: Whether or not he was listed  
11 as the author on the Power Point.

12          CO-HEARING OFFICE DODUC: You have the  
13 microphone in position --

14          MR. MIZELL: I do not --

15          CO-HEARING OFFICER DODUC: -- so I would  
16 assume --

17          MR. MIZELL: I'm going to object.

18                 We don't know that this was John Leahigh.

19                 Now, if -- We can again take her assertion  
20 that it is; however, at this point, we've seen no  
21 authorship attributable to either John Leahigh or the  
22 Department.

23                 We don't know what context this PowerPoint  
24 apparently was created within or for what purpose.

25                 This could have been any number of . . .

1 conversations that --

2 MS. DES JARDINS: It calls --

3 MR. MIZELL: -- Mr. Leahigh has throughout the  
4 year about operations.

5 And it should be noted that that it's several  
6 years old at this point. So to try and discern why it  
7 was produced and for what purpose it was produced and  
8 how it was used by the Department -- meaning what the  
9 intent of its use was -- is unknown to us.

10 CO-HEARING OFFICE DODUC: So acknowledged.

11 We will proceed with those caveats and those  
12 disclaimers, I guess, in the record.

13 MS. DES JARDINS: Okay. Thank you.

14 And so this documents the COA.

15 Miss White, you're familiar with the COA.

16 And so it says (reading):

17 "Storage withdrawals for in-basin  
18 use are 75 percent CVP and 25 percent  
19 SWP."

20 Is that correct for the current COA?

21 WITNESS WHITE: That's my understanding, yes.

22 MS. DES JARDINS: And exports of unstored flow  
23 is 55 percent CVP and 45 percent SWP; correct?

24 WITNESS WHITE: Yes, that's my understanding.

25 MS. DES JARDINS: So let's -- And, so, also

1 with export of unstored flows, if there's a reduction  
2 in exports in the current COA, it would be 55 percent  
3 S -- CVP and 45 percent SWP?

4 WITNESS WHITE: I don't think a reduction of  
5 exports is the same as export of unstored flows.

6 MS. DES JARDINS: Okay.

7 WITNESS WHITE: You -- Can you clarify?

8 MS. DES JARDINS: Okay. So let's go to the  
9 next page.

10 (Exhibit displayed on screen.)

11 MS. DES JARDINS: And this is a graphic that  
12 people might find.

13 ~~So it shows the different reservoirs, Lake~~  
14 ~~Shasta, Lake Oroville, and~~

15 ~~At some -- some times in balanced conditions,~~  
16 ~~you need to make storage withdrawals to --~~

17 MR. MIZELL: Objection.

18 MS. DES JARDINS: ~~-- supply in-basin uses;~~  
19 ~~correct~~

20 CO-HEARING OFFICE DODUC: Hold on.

21 Mr. Mizell.

22 MR. MIZELL: Again, we're facing the situation  
23 where the questioner is characterizing the exhibit.

24 She is not John Leahigh nor the Department and  
25 has no business characterizing this exhibit.

1 CO-HEARING OFFICE DODUC: We will strike all  
2 the characterization and just ask Miss Des Jardins to  
3 repeat just your question.

4 MS. DES JARDINS: Okay. So, Ms. White, this  
5 shows three reservoirs; correct?

6 CO-HEARING OFFICER DODUC: Okay.

7 WITNESS WHITE: I see three circles  
8 representing reservoirs.

9 MS. DES JARDINS: Yeah. At Shasta, Oroville  
10 and Folsom; correct?

11 WITNESS WHITE: Yes. That's what I see on the  
12 figure.

13 MS. DES JARDINS: And it shows balanced  
14 conditions -- correct? -- and storage withdrawals  
15 required for in-basin use.

16 There's a graphic; correct? And it  
17 illustrates 75 percent/25 percent share in the COA;  
18 correct?

19 CO-HEARING OFFICE DODUC: It is what it is  
20 reflected on this page from a document that has not  
21 been authenticated.

22 MS. DES JARDINS: Okay. Well, I thought it  
23 might be helpful.

24 Can you confirm the -- the graphic reflects  
25 balanced conditions when -- when storage withdrawals



1 are required and when unstored water is available for  
2 export?

3 WITNESS WHITE: So, I haven't seen this  
4 presentation or this graphic before. It's not  
5 typically how Reclamation would represent the COA  
6 divisions. That doesn't mean that it's wrong. It just  
7 means that I'm not familiar with this layout.

8 But I think I just testified on the previous  
9 slide that in-basin uses shared 75/25 and unstored  
10 water available for exports is shared 55/45.

11 So I'm not sure what the new question is for  
12 this slide.

13 MS. DES JARDINS: Just -- The question is:  
14 You previously testified that the COA could change for  
15 the WaterFix; correct?

16 WITNESS WHITE: I testified that, under COA --  
17 and I think this was on the first day -- that, under  
18 COA, there is a provision that COA can be reviewed when  
19 new facilities are added -- I don't remember the exact  
20 words -- and that WaterFix would certainly be a new  
21 facility and Reclamation would be working with DWR  
22 on -- on how to meet requirements and how to share  
23 exports.

24 MS. DES JARDINS: Okay. So, Mr. Reyes, but  
25 the modeling assumes the current COA; correct? So that

1 we don't have another one.

2 WITNESS REYES: That's correct.

3 MS. DES JARDINS: Okay. Thank you.

4 And then I'd like to go to Page 11 of this  
5 slide.

6 (Exhibit displayed on screen.)

7 MS. DES JARDINS: So, it lists some modeling  
8 results. And this DWR BDO, it says, updated version of  
9 CalSim," and that there were four versions: Decision  
10 1485, Decision 1641, BiOp, and Alt 4C3.

11 Ms. -- Mr. Reyes, were you there when the  
12 Bay-Delta office produced these model versions?

13 MR. MIZELL: Objection.

14 CO-HEARING OFFICE DODUC: On the grounds?

15 MR. MIZELL: The questioner's assuming that  
16 the parenthetical represents four different versions of  
17 CalSim. That's not clear on the face of this  
18 statement. She's just making that assumption.

19 And I object to the speculation that's  
20 involved in this question.

21 MS. DES JARDINS: An updated version of CalSim  
22 with four different runs representing different  
23 regulatory conditions --

24 MR. MIZELL: Objection.

25 MS. DES JARDINS: -- and assumptions.

1 CO-HEARING OFFICE DODUC: I am not sure what  
2 this bullet says.

3 MS. DES JARDINS: Yeah.

4 Did -- Mr. Reyes, did you produce -- Were you  
5 at the Bay Delta office, and did you -- in 2013, and  
6 did you produce different runs of CalSim representing  
7 different regulatory conditions?

8 WITNESS REYES: I was with the DWR Bay-Delta  
9 office in 2013.

10 I'm not familiar with this document or what  
11 it's referring to. But there are versions of CalSim  
12 that -- that attempt to represent different regulatory  
13 environments.

14 MS. DES JARDINS: And is there a version that  
15 represents Decision 1485 regulatory environment from  
16 2013?

17 WITNESS REYES: Yeah. At least my own  
18 office's interpretation of D-1485.

19 MS. DES JARDINS: And Decision 1641, is there  
20 one?

21 WITNESS REYES: Yeah. There's -- I think  
22 there's some draft form of that, yes.

23 MS. DES JARDINS: And Decision 1641 with the  
24 BiOp?

25 WITNESS REYES: Yes. That's essentially

1 what -- what is being used for most of the current  
2 modeling is D-1641 with BiOps, yes.

3 MS. DES JARDINS: Okay. Thank you.

4 And, Mr. Reyes, if you had these versions of  
5 CalSim using historic regulatory conditions, did you do  
6 any comparison with historic condition -- with the  
7 actual historic flows, releases or whatever?  
8 Hydrology?

9 MR. MIZELL: Objection.

10 (Timer rings.)

11 CO-HEARING OFFICE DODUC: On what basis,  
12 Mr. Mizell?

13 MR. MIZELL: There's been no foundation laid  
14 that these runs -- and as far as Mr. Reyes has  
15 indicated they may exist -- are relevant to the  
16 California WaterFix H3+.

17 CO-HEARING OFFICE DODUC: Your point?

18 Do you wish to make that connection, the  
19 foun -- laying the foundation?

20 MS. DES JARDINS: There's been a lot of  
21 testimony that CalSim can't be calibrated or validated  
22 because it doesn't represent previous regulatory  
23 conditions.

24 And these look like some recent versions that  
25 could have been compared. And I just wanted to know if

1 he did. And -- And that are directly related to the  
2 current modeling.

3 CO-HEARING OFFICE DODUC: Mr. Mizell.

4 MR. MIZELL: Yeah. I --

5 CO-HEARING OFFICE DODUC: I'm confused now.

6 MR. MIZELL: I would simply respond that there  
7 has not been extensive testimony related to a lack of  
8 calibration or validation with CalSim. Nor has the  
9 questioner laid the foundation for that supposed  
10 testimony here.

11 Not to mention which these runs are completely  
12 undefined at this point other than to say that there is  
13 a run out there somewhere --

14 CO-HEARING OFFICER DODUC: And --

15 MR. MIZELL: -- whether it's D-1485, D-1641,  
16 and D-1641 with a later NMFS BiOps.

17 That is not necessarily germane to the  
18 California WaterFix even if a calibration validation  
19 question were relevant.

20 CO-HEARING OFFICE DODUC: Mr. Jackson.

21 MR. JACKSON: It seems that the relevance is  
22 that D-1641 standards have been considered by the  
23 fisheries' experts put on by DWR and the Bureau to be  
24 their -- If you meet D-1641, then everything's fine.

25 That's what they're comparing as a successful,

1 reasonable affect on fish and wildlife.

2 CO-HEARING OFFICE DODUC: Miss Meserve.

3 MS. MESERVE: Thank you.

4 I would just also point out that, in support  
5 of the questioning along these lines, is that we've  
6 heard tremendous amount of testimony in Part 2 from DWR  
7 how regarding how CWF H3+ is a lot like H3, H4 and  
8 everything we've heard before.

9 So I think it's a little bit odd that now they  
10 would say that, "Oh, it's so different that these other  
11 modeling runs wouldn't be relevant at this time."

12 CO-HEARING OFFICE DODUC: You lost me on that  
13 one.

14 But Miss Morris.

15 MS. MORRIS: Thank you.

16 I just -- I want to be clear. I think that  
17 this document, I believe, was from 2013. There was  
18 still BDCP.

19 The Project is Alternative 4A. This appears  
20 to be just Alternative 4-33.

21 There's been no evidence by any witness in  
22 this hearing as to what those runs are, what the actual  
23 physical infrastructure is for those runs.

24 But I'm guessing that it's significantly  
25 different and, therefore, irrelevant.

1 CO-HEARING OFFICE DODUC: Given, Mr. Reyes,  
2 that you're not familiar with this document that's  
3 being presented, to that extent can you answer any  
4 questions about what's on this page?

5 WITNESS REYES: Not really, not in -- insofar  
6 as those are just terms, I mean.

7 So we're familiar with the term "D-1485,"  
8 meaning Decision -- Water Rights Decision 1485, and  
9 D-1641, Water Rights Decision 1641.

10 But, you know, as far as this CalSim version,  
11 I don't know what exact version that is. And, also, I  
12 don't know who made this -- I mean, she's attributing  
13 it to John Leahigh, but I don't know if he did or not  
14 make this document. And I don't know what these are --  
15 what exact scenarios -- I think that's what she termed  
16 them to be -- are representing.

17 MS. DES JARDINS: Mr. Reyes, aren't you the  
18 head of the Bay-Delta office? And aren't you familiar  
19 with the model runs that your office does?

20 WITNESS REYES: I did not receive a promotion  
21 recently, so I'm not the head --

22 CO-HEARING OFFICER DODUC: Oh, no.

23 WITNESS REYES: -- the Office Chief, no.

24 MS. DES JARDINS: Ms. Smith, you're -- you  
25 were with the Bay-Delta Office Chief. Are you familiar

1 with the model runs that were done?

2 WITNESS SMITH: Could you repeat that  
3 question, please?

4 MS. DES JARDINS: Are you familiar with the  
5 model runs that were done?

6 WITNESS SMITH: I am not familiar with the  
7 model runs that were done.

8 MS. DES JARDINS: So, neither one of you  
9 knows.

10 I mean, Mr. Reyes, I thought you --

11 CO-HEARING OFFICE DODUC: Miss Des Jardins,  
12 actually, you -- I was about to rule on the objection.

13 MS. DES JARDINS: Okay.

14 CO-HEARING OFFICE DODUC: And that is, given  
15 the objection stated and given the fact that these  
16 witnesses are not familiar and cannot answer further  
17 questions, I don't believe this line of questioning  
18 would be productive to pursue further.

19 MS. DES JARDINS: Okay. Thank you.

20 CO-HEARING OFFICE DODUC: And the fact that we  
21 have used up two hours, and I do need to give the poor  
22 court reporter a break. She's been very steadfast.

23 Are you able to wrap up your  
24 cross-examination?

25 MS. DES JARDINS: Yeah. I would like to



1 request another half an hour, because there has been a  
2 lot of objections and it's been difficult to get  
3 through my questions.

4 But I believe I could do it in that time.

5 CO-HEARING OFFICE DODUC: For what purpose?

6 MS. DES JARDINS: I would have to --

7 CO-HEARING OFFICE DODUC: And, again, I --  
8 I -- I applaud your intellectual curiosity,  
9 Miss Des Jardins. You've brought up a lot of very  
10 fascinating issues and topics.

11 I would encourage you -- and perhaps you might  
12 do this during our break -- to go through your  
13 questions and be very clear and concise not only in  
14 stating the questions but also in assuring or offering  
15 me the chance that the lines of questionings are  
16 directly related to the key hearing issues that we are  
17 addressing in Part 2.

18 So why don't we take our break while you  
19 ponder that and then we can discuss your request for  
20 additional time when we return at 3:10.

21 MS. DES JARDINS: Thank you.

22 (Recess taken at 2:55 p.m.)

23 (Proceedings resumed at 3:10 p.m.):

24 CO-HEARING OFFICER DODUC: All right. Ready?

25 It is 3:10. Please take a seat. We're going

1 to resume.

2           And we'll start, actually, with Mr. Deeringer,  
3 who needs to provide a clarification regarding hearsay  
4 objections.

5           MR. DEERINGER: Thank you.

6           So, I just wanted to offer this clarification  
7 because there -- we now have a bunch of hearsay  
8 objections on the record, and I wanted to elaborate on  
9 something I said before the break.

10           What I did say was that, as we're going  
11 through cross, if there's an exhibit or something that  
12 comes up and, you know, a party believes it's hearsay,  
13 the -- the right time to object on hearsay grounds is  
14 when that exhibit's being offered into evidence, which  
15 I believe our Chair -- or Co-Chair has indicated is  
16 going to be at the close or toward the close of the  
17 Part 2 case in chief.

18           However, if a -- a witness' own oral testimony  
19 is hearsay and a party wants to object to oral  
20 testimony, the time to object to that is as it's being  
21 given. Oral testimony enters the record as it's being  
22 given, so that's why the objection should come then.

23           I just want to make sure that that distinction  
24 between hearsay objections to exhibits and hearsay  
25 objections to oral testimony was clear.

1           And if you have any questions, by all means,  
2 speak up.

3           CO-HEARING OFFICE DODUC: And someone will  
4 share that with Mr. Bezerra.

5           Then, before we return, Miss Des Jardins, I  
6 also want to ask Miss Suard, Miss Womack, and whoever's  
7 here from Grasslands:

8           Do you have cross-examination questions for  
9 Dr. Ohlendorf?

10          MS. WOMACK: No.

11          CO-HEARING OFFICE DODUC: No?

12          MS. SUARD: No.

13          CO-HEARING OFFICE DODUC: Oh, okay.

14          Mr. Hitchings will confirm this, but  
15 yesterday, Group 7 has said that they do not have  
16 questions for Dr. Ohlendorf.

17          MR. HITCHINGS: That's correct.

18          CO-HEARING OFFICE DODUC: Based on -- Based  
19 on -- Mr. Mizell, based on Mr. Stokely's  
20 cross-examination earlier today of Dr. Ohlendorf, do  
21 you plan to have redirect?

22          MR. MIZELL: I do not have any redirect for  
23 Dr. Ohlendorf.

24          CO-HEARING OFFICE DODUC: And Grasslands is  
25 still missing from the equation?

1 I would like to be able to thank Dr. Ohlendorf  
2 for joining us this week and be able to dismiss him as  
3 soon as we can.

4 Miss Meserve.

5 MS. MESERVE: Good afternoon.

6 I had asked Ms. Wehr if she had questions for  
7 Dr. Ohlendorf and she said no. I can e-mail her  
8 again -- I think she may have left -- just to make  
9 sure.

10 CO-HEARING OFFICE DODUC: Your word is good  
11 enough for me, Miss Meserve.

12 MS. MESERVE: I hope I'm right.

13 CO-HEARING OFFICE DODUC: With that, again,  
14 Dr. Ohlendorf, thank you very much for joining us and  
15 for lending your expertise to these proceedings and for  
16 your patience this entire week.

17 WITNESS OHLENDORF: You're welcome.

18 (Witness Ohlendorf excused.)

19 CO-HEARING OFFICE DODUC: Now,  
20 Miss Des Jardins, if you could outline the specific  
21 line of questioning you would like to pursue, their  
22 relevance to the key hearing issues before us.

23 MS. DES JARDINS: I had a question about  
24 the -- some questions about the temperature modeling  
25 which, to the extent that the Board intends to rely on

1 the temperature modeling, are relevant.

2 I have a question about --

3 CO-HEARING OFFICE DODUC: Let's stop right  
4 there.

5 MS. DES JARDINS: Yeah.

6 CO-HEARING OFFICE DODUC: What aspect of the  
7 temperature modeling as it relates to testimony  
8 provided in Part 2 will you be exploring?

9 MS. DES JARDINS: I have a question about  
10 Dr. Guerin's written testimony, DWR-1020, and what  
11 model version it relies on.

12 And also Mr. Hsu (sic) has testified about the  
13 Reclamation's temperature modeling, and I had a  
14 question for him (sic).

15 WITNESS GUERIN: Her.

16 MS. DES JARDINS: Her.

17 CO-HEARING OFFICE DODUC: Her.

18 MS. DES JARDINS: My apologies.

19 CO-HEARING OFFICER DODUC: All right. So  
20 those are directly related to the testimony they  
21 provided.

22 MS. DES JARDINS: Yeah.

23 CO-HEARING OFFICER DODUC: All right. Your  
24 next line of questioning?

25 MS. DES JARDINS: I had a question for

1 Miss Smith about the DSM-II modeling.

2 And --

3 CO-HEARING OFFICE DODUC: As related to the  
4 modeling of CWF H3+ submitted in her testimony.

5 MS. DES JARDINS: Yes.

6 CO-HEARING OFFICE DODUC: Thank you.

7 MS. DES JARDINS: And I have a question about  
8 real-time operations.

9 CO-HEARING OFFICE DODUC: Would that be for  
10 Mr. Miller?

11 MS. DES JARDINS: Yes.

12 And then . . . I have some questions about  
13 adaptive management and how it would be implemented.  
14 Not -- Not much. I know there's a lot.

15 And I have one final question on the DWR's  
16 designation of confidential information and of their  
17 witnesses.

18 CO-HEARING OFFICE DODUC: I think we might  
19 have some discussion about that last item from looking  
20 at Mr. Mizell's reaction.

21 MS. DES JARDINS: Yeah.

22 CO-HEARING OFFICE DODUC: But, for now, let's  
23 go ahead and proceed.

24 Let's put 15 minutes on the clock for  
25 Miss Des Jardins.

1 I will ask Miss Des Jardins to again be very  
2 direct and focused in your questions. No need to --  
3 unless there is an objection -- to lay background or  
4 frame your opinions in any way, and we'll see if we can  
5 proceed quickly down those list of questions.

6 MS. DES JARDINS: Thank you.

7 I would like to go to Exhibit DWR-1020, which  
8 is the testimony of Dr. Guerin.

9 (Exhibit displayed on screen.)

10 MS. DES JARDINS: Guerin, yes.

11 At Page 7, Line 5.

12 (Exhibit displayed on screen.)

13 MS. DES JARDINS: And, Miss Guerin, you say  
14 (reading):

15 "QUAL's water temperature module was  
16 used to produce output . . . in (sic) the  
17 Biological Assessment, No-Action  
18 Alternative . . . and BA H3+."  
19 There's no mention of the CWF H3+ modeling,  
20 Miss Guerin?

21 WITNESS GUERIN: Not in my testimony.

22 MS. DES JARDINS: So -- So your opinion is not  
23 based on the CWF H3+ modeling but on the BA H3+?

24 WITNESS GUERIN: Correct.

25 MS. DES JARDINS: Okay. Thank you.

1 Miss Hsu.

2 Can we go to Exhibit -- I have some questions  
3 about the Reclamation temperature model.

4 And let's go to Exhibit DDJ-140.

5 CO-HEARING OFFICE DODUC: And Miss Gaylon,  
6 while Mr. Hunt is doing that, please note that, should  
7 objections be voiced during the remaining of  
8 Miss Des Jardins' cross-examination, please stop the  
9 block.

10 MS. DES JARDINS: Thank you.

11 Exhibit DDJ-140.

12 Oh, dear.

13 We have technical issues.

14 Let's go to Exhibit DDJ-1 -- DWR-112 since  
15 we're having technical issues.

16 (Exhibit displayed on screen.)

17 MS. DES JARDINS: Oh, there we go. Great.

18 Dierdre Des Jardins.

19 Exhibit DDJ-140 . . . Oh, you know, I -- I --  
20 I apologize. It's Exhibit DDJ-240 and it's on the  
21 stick.

22 (Exhibit displayed on screen.)

23 MS. DES JARDINS: I'm not sure how this . . .

24 So, Miss Hsu, you used the Reclamation  
25 temperature model for the Oroville temperature



1 projections?

2 CO-HEARING OFFICE DODUC: Hold on a second.

3 MS. DES JARDINS: Yes.

4 CO-HEARING OFFICE DODUC: Let's identify this  
5 document, Miss Des Jardins.

6 MS. DES JARDINS: This is a letter from David  
7 Murillo -- from NOAA fisheries to David Murillo about  
8 the Sac River Temperature Management Plan during the  
9 drought.

10 And I in -- included it because of its  
11 discussion of Reclamation's temperature model.

12 CO-HEARING OFFICE DODUC: And is Dr. Hsu  
13 familiar with this letter?

14 WITNESS HSU: No. This is my first time  
15 seeing this letter.

16 MS. DES JARDINS: I would just like to go to  
17 the top of Page 3 at . . .

18 CO-HEARING OFFICE DODUC: Mr. Hunt, top of  
19 Page 3.

20 MS. DES JARDINS: Yeah.

21 (Exhibit displayed on screen.)

22 MS. DES JARDINS: And, Miss Hsu, are you aware  
23 that the RPA required Reclamation -- has concerns about  
24 Reclamation's temperature model, at least for Shasta,  
25 and the CVP-SWP opinion, RPA Action 1.2.4(3) required

1 Reclamation to fix this and other major flaws of the  
2 model?

3 WITNESS WHITE: This is Kristin White.

4 Can I jump in for a clarification? And I  
5 completely understand how this is confusing.

6 The Reclamation temperature model is a  
7 specific model. Reclamation's temperature model is  
8 a -- is a reference to general models that are used in  
9 developing Operations Plans, not -- They're not the  
10 same thing.

11 MS. DES JARDINS: Is -- Is -- Is -- Is the  
12 methodology for the Oroville and the Shasta model the  
13 same?

14 WITNESS WHITE: I can't speak to the  
15 methodology of the Reclamation temperature model.

16 But this letter is talking about a Temperature  
17 Management Plan that Reclamation used operational  
18 models to develop.

19 CO-HEARING OFFICE DODUC: It is not the  
20 temperature model.

21 WITNESS WHITE: It is not the Reclamation  
22 temperature model, which is a model that can't meet the  
23 intent of -- of what this letter is addressing.

24 MS. DES JARDINS: Okay. Thank you.

25 Let's go to Exhibit DDJ-107.

1 CO-HEARING OFFICE DODUC: Is it on the flash  
2 drive?

3 MS. DES JARDINS: No. This one's on the  
4 website. There we go.

5 And I'd like to go to Page -- the bottom of  
6 Page 9, please.

7 CO-HEARING OFFICE DODUC: I think we're having  
8 Internet issues.

9 To whom were you about to address this  
10 question?

11 MS. DES JARDINS: Miss Smith.

12 CO-HEARING OFFICE DODUC: I'm wondering,  
13 Miss Smith, if you are familiar with the National  
14 Academy of Science report on use of models.

15 WITNESS SMITH: I've heard of it, but I am not  
16 familiar with it.

17 CO-HEARING OFFICE DODUC: Are you able to ask  
18 your questions, Miss Des Jardins, without  
19 referencing --

20 MS. DES JARDINS: I can -- I can ask it if we  
21 can --

22 CO-HEARING OFFICE DODUC: Yes.

23 MS. DES JARDINS: It says -- It says --  
24 There's a specific criticism in there about the -- It  
25 says (reading):

1           "The individual models used in this  
2           tiered analysis reproach of a broader" --

3           CO-HEARING OFFICE DODUC: I think -- I think  
4 you're about to hear an objection about testifying --

5           MS. DES JARDINS: Yeah.

6           CO-HEARINB OFFICER DODUC: -- and reading  
7 things into the record.

8           Miss Smith has said she's not familiar with  
9 the document, so she would not be able to answer any  
10 questions about anything in that document.

11           MS. DES JARDINS: It's just about -- It says  
12 (reading):

13           "CalSim II uses a monthly time step  
14 whereas the DSM-II uses a 15-minute time  
15 step."

16           It says the (reading):

17           "The linkage of CalSim II and DSM2  
18 attempts to smooth out the step change in  
19 monthly simulated flows . . . but this is  
20 not necessarily adequate to simulate the  
21 fluctuations of flows within the month."  
22 This has been a big issue in this proceeding.

23 And --

24           CO-HEARING OFFICE DODUC: What is your  
25 question to Miss Smith.

1 MS. DES JARDINS: They said (reading):

2 "U.S. Fish and Wildlife Service and  
3 NFMS should provide a comparison of" --  
4 Objection, Mr. Mizell?

5 MR. MIZELL: Yes.

6 Again, we're -- we're reading large segments  
7 of a document that we cannot pull up at this time into  
8 the record.

9 MS. DES JARDINS: Let's see if it'll come up  
10 now.

11 CO-HEARING OFFICE DODUC: But I'm curious now.  
12 What is -- Assuming that you read everything  
13 into this record, or we can see, what is your question  
14 to Miss Smith?

15 MS. DES JARDINS: It just -- Now it's  
16 recommended --

17 CO-HEARING OFFICER DODUC: Without --

18 MS. DES JARDINS: (Reading):

19 "-- a comparison of daily versus  
20 monthly average simulations of DSM-2 for  
21 a historical period to ascertain the  
22 reliability of using monthly CalSim" --

23 CO-HEARING OFFICE DODUC: I don't hear a  
24 question.

25 MS. DES JARDINS: (Reading):

1                   "-- output as input to DSM-2."

2                   Did you ever do this comparison recommended by  
3 NMFS to compare daily versus monthly average  
4 simulations and to do any kind of attempt to ascertain  
5 the reliability of using monthly CalSim output as input  
6 to DSM-II?

7                   CO-HEARING OFFICE DODUC: Are you able to  
8 answer the question?

9                   WITNESS SMITH: I'm not prepared to answer  
10 that at this time. I would need to look at that a  
11 little bit more clearly to really understand exactly  
12 what they're asking.

13                   MS. DES JARDINS: Let's go down to Page 9 --  
14 and I apologize for trying to do this without -- The  
15 bottom of Page 9.

16                   (Exhibit displayed on screen.)

17                   MS. DES JARDINS: Scroll down.

18                   (Exhibit displayed on screen.)

19                   MS. DES JARDINS: So it's at -- The bottom of  
20 Page 9 talks about (reading):

21                   "Incompatible temporal  
22 resolutions . . ."

23                   And let's go to the top of Page 10.

24                   (Exhibit displayed on screen.)

25                   MS. DES JARDINS: And that's -- That is the

1 part that I was referring to.

2 Take a minute to look at it.

3 MS. ANSLEY: Can we see both pages? Maybe go  
4 to the top page of the --

5 MS. DES JARDINS: Yeah. Can we scroll out a  
6 little? Yeah, that would be better.

7 MS. ANSLEY: Oh, I see it's a problem. Sorry.

8 MS. DES JARDINS: Yeah.

9 (Exhibit displayed on screen.)

10 WITNESS SMITH: Okay. I'm still having -- I'm  
11 having a little trouble reading it just because the  
12 side here is not as clear.

13 (Exhibit displayed on screen.)

14 WITNESS SMITH: Okay. Okay. You can scroll  
15 down a little bit.

16 (Exhibit displayed on screen.)

17 MS. DES JARDINS: Scroll down further, please,  
18 so that the whole paragraph is on the -- on the . . .

19 (Exhibit displayed on screen.)

20 MS. DES JARDINS: Yeah.

21 WITNESS SMITH: So this seems like a very  
22 general point that -- that they're making here.

23 And I did want to say that, you know, in terms  
24 of concerns about possible difference in time -- time  
25 steps, there are two things that we've done.

1           One is that we've demonstrated where there may  
2 have been some issues associated with the modeling  
3 anomalies with the time steps.

4           The other area is that for the times where you  
5 might not be catching the peak flows into the system,  
6 there's been a mapping of historical times in order to  
7 capture those to -- to take care of any concerns that  
8 might occur with those -- those changes in monthly time  
9 steps.

10           And so I think we have addressed it as part of  
11 this Project.

12           MS. DES JARDINS: Okay. Thank you.

13           And I wanted to go to real-time operations.

14           Because our time is short, it's based on . . .

15           Let's go to the NMFS BiOp, Exhibit SWRCB-106,

16 Appendix A2.

17           (Exhibit displayed on screen.)

18           MS. DES JARDINS: And then Page 82.

19           (Exhibit displayed on screen.)

20           MS. DES JARDINS: And let's scroll out a

21 little.

22           (Exhibit displayed on screen.)

23           MS. DES JARDINS: Yeah. And so North Delta

24 bypass flows has a footnote.

25           Scroll down to see. It's the one, 28.



1 (Exhibit displayed on screen.)

2 MS. DES JARDINS: And it says (reading):

3 "Sacramento River flow upstream of  
4 the intakes to be measured flow at  
5 Freeport. Bypass flow is the Sacramento  
6 River . . . quantified downstream of the  
7 intake . . . Sub-daily North Delta  
8 intakes' diversion . . . will maintain  
9 fish screen approach and sweeping  
10 velocity criteria."

11 Mr. Miller, my understanding is that the  
12 bypass criteria are going to be implemented as average  
13 daily measured flow at Freeport and, you know, an  
14 average daily flow downstream of Intake 5.

15 Is that -- Is that correct?

16 WITNESS MILLER: Yeah. It's my understanding  
17 is that the . . . I forget which table it is.

18 But the table that defines those bypass flows  
19 would be a daily average flow.

20 MS. DES JARDINS: So, there's no minimum flows  
21 applying to sub-daily operations?

22 MR. MIZELL: Objection.

23 CO-HEARING OFFICE DODUC: What is the  
24 objection?

25 MR. MIZELL: I believe that misstates

1 Mr. Miller's testimony.

2 He said a daily average flow would apply.  
3 That does not mean the same thing as sub-daily, does  
4 not have a condition placed on it.

5 CO-HEARING OFFICE DODUC: Then --

6 MR. MIZELL: The condition is --

7 MS. DES JARDINS: Maybe -- Okay. So NMFS --  
8 NFMS -- The only sub-daily condition, as I read this,  
9 is to maintain fish screen approach and sweeping  
10 velocity.

11 Would that be correct?

12 WITNESS MILLER: There -- There would be this  
13 sub-daily component of the operation, as you see here.

14 I may look to Dr. Greenwood if he is -- if he  
15 has any other components of sub-daily operations.

16 WITNESS GREENWOOD: I don't have anything  
17 other than what's written here.

18 MS. DES JARDINS: So there aren't any, like,  
19 ramping criteria, or anything that are proposed that  
20 would constrain sub-daily variations other than the  
21 fish screen velocity and sweeping velocity?

22 WITNESS GREENWOOD: I don't recall. I'd have  
23 to look -- I would have to look through the -- for  
24 example, the Incidental Take Permit conditions. I  
25 don't recall if there is ramping.

1 MS. DES JARDINS: All right. Is -- So  
2 where -- I was going to -- Is DWR proposing any flow  
3 monitoring stations downstream of the intakes?

4 CO-HEARING OFFICE DODUC: Miss Ansley.

5 MS. ANSLEY: I was just going to say vague and  
6 ambiguous as to what purpose.

7 Are we still talking about sweeping  
8 velocities, or is there some -- Just so the witnesses  
9 are focused to -- We're looking at one section of the  
10 chart. I want to make sure we're all on the same page.

11 CO-HEARING OFFICE DODUC: Good point.

12 MS. DES JARDINS: I'm looking at . . .  
13 the . . .

14 So, it -- There is a set of flow monitoring  
15 stations maintained by DWR and some, I think, by USGS,  
16 that provide both -- some provide instantaneous flows.

17 And I'm -- would like to know, as part of this  
18 Permit, if -- I don't believe there's one at Hood.

19 Do you know if there's one at Hood,  
20 Mr. Miller?

21 WITNESS MILLER: Are you asking about the flow  
22 monitoring station?

23 MS. DES JARDINS: Yes, in the Delta. That --  
24 Yeah, the actual flow monitoring stations that are  
25 maintained.

1           WITNESS MILLER: I -- I can't remember if  
2 there was one at Hood, but there is one above the Delta  
3 Cross Channel.

4           MS. DES JARDINS: So the closest one currently  
5 is above the Delta Cross Channel?

6           MS. ANSLEY: Objection: Misstates testimony.  
7 He said he does not remember if there was one  
8 at Hood. He did recall there's one by Delta Cross  
9 Channel.

10          MS. DES JARDINS: Okay. So -- And you're --  
11 you're not proposing any new monitoring stations if  
12 there isn't one?

13          WITNESS MILLER: I -- I would -- Certainly,  
14 with each of these intakes, we'll have to have some  
15 sort of way to measure flow going into the intakes.

16          MS. DES JARDINS: Looking as somebody would be  
17 looking for something that might be not only on DWR but  
18 as part of, you know, the monitor -- flow monitoring  
19 that's reported on the California Data Exchange Center  
20 and so on.

21           So one could see something there.

22          CO-HEARING OFFICE DODUC: And your question  
23 is?

24          MS. DES JARDINS: Is -- Is there anything like  
25 that that's proposed in this Project?

1 CO-HEARING OFFICE DODUC: And Miss Ansley.

2 MS. ANSLEY: It's vague and ambiguous.

3 If the question is whether there are any  
4 additional monitoring stations to receive data for CDEC  
5 proposed for the California monitoring? That's my  
6 understanding of the question.

7 MS. DES JARDINS: Well, I -- I would like to  
8 say there's a difference between internal DWR data and  
9 something that's -- I -- I believe there are -- I --  
10 There historically have been IEP monitoring stations.

11 CO-HEARING OFFICE DODUC: Are you able to  
12 answer the question, Mr. Miller?

13 WITNESS MILLER: Well, I -- I don't know if  
14 there is a proposed location for adding additional  
15 monitoring, but we collectively -- Many agencies are  
16 putting monitoring into the -- the Delta and expanding  
17 our network of monitoring . . .

18 Well, there has -- there has been a continuous  
19 adding of additional data, and I would expect that  
20 people would add additional data for monitoring as part  
21 of the California WaterFix.

22 MS. DES JARDINS: But that's not currently  
23 part of the current proposal before the Board?

24 MR. MIZELL: Objection: Asked and answered.

25 CO-HEARING OFFICE DODUC: Sustained.

1 MS. DES JARDINS: Okay. I would like to go up  
2 to Exhibit -- The next question's about adaptive  
3 management. And I'd like to go to Exhibit DDJ-156,  
4 which is the Final Draft DEC Agreement.

5 (Exhibit displayed on screen.)

6 MS. DES JARDINS: And I'd like to go to  
7 Page 4, "Oversight."

8 (Exhibit displayed on screen.)

9 MS. DES JARDINS: Scroll down, please.

10 (Exhibit displayed on screen.)

11 MS. DES JARDINS: Up.

12 (Exhibit displayed on screen.)

13 MS. DES JARDINS: There we go.

14 So this is regarding --

15 (Timer rings.)

16 MS. DES JARDINS: -- the terms with the DCE  
17 Agreement. And it says (reading):

18 "Each of the following matters shall  
19 constitute a Material Impact that shall  
20 require the advice and concurrence of the  
21 Authority Board."

22 And it states -- Condition 3 says (reading):

23 "Any actions that, in the reasonable  
24 judgment of the Authority Board, could  
25 impact the water . . . capability,

1 project life, or operations and  
2 maintenance costs of the Conveyance  
3 Project."

4 And, Mr. Miller, I wanted to ask you:

5 As far as the determination of operations  
6 during Project construction, are you familiar with this  
7 potential term that would have the water agencies  
8 involved in -- in either signing off or not signing off  
9 on actions that could impact water delivery capability?

10 CO-HEARING OFFICE DODUC: Mr. Mizell.

11 MR. MIZELL: Yes.

12 We -- We have not ascertained whether or not  
13 Mr. Miller's familiar with this document.

14 Generally, I would assert that documents  
15 regarding the construction -- and the DCE is a  
16 construction-based agreement -- would have been  
17 appropriately asked of John Bednarski and  
18 Mr. Pirabarooban.

19 CO-HEARING OFFICE DODUC: Sustained.

20 Mr. Miller, are you familiar with this  
21 document and generally with these terms?

22 WITNESS MILLER: I am not familiar with these  
23 terms and I'm -- I am not sure what document this is.

24 MS. DES JARDINS: It -- It -- It does address  
25 implementation as well of the Project.

1 CO-HEARING OFFICE DODUC: Nevertheless, he is  
2 not familiar with it.

3 MS. DES JARDINS: Okay. That -- That sounds  
4 good.

5 So I did want to go to Exhibit DDJ-232.

6 CO-HEARING OFFICE DODUC: And I would  
7 encourage you to start wrapping up him.

8 MS. DES JARDINS: Okay.

9 (Exhibit displayed on screen.)

10 MS. DES JARDINS: This is the standard --  
11 Let's scroll out.

12 (Exhibit displayed on screen.)

13 MS. DES JARDINS: -- and part of DWR's  
14 contract terms. And it defines protection of  
15 confidential and substantive information.

16 And I wanted to ask the ICF --

17 Let's scroll down to the last page, Page 3.

18 (Exhibit displayed on screen.)

19 MS. DES JARDINS: Last three. And it says  
20 (reading):

21 "A non-disclosure certificate" and

22 "requires contractors to protect

23 confidential and sensitive information."

24 And I wanted to ask the -- Dr. Greenwood: Did  
25 you sign a protection of confidence -- a non-disclosure



1 certificate such as this one, or did ICF?

2 CO-HEARING OFFICE DODUC: Mr. Mizell.

3 MR. MIZELL: Yes.

4 What we're looking at here seems to be an  
5 excerpt from standard terms and conditions to an RFQ  
6 that has not been identified, nor have we ascertained  
7 whether or not Dr. Greenwood is familiar with RFQ  
8 number 10138585, what the scope of this RFQ was about.

9 There's a lot of foundation missing here.  
10 Plus it looks as though it was unsigned, which means it  
11 was never executed.

12 So I'm going to object on relevance;  
13 incomplete or speculative question.

14 CO-HEARING OFFICE DODUC: And I'm interested  
15 in the relevance part, Miss Des Jardins.

16 MS. DES JARDINS: We did subpoena the  
17 contracts for ICF and for CH2M Hill. We --

18 CO-HEARING OFFICE DODUC: Stop. Hold on.  
19 Hold on.

20 When you say "we" . . .

21 MS. DES JARDINS: I worked with PCFFA, and  
22 this was one of the things we specified.

23 CO-HEARING OFFICE DODUC: Miss --  
24 Miss Des Jardins, I am actually going to stop you  
25 and --

1 MS. DES JARDINS: Yes.

2 CO-HEARINB OFFICER DODUC: -- this line of  
3 questioning and inform you that we just -- actually,  
4 just within the hour -- issued a ruling that addresses  
5 your remaining outstanding issues, and including the  
6 issue of the subpoena from PCFFA and IFR.

7 I suggest you and Mr. Volker and PCFFA's  
8 representative and the Department review that ruling  
9 and proceed accordingly.

10 There is no need to get into this right now.

11 MS. DES JARDINS: Okay. Yeah. It's just, I  
12 didn't have a signed copy available. We -- But that's  
13 why I don't have a signed copy of this.

14 It is a standard contract and I would like to  
15 ask them --

16 CO-HEARING OFFICE DODUC: Thank you,  
17 Miss Des Jardins.

18 Please . . .

19 MS. DES JARDINS: Did -- did you sign a  
20 non-disclosure certificate --

21 CO-HEARING OFFICE DODUC: Miss Des Jardins,  
22 I -- I am stopping this line of questioning.

23 MS. DES JARDINS: All right. Thank you.

24 I do have one further question I would like to  
25 ask, which is about maintenance of documentation.

1 CO-HEARING OFFICE DODUC: If it relates to the  
2 subpoena and other -- other matters that are in our  
3 latest ruling, I suggest you read that ruling first and  
4 take it up with DWR.

5 MS. DES JARDINS: Okay. Thank you.

6 I would like to reserve the right to . . .  
7 to . . . to do a deposition of Mr. Reyes, if needed,  
8 to get my questions answered. I tried to do an  
9 interrogatory and I wasn't able to.

10 And the question of whether information is  
11 publicly distributed is . . . is relevant.

12 CO-HEARING OFFICE DODUC: Miss Morris,  
13 Mr. Mizell, could someone help me out in terms of  
14 what's going on here?

15 MS. MORRIS: I'm unclear, too, if there's a  
16 request for deposition.

17 Mr. Reyes is right here and Miss Des Jardins  
18 has adequate time to ask him questions. So at this  
19 point in time, it seems inappropriate and I don't  
20 believe the Board allows that kind of -- of discovery,  
21 at any rate.

22 MS. DES JARDINS: I was trying to ascertain of  
23 the existence of a documentation database.

24 It was earlier shown -- Like, going in and  
25 reading the model code, there aren't very many people

1 have the skills to do that, and whether there -- There  
2 was promised to be doc -- accessible documentation.  
3 It's in a -- It's in there, and it's something that I  
4 just want to ascertain the existence of.

5           If we didn't have so much trouble with even  
6 getting a question answered, I wouldn't need to ask it,  
7 but I do need to ask it. It's been asserted that  
8 everything's publicly distributed.

9           CO-HEARING OFFICER DODUC: Okay.

10          MS. DES JARDINS: And I --

11          CO-HEARING OFFICE DODUC: Let's stop because  
12 this is running on and on.

13          What is the question?

14          MS. DES JARDINS: The question is:

15          Well, in -- Do you -- Mr. Reyes, it was  
16 promised in 2004 that DWR would maintain an organized  
17 and centralized documentation management system for  
18 CalSim.

19          And I can pull up the page, if necessary, to  
20 establish foundation for the question.

21          But is that being maintained? And, if  
22 so . . .

23          WITNESS REYES: Is -- My question to you, just  
24 for clarification: Is what being maintained?

25          MS. DES JARDINS: Is there an organized and

1 centralized documentation management system for CalSim?  
2 Is that being maintained? It was promised to be  
3 maintained in 2004.

4 WITNESS REYES: Promised by who and to who?  
5 It is a question of what you mean by that.

6 MS. DES JARDINS: It was promised by the  
7 Department of Water Resources and Reclamation to the  
8 CALFED Bay-Delta Science Authority.

9 And the documentation was identified as one of  
10 the issues with the model. And there was specific  
11 recommendations about the documentation being  
12 maintained.

13 CO-HEARING OFFICE DODUC: Miss Morris.

14 MS. MORRIS: Thank you.

15 I'm going to object to the characterization of  
16 promise without any document.

17 But it seems like Mr. Reyes can ask a question  
18 or point to the DWR website if the documentation on the  
19 model in the different versions is available to the  
20 public, which I believe was testified to in Part 1.

21 But that --

22 MS. DES JARDINS: No. I'm -- I'm not  
23 asking --

24 CO-HEARINB OFFICER DODUC: Stop.

25 MS. DES JARDINS: -- about --

1 CO-HEARING OFFICE DODUC: (Banging gavel.)

2 Stop.

3 MS. DES JARDINS: -- documents that are

4 maintained.

5 CO-HEARING OFFICE DODUC: Stop.

6 MS. DES JARDINS: Sorry.

7 CO-HEARING OFFICE DODUC: Miss Ansley.

8 MS. ANSLEY: I had something earlier.

9 Did she characterize this as a requirement or  
10 a recommendation, Miss Des Jardins, in her question?

11 CO-HEARING OFFICE DODUC: I believe she said  
12 it was a commitment.

13 MS. DES JARDINS: I -- I just want to know if  
14 it's being maintained and, if so, if --

15 CO-HEARINB OFFICER DODUC: The problem --

16 MS. DES JARDINS: -- it's available.

17 CO-HEARING OFFICE DODUC: The problem,  
18 Miss Des Jardins, is Mr. Reyes does not seem to  
19 recognize the terminology you used, so he's not able to  
20 answer the question.

21 At least, that's what I'm interpreting.

22 WITNESS REYES: That's correct.

23 MS. DES JARDINS: Is there documentation of  
24 CalSim that's being maintained that is not being  
25 externally distributed?

1           WITNESS REYES: No. The . . . The DWR  
2 Bay-Delta office website maintains our models that we  
3 show, and there's documentation on them.

4           And the code itself is self-documenting in --  
5 They are text files, and so they're -- You can -- You  
6 can -- You can compare two scenarios with simple --  
7 they're called different tools that are, like, free  
8 shareware that you can download from various websites.  
9 And it will tell you every line of code that's  
10 different between any two scenarios.

11           And so, you know, we don't maintain a --  
12 a -- like, a . . . a version control system like other  
13 software means might.

14           But our -- our Russell coding is relatively  
15 short compared to, like, some other programming type  
16 languages. And an entire study only consists of about  
17 40 megabytes of files.

18           MS. DES JARDINS: I -- I'm not asking about  
19 merger control. I'm asking about documentation and  
20 particularly --

21           WITNESS REYES: All right. And that  
22 documentation --

23           MS. DES JARDINS: -- documentation of inputs  
24 like the -- the Sac Valley hydrology, or documentation  
25 of things like the reservoir carryover storage

1 function.

2 CO-HEARING OFFICE DODUC: And that is her  
3 final question, Mr. Reyes.

4 Are you able to answer?

5 WITNESS REYES: That type of information is --  
6 is publicly available, even in the submittals that we  
7 have for this process, for Cal WaterFix. And the  
8 appendices -- the modeling appendices in the Final EIR  
9 has a lot of that information and documentation. And  
10 our website, we have documentation of the models as  
11 well.

12 CO-HEARING OFFICE DODUC: Thank you.

13 Miss Suard.

14 Let me note, as Miss Suard is coming up, that  
15 we have a -- we have received an e-mail from  
16 Mr. Porgans that he is not able to attend today due to  
17 health reasons. I.

18 Will again extend to Mr. Porgans the option of  
19 submitting his cross-examination questions to us, and I  
20 will now extend that deadline to 5 p.m. tomorrow.

21 And we will revisit next week, Mr. Mizell,  
22 should Mr. Porgans submit those questions on a time  
23 deadline for this panel's witnesses to respond.

24 Miss Suard, you have not indicated, I don't  
25 think, in your e-mail a specific time estimate.



1 MS. SUARD: I sent a followup, but I'm -- I'm  
2 estimating at most 30 minutes.

3 CO-HEARING OFFICE DODUC: And --

4 MS. SUARD: A lot of it has been covered --

5 CO-HEARING OFFICER DODUC: Okay. And just for  
6 planning purposes, with Miss Suard's 30 minutes and  
7 Miss Womack's 30 minutes, about there, that would get  
8 us to about 4:45 or so.

9 Is West -- I'm sorry -- Grasslands here?

10 MS. WEHR: (Raising hand.)

11 CO-HEARINB OFFICER DODUC: Ah. You had  
12 initially estimated, I believe it was, 40 minutes. If  
13 we were to go up to 5:30, might you be able to wrap up  
14 your cross-examination?

15 MS. WEHR: I will try.

16 CO-HEARING OFFICER DODUC: Okay. So let's  
17 plan on -- Oh, Let me confirm.

18 Mr. Hunt, were you able to confirm that --

19 MR. HUNT: (Nodding head.)

20 CO-HEARINB OFFICER DODUC: Okay. So let's  
21 plan on going till 5:30, or earlier if we prove to be  
22 more efficient than all the time estimates.

23 And given that -- If we could do that, then  
24 Mr. Hitchings, we will start in the morning with you, I  
25 believe, followed then by Mr. Bezerra for an estimate

1 of three to four -- Actually, you and Miss Nikkel are  
2 coordinating, so for an estimate of three to five hours  
3 of cross-examination.

4 MR. HITCHINGS: Yes, that's right.

5 CO-HEARING OFFICE DODUC: Miss Suard.

6 MS. SUARD: Thank you.

7 So my questioning will really be focused on  
8 water quality. And that would be focused with Tara  
9 Smith and Erik Reyes and if there may be somebody else  
10 that could talk about more operations.

11 But this is really the water quality, the  
12 changes, if any, between what we saw before and what --  
13 H3+, how that impacts very specific area of the Delta,  
14 the North Delta in particular, and maybe west side of  
15 Steamboat Slough I will be focusing, even though  
16 everywhere else is also important.

17 So I -- I actually had -- I just pulled  
18 together some of the slides just in case there would be  
19 access online. And I -- I gave a -- a slide set so  
20 that we could pull it up easily if we like, or if we  
21 could.

22 First, I'd like to, though, go to Page 4 of --  
23 of Miss Smith's testimony. That is DWR-1015.

24 (Exhibit displayed on screen.)

25 MS. SUARD: And it's Line 8 to 13 basically.

1 (Exhibit displayed on screen.)

2 CROSS-EXAMINATION BY

3 MS. SUARD: Miss Smith, you referred to the  
4 months specifically of October and November are  
5 somewhat similar to those under the NAA.

6 Could you explain what you mean by "somewhat  
7 similar"?

8 WITNESS SMITH: Again, what line are we on?  
9 Four?

10 MS. SUARD: I'm sorry. Okay. Line 8 --

11 WITNESS SMITH: Line 8.

12 MS. SUARD: -- Page 4 regarding the monthly  
13 average electroconductivity, or EC.

14 WITNESS SMITH: Okay. I'm -- I'm making sure  
15 to see what part of the testimony so we are in the  
16 right . . .

17 (Document handed to witness.)

18 WITNESS SMITH: Thank you, Dr. Hsu.

19 I just wanted to make sure what -- if we were  
20 looking at the -- the fish and wildlife objectives. So  
21 that's what I was looking at at the time to make sure  
22 that that's what we were looking at and not the D-1641,  
23 so . . .

24 MS. SUARD: Well, further down, Line --  
25 Line 12 and 13 talks about the D-1641 as well.

1           So I'm going to be asking about water quality  
2 for fish, municipal and industrial, so . . .

3           WITNESS SMITH: Okay. So I wanted -- I -- I  
4 was orienting myself. Sorry. I just wanted to make  
5 sure where I was in my -- in my opinion.

6                         (Pause in proceedings.)

7           WITNESS SMITH: And so we're talking about the  
8 fish and wildlife objectives for the San Joaquin River  
9 Reach, and that's what this is related to.

10           And so, then, on Line 8, that's where you --  
11 you were discussing; right? Is that correct?

12           MS. SUARD: Okay. So you're -- Okay. It  
13 might be easier if we go to . . . one of the specific  
14 slides.

15           Could -- Could we go to DWR-10 -- I think it's  
16 1033.

17           Let me see which one it is.

18           Yes, 1033. That might be easier.

19                         (Exhibit displayed on screen.)

20           MS. SUARD: Thank you.

21           Okay. So I -- I do realize that DWR and you  
22 provided modeling regarding water quality in -- on  
23 certain areas of Delta.

24           I did not see any modeling -- updated modeling  
25 provided for North Delta areas, specifically Lower

1 Steamboat Slough.

2 Was -- Was that analyzed for H3+, that area?

3 WITNESS SMITH: We did not provide the graphs,  
4 the output graphs, for Steamboat Slough. No, we did  
5 not.

6 We had provided them for other kind of general  
7 regions of the Delta to give an idea of kind of what  
8 the impacts would be relative to H3 and H4.

9 MS. SUARD: And did you run graphs for  
10 Steamboat Slough at -- Lower Steamboat Slough? I'm  
11 going to be specific because it's from different, the  
12 water quality on Upper and Lower. So I'm saying Lower  
13 Steamboat Slough at that monitoring station about a  
14 mile below Snug Harbor.

15 WITNESS SMITH: We did not produce graphs for  
16 that location.

17 MS. SUARD: Why not?

18 WITNESS SMITH: Because I think we were  
19 able -- I was able to determine from the other  
20 locations that were around the -- what the approximate  
21 impact was going to be based on looking at Barker  
22 Slough and Rio Vista and Emmaton to -- to generally  
23 understand what the potential -- what potentially would  
24 happen in that area.

25 And I was -- You know, in terms of public

1 interest, I was just putting out results that --  
2 that -- that -- for various reasons -- region --  
3 various regions as in Part 1. We have already -- We  
4 have already covered that.

5           Additionally, all the model runs are there and  
6 the data is available, if you need it, so . . .

7           MS. SUARD: Okay. So you just mentioned the  
8 Barker Slough figure.

9           Let's see. I believe it's DWR-10 either 17 or  
10 27. I printed it out too little to see it.

11           WITNESS SMITH: 27.

12           MS. SUARD: 27? 1027.

13           (Exhibit displayed on screen.)

14           MS. SUARD: Was there a certain slide number,  
15 do you -- because I can't see that.

16           In fact, can we go to the Barker Slough side?

17           WITNESS SMITH: That's Page 26, I believe.

18           (Exhibit displayed on screen.)

19           MS. SUARD: Okay. Thank you.

20           So, on some of the slides, we see we're  
21 talking about electrical conductivity and some we see  
22 we're talking about chloride concentration. And this  
23 one's Barker Slough.

24           Is this -- Do you assume that the chloride  
25 level at Barker Slough is similar to what the chloride

1 level on Steamboat Slough is?

2 WITNESS SMITH: Do I assume that? I -- I  
3 assume there might be some slight differences because  
4 that's a little bit further up in the Delta. But I  
5 would expect that the results would be fairly similar,  
6 yes.

7 MS. SUARD: Okay. Thank you.

8 Why would this -- this slide read as chloride  
9 concentrations and the other ones read as electrical  
10 conductivity?

11 WITNESS SMITH: Well, I -- I think -- I  
12 present this in -- You know, we used as an example the  
13 D-1641. So I'm -- I'm presenting stuff in -- in  
14 reference to D-1641 objectives, which are either  
15 chloride or EC, depending on the location you're  
16 looking at.

17 MS. SUARD: Okay. Is there a presumption that  
18 D-1641 is protective of surface water quality for  
19 drinking water rights and irrigation and, you know,  
20 municipal uses and . . . Not just irrigation but  
21 municipal uses, too?

22 WITNESS SMITH: Barring any other indication  
23 of -- of objectives, yes, that's what I'm going by.

24 CO-HEARING OFFICE DODUC: Mr. Mizell.

25 MR. MIZELL: (Shaking head.)

1 CO-HEARING OFFICER DODUC: Okay. Let's -- For  
2 the record, I'm not compelling you to voice objections.  
3 It's just that every time you raise the microphone;  
4 okay?

5 MS. ANSLEY: We should use a flag.

6 MR. MIZELL: I do appreciate you recognizing  
7 me promptly. I will do my best not raise the  
8 microphone until I can object.

9 CO-HEARINB OFFICER DODUC: Thank you.

10 CO-HEARING OFFICER MARCUS: I think you guys  
11 should break into song.

12 (Laughter.)

13 CO-HEARING OFFICE DODUC: Apology, Miss Suard,  
14 for the interruption.

15 MS. SUARD: That's okay.

16 So just to be clear, your assumption is that  
17 the chloride level on -- on Lower Steamboat Slough will  
18 be -- What were the words? Similar or equivalent or --  
19 What were your words?

20 WITNESS SMITH: I'm -- I'm actually saying  
21 that the model results would demonstrate something very  
22 similar in that the California WaterFix is not having  
23 an impact in that area.

24 MS. SUARD: Okay. Does the --

25 WITNESS SMITH: Relative to the No-Action



1 Alternative.

2 MS. SUARD: Okay. Does the No-Action  
3 Alternative, meaning -- No-Action Alternative is what's  
4 real life going on right now; is that right?

5 WITNESS GUERIN: (Shaking head.)

6 MS. SUARD: No?

7 WITNESS GUERIN: Sorry. I shouldn't do that.

8 WITNESS SMITH: That is not correct. The  
9 No-Action Alternative incorporates other -- other  
10 things, such as climate change, so it's not existing  
11 conditions.

12 MS. SUARD: Can we go to Slide -- back to  
13 DWR-1033.

14 (Exhibit displayed on screen.)

15 MS. SUARD: So on this slide -- I'm going to  
16 have to play with the glasses -- it -- it focuses on  
17 operations from October '15 to the end-of-September  
18 2016; is that right?

19 WITNESS SMITH: I'm going to go ahead and  
20 defer this to Mr. Miller since this is his exhibit.

21 MS. SUARD: Okay. Great.

22 Mr. Miller. Thank you.

23 Why did you pick that time period?

24 WITNESS MILLER: So, my testimony was to talk  
25 about how real-time operations are -- are done today

1 and demonstrate how, given a California WaterFix H3+  
2 criteria, how that would have been implemented -- could  
3 have been implemented in just a water year like 2016.

4 MS. SUARD: And -- And was that a dry water  
5 year, a critical water year? What was it labeled?

6 WITNESS MILLER: Based on the Sac water year  
7 type, it would be a below-normal year.

8 MS. SUARD: Below normal. Okay.

9 I think people can see it, but over to the  
10 lower left, you see on the -- on the table the -- from  
11 October 1st to about January 1st, there's red dots  
12 missing and blue dots missing. In -- In other words,  
13 there's no data references for the H3+ and the H3+  
14 outflow.

15 Why is that information not included there?

16 WITNESS MILLER: So, what I -- what I did was,  
17 I took the historical data from 2016 and that  
18 historical data is represented by the solid lines.

19 And then I implemented a conceptual California  
20 WaterFix operation, and that's shown in the dotted  
21 lines.

22 But the reason there aren't any dotted lines  
23 between October 1st and rough -- roughly the first week  
24 in January is because, under historical conditions, we  
25 were in what's typically called balanced conditions, so

1 we were -- the Projects were operating to things like  
2 fresh water concerning water quality.

3           And so the opportunity to use the -- the  
4 northern -- northern diversion in -- in terms of to  
5 bring additional water was limited to essentially those  
6 current conditions at that time.

7           MS. SUARD: Okay. Could we go to my slides  
8 and go to Slide Number 4, please.

9           The one I gave you. Sorry.

10           (Exhibit displayed on screen.)

11           MS. SUARD: Could you -- Let's see. It seems  
12 to have gotten out of order.

13           Could you move up a bit, see if they're . . .

14           (Exhibit displayed on screen.)

15           MS. SUARD: Sorry. Okay. Down another page.

16 Let's see if we can find them.

17           (Exhibit displayed on screen.)

18           MS. SUARD: Down the page again.

19           (Exhibit displayed on screen.)

20           MS. SUARD: Again.

21           (Exhibit displayed on screen.)

22           MS. SUARD: There we go.

23           Could we look at this graphic, the -- that  
24 comes from CDC.

25           Can you blow it up enough so they can see.

1 And see the bottom, so they can see the timeframe of  
2 all of this.

3 (Exhibit displayed on screen.)

4 MS. SUARD: So this is a -- a screen print  
5 from the CDEC. You can see exactly where it was done.

6 I actually just pulled that a couple days ago,  
7 on February -- no -- Yeah. You can see where -- where  
8 I pulled it down at the bottom.

9 And can we zero in on that point, the high  
10 point there of EC; okay?

11 (Exhibit displayed on screen.)

12 MS. SUARD: So you can see that, in October  
13 through the end of December in 2015, the same timeframe  
14 as your modeling, the -- the water quality or EC on  
15 Steamboat Slough is substantially higher than what  
16 would be assumed; is that correct? Is that what that  
17 looks like?

18 MS. ANSLEY: Objection.

19 CO-HEARING OFFICE DODUC: Miss Ansley.

20 MS. ANSLEY: Objection as to the word  
21 "assumed." Assumed under what -- what standards or by  
22 whom?

23 I think I'm just a little confused with the  
24 vague and ambiguous question.

25 CO-HEARING OFFICE DODUC: Miss Suard.

1 MS. SUARD: That's actually fair, that the  
2 assumption of water quality was words from Miss Smith.

3 I'm just . . . trying to establish that water  
4 quality during the same timeframe as the modeling is  
5 not . . . doesn't meet adequate standards, municipal  
6 and industrial standards.

7 MS. ANSLEY: I'm sorry. Is there a question  
8 pending? I believe Miss Suard --

9 MS. SUARD: Okay. Miss Tara -- I'll ask  
10 Miss Smith.

11 Does EC as high as 1350 meet the standards for  
12 municipal and industrial water quality on Steamboat  
13 Slough?

14 CO-HEARING OFFICE DODUC: I think Mr. Mizell  
15 now has an objection.

16 MR. MIZELL: I have an objection.

17 This calls for not only a legal conclusion as  
18 to what meets certain standards, but we've not been  
19 presented with what the standards that Miss Suard is  
20 talking about are at this location at this time.

21 This is not a graph that can be attributed to  
22 operations of the Department of Cal -- of -- it's  
23 getting late -- to DWR or the State Water Project.

24 So unless there's some additional foundation  
25 laid and a showing that this actually goes towards

1 violations, this question misstates evidence.

2 CO-HEARING OFFICE DODUC: Miss Suard.

3 MS. SUARD: I am attempting to . . .

4 understand: What is the assumption of the modelers  
5 regarding what is actually the water quality standard  
6 of the NAA?

7 CO-HEARING OFFICE DODUC: So let's ask that  
8 question.

9 MS. SUARD: At this location. We'll leave it  
10 there.

11 WITNESS SMITH: Okay. So, in terms of water  
12 quality objectives, I am not aware of any water quality  
13 objectives at Steamboat Slough.

14 In terms of what I as a modeler am presenting,  
15 we are not looking at existing conditions. We are  
16 looking at a -- a level of development -- which  
17 Mr. Reyes could explain probably a little more  
18 eloquently -- that looks at the hydrology but applies  
19 the regulatory requirement that's being put forward,  
20 the -- the operating criteria that's being put forward.

21 So, comparing the planning -- a planning  
22 simulation to historical simulation is -- is not the  
23 correct way of analyzing the situation, in -- in my  
24 opinion.

25 MS. SUARD: So, at a Water Right Hearing --

1 and the Board is looking for suggestions for conditions  
2 of approval -- would you believe or would you assume it  
3 would be reasonable to require that the water quality  
4 level of Barker Slough be the same water quality level  
5 at -- that Steamboat Slough would be guaranteed the  
6 same water quality level as Barker Slough?

7 CO-HEARING OFFICE DODUC: Mr. Mizell.

8 MR. MIZELL: Thank you.

9 Objection as to . . . a number of things.

10 CO-HEARING OFFICE DODUC: Let me --

11 MR. MIZELL: I would say --

12 CO-HEARINB OFFICER DODUC: Let me try it.

13 Miss Suard, when you are presenting your case  
14 in chief, we would certainly entertain such a proposal  
15 from you.

16 However, I don't believe that this question is  
17 something that Petitioners' witnesses are able to  
18 answer.

19 MS. SUARD: Okay. Can we go down -- I don't  
20 know how this works. Can we continue down my slides.

21 (Exhibit displayed on screen.)

22 MS. SUARD: Keep going.

23 (Exhibit displayed on screen.)

24 MS. SUARD: Keep going.

25 (Exhibit displayed on screen.)

1 MS. SUARD: I had done some -- and the issues  
2 have gone by, so keep going down.

3 (Exhibit displayed on screen.)

4 MS. SUARD: The next one.

5 (Exhibit displayed on screen.)

6 MS. SUARD: There we go.

7 So I am -- This -- And it might need to be  
8 blown up a little bit larger. I don't know.

9 This actually is a --

10 (Exhibit displayed on screen.)

11 MS. SUARD: -- just a section of a map from  
12 water.ca.gov, and you can actually see -- see the links  
13 very clearly on this.

14 The pink area is hydrogeologically vulnerable  
15 areas.

16 Are you familiar with this area of the Delta,  
17 Miss Smith? If you're the right person to ask.

18 WITNESS SMITH: I'm familiar with this area of  
19 the Delta. I'm not really familiar with this  
20 particular graphic.

21 MS. SUARD: Are you -- Are you familiar with  
22 the term "hydrogeologically vulnerable area"?

23 WITNESS SMITH: Probably not. I -- I don't  
24 think I'm familiar enough to provide any expertise  
25 on -- on that, no.



1 MS. SUARD: Did the computer model --  
2 modeling, either CalSim or DSM-II, consider this area  
3 of the Delta for its hydrogeologically vulnerable  
4 properties?

5 WITNESS SMITH: DSM-II modeling?

6 MS. ANSLEY: Excuse me, Miss Smith.

7 I'd like to lodge an objection. I mean,  
8 hydrologic vulnerability -- I'm sorry, I don't remember  
9 the exact term.

10 But Miss Smith is here as an expert on water  
11 quality modeling, surface water DSM-II.

12 Perhaps you could --

13 CO-HEARING OFFICE DODUC: Miss Ansley --

14 MS. ANSLEY: -- redefine your --

15 CO-HEARINB OFFICER DODUC: -- let me just stop  
16 you.

17 My understanding of Miss Suard's question was  
18 she simply -- I guess there's no simply about it. But  
19 she wanted to know whether or not the modeling either  
20 conducted by Mr. Reyes or Miss Smith took into account  
21 this -- this issue of hydrologically (sic) vulnerable  
22 area.

23 MR. MIZELL: Yeah. If I may add to  
24 Miss Ansley's objection.

25 And I'm sorry, I have to walk over here to

1 actually read it.

2           But there's been no showing that areas without  
3 an aquitard -- which, apparently, due to the  
4 description on the slide, is what this map indicates --  
5 this -- this -- There's been no showing that that has  
6 any influence on the hydraulics of the river channels  
7 themselves, which is what the CalSim II and DSM-II  
8 modeling would model.

9           So I would like to see a -- well -- a request  
10 that we establish more foundation as to whether or not  
11 the hydrologically vulnerable areas indicated on this  
12 map with areas without an aquitard have --

13           CO-HEARINB OFFICER DODUC: Okay.

14           MR. MIZELL: -- no relation.

15           CO-HEARING OFFICER DODUC: Stop. Stop. This  
16 is getting way involved here.

17           Mr. Reyes, Miss Smith has already testified  
18 that she is not familiar with the term -- I'm not going  
19 to repeat it -- and is not able to provide any sort of  
20 expert opinion on it.

21           How about you?

22           WITNESS REYES: Yeah. I can't provide any  
23 expert opinion about this.

24           CO-HEARING OFFICE DODUC: So you would not be  
25 able to answer any questions even if it pertains to

1 whether or not this was considered as part of the  
2 modeling because you are not familiar with what it is.

3 WITNESS REYES: Yeah. I'm not familiar with  
4 it.

5 CO-HEARING OFFICER DODUC: Okay.

6 MS. SUARD: I -- I wanted to see if it was  
7 considered in the modeling.

8 So I'm assuming if you were the modelers that  
9 means, no, it was not considered?

10 MR. MIZELL: Again, I'm going to object.

11 Further reading: This is a groundwater map.  
12 This is a groundwater map.

13 CO-HEARING OFFICE DODUC: I think we've --  
14 we've beaten this one.

15 Let's move on, Miss Suard.

16 MS. SUARD: Okay. Can we go down to the next  
17 slide, please.

18 (Exhibit displayed on screen.)

19 MS. SUARD: There we go.

20 So this actually is a portion of SHR-350.  
21 There's also a 352.

22 Did you prepare this, Miss Smith or Mr. Reyes?  
23 This is the -- a portion of the -- We can go to the  
24 actual slides you guys gave me. Sorry, you guys.

25 This is a section of a document that the --

1 that DWR provided to me, and then I submitted it into  
2 evidence as SHR-350 and then 352, with 351 being the,  
3 you know, statement of how it was received from DWR.

4           And it -- it is -- Well, it is what it says on  
5 the document. The complete document, you can go to 350  
6 and see it.

7           I wanted to ask questions about how H3+ is  
8 different than how this document represents flow on  
9 Steamboat Slough in October, June, July, August and  
10 September.

11           CO-HEARING OFFICE DODUC: Hmm.

12           MS. SUARD: So, is -- Did you prepare this,  
13 Miss Smith?

14           WITNESS SMITH: I didn't personally prepare  
15 it. I vaguely remember this from, I believe it was,  
16 Part 1.

17           I would have to look at it more closely to  
18 provide any opinion on that in terms of where H3 (sic)  
19 falls with -- relative to H3, H4 and No-Action  
20 Alternative.

21           MS. SUARD: I -- I would like to make a  
22 request that DWR be directed to redo this graph to  
23 reflect H3+ flows for the same waterways as represented  
24 in SHR-350 and 352.

25           May I make the request, Madam Chair?

1 CO-HEARING OFFICE DODUC: Mr. Mizell, any  
2 objections?

3 Unless you can -- Well, I guess you cannot.

4 But unless you can -- or at least your  
5 witnesses can assert that it falls within H3 and H4, I  
6 think her request is reasonable.

7 MR. MIZELL: Well, I would . . . I would  
8 object on a couple of bases:

9 The first bases (sic) being that both  
10 Miss Smith and Mr. Reyes have previously testified that  
11 the data for all locations in the Delta are contained  
12 within the modeling results, so that has already been  
13 submitted to the public.

14 Secondly, Miss Smith has just testified that,  
15 based upon the results at Barker Slough, which would  
16 show a comparison of the H3, H4 and H3+ scenarios, it  
17 is her professional opinion that those would be  
18 representative of what you would see upstream at  
19 Steamboat Slough, if I'm not misquoting her testimony.  
20 She can certainly restate that.

21 So, with that, I would say it's been asked and  
22 answered and provided to the public.

23 Moreover, I would say that producing graphics  
24 for parties in this hearing is a time-consuming  
25 exercise with these witnesses on the stand as often as

1 they are.

2 Any direction to prepare those graphs would  
3 have to take into account the fact that we have  
4 staffing resource limitations.

5 So I think that the questions that have been  
6 provided -- or the answers to the questions that have  
7 already been provided may suffice at this time.

8 CO-HEARING OFFICE DODUC: Miss Ansley.

9 MS. ANSLEY: I'd also like to add that these  
10 witnesses are -- the modeling witnesses are certainly  
11 here today, and this request may not be timely.

12 This is Miss Suard's time to ask questions.  
13 Certainly this graphic -- I do recall it from Part 1 --  
14 and with this testimony of these witnesses have been  
15 out for a number of months.

16 This request now, what we hope is the last day  
17 of their te -- you know, the last 12 hours that these  
18 witnesses are here and available, is -- is not timely,  
19 either.

20 CO-HEARING OFFICE DODUC: Miss Des Jardins and  
21 then Miss Meserve.

22 MS. DES JARDINS: Miss Suard did join in my  
23 request.

24 Petitioners are required to provide  
25 quantitative information on changes to flows and water

1 quality.

2 To the extent that the Proposed Project is now  
3 CWF H3+, Miss Suard timely joined in my request that  
4 the Board ascertain whether that had been provided --

5 CO-HEARINB OFFICER DODUC: Miss --

6 MS. DES JARDINS: -- for the actual Project.

7 CO-HEARING OFFICE DODUC: Miss Des Jardins,  
8 let me be very clear.

9 When you say your request, are you referring  
10 to the motion/objection you voiced earlier today to  
11 which you will be providing in writing?

12 MS. DES JARDINS: No. It was just a written  
13 motion that the Board determine what information had  
14 been provided to me -- Title 23, 794 -- particular  
15 quantitative changes in flows and water quality and, if  
16 that had changed, require Petitioners to provide it.

17 And Miss Suard --

18 CO-HEARING OFFICE DODUC: I'm sorry. What?

19 MS. DES JARDINS: -- submitted a written  
20 joinder that's mentioned about the Steamboat Slough  
21 before the panel.

22 MR. DEERINGER: Miss Des Jardins, was this  
23 your motion for DWR to supplement their Petition?

24 MS. DES JARDINS: It was just a motion that  
25 the Board determine what information had been provided

1 to meet 794(a), and if it was sufficient for  
2 quantitative -- you know, quantitative changes in flows  
3 and water quality, and the Delta channels, as is  
4 required under the Water Code and, if it had changed,  
5 require them to provide it.

6 And they had a number of joinders, including  
7 Antioch and Miss Suard and Miss Womack.

8 MR. DEERINGER: Do you recall what date the  
9 most recent -- What was the most recent date upon which  
10 you made that motion?

11 MS. DES JARDINS: I -- It was February 7th. I  
12 apologize. It was before the hearing was started -- to  
13 start.

14 And, yeah, it was just a motion that the Board  
15 determine what information, because this is an issue  
16 with the modeling changing and with accessibility.

17 MR. DEERINGER: And if it's the February 7th  
18 motion that I think you're referring to, I believe it  
19 was denied, joinders notwithstanding.

20 MS. DES JARDINS: It was a timely request to  
21 the Board. It was denied, but she did make a timely  
22 request as well as joining one.

23 CO-HEARING OFFICE DODUC: Thank you.

24 Miss Meserve.

25 MS. SUARD: May I say something?



1 CO-HEARING OFFICE DODUC: Would you like  
2 Miss Meserve to speak first?

3 MS. SUARD: Sure.

4 MS. MESERVE: I just got in.

5 This is an ongoing issue with respect to the  
6 Petitioners failing to meet their burden with respect  
7 to injury to legal users of water.

8 CO-HEARING OFFICE DODUC: Ah, yes, yes.

9 MS. MESERVE: As the Project --

10 CO-HEARINB OFFICER DODUC: Mr. Mizell is about  
11 to object to that assertion again.

12 MS. MESERVE: But that is the challenge,  
13 especially if they change what their Project is  
14 halfway -- or whatever way through the hearing we are.

15 So I think it's reasonable for members of the  
16 public and participants to ask for this kind of basic  
17 information about effects.

18 CO-HEARING OFFICE DODUC: Miss Suard.

19 MS. SUARD: So I -- And I won't say it as  
20 eloquently as Miss Des Jardins.

21 But I do not have the capability to read  
22 computer modeling. I could download it. I could spend  
23 probably, you know, 20 years or however long it takes  
24 to learn how to do that.

25 That is not a reasonable requirement to -- for

1 a simple business owner to try and protect their water  
2 rights.

3 And the second thing I would like to point out  
4 is, I believe that Mr. Mizell's goal is, he's an  
5 attorney for Department of Water Resources.

6 And Department of Water Resources, their  
7 website says they manage the water and protect the  
8 water for the State of California, not for certain  
9 parties.

10 I'm a legal user of water in the State of  
11 California, and I've been asking the same questions of  
12 the modelers through CALFED, Bay-Delta Conservation  
13 Plan, you know, all the different names that they --  
14 they --

15 CO-HEARINB OFFICER DODUC: All right.

16 MS. SUARD: -- change things in the Project.

17 I'm just asking a very simple question.

18 CO-HEARING OFFICE DODUC: Miss Suard, let's --  
19 We'll take your request under consideration.

20 What I will ask Miss Smith to do, based on  
21 your statement earlier in response to Mr. -- to  
22 Miss Suard -- which Mr. Mizell reminded us of --  
23 comparing conditions at Barker Slough versus Steamboat  
24 Slough.

25 If you would report back to us tomorrow

1 confirming your statement which at that time I believe  
2 was in response to questions about not EC but . . .

3 MS. SUARD: Chloride levels.

4 CO-HEARING OFFICE DODUC: Chloride level and  
5 how that might impact . . . or be impacted by . . .

6 What is on here? Is this flows, Miss Suard.

7 WITNESS SMITH: This is flows. This is  
8 different than --

9 CO-HEARINB OFFICER DODUC: It is.

10 WITNESS SMITH: -- what I had talked about,  
11 so --

12 CO-HEARING OFFICE DODUC: Exactly.

13 So I need to understand before I rule on  
14 Miss Suard's request whether your statement -- you  
15 don't need to answer it now -- but your statement and  
16 testimony regarding water quality and EC and salinity  
17 is applicable also to the flow issues.

18 WITNESS SMITH: So, I wanted to have -- I  
19 think when I answered before, I wanted to have a little  
20 time to think of -- about this because I had not looked  
21 at this graphic.

22 And I don't anticipate that I would see much  
23 difference between what you're seeing here with the  
24 California H3+.

25 But I will review that in the evening and

1 then, if I -- if -- if there's something that comes up  
2 that I wasn't aware of, I'll go ahead and do that.

3 That's in regard to the flow.

4 In regard to the chloride, I -- I do not think  
5 that there is a really significant difference, if -- if  
6 even visible on the graphics, but I'll also look at  
7 that.

8 CO-HEARING OFFICE DODUC: Thank you very much.

9 Mr. Su -- Miss -- Miss Suard, hopefully you'll  
10 be able to return tomorrow --

11 MS. SUARD: Yes.

12 CO-HEARING OFFICE DODUC: -- and we will spend  
13 just a little bit of time revisiting this.

14 MS. SUARD: So I just really have one  
15 other -- And that is a very wonderful assurance, you  
16 know, and it -- it does make a big difference. The  
17 surface water affects the groundwater in our area, so  
18 it's a huge issue.

19 I -- This is more a question about impacts to  
20 fish, because I know we're doing impacts to navigation  
21 later regarding the barges --

22 (Timer rings.)

23 MS. SUARD: -- during construction.

24 CO-HEARING OFFICE DODUC: Is this your final  
25 question?

1 MS. SUARD: Yes, final question, uh-huh.

2 CO-HEARING OFFICER DODUC: Okay.

3 MS. SUARD: I'm not sure who's going to answer  
4 impacts of fish from barge travel. Who would that be?

5 WITNESS GREENWOOD: I can try and answer that  
6 one.

7 What -- What -- What's your specific question?

8 MS. SUARD: My -- My question is:

9 The description was thousands of barge travel  
10 days over a period of -- I think it was seven years; is  
11 that correct?

12 WITNESS GREENWOOD: I'd have to look at the  
13 specific details to confirm if it's seven years.

14 MS. SUARD: Well, do you recall how many years  
15 roughly?

16 WITNESS GREENWOOD: It may be seven years. I  
17 don't recall the specific number of years.

18 MS. SUARD: And -- Okay. If -- If the Project  
19 it -- were built in one year or in 18 -- 18-month  
20 period where, instead of one tunnel contractor they  
21 used seven tunnel contractors and everything's being  
22 built at once, that would greatly increase the barge  
23 travel for that 18 months; correct?

24 CO-HEARING OFFICE DODUC: Is that within  
25 your --

1           WITNESS GREENWOOD:  I -- I -- I don't know  
2 whether such a thing is even contemplated.  Possible.  
3 So I can't say really.

4           Hypothetically, I suppose, but I really don't  
5 know if that's -- I don't believe that's what's  
6 proposed, so . . .

7           MS. SUARD:  So there was no computer modeling  
8 or assessment done for building six or seven sections  
9 of tunnel all at once; is that correct?

10          MR. MIZELL:  Objection:  I believe it  
11 misstates Dr. Greenwood's previous answer.  His answer  
12 was, he does not know.

13          CO-HEARING OFFICE DODUC:  Sustained.

14          MS. SUARD:  Can I ask:  Was any assessment  
15 done for building the tunnel sections all at once in a  
16 short timeframe?

17          CO-HEARING OFFICE DODUC:  You can repeat if he  
18 does not know.

19          WITNESS GREENWOOD:  I mean, this -- I do know  
20 that the assessment was based on the assumptions that  
21 were given by the engineers, which would have been the  
22 several-year period.  As I said, I don't recall if it  
23 was seven-year period or however.

24          But a set of assumptions were given upon which  
25 the analysis was based, so . . . that was the

1 representative . . . timeline, I guess, that was  
2 assessed.

3 MS. SUARD: Thank you.

4 CO-HEARING OFFICE DODUC: Thank you,  
5 Miss Suard.

6 Miss Womack.

7 Everyone stand up, stretch, while Miss Womack  
8 is coming up because we're not getting a break.

9 WITNESS GUERIN: Yes, thank you.

10 CO-HEARING OFFICE DODUC: Unless the court  
11 reporter needs a break. She trumps everybody.

12 THE REPORTER: (Shaking head.)

13 MS. WOMACK: Okay. I -- I was --

14 CO-HEARING OFFICE DODUC: Please be seated.

15 MS. WOMACK: Suzanne Womack, Clifton Court,  
16 L.P.

17 I have almost all questions for Dr. Greenwood  
18 regarding sediment, marsh landing, Smelt,  
19 pre-conduction, post-construction. It's all of his  
20 testimony. And it's all in his testimony so . . .

21 CO-HEARING OFFICE DODUC: Excellent.

22 CROSS-EXAMINATION BY

23 MS. WOMACK: Okay. So, anyway --

24 CO-HEARING OFFICE DODUC: Do we need to pull  
25 up his testimony?

1 MS. WOMACK: Yes, that would be wonderful, and  
2 turn to Page 13 at the top, Lines 1 through 8.

3 This is regarding construction effects on --

4 MR. HUNT: Can you please provide the  
5 testimony ID?

6 MS. WOMACK: Oh. What is it? 1012.  
7 DWR-1012.

8 (Exhibit displayed on screen.)

9 MS. WOMACK: So if we could go to Page 13,  
10 Lines 1 through 8.

11 (Exhibit displayed on screen.)

12 MS. WOMACK: Okay. So this is basically the  
13 construction effects. And it -- The first couple lines  
14 about -- talk about there's numerous in-water  
15 construction activities that will occur. And you've  
16 all -- you know, you wrote this.

17 And it -- So you're looking at how the  
18 activities are going to affect the -- the work at the  
19 north diversion at Clifton Court, at the Head of Old  
20 River, and at the barge landings, how this is going  
21 to -- how you're going to reasonably protect the Delta  
22 Smelt.

23 And my -- my question is . . .

24 If we move down to Line 8, it talks about  
25 your -- You're trying to minimize exposure of the two



1 species to the factors such as those listed in the  
2 AQA -- UA, which are temporary increases in turbidity,  
3 accidental spills. And disturbance of contaminated  
4 sediment is my -- my main focus here, as well as the  
5 increases in turbidity.

6           So my question is: Where -- Where are there  
7 contaminated sediments that are going to be disturbed?

8           Or should I ask: Is it at the NDD, I think,  
9 they're contaminated?

10           WITNESS GREENWOOD: Well, I think the -- the  
11 impact is specifically saying there's -- there may be  
12 the -- sorry -- the potential for impact of -- sorry --  
13 disturbance of contaminated sediments; that there may  
14 be some contamination in the sediments and, therefore,  
15 there are measures to address the potential for  
16 sediments to be disturbed to minimize that potential  
17 risk.

18           MS. WOMACK: I see. Because we have, what,  
19 35 miles of Delta. So you don't know, per se, of any  
20 contaminated materials.

21           Or at Clifton Court, is there contaminated  
22 materials?

23           WITNESS GREENWOOD: This is speaking more  
24 generally as to --

25           MS. WOMACK: Okay.

1 WITNESS GREENWOOD: -- the disturbance of the  
2 in-water work areas.

3 MS. WOMACK: Okay. Okay. Thank you.

4 And if you could help me. You talk about  
5 turbidity.

6 And what makes up turbidity? What -- What are  
7 the components of turbidity as you see it?

8 WITNESS GREENWOOD: There are -- For example,  
9 suspended sediment, and then turbidity I think also  
10 has -- can be . . . biological components as well.

11 MS. WOMACK: Okay.

12 WITNESS GREENWOOD: As an example, plankton  
13 can contribute to turbidity.

14 MS. WOMACK: Would be added in.

15 But sediment and water -- Suspended sediment  
16 and water are the -- the two key elements? I don't  
17 want to put words in your mouth.

18 WITNESS GREENWOOD: Suspended sediment in the  
19 water column is a major factor in turbidity, I think,  
20 yes.

21 MS. WOMACK: Okay. And then you mentioned  
22 contaminated sediment.

23 So if during construction this -- I -- I can  
24 see things getting mucky, you know, from -- do it from  
25 digging and all that.

1           So it's possible that not only sediments but  
2 contaminated sediments could become part of the  
3 turbidity? Is that what you're saying?

4           WITNESS GREENWOOD: The -- These are potential  
5 impacts that I'm listing here, so contaminant --  
6 contaminated -- The potential with the work that would  
7 be done for contaminated sediments to be disturbed and,  
8 therefore, put into the water column and, therefore,  
9 there's -- there's measures to limit that -- that  
10 potential.

11          MS. WOMACK: Okay. Okay. That's -- That's  
12 great.

13          So, can turbidity -- So that's turbidity. And  
14 turbidity is a natural occurrence; correct? Can be a  
15 natural occurrence?

16          WITNESS BRYAN: Could I -- This is Dr. Bryan.  
17 I'd just like to clarify something.

18          There's a difference between total suspended  
19 solids and turbidity. Those are two different things.

20          MS. WOMACK: Okay.

21          WITNESS BRYAN: Turbidity's actually a -- a  
22 measure that optical property of water. It's measured  
23 by taking a sample and shooting a light beam through it  
24 to see how the light reflects (sic) -- refracts and is  
25 reflected due to suspended particles, zooplankton and

1 algae and things of that nature.

2 MS. WOMACK: And sediment?

3 WITNESS BRYAN: Yeah.

4 I just wanted to clarify for the record that  
5 there's a different -- I think what you're speaking to  
6 is more total suspended solids when sediments get  
7 suspended in the water column.

8 MS. WOMACK: Well, that -- We experience that  
9 at Clifton Court, a lot of suspended.

10 And I -- I -- It sounds -- I know turbidity is  
11 a natural occurrence, but I know it's affected by  
12 pumping as well.

13 Is that -- that not correct, that turbidity  
14 can be changed by pumping?

15 WITNESS BRYAN: I mean, just in general,  
16 turbidity can be affected by -- Again, the primary  
17 driver of turbidity in most water bodies is the  
18 suspension of sediment. And that's why there's often  
19 confusion when folks talk about turbidity and total  
20 suspended solids almost interchangeably.

21 There's often a pretty good relationship  
22 between the two because total suspended solids and  
23 turbidity are -- are pretty closely related, although  
24 that relationship varies by sight. It varies by sight  
25 because of -- Again, turbidity is an optical property

1 in the water.

2           And so algae refracts light. Different  
3 million things suspend solids. Different types of  
4 suspended solids refract light differently.

5           So I just wanted to clarify that for your --  
6 purposes of not only your questions but our experts'  
7 answers to your question.

8           MS. WOMACK: Right. I'm just trying to find  
9 out --

10          WITNESS BRYAN: Yes, turbidity is a natural  
11 component of water.

12          MS. WOMACK: Right.

13          WITNESS BRYAN: Any -- Any river in the United  
14 States, you can go out and measure turbidity.

15          The Sacramento River in -- in moisture periods  
16 of high flow is highly turbid. There's a lot of  
17 suspended sediment. In the summertime, it tends to  
18 have lower turbidity.

19          So you're absolutely right: It's natural.

20          MS. WOMACK: It's natural --

21          WITNESS BRYAN: Correct.

22          MS. WOMACK: -- but it -- can turbidity be  
23 changed by water pumping, say, at Clifton Court where  
24 they pump 10,000 cfs?

25          Will that change turbidity levels or the

1 different turbidity levels? I mean, how -- Would that  
2 change the turbidity?

3 MR. MIZELL: I'm going to object to the vague  
4 and ambiguous question. We had about two, maybe three  
5 different scenarios just thrown at the witnesses.

6 If -- If the questioner could limit her  
7 questions to a hypothetical scenario one at a time,  
8 that would be appreciated.

9 MS. WOMACK: Yes.

10 So the one question I've asked is -- is: Does  
11 the pumping -- Does pumping change turbidity?

12 And at 3,000, 10,000. We're -- we're  
13 talking -- We're talking Project levels.

14 WITNESS BRYAN: Yeah. I -- It's difficult for  
15 me to answer that question because I've never done an  
16 analysis of trying to relate pumping to turbidity rates  
17 in the Delta.

18 But what I can say is that water movement  
19 through the channels in the Delta, as you move, you  
20 know, different volumes of water through the channels,  
21 there's tidal exchange coming in, whether it's flows  
22 released from reservoirs, what have you, higher flow  
23 rates through channels tend to resuspend water bodies.

24 So water movement through channels can affect  
25 turbidity.

1 MS. WOMACK: Does that answer my pumping?

2 I -- You know, I -- I just want to know if  
3 pumping --

4 CO-HEARING OFFICE DODUC: He's not able to  
5 answer, Miss Womack.

6 MS. WOMACK: He's not able to answer.

7 Okay. So we -- we don't know how pumping's  
8 going to affect the turbidity is what I'm -- Is that  
9 what I'm -- Is that what I'm hearing?

10 I -- I just have a simple question.

11 Because most of Dr. Greenwood's testimony is  
12 on turbidity, and it has -- and it's to do with  
13 pumping. That's all I want to know.

14 Dr. Greenwood, is -- would you know?

15 WITNESS GUERIN: Can I say something?

16 MS. WOMACK: Yes.

17 WITNESS GUERIN: I think the physics aren't  
18 simple. It might be a simple question, but the actual  
19 physical mechanisms might make the answer complicated.

20 MS. WOMACK: I . . . I want clean water.

21 I -- I -- You know, this is all about clean water.

22 I -- I'm asking a simple turbidity question,  
23 because turbidity comes up all the time. It just seems  
24 like we should be able to ask.

25 CO-HEARING OFFICE DODUC: So -- All right.

1 Let me try this.

2 Dr. Greenwood, when you identify temporary  
3 increases in turbidity as a potential impact, potential  
4 impact from what?

5 WITNESS GREENWOOD: Potential impact from  
6 in-water construction as that section of my testimony  
7 is describing.

8 CO-HEARING OFFICE DODUC: And you -- you  
9 focused on construction and not pumping.

10 Do you have an opinion as to whether or not  
11 the physical act of operating a pump, hypothetically,  
12 could contribute to increases in turbidity?

13 WITNESS GREENWOOD: I . . . I would . . . I  
14 think I would agree with Dr. Bryan. It's something  
15 that I haven't really looked at in great detail.

16 I think pumping could affect the distribution  
17 of turbidity by affecting the movement of water in  
18 certain areas. But, again, I haven't looked at it  
19 in -- in detail.

20 CO-HEARING OFFICE DODUC: But your testimony  
21 regarding -- well, at least in this segment -- is  
22 pertaining to construction activities.

23 WITNESS GREENWOOD: Yes. It's saying -- It's  
24 describing a number of potential impacts that then  
25 require -- well, potential impacts, and then -- and



1 a -- it cross-references the appendix describing the  
2 various environmental commitments and the water  
3 minimization measures, and so on, to limit those  
4 impacts.

5 CO-HEARING OFFICE DODUC: Thank you.

6 WITNESS GREENWOOD: Less significant as we  
7 discussed.

8 MS. WOMACK: I'll move on. Thank you.

9 The next question I have, Dr. Greenwood, is on  
10 Page 14, Lines 5 through 7 --

11 (Exhibit displayed on screen.)

12 MS. WOMACK: -- which is basically . . . about  
13 the (reading):

14 "Permanent loss of shallow water and  
15 tidal perennial habitat will occur as a  
16 result of the (sic) construction of"  
17 this.

18 And the one thing that concerns me is, this  
19 says permanent loss. And you say there's going to be a  
20 permanent loss of 22.4 acres at the barge landings; is  
21 that correct?

22 WITNESS GREENWOOD: The losses are considered  
23 permanent from the perspective of Delta Smelt because  
24 the . . . because the -- the species has a one-year  
25 life cycle.

1           And so even though those barge landings, as I  
2 understand it, are not permanent facilities, it was  
3 felt appropriate to characterize that as permanent loss  
4 in terms of thinking about mitigation requirement from  
5 the perspective of Delta Smelt.

6           So it's the one-year life cycle that makes the  
7 categorization of permanent.

8           MS. WOMACK: I -- I understand that but,  
9 hopefully, we'll have Delta Smelt back. And that's the  
10 whole point of this.

11           And this is saying it's a permanent loss of  
12 shallow water. That's very different.

13           WITNESS GREENWOOD: You're asking specifically  
14 about the barge landings?

15           MS. WOMACK: Yes, I am. 22.4 acres.

16           WITNESS GREENWOOD: Yes. And so that figured  
17 into the mitigation requirements for the Project, which  
18 I mention later on in that section, Line 11 and 12.

19           MS. WOMACK: Yes.

20           And I -- I have a little bit. I know other  
21 people will talk about mitigation.

22           But I'm a little concerned, too, about the  
23 22.4 acres, how we come about that.

24           Because when I asked last week Mr. Bednarski  
25 about the size of the barge landings -- there's seven

1 of them -- I was pretty much told that they don't know.  
2 It's up to the contractors to -- how they would build  
3 them. And so I -- I wonder how we get this number.

4 I'm just a little concerned that we're -- I  
5 don't want to lose permanently shallow water. I don't  
6 want to suddenly -- This says there's going to be loss  
7 of shallow water. It's going to be 22.4 acres.

8 When they -- Mr. Bednarski couldn't tell me  
9 that -- the size of the barge landings. Temporary.

10 WITNESS GREENWOOD: Just to clarify: These  
11 are the --

12 CO-HEARING OFFICE DODUC: Hold on. Hold on,  
13 please.

14 Mr. Mizell.

15 MR. MIZELL: Yes.

16 I'd like to object there's no question pending  
17 and instruct the witnesses to answer questions only.  
18 This is not a dialogue.

19 CO-HEARING OFFICE DODUC: Your -- Now I've  
20 lost track of your question, Miss Womack.

21 MS. WOMACK: Well, I -- I asked: How are  
22 there permanent loss of shallow waters at barge  
23 landings?

24 CO-HEARING OFFICE DODUC: I believe he's  
25 answered that question.

1 MS. WOMACK: He's answered that.

2 And then my next question was: How does he  
3 know -- How do you know it's 22.4 acres since --

4 CO-HEARING OFFICE DODUC: Let's stop there and  
5 have him --

6 MS. WOMACK: Well, yeah. How do you know  
7 that?

8 I'm sorry. I'm slow of this but . . .

9 WITNESS GREENWOOD: The -- The acreages were  
10 based on the -- the footprint that was supplied by the  
11 engineers in terms of what was . . . in -- included for  
12 our impact assessment.

13 So this was -- I guess they assumed acreages  
14 for -- for our impact assessment that were considered  
15 representative.

16 MS. WOMACK: Did I receive a copy of this?  
17 Did we receive this Engineer Report?

18 WITNESS GREENWOOD: These are what was in the  
19 Biological Assessment, so . . .

20 MS. WOMACK: Okay. Well, I guess we need to  
21 move on, because I only have 15 minutes more.

22 Goodness.

23 Okay. My next question is on Page 15, Line 7  
24 and 8.

25 (Exhibit displayed on screen.)

1 MS. WOMACK: This is regarding Clifton Court,  
2 my home.

3 Let's see. Let's see. The (reading):

4 "Delta Smelt are entrained . . ."

5 Yes, we know that. That's SWP-CVP.

6 ". . . With high prescreen loss rates,  
7 particularly in the Clifton Court  
8 Forebay. Although salvage occurs for  
9 some fish that are screened by the  
10 louvers . . ."

11 My question for you is: What are -- What are  
12 the size of the louvers? Because we're comparing --  
13 Well, you're saying they're lost there. What are the  
14 size of these louvers?

15 WITNESS GREENWOOD: This --

16 MS. WOMACK: Because it gets 100 percent  
17 mortality that goes with that.

18 WITNESS GREENWOOD: I -- I don't know  
19 specifically the size of the louvers or -- or what  
20 dimension you're meaning as -- as far as the size of  
21 the louvers.

22 MS. WOMACK: Are they like the screens that  
23 are going to be put in at the -- at the North Delta  
24 facility, the fish diversion?

25 WITNESS GREENWOOD: No. These louvers are

1 essentially behavioral mechanisms of, as I understand  
2 it, creating a turbulent . . . a turbulent deterrent  
3 for fish to swim into the salvaged -- salvage area,  
4 so --

5 MS. WOMACK: So --

6 WITNESS GREENWOOD: -- some --

7 MS. WOMACK: Okay. So these aren't -- These  
8 aren't mechanical louvers (indicating)? They don't --  
9 They're not pieces of metal?

10 WITNESS GREENWOOD: I believe they are  
11 essentially pieces of metal, like -- I don't -- I don't  
12 know the specifics of the details.

13 MS. WOMACK: Okay. You don't know the size of  
14 them.

15 Perhaps someone would know that, since we're  
16 getting 100 percent loss there.

17 Okay. Let's move on, because I only have 12  
18 minutes.

19 I'd like to move on to Page 19.

20 (Exhibit displayed on screen.)

21 MS. WOMACK: And Line 7 to 10.

22 This is about the pre-construction studies.  
23 And I'm very interested in these pre-construction  
24 studies.

25 On, let's see, Line -- So Line 7 again.

1           You say that both the Site Lab -- Site  
2 Location Lab Study will be developed and the Site  
3 Location Mathematical Modeling Study will be developed.  
4 And this is pre-construction.

5           How will that be developed before -- before  
6 there's an actual diversion?

7           Or how -- I -- If you could just kind of help  
8 me with it. I'm a little -- I can't see this.

9           WITNESS GREENWOOD: Sorry. Can you repeat the  
10 question?

11          MS. WOMACK: Certainly.

12          I'm trying to -- So, how you're going to  
13 develop a Site Location Lab Study and you're going to  
14 develop a Site Location Mathematical Modeling Study  
15 pre-construction. And "pre" is before it's  
16 constructed.

17          So how is -- How is that going to occur?

18          WITNESS GREENWOOD: Those studies are  
19 require -- required to occur prior to construction.

20          So, as it says there, the -- these are part of  
21 the Fish Facilities Technical Team effort . . . that  
22 will be kind of overseeing these -- these studies, so  
23 they will be done . . .

24          I'm not sure which particular entities will be  
25 doing them. It may be consultants, it may be others

1 that are doing them, but the studies require -- are  
2 required to be done prior to construction.

3 As I say in my testimony, they're to help  
4 refine the fish screen design as well as other features  
5 of the intakes.

6 MS. WOMACK: So these studies will be done at  
7 the location but without any -- anything done at all,  
8 just at the location.

9 Because I don't -- I -- I just don't see, you  
10 know, the sediment transport type of stuff, and the  
11 modeling, if there isn't the North Delta diversion.

12 WITNESS GREENWOOD: Well, it -- it kind of  
13 outlines the -- the basic things that the -- the  
14 studies would be looking at.

15 So, number one, for example, Site Locations  
16 Lab Study. This is actually developing a physical  
17 hydraulic model to optimize hydraulic sed -- hydraulics  
18 and sediment transport at each North Delta diversion  
19 site. So that's actually a model --

20 MS. WOMACK: In -- In the water.

21 WITNESS GREENWOOD: -- in a -- in a  
22 laboratory --

23 MS. WOMACK: Oh.

24 WITNESS GREENWOOD: -- that's informing.

25 MS. WOMACK: Oh. so it's not at the site.



1 WITNESS GREENWOOD: That one's not.

2 And then the next one is a Mathematical  
3 Modeling Study, as it states.

4 So, I mean, in association with some of these  
5 studies, I mean, some of these are field studies.

6 So, for example, Number 7) is a Flow Profiling  
7 Field Study, which is using field data collection to  
8 identify (reading):

9 ". . . How hydraulics change with flow  
10 rate and tidal cycle for (sic) final  
11 screen design."

12 MS. WOMACK: Yes. Thank you. I -- I -- I  
13 appreciate that. I was just wondering how these  
14 physical models would happen.

15 I also wonder -- and just to move along -- 5)  
16 and 6) with the predator habitat locations.

17 You're -- You're -- You're going to (reading):

18 ". . . Perform a field evaluation of  
19 predator habitat at similar  
20 facilities . . ."

21 And you're also going to do that for the  
22 Predator Reduction Method at similar facilities.

23 I -- I'd like to know what the "similar  
24 facility" is.

25 WITNESS GREENWOOD: Well, there are other

1 facilities, and Mr. Bednarski actually mentioned them  
2 in his testimony.

3           So, for -- I mean, just as one example,  
4 Freeport water intake is -- is one of them.

5           MS. WOMACK: What -- What is the cfs at  
6 Freeport water take (sic)?

7           WITNESS GREENWOOD: It's smaller, several  
8 hundred cfs, I believe.

9           MS. WOMACK: Versus 3,000?

10          WITNESS GREENWOOD: Yes. That -- That's a  
11 smaller facility than our other facilities that are  
12 larger, but --

13          MS. WOMACK: But what would there be -- I'd  
14 like something close to 3,000. I'd like to know what  
15 you're comparing to that's close to 3,000.

16          MR. MIZELL: I'd like to object to the  
17 questioner interrupting.

18          MS. WOMACK: I'm sorry. You're right.

19          WITNESS GREENWOOD: Well, the question -- I  
20 mean, the further question was, what are larger  
21 facilities? I think, again, Mr. Bednarski mentioned  
22 some of the larger ones, Red Bluff diversion dam.  
23 There are others.

24          So, I think it -- It comes, then, to some  
25 extent the specific features that are of interest.

1           So Freeport may be a smaller facility, but  
2 there's still value in looking at particular features  
3 at that intake in relation to the potential features  
4 that would be at the North Delta diversions.

5           MS. WOMACK: Could I interrupt?

6           I -- I did not say larger. I said the same  
7 size. 3,000 cfs is a huge size.

8           We have 5,000 at the CVP. We have 10,000.

9           Where is there an intake of 3,000?

10          WITNESS GREENWOOD: I don't recall the  
11 specific --

12          MS. WOMACK: Okay.

13          WITNESS GREENWOOD: -- sizes.

14          MS. WOMACK: We can move on --

15          WITNESS GREENWOOD: There are --

16          MS. WOMACK: -- if you don't know.

17          WITNESS GREENWOOD: -- other ones that

18 Mr. Bednarski mentioned, but . . .

19          WITNESS BRYAN: I believe the Glenn-Colusa  
20 Irrigation District intake on the Sacramento River is  
21 near 3,000 cfs.

22          MS. WOMACK: So would that be where that  
23 would -- See, that would help. I just would like to  
24 know where these similar facilities, where these tests  
25 are going to take place.

1           Okay. Let's move along.

2           Thank you so much. I appreciate you helping  
3 out there.

4           Moving right along. Oh, let's see. Yes.  
5 Let's see.

6           The last pre-construction is developing deep  
7 water screens -- You're going to do a Deep Water  
8 Screens Study to develop deep water screens.

9           What are deep water screens?

10          WITNESS GREENWOOD: I'd have to look --

11          MS. WOMACK: It's Page 19.

12          WITNESS GREENWOOD: That's what I'm looking  
13 at.

14          MS. WOMACK: Oh, I'm not. Sorry.

15          Number 21.

16          (Exhibit displayed on screen.)

17          MS. WOMACK: Right. Here we go.

18          WITNESS GREENWOOD: Yes, I see it.

19          As I -- As I was about to say, I'd have to  
20 look back at the -- the document that summarizes the  
21 specific details of the deep water screens.

22          But, essentially, as I understand it, it's --  
23 As it says in the parentheses there, it's developing  
24 (reading):

25          ". . . Computational fluid dynamics model

1 to evaluate the need for screen hydraulic  
2 tuning baffles . . ."

3 So the deep water screen aspect, I think, is  
4 trying -- is essentially getting at the idea of -- that  
5 these screens are -- They have a certain depth to them.  
6 And this fluid dynamics model is basically to inform  
7 the design that will be needed to get the -- the -- the  
8 design requirements for, basically, the -- the  
9 protective velocities that we discussed earlier --

10 MS. WOMACK: Thank you.

11 WITNESS GREENWOOD: -- in my testimony,  
12 approach velocity on so on, so . . .

13 MS. WOMACK: Is -- Is it possible to get more  
14 details about deep water screens somehow? I -- I don't  
15 want -- I've only got five minutes. I can't go on too  
16 much.

17 But this is something where I can't refer to  
18 something else. There isn't something else. So I  
19 would appreciate some help there.

20 WITNESS GREENWOOD: I'd just note: I think  
21 the NR -- NRBA, for example, in Chapter 3, which is the  
22 description of the proposed action, there's a  
23 cross-referencing to the 2013 document which has  
24 more -- a little bit more detail on -- on each of these  
25 studies essentially.

1 So that --

2 MS. WOMACK: Thank you.

3 WITNESS GREENWOOD: I'm sure that's actually  
4 part of the overall exhibits.

5 MS. WOMACK: Could we have that for all  
6 Protestants to be able to review this deep water  
7 screen?

8 The information. I -- This is information of  
9 what this all is and -- and most of your -- your  
10 documentation -- I'm able to look at most things and  
11 look at something else, but this I have no idea. So I  
12 would appreciate if we could have that for all the  
13 Protestants in case anyone else is curious like I am.

14 I need to move on, because I've only got four  
15 minutes. I'm trying.

16 Okay. Now, I'm at --

17 CO-HEARING OFFICE DODUC: Hold on. Hold on.

18 MS. WOMACK: I'm sorry.

19 CO-HEARINB OFFICER DODUC: Stop, stop, stop,  
20 stop.

21 What was the request?

22 MS. WOMACK: The request is to have -- He gave  
23 me NRB -- I'm sorry.

24 Dr. Greenwood gave me NRBA Chapter 3  
25 cross-reference.

1 Is there -- Could I get what this --

2 MS. ANSLEY: That would be in the State Water  
3 Board hearing exhibits. I believe he's referencing --  
4 Dr. Greenwood, correct me -- the proposed Biological  
5 Assessment.

6 CO-HEARING OFFICE DODUC: It's on our website.

7 MS. ANSLEY: Or the DWR -- The Biological  
8 Assessment and Revised Biological Assessments are  
9 already in the exhibits that are on the --

10 MS. WOMACK: Okay. So no link here. Okay.

11 WITNESS GREENWOOD: Can I --

12 CO-HEARING OFFICE DODUC: Hold on.

13 WITNESS GREENWOOD: Can I clarify:

14 The -- I was merely referencing Chapter 3 of  
15 that document that provides the cross-reference to the  
16 document that has more information about these studies.

17 MS. WOMACK: Cross-reference.

18 WITNESS GREENWOOD: So --

19 MS. WOMACK: I just -- I would appreciate  
20 having that in print.

21 CO-HEARING OFFICE DODUC: Miss Womack, he is  
22 telling you where --

23 MS. WOMACK: Yes.

24 CO-HEARINB OFFICER DODUC: -- the documents  
25 are.

1 MS. WOMACK: I -- I understand, and I'm  
2 writing. But there's a whole -- there's a whole group  
3 of us that got this that don't have -- There's --  
4 There's 50 of us, right, Protestants?

5 Okay. Moving along.

6 I have post-construction sediment management  
7 questions, and they're on Page 20, 19 -- let's see.  
8 Page 20, Lines 19 through 21.

9 (Exhibit displayed on screen.)

10 MS. WOMACK: Right. Yes. The Sediment  
11 Management Program I'm very interested in.

12 You talk about -- Let's see.

13 So . . . So the sediment here . . .

14 So this is from the turbidity and it can be  
15 from a variety of sediments in this sediment management  
16 part.

17 And . . . there can also -- I would assume  
18 there can be contaminated sediments from the  
19 construction. So this is all sediments that are going  
20 to be taken.

21 And the sediment management devices -- You  
22 know, I'll just hold off on that because I do want to  
23 get a little bit deeper.

24 Okay. Let's see.

25 Let's see. So this -- I'm going to have to



1 come back to the sediment in a minute.

2 I just -- I mainly wanted to know -- let's  
3 see -- about the sediment is, there is going to be a  
4 management program that apparently is required.

5 So I'll have to ask a question in a minute.

6 Okay. So next is . . .

7 On Page 24. Let's just move on to 24 of your  
8 testimony.

9 (Exhibit displayed on screen.)

10 MS. WOMACK: You said that . . .

11 24, Lines 8 and 9, you talked about committing  
12 to the -- Let's see. 24. Here we go.

13 That you're going to commit (reading):

14 ". . . To further investigations into the  
15 (sic) Delta Smelt population dynamics."

16 And I just wanted to know what monetary value  
17 goes with "commit." Or is that known? If it's not  
18 known, you can tell me that.

19 WITNESS GREENWOOD: I don't know.

20 MS. WOMACK: You don't know. Thank you so  
21 much.

22 Okay.

23 (Timer rings.)

24 MS. WOMACK: Moving along, I have about two  
25 more questions.

1 CO-HEARING OFFICER DODUC: All right.

2 MS. WOMACK: Let's see. So . . .

3 So on Page 26, Line 12 to 14 --

4 (Exhibit displayed on screen.)

5 MS. WOMACK: -- you say that, in you

6 (reading):

7 ". . . Opinion, that the (sic) changes in

8 the (sic) Delta habitat from the (sic)

9 CWF H3 . . . will be limited or will be

10 mitigated in order to reasonably protect

11 the (sic) Delta Smelt."

12 And on -- Further down, at the bottom of this,

13 the last line, Page 25, you say that they (reading):

14 ". . . Found . . . an average of about

15 11 percent of sediment to be entrained at

16 the North Delta diversion."

17 So, my question is -- Well, and then you go on

18 to say -- I'm sorry, I need to add this in -- that

19 you -- that CWF H3+ or just (reading):

20 "The CWF . . ."

21 I'm now on Line 3 of Page 27 (reading):

22 ". . . Proposes a sediment reintroduction

23 plan to mitigate this potential effect."

24 Of sediment being entrained at the North Delta

25 diversion.

1           And this is really the -- the biggest thing I  
2 need to figure out.

3           I -- I . . .

4           CO-HEARING OFFICE DODUC: Mr. Mizell?

5           MR. MIZELL: Can we scroll down and see where  
6 she's referencing?

7           MS. WOMACK: I am on Line -- gosh -- 3.

8           CO-HEARING OFFICE DODUC: Of page?

9           MS. WOMACK: On Page 27; right?

10          Oh, did I get the wrong page?

11          So . . . So . . . So that there's going to  
12 be a Sediment Reintroduction Plan to mitigate this.

13          And at SWRCB-107, Page 46 and 47, there's more  
14 details.

15          And the -- If -- If you -- This is the In --  
16 Incidental Take Permit. But if we could go to that, on  
17 Page 46, I just have some questions about the Sediment  
18 Recovery Plan that is supposedly going to help these.

19          CO-HEARING OFFICER MARCUS: State Water Board  
20 107, Page 46.

21          MS. WOMACK: It's what he refers to, yeah.

22 Thank you.

23          So 107, Pages 46, 47.

24          (Exhibit displayed on screen.)

25          MS. WOMACK: It's the Take Permit, I believe.

1 (Exhibit displayed on screen.)

2 MS. WOMACK: This is not -- Oh, it could be.  
3 It could be.

4 Yes. Okay. It's just below. At the very  
5 bottom, "Sediment Recovery," this page and the next  
6 page.

7 So it says here that the (reading):

8 ". . . Sediment removed from the water  
9 column by the NDD as described in the  
10 Disposal -- Dispose Soils subsection.

11 ". . . The first and preferred  
12 disposition of this material will be to  
13 reintroduce it to the water column in  
14 order to maintain Delta water quality  
15 (specifically, turbidity . . .)"

16 Now, the next part is my concern (reading):

17 "The source (sic) and disposition of  
18 this material have not yet been  
19 determined."

20 So where you're going to get the material  
21 hasn't been determined, is what that says; is that  
22 correct?

23 WITNESS GREENWOOD: That's what that says.

24 MS. WOMACK: That's -- That's -- Well, this is  
25 what you're relying on. This is what you referred to.

1 (Reading):

2 "Some of the material may be sourced  
3 from the settling basins at the NDDs."

4 And then it says (reading):

5 "Material may also settle out  
6 farther downstream, e.g., the (sic) North  
7 Clifton Court Forebay. Practicality" --

8 And you go on to say (reading):

9 "Practicality of recovering sediment  
10 from locations downstream of the NDD  
11 (sic) has not yet been determined."

12 So I understand that.

13 But what I'm concerned about is that you  
14 are -- This -- This report is saying -- saying that the  
15 North Delta diversion might cause problems at the North  
16 Clifton Court Forebay. Might cause sediment problems  
17 at the North Clifton Court Forebay is what this seems  
18 to say.

19 Do you agree with that?

20 WITNESS GREENWOOD: I don't agree with that.  
21 It just notes that settle -- sediment may settle out  
22 farther downstream.

23 MS. WOMACK: 35 miles?

24 WITNESS GREENWOOD: Well, that's -- that's the  
25 example that is given.

1 MS. WOMACK: Well, I'm very concerned here  
2 because Clifton Court Forebay, which will be -- that  
3 exists will become the North Forebay and it has lots of  
4 sediment now.

5 And I certainly don't --

6 CO-HEARING OFFICE DODUC: And your question?

7 MS. WOMACK: My question is: Why will you be  
8 going 35 miles down to get sediment out of Clifton  
9 Court Forebay? Why -- Why would this -- Why would --

10 CO-HEARINB OFFICER DODUC: And that is --

11 MS. WOMACK: -- you -- Why --

12 CO-HEARINB OFFICER DODUC: And that --

13 MS. WOMACK: Not you, but why was this  
14 proposed?

15 CO-HEARING OFFICE DODUC: And that is not a  
16 question for Dr. Greenwood, I don't believe.

17 MS. WOMACK: But he cites this.

18 So who -- who would I -- who would I -- I'm  
19 very concerned about that.

20 WITNESS GREENWOOD: This is just giving  
21 examples of where sediment may be obtained, but the  
22 details will be through the Sediment Reintroduction  
23 Plan that's to be developed.

24 MS. WOMACK: Well, you know, what I'm  
25 concerned about here --

1 CO-HEARING OFFICE DODUC: Miss Womack, you --

2 MS. WOMACK: It's a question.

3 CO-HEARING OFFICE DODUC: Hold on, because  
4 your time ended awhile ago --

5 MS. WOMACK: I understand. Well, it's not my  
6 intention --

7 CO-HEARING OFFICE DODUC: -- and you said at  
8 the time you just had two quick questions. So --

9 MS. WOMACK: Um-hmm.

10 CO-HEARING OFFICE DODUC: -- are we now on to  
11 your last question?

12 MS. WOMACK: No. This is still part of this  
13 one, is that -- What I -- How can you -- I want to know  
14 that when you -- How can you know that North -- How do  
15 you know what sediment comes from where? How do you  
16 know that it's North Delta diversion sediment that  
17 needs to be brought back up and put into the -- They're  
18 going to be putting it back in the river way down at --

19 CO-HEARINB OFFICER DODUC: I don't know --

20 MS. WOMACK: -- Clifton Court Forebay.

21 CO-HEARING OFFICE DODUC: -- that anybody  
22 knows that. That is to be determined.

23 WITNESS GREENWOOD: Yeah.

24 MS. WOMACK: Okay. But you're a scientist.  
25 How would you do that? How would you know which --

1 which -- which sediment is which?

2 MR. MIZELL: I'm going to object at this  
3 point.

4 What we've started to touch on is information  
5 that was testified to at length by Mr. Bednarski,  
6 Mr. Pirabarooban, in Panel 1. They discussed the  
7 settlement -- the settling basins and the sources of  
8 the sediment that would be used in the Sediment  
9 Reintroduction Program. Miss Womack had an opportunity  
10 to question those witnesses.

11 To now badger this witness into speculating as  
12 to what a scientist, generally speaking, would assume  
13 about that program is inappropriate.

14 CO-HEARING OFFICE DODUC: Sustained,  
15 Miss Womack.

16 MS. WOMACK: This is in his testimony. He is  
17 using this in his testimony to say it's going to be  
18 great.

19 CO-HEARING OFFICE DODUC: And you can keep  
20 repeating and repeating and repeating, but he will not  
21 be able, as I understand it, to --

22 MS. WOMACK: Okay. So he can't --

23 CO-HEARING OFFICE DODUC: -- answer that.

24 MS. WOMACK: He cannot -- So he can talk about  
25 it but he can't understand it. I understand that.



1           Okay. Let's see.

2           The last regarding the sediment is: Farmers  
3 and anybody that takes water from the Delta are  
4 being -- being required to put in very expensive water  
5 measurement devices.

6           When you dump back in sediment, it has an  
7 effect on the devices.

8           And, Dr. Greenwood, do you know of any plans  
9 to compensate or to -- to deal with the delicate water  
10 measurement devices in this plan to put sediment back  
11 in the river?

12           That's the only thing I --

13           CO-HEARING OFFICE DODUC: Mr. Mizell.

14           MR. MIZELL: Yes.

15           I'm going to object as to assuming facts not  
16 in evidence.

17           Miss Womack, should she like to put on a case  
18 in chief indicating the flow measurement devices and  
19 sediment back to those, she may do so in her case in  
20 chief but at this point in time, there's been no  
21 evidence introduced into that effect.

22           MS. WOMACK: I'll do it on rebuttal. Thank  
23 you.

24           And, finally, Mr. Reyes, how will the Project  
25 change the flows at Clifton Court Forebay, is my last

1 question, and where is that information I can find?

2 WITNESS REYES: That kind of detail I don't  
3 think is -- Probably the Cal -- The CalSim model is  
4 probably not the best place to get that information. I  
5 think that might be more of a DSM-II type of question.

6 MS. WOMACK: So DSM-II under Clifton Court  
7 Forebay, would that be?

8 WITNESS REYES: Well, Miss Smith can answer.

9 WITNESS SMITH: Could you be specific on the  
10 type of information you're looking for with the Clifton  
11 Court Forebay?

12 MS. WOMACK: Yes.

13 WITNESS SMITH: Does it just flow into it or  
14 the --

15 MS. WOMACK: No. My farm is at Clifton Court  
16 Forebay.

17 WITNESS SMITH: Right.

18 MS. WOMACK: And so water going by, I'd like  
19 to know how the flow, according to the modeling -- how  
20 the flow -- Will the Project change the flow at Clifton  
21 Court Forebay? And where is that information that I  
22 can easily access.

23 WITNESS SMITH: There is information in the  
24 data that you could look at.

25 Generally -- Just generally, with the Project

1 itself, there's going to be less exports in the  
2 Southern Delta and --

3 MS. WOMACK: I -- I --

4 WITNESS SMITH: -- more at the Northern Delta.  
5 That's a general statement.

6 But, yes, it's -- You should be able to access  
7 that within the DSM-II data.

8 MS. WOMACK: Where?

9 WITNESS SMITH: That would be the -- on the  
10 FTP site in terms of downloading --

11 MS. WOMACK: No. I mean, as far as the flow,  
12 where do I access the flows? That's what I would ask  
13 is flow at Clifton Court Forebay? That simple? Just  
14 type that in to a header?

15 WITNESS SMITH: There would be -- There would  
16 need to be additional steps in terms of getting that  
17 information on it, so -- And I -- We could step through  
18 it, but I think --

19 MS. WOMACK: I would appreciate that.

20 WITNESS SMITH: -- we don't have the time  
21 right now, so . . .

22 MS. WOMACK: Yeah. Because this is central to  
23 my life.

24 Thank you.

25 CO-HEARING OFFICE DODUC: Let me ask: I was

1 inquiring, since we're now at almost 5:00 -- quarter  
2 after 5:00, how late the broadcasting personnel will be  
3 staying?

4 MS. McCUE: Another staff person was walking  
5 to talk to them and we haven't heard back yet, so --

6 CO-HEARING OFFICE DODUC: Okay. I'm assuming  
7 that Grasslands will not be able to conduct your  
8 cross-examination in 15 minutes.

9 MS. WEHR: No.

10 CO-HEARING OFFICE DODUC: So who is contacting  
11 and when do we expect an answer?

12 May I ask, if we are able to stay till  
13 6 o'clock, will you be able to complete it?

14 MS. WEHR: (Nodding head.)

15 CO-HEARINB OFFICER DODUC: Okay. Everyone  
16 stand up and stretch.

17 Oh, Mr. Mizell?

18 MR. MIZELL: Yes.

19 Hearing Officer Doduc, it's been a very long  
20 day with a -- quite on number of questions going in a  
21 variety of directions.

22 CO-HEARING OFFICE DODUC: I have no objection  
23 to adjourning today.

24 My only concern is to make sure, to the extent  
25 that we need to do as much as possible today so that we

1 may finish with this panel tomorrow.

2 MR. MIZELL: Yes. I'm trying to be sensitive  
3 to that.

4 I -- I will attempt to limit, to the extent  
5 possible, any sort of redirect in order to expedite the  
6 dismissal of this panel.

7 But I think, if we could dismiss for the day,  
8 these witnesses will be far more effective at conveying  
9 efficient information tomorrow morning for Grasslands.

10 CO-HEARING OFFICE DODUC: I'm perfectly fine  
11 with that.

12 Is there any objection?

13 All right. In that case, we will see you at  
14 9:30 tomorrow. Thank you all.

15 (Proceedings adjourned at 5:14 p.m.)

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1 State of California )  
 )  
2 County of Sacramento )

3

4 I, Candace L. Yount, Certified Shorthand Reporter  
5 for the State of California, County of Sacramento, do  
6 hereby certify:

7 That I was present at the time of the above  
8 proceedings;

9 That I took down in machine shorthand notes all  
10 proceedings had and testimony given;

11 That I thereafter transcribed said shorthand notes  
12 with the aid of a computer;

13 That the above and foregoing is a full, true, and  
14 correct transcription of said shorthand notes, and a  
15 full, true and correct transcript of all proceedings  
16 had and testimony taken;

17 That I am not a party to the action or related to  
18 a party or counsel;

19 That I have no financial or other interest in the  
20 outcome of the action.

21

22 Dated: March 5, 2018

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Candace L. Yount, CSR No. 2737