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BEFORE THE  
CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

CALIFORNIA WATERFIX WATER )  
RIGHT CHANGE PETITION )  
HEARING )

JOE SERNA, JR. BUILDING  
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY  
BYRON SHER AUDITORIUM  
1001 I STREET  
SECOND FLOOR  
SACRAMENTO CALIFORNIA  
PART 1 SURREBUTTAL

Tuesday, July 11, 2017  
9:30 A.M.

VOLUME 53  
Pages 1 - 232

Reported By: Deborah Fuqua, CSR No. 1248

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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 and Co-Hearing Officer:  
7 Dorene D'Adamo, Board Member (appearing via webcast)  
8 Staff Present  
9 Dana Heinrich, Senior Staff Attorney  
10 Conny Mitterhofer, Senior Water Resources Control Engr.  
11 Kyle Ochenduzsko, Senior Water Resources Control Engr.  
12  
13 For California Department of Water Resources  
14 William Croyle, Director  
15 Tripp Mizell, Senior Attorney  
16 Robin McGinnis, Senior Attorney  
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21 By: Thomas Martin Berliner, Attorney at Law  
22 By: Jolie-Anne Ansley, Attorney at Law  
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24 State Water Contractors  
25 Stefanie Morris  
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1 Tuesday, July 17, 2017 9:30 a.m.

2 PROCEEDINGS

3 ---000---

4 CO-HEARING OFFICER DODUC: Good morning,  
5 everyone. Welcome back. Everyone have a nice two-week  
6 break?

7 Welcome back to this water rights hearing on  
8 the Water Right Change Petition for the California  
9 WaterFix project.

10 I am Tam Doduc, and with me to my right is  
11 Board Chair and Co-Hearing Officer Felicia Marcus.  
12 Board Member DeeDee D'Adamo is watching us on the  
13 webcast. And to my left are Dana Heinrich, Conny  
14 Mitterhofer, and Kyle Ochenduszkko. We're also being  
15 assisted here today by Mr. Baker and Mr. Long.

16 Since it's been a while, I think we need to go  
17 over the three general announcements.

18 First of all, please take a moment and  
19 identify the exit closest to you. In the event of any  
20 emergency, an alarm will sound, and we will evacuate  
21 taking the stairs, not the elevators, down to the first  
22 floor, and meet up in the park across the street.

23 If you're not able to use the elevators,  
24 please flag down one of us or someone wearing  
25 orange-colored vest and caps, and you'll be directed to

1 a protected area.

2           Secondly, please always speak into the  
3 microphone and begin -- making sure it's on first, and  
4 begin by identifying yourself and stating your  
5 affiliation because this is being recorded and  
6 webcasted.

7           And we have our court reporter with us today  
8 as well. The transcript will be available after the  
9 conclusion of Part 1. If you need to have it sooner,  
10 please make your arrangements directly with the court  
11 reporter.

12           And as always, and I need to do this because  
13 it's been a while, please take a moment and check to  
14 make sure that all your noise-making devices are set to  
15 silent, vibrate, do not disturb.

16           Good, Mr. Herrick, I see you checking.

17           I don't see Ms. Aufdemberge here yet, but I'm  
18 sure she's out there checking right now.

19           All right. With that, let's see. I think we  
20 have some housekeeping items before we begin today.

21           You should have received an e-mail yesterday  
22 from us stating that San Joaquin County's witness,  
23 Mr. Russell Frink, is not required to appear and  
24 testify today.

25           And so given the amount of testimony

1 remaining, it looks like we may wrap up surrebuttal for  
2 Part 1 today. If we do not wrap up surrebuttal today,  
3 we will resume on Thursday, July 13th, not tomorrow.

4 Also wanted to let you know that we will  
5 probably go until about 12:48, 1:00-ish today, and take  
6 a late lunch break until about 3:00 o'clock. So for  
7 planning purposes, that's for today: late lunch break,  
8 tomorrow no hearing, reconvene on Thursday if we need  
9 Thursday to wrap up surrebuttal for Part 1.

10 Also there are some evidentiary objections  
11 remaining. So we will -- we are considering those, and  
12 we will issue a written ruling on any outstanding  
13 objections and requests to move surrebuttal testimony  
14 and exhibits into evidence at a later time.

15 And just so I can have it on the record, the  
16 outstanding objections are Ms. Des Jardins' objections  
17 to DWR-932, ARWA's objection to DOI-37 and -38 which  
18 would be Ms. Parker's surrebuttal testimony and  
19 PowerPoint, DWR's motion to strike cross-examination of  
20 Dr. Nader-Tehrani by City of Stockton and LAND  
21 regarding EcoStore, and I believe we also have DWR's  
22 objection to San Joaquin County 84 through 188. All  
23 right.

24 Next, some parties have introduced exhibits  
25 during cross-examination of surrebuttal witnesses.



1 I've directed to parties to wait until the end of  
2 surrebuttal to move into evidence any exhibits that  
3 were used for cross-examination. So parties who wish  
4 to offer cross-examination exhibits into evidence must  
5 submit a written motion and an updated exhibit  
6 identification index to the California WaterFix Hearing  
7 mailbox and copy the current service list no later than  
8 noon on Monday, July 17th.

9 Any objections to admissibility of  
10 cross-examination exhibits are due no later than noon  
11 on Wednesday, July 19th. All right.

12 Are there any other housekeeping matters that  
13 we need to address?

14 Mr. Hitchings --

15 MR. FERGUSON: Mr. Ferguson.

16 CO-HEARING OFFICER DODUC: -- and Mr. Aladjem  
17 and Mr. Bezerra, are you together, or do you have  
18 separate issues? Okay. Together.

19 MR. FERGUSON: Yeah, Aaron Ferguson for the  
20 Sacramento Valley Water Users group.

21 Yesterday, the Sacramento Valley Water Users  
22 group filed a request with the hearing team. And I  
23 just wanted to follow up on that request and articulate  
24 it for you today and then take any questions you might  
25 have.

1           So the Sacramento Valley Water Users group  
2 filed a request to hold open Part 1 of the hearing  
3 because the recently released biological opinions  
4 indicate significant changes to the project  
5 description, and some of those changes have not been  
6 presented in this hearing.

7           And in particular, the articulation of the  
8 spring outflow requirement is now outlined with a  
9 lookup table. And it indicates that, if water is  
10 unavailable from willing sellers to meet that criteria,  
11 that the water will be acquired through CVP/SWP  
12 reoperation.

13           And the Sacramento Valley Waters Users  
14 recently filed a subpoena requesting that DWR and  
15 Reclamation produce documents related to this changed  
16 project description. And so the request is that the  
17 Part 1 of the hearing be held open for 60 days to allow  
18 review of those documents related to the change in  
19 project description and the modeling files that go  
20 along with that in order that parties could review that  
21 information and potentially come back and present  
22 evidence, if desired, on potential injury from the  
23 project associated with that changed project  
24 description.

25           The potential for changed operations in order

1 to meet the spring outflow requirement also raises  
2 another concern, and that is the lack of an operations  
3 plan to date from the petitioners. And the Biological  
4 Opinions continue to highlight the fact that the  
5 petitioners have not presented an operations plan that  
6 continues to concern Sacramento Valley Water Users and  
7 upstream water rights holders.

8 And so our request is that the Board order the  
9 DWR and Reclamation to articulate by the end of this  
10 week what their plans are in terms of presenting an  
11 operations plan, what their plans are for consultation  
12 on the operations plan, and then ultimately what their  
13 plans are for introduction of the operations plan in  
14 this proceeding and ultimately that gets approved.

15 So those are our requests, and we hope you  
16 take them under consideration. Thank you.

17 CO-HEARING OFFICER DODUC: Mr. Aladjem and  
18 Mr. Bezerra, anything to add?

19 MR. ALADJEM: Good morning, Chair Doduc.  
20 David Aladjem, Downey Brand. Yes, just one item to add  
21 to Mr. Ferguson's discussion.

22 Mr. Ferguson talked --

23 CO-HEARING OFFICER DODUC: Did I call you  
24 Mr. Hitchings? I'm sorry. Mr. Ferguson.

25 Thank you, Mr. Aladjem, for that correction.

1           MR. ALADJEM: In our -- the Sacramento Valley  
2 Water Users' letter, we talked about the spring outflow  
3 criteria that had been added in the two final  
4 Biological Opinions. And our concern is that that  
5 would put a substantial change not only in the project  
6 description but in the way in which the two projects  
7 could be operated.

8           And I'd like to direct the Board's attention  
9 to Page 3-80 -- three-eighty -- in Appendix A2 of the  
10 National Marine Fisheries Service Biological Opinion.  
11 Second paragraph on that page which begins, "Operations  
12 under the PA (the Proposed Action) may result in  
13 substantial change in Delta flows compared to the  
14 expected flows under the existing Delta configuration  
15 and in some time" -- "some instances" -- excuse me --  
16 "realtime operations will be applied for water supply,  
17 water quality, flood control, and/or fish protection  
18 purposes."

19           The purpose of the subpoena that our office  
20 issued was to try to obtain the information necessary  
21 to understand what those changes might be and how that  
22 could affect not only operations of the project with  
23 California WaterFix but also impact the legal users of  
24 water that is the part that is the subject of Part 1.

25           We believe that Part 1 should be held open so

1 that we can do an analysis of this very late change in  
2 the project description and offer evidence, if  
3 appropriate, to the Board about what that change might  
4 mean in terms of injury. It would not be appropriate,  
5 as we outlined in our letter, to move forward to Part 2  
6 because this is the place where the Board properly has  
7 said we should look at impacts to other legal users of  
8 water.

9 This is a change in the project operation. It  
10 may well have impacts. We need to analyze it; hence,  
11 the subpoena. And that's why we are asking for the  
12 Part 1 process to be held open at least another 60  
13 days.

14 Thank you, and I'd be happy to take any  
15 questions.

16 CO-HEARING OFFICER DODUC: Mr. Aladjem,  
17 actually, I do. And, yes, I will acknowledge we  
18 received the request yesterday, have not had a chance  
19 to discuss it amongst ourselves.

20 But since you're affording me to ask  
21 questions, let me ask you from an engineer's  
22 perspective, and I'm sure there's some legal  
23 explanation for this, but what is the difference  
24 between what you're requesting and our statement  
25 earlier in these proceedings that we might have to

1 revisit some Part 1 issues in Part 2 as a result of  
2 these biological opinions? Help me understand the  
3 distinction of your request.

4 MR. ALADJEM: It's a very good question, Madam  
5 Chair. Let me try to address it this way.

6 When the Board issued its order -- and I  
7 believe it was November of 2015, but I can't quote  
8 that -- where you said we may have to revisit these  
9 issues, at least our understanding was that those  
10 issues would be revisited basically because of the  
11 environmental impacts of the Biological Opinions  
12 because we all knew that the purpose of those opinions  
13 is to protect fish and wildlife resources in the Delta.

14 It was not at all clear to us at the time that  
15 the change in the flow regime is as substantial as we  
16 suspect it is and would have an impact on legal users  
17 of water upstream of the Delta. But that appears, in  
18 the spring lookup table that Mr. Ferguson referred to,  
19 to be precisely what is happening.

20 So what we're looking for is the opportunity  
21 to hold open Part 1 to do the analysis as a part of the  
22 Part 1 analysis of the impacts to legal users of water.  
23 And then, of course, the Biological Opinions' impacts  
24 on fish and wildlife, which presumably the two services  
25 believe will be positive, would be analyzed in Part 2.

1 And that's the way we would parse that.

2 THE COURT: Thank you. That was helpful.

3 Mr. Bezerra?

4 MR. BEZERRA: Thank you. Just one follow-up  
5 on Mr. Ferguson's statement about requesting the  
6 petitioners to indicate when they actually expect to  
7 have an operations plan for the project.

8 The Biological Opinions indicate that there  
9 will be further consultation under the Endangered  
10 Species Act at some later point in time on the  
11 operations of the projects with Cal WaterFix.

12 We have heard through extensive testimony and  
13 cross-examination that the modeling that they have  
14 presented as the evidence that they claim shows no  
15 injury to legal users of water has a variety of  
16 discretionary choices in it that reflect operation  
17 discretion, the WSI DI curve, the export estimate, the  
18 San Luis rule curve, a variety of other things.

19 At this point, we don't know how they will  
20 exercise their discretion in operating the project, and  
21 they haven't said that. So we are left with a huge  
22 mass of evidence that is dependent on uncertain  
23 exercise of operational discretion.

24 The Board's regulations require in the  
25 original petition supporting evidence as to how the

1 projects will operate. And here we are nearly two  
2 years down the line from the original issuance of the  
3 hearing notice, and we're still left with modeling with  
4 all kinds of uncertainties in it.

5 So the only way we're going to get to the core  
6 of this issue is when petitioners finally produce an  
7 operations plan that says how they will exercise their  
8 operational discretion. And at that point, we can  
9 determine whether or not they can possibly carry their  
10 burden of proof in Part 1.

11 CO-HEARING OFFICER DODUC: Thank you.

12 I see you standing there, Mr. Mizell, and I  
13 will get to you, but let me first ask are there any  
14 other parties who wish to join in or support this  
15 request by the Sac Valley User group?

16 MS. WOMACK: Yes. Clifton Court L.P. Of  
17 course we want to join in because we have 50 years of  
18 damages from operations, and we don't trust DWR or the  
19 CVP or SWP operations. We're living proof of damages  
20 daily, and we want to see how we're going to be damaged  
21 this time around. We weren't given that opportunity 50  
22 years ago. Thank you.

23 CO-HEARING OFFICER DODUC: Thank you,  
24 Ms. Womack.

25 MR. HERRICK: Thank you. John Herrick, South



1 Delta parties.

2 I just want to say that we've spent millions  
3 of dollars now analyzing a range of potential  
4 possibilities, and now we're slowing drilling down into  
5 what is actually going to happen. So a large portion  
6 of all our efforts may have been wasted if those aren't  
7 the operations that are going to be done.

8 So I do support the motion. I don't know what  
9 the appropriate time frame is, but this is getting very  
10 serious now in that extra money has to be spent to  
11 analyze new changes to the project, and I don't know  
12 how we ever catch up to this until there is an  
13 operations plan that is certified to be the one that  
14 they'll use. So I do support the motion.

15 CO-HEARING OFFICER DODUC: Thank you,  
16 Mr. Herrick.

17 MS. MESERVE: Good morning. Osha Meserve for  
18 Local Agencies of the North Delta and other  
19 protestants.

20 CO-HEARING OFFICER DODUC: And you just cut  
21 off Ms. Suard.

22 MS. SUARD: That's okay.

23 MS. MESERVE: I'm sorry. That's the problem  
24 with sitting right near the mike.

25 I just wanted to point out, I mean, in general

1 I understand the request of Sacramento Valley Water  
2 Users. I agree that it's very inappropriate to have  
3 this new operational information come forward now, and  
4 it does impair the ability to assess the injury to  
5 legal users of water.

6 I mean, in particular, we're very concerned  
7 that it appears Rio Vista minimum flows that have been  
8 discussed here as part of the petitioners' proposal are  
9 being abandoned now, apparently, as well as DCC  
10 operations are being changed, which the petitioners  
11 directly represented in their PowerPoint DWR-1  
12 Corrected that they would not be changed. So it's very  
13 concerning.

14 However, I'm also concerned that DWR -- we  
15 have alleged and it was ruled on that the petition  
16 hearing process would proceed in any case, but that the  
17 petition was deficient from the outset for not  
18 including an operational plan.

19 The Water Board Hearing Officers gave DWR time  
20 to present that during Part 1. Now it appears they've  
21 perhaps presented an operational plan that is not the  
22 plan they actually intended and have been getting  
23 permitted by other agencies.

24 So I believe these errors lead more to the  
25 need to dismiss the petition and certainly to delay

1 Part 2. I hesitate to support any effort to hold open  
2 Part 1 so that DWR could correct something that they  
3 should have had every opportunity to correct for over a  
4 year, and they just haven't done that even though the  
5 Water Board gave them time to do it. So that's my  
6 concern.

7 CO-HEARING OFFICER DODUC: And just so I'm  
8 clear, you're not making a motion; you're stating a  
9 concern?

10 MS. MESERVE: That's right.

11 CO-HEARING OFFICER DODUC: Thank you.

12 Ms. Suard.

13 MS. SUARD: Nikki Suard for Snug Harbor  
14 Resorts LLC. I support the motion as well.

15 As a victim of -- my business has been a  
16 victim of flow management by DWR and USBR for 20 years.  
17 We haven't gotten to that part of the hearing, but I  
18 definitely think that operations is a very big and  
19 critical issue regarding protecting people's water  
20 rights in the Delta. So definitely support the motion.  
21 Thank you.

22 CO-HEARING OFFICER DODUC: Thank you,  
23 Ms. Suard.

24 Anyone else? If not, then I will turn to  
25 Mr. Mizell.

1           MR. MIZELL: Thank you. Tripp Mizell from  
2 Department of Water Resources.

3           As you might imagine, the Department opposes  
4 the Sacramento Valley Water Users' requests, both of  
5 them in their entirety. What we feel is that this  
6 request unnecessarily commingles the issues that are  
7 before you in Part 1 and Part 2 of this hearing.

8           Back in October 30th of 19- -- sorry. Man, we  
9 would be going really long. In October 30th of 2015,  
10 you indicated --

11           CO-HEARING OFFICER DODUC: It just seemed that  
12 long ago.

13           MR. MIZELL: Seems that way, right.

14           You indicated the structure that was to take  
15 place in this proceeding throughout the course of  
16 Parts 1 and Part 2. And in describing the purpose of  
17 Part 2, you indicated that, to the extent that any  
18 significant changes to the final CEQA document have a  
19 material bearing on the issues addressed in the first  
20 part of the hearing, those issues may be revisited  
21 during the second part of the hearing.

22           And you went on to say if there are any issues  
23 that arise out of the ESA and CEQA processes that have  
24 a material bearing on the issues addressed in the first  
25 part of the hearing, those issues may also be revisited

1 in the second part of the hearing.

2 I fail to see the distinction being raised by  
3 Mr. Aladjem that that statement distinguished between  
4 biological issues and any other issues. It states  
5 pretty clearly that issues derived from the release of  
6 the biological opinion, the certified EIR, or the 2081  
7 are appropriately addressed in Part 2.

8 The Department believes that that structure  
9 was wise at the time and continues to be what will move  
10 this process forward in the most efficient manner. So  
11 we would support remaining with the original structure  
12 of this hearing.

13 I'd like to take a moment to address the use  
14 of a comparison in Sac Valley Water Users' request to  
15 the Biological Assessment.

16 Biological Assessment is not the petitioned  
17 project. The Sac Valley Water Users have based their  
18 cases in chief and their rebuttal materials on a  
19 comparison with the BA.

20 What we presented as our petition project is  
21 what was described in the Recirculated Draft EIR,  
22 Supplemental Draft EIS as Alternative A with the  
23 operational scenarios H3 and H4.

24 The BA did come out and provides a bit more  
25 information as to where we were thinking we would land

1 within that range of initial operating criteria. That  
2 did not mean we were modifying our petition. That did  
3 not mean that we were locking ourselves in to the  
4 operational constraints indicated in the BA. That was  
5 the initiation of the consultation with the fish  
6 agencies. That is distinct from this process, and we  
7 continued to present material based upon the petitioned  
8 project description which was Alt 4A, H3 to H4.

9           So I would say that the comparison made in  
10 their request is a false one. What we don't have is  
11 any information or allegations at the moment to say  
12 that the Biological Opinions had somehow gone beyond  
13 the range of initial operating criteria petitioned by  
14 the Department and Reclamation.

15           And we believe that, throughout the course of  
16 Part 2, we will present the information in Biological  
17 Opinions. By the time we get to Part 2, we will have a  
18 certified EIR/EIS that will describe what project the  
19 Department is adopting, and we will have a final 2081,  
20 which will also describe the project being permitted by  
21 the California Department of Fish and Wildlife.

22           So we think at this time it is premature to  
23 hold open Part 1 and commingle Parts 1 and Part 2 for  
24 these purposes that are requested.

25           I would like to also touch upon what

1 essentially has been yet another motion or objection  
2 filed under Water Code Section 794.

3           The request to compel us to produce an  
4 operations plan was premised upon a statement that we  
5 have not yet complied with Section 794. And just now  
6 you heard that argument reiterated that somehow the  
7 petition is deficient.

8           That actually is a misstatement of the rulings  
9 that you yourselves have actually made so far. I can  
10 cite to two very specific rulings, one on July 22nd and  
11 one on February 21st, where you indicated that the case  
12 in chief was sufficient to allow parties to  
13 meaningfully participate in Part 1 of these hearings.  
14 And this was in response to repeated motions under 794  
15 to dismiss this petition.

16           So we believe that this issue has already been  
17 dealt with. This is a repetitive motion under Section  
18 794, and it should be denied in its entirety for that  
19 basis alone.

20           However, I think based upon this morning's  
21 statements, I should also indicate there is an  
22 operational plan. The operational plan is a part of  
23 the Biological Opinions, and if Sac Valley Water Users'  
24 attorneys would care to read the NMFS opinion in  
25 particular, that opinion gives an incidental take

1 statement to that operations plan.

2           The Fish and Wildlife BiOp, while it does not  
3 give an incidental take statement, does produce an  
4 effects analysis of that operations plan. So to say  
5 that the Department has yet to produce an operations  
6 plan is true only in the fact that we have yet to  
7 certify a Final EIR, and that would be the Department's  
8 approval of an operations plan.

9           But if they're relying upon the Biological  
10 Opinions and the content of those opinions to say that  
11 there is no operational plan, that is simply false.  
12 The Biological Opinions do contain an operations plan.  
13 And that plan, we would intend to present that in  
14 Part 2. And at that time, the Sac Valley Water Users  
15 as well as every other party will have an opportunity  
16 to assess the information in its whole along with the  
17 certified EIR/EIS and a final 2081. And they can raise  
18 these motions again at that time to revisit the limited  
19 issues that they believe need to be revisited from  
20 Part 1. And I think that's all.

21           CO-HEARING OFFICER DODUC: Thank you.

22           Anyone else wish to add to Mr. Mizell's  
23 comment? Ms. Morris.

24           MS. MORRIS: Stefanie Morris, State Water  
25 Contractors. I'll just be brief.



1           The State Water Contractors would join in the  
2 opposition to the motion. I'd just like to note for  
3 the record on Page 1 of the supplemental material,  
4 which is marked as SWRCB-1 exhibit, it's clear that the  
5 project being petitioned is Alternative 4A. It's also  
6 clear throughout that supplement, but noting on Page 8.

7           In addition to that, on DWR-1-Errata  
8 describing what the petitioners were putting forth, on  
9 Pages 9 and Pages 10 is a description of the  
10 alternative -- in red is what's being presented as the  
11 boundaries and then the initial operating criteria,  
12 4A, H3 to H4.

13           And then finally in Volume IV of the  
14 transcript dated July 29th of 2016 on Page -- starting  
15 on Page 39, Jennifer Pierre describes the alternatives  
16 and what project is being presented. And specifically  
17 on Page 41, Lines 9 to 12, she states that within the  
18 range is Alternative 4A, H3 to H4. So that was what  
19 was identified in the recirculated EIR as  
20 Alternative 4H. And then I note just for context,  
21 H3-plus.

22           So nowhere did the petitioners describe the  
23 project as the Biological Assessment or H3-plus. Thank  
24 you.

25           CO-HEARING OFFICER DODUC: Mr. Aladjem.

1           MR. ALADJEM: Thank you, Madam Chair. Just a  
2 very brief rebuttal, if I might. Let me address the  
3 last question first: Is the biological opinion the  
4 project description?

5           What Mr. Mizell just said is the biological  
6 opinion is going to provide the operations plan. So  
7 the distinction here between ESA compliance and CEQA  
8 compliance and being in front of the Water Board is,  
9 with all due respect to Mr. Mizell, a distinction  
10 without a difference.

11           It would be extraordinary for the Department  
12 of Water Resources to come before your Board and say,  
13 "We are not going to comply with the requirements of  
14 the federal Endangered Species Act." But if the  
15 Department is going to take the position that it is not  
16 part of the operation plan and somehow outside this  
17 Board's jurisdiction, that is essentially what they are  
18 saying.

19           I know Mr. Mizell very well. I cannot imagine  
20 he is saying that.

21           So let's get to the point. We have a  
22 biological opinion which says on its face, Page 3-80 of  
23 Appendix A2 of the NMFS Biological Opinion, that the  
24 project description has been modified. As Mr. Ferguson  
25 and Mr. Bezerra said, the lookup tables clearly modify

1 those spring outflow requirements. At that point in  
2 time, we have a new project operation.

3           It makes sense, going back to the -- and thank  
4 you, Mr. Mizell for correcting me. It was October  
5 30th, 2015. In that hearing notice, the Board said  
6 that it could take these items under consideration in  
7 Part 2.

8           But the presumption, not only what I said  
9 before in terms of addressing impacts to legal users of  
10 water, but also the efficiency of this process,  
11 requires that impacts to other legal users of water be  
12 addressed in a coherent and efficient way.

13           Intermixing that with all of the additional  
14 issues that will come up in Part 2 about impacts to  
15 fish and wildlife resources, to public trust resources,  
16 the appropriate Delta flow criteria, all of that will  
17 make Part 2 infinitely more complicated than it will  
18 already be. And I would not presume the Chair would  
19 want to create a situation where Part 2 is going to be  
20 essentially a free-for-all.

21           It is for that reason, in addition to the very  
22 logical way of laying it out that I said before, that  
23 we made the presumption that these issues should be  
24 addressed in Part 1, and respectfully request that the  
25 Chair hold the Part 1 open so that we can analyze the

1 information we're getting from the Department and then,  
2 if appropriate, put on evidence to explain the  
3 additional impacts to legal users of water in the Delta  
4 and upstream.

5 I'd be happy to take any questions.

6 CO-HEARING OFFICER DODUC: No. Thank you,  
7 Mr. Aladjem. Let me assure you, I'm definitely not a  
8 free-for-all person.

9 Mr. Bezerra.

10 Mr. Aladjem?

11 MR. ALADJEM: I was going to say, Madam Chair,  
12 in my experience with the Chair, a free-for-all in a  
13 hearing would be the last way I would describe the  
14 Chair.

15 MR. BEZERRA: Thank you. And again, to  
16 support our request to hold Part 1 open, I think  
17 Mr. Mizell's statements indicate the necessity for  
18 doing so. He indicated that DWR will be certifying the  
19 EIR, and then we'll have a project.

20 The Final EIR is from December 2016. As far  
21 as I know, it does not include the project changes that  
22 were made in the Biological Opinions released two weeks  
23 ago. So if the Department's going to certify that  
24 Final EIR, I don't know what its relationship to the  
25 biological opinions will be. So I guess we have to

1 wait for DWR to certify the EIR before we know anything  
2 about how -- what the actual project is.

3           Furthermore, this discussion that the project  
4 in this hearing has always been the range from H3 to H4  
5 is incorrect. You can look at Exhibits DOI-33 errata  
6 and DOI-37, which I've objected to, Ms. Parker's  
7 rebuttal and surrebuttal testimony. All of the  
8 modeling results in those exhibits presented by  
9 petitioners, they are all based on the Biological  
10 Assessment modeling.

11           CO-HEARING OFFICER DODUC: All right.

12           MR. BEZERRA: So I don't know what the project  
13 is.

14           CO-HEARING OFFICER DODUC: Thank you. Hold  
15 on. We are not going to spend the entire day on this.  
16 I'm going to -- sorry -- cut off Mr. Ferguson and  
17 Ms. Des Jardins and Ms. Morris and Mr. Mizell if your  
18 comment is with regard with regard to this particular  
19 motion.

20           Here is my direction to you. We have the  
21 Sac Valley Water Users' written motion. Mr. Mizell,  
22 Ms. Morris, anyone else, you may have until noon on  
23 Monday, July 17th, the same deadline as that for  
24 submitting your cross-examination exhibits, to provide  
25 a response, to put your opposition in writing to that

1 motion.

2 All other parties, you may have until the next  
3 deadline, Wednesday, July 19th at noon, to respond to  
4 whatever response that is filed by the Department and  
5 their colleagues.

6 And I want to shelve this item for now.

7 Ms. Des Jardins, do you have a different issue  
8 to bring up?

9 MS. DES JARDINS: If a party wanted to join in  
10 that motion --

11 CO-HEARING OFFICER DODUC: Come on up to the  
12 microphone for the court reporter's benefit.

13 MS. DES JARDINS: If a party wanted to join  
14 motion, you do that later?

15 CO-HEARING OFFICER DODUC: You may do that  
16 now. I asked earlier for those who wished to join in  
17 to verbally express their support.

18 MS. DES JARDINS: I join in the motion by the  
19 Sacramento Valley Water Users.

20 CO-HEARING OFFICER DODUC: It is so noted,  
21 Ms. Des Jardins.

22 MS. DES JARDINS: Thank you.

23 CO-HEARING OFFICER DODUC: All right. Any  
24 other housekeeping item?

25 MS. MCGINNIS: Robin McGinnis with the

1 California Department of Water Resources. I'd just  
2 like to provide an oral response to the filing  
3 yesterday by the California Water Research. We don't  
4 plan -- DWR does not plan to prepare a written response  
5 to this request.

6 I'll note that discovery in Board hearings is  
7 limited. Parties are required to produce documents  
8 pursuant to Water Code 1100 and Administrative  
9 Procedure Act Sections 11450.10 and -.20.

10 California Water Research's filing yesterday  
11 was more like an interrogatory, which is not allowed in  
12 this Board hearing. And to the extent that it is a  
13 document request which DWR would be required to respond  
14 to, there are no additional responsive documents.

15 CO-HEARING OFFICER DODUC: Thank you,  
16 Ms. McGinnis, for putting that in the record. We'll  
17 take that under consideration.

18 Ms. Des Jardins?

19 MS. DES JARDINS: There are specific  
20 requirements for responses to subpoenas, and they need  
21 to be clear enough to indicate what documents are being  
22 withheld and why. And this is too big. It's  
23 inadequate, incomplete and evasive as a response. It's  
24 not an interrogatory. It's requesting an adequate,  
25 complete and non-evasive response to the PCFFA via our

1 subpoena.

2 CO-HEARING OFFICER DODUC: Thank you. We will  
3 take that under consideration.

4 Let's revisit for a minute the Sac Valley  
5 Water Users' motion.

6 Your motion included a request for DWR, or at  
7 least a request for us to direct DWR to provide certain  
8 information by July 14th. That certainly is not going  
9 to be the case since we've given them until July 17th  
10 to respond in writing to your motion.

11 But to make it very clear, Mr. Mizell, I  
12 expect your response to include both motions, both  
13 requests that were filed by the Sac Valley Water Users,  
14 and we will expect to rule on both of them  
15 subsequently. All right? Okay.

16 I think we're finally ready for surrebuttal.

17 I believe you are up, Mr. Keeling and  
18 Ms. Meserve.

19 And I believe Mr. Brett needs to take the  
20 oath.

21 (Witness sworn)

22 MICHAEL BRETT, Ph.D.,  
23 called as a surrebuttal witness on behalf  
24 of Protestant Group 24, having been first  
25 duly sworn, was examined and testified as



1           hereinafter set forth:

2           CO-HEARING OFFICER DODUC: Do you have an  
3 opening statement?

4           MR. KEELING: Thank you, Hearing Officer  
5 Doduc. We do, indeed.

6           This is Tom Keeling on behalf of the San  
7 Joaquin County protestants. And good morning, Staff  
8 and Hearing Officers.

9           Today the San Joaquin County protestants, the  
10 local agencies of the North Delta, Bogle Vineyards,  
11 Diablo Vineyards, Stillwater Orchards, and the Delta  
12 Watershed Landowner Coalition are jointly presenting  
13 testimony of Dr. Michael Brett. Dr. Brett will provide  
14 surrebuttal testimony in response to the rebuttal  
15 testimony presented by DWR in DWR-81 and DWR-653 and  
16 the associated references.

17           The petitioners did not present any case in  
18 chief testimony concerning harmful algal blooms, or  
19 HABS, or the proposed WaterFix project's likely impacts  
20 with respect to the formation and proliferation of HABS  
21 in the Delta.

22           The San Joaquin County protestants and LAND,  
23 however, did present case in chief expert testimony  
24 concerning the increase in HABS formation that would  
25 occur if the petition is granted because of the

1 reductions of freshwater flows caused by diverting up  
2 to 9,000 cubic feet per second from the Sacramento  
3 River in the very northern part of the Delta. That  
4 testimony was included in Exhibits SJC-4 and SJC-68.

5 Through the testimony of Linda Turkatte, the  
6 director of the San Joaquin County Environmental Health  
7 Department, the San Joaquin County protestants and LAND  
8 also presented extensive testimony about the HABS  
9 problem in the Delta during recent years and efforts to  
10 inform the public about the threat to humans and  
11 animals posed by HABS and microcystis. That was in  
12 Exhibit SJC-002-Errata and the associated exhibits.

13 In addition, the City of Sacramento, the City  
14 of Stockton, the Coalition to Save the California  
15 Delta, and the South Delta Water Agency provided case  
16 in chief and/or rebuttal testimony concerning the  
17 effect of HABS formation in the Delta if the petition  
18 is granted.

19 While HABS are already found in the Delta,  
20 evidence submitted by protestants explains why the  
21 removal of a significant amount of Sacramento water  
22 during the summer and fall months, seasonal periods  
23 critical for HABS formation, would lead to increased  
24 HABS formation over baseline conditions.

25 Increased incidence of HABS injures legal

1 users and uses of water in the Delta by creating  
2 dangerous conditions for water contact recreation and  
3 making water unsuitable for drinking and irrigation and  
4 other beneficial uses.

5           The threat HABS posed to humans and animals  
6 has not been disputed in this proceeding.

7           The DWR rebuttal and the EIR/EIS claim that  
8 there is no potential for operation of the proposed new  
9 North Delta diversions to increased HABS formation in  
10 the Delta. As no impact is acknowledged, the project  
11 includes no measures to reduce HABS impacts.

12           All the Final EIR/EIS says is that, quote,  
13 "Water flow through Delta channels would be managed  
14 through realtime operations," end of quote. And that's  
15 in the FEIR/EIS at Page 8-891, which is SJC-216. This  
16 is a vague and, of course, unenforceable promise.

17           DWR's rebuttal testimony was consistent with  
18 the HABS analysis in the Final EIR/EIS. Dr. Bryan and  
19 his firm, Robertson Bryan, Inc., are the primary  
20 consultants who prepared the water quality chapter of  
21 the EIR/EIS.

22           As described in cross-examination, Dr. Bryan's  
23 experience with HABS goes back about two or three  
24 years. Dr. Bryan received his Ph.D. in environmental  
25 toxicology and fisheries biology, and his statement of

1 qualifications, which is DWR-33, includes no references  
2 to algae experience and no published papers at all,  
3 whether relating to algae or any other topic.

4           In order to respond to these rebuttal claims,  
5 the San Joaquin County protestants and LAND retained  
6 Dr. Michael Brett, who is a professor in the Department  
7 of Civil and Environmental Engineering at the  
8 University of Washington. Dr. Brett's Ph.D. is in  
9 limnology. In contrast with Dr. Bryan, Dr. Brett has  
10 30 years' experience with algal ecology, including  
11 extensive experience with formation of harmful algal  
12 blooms, which is described in his statement of  
13 qualifications at Exhibit SJC-201.

14           Dr. Brett, unlike Dr. Bryan, has not spent  
15 decades working on environmental documents concerning  
16 the Delta specifically. As we know, the Delta is a  
17 complex estuary, a hydrodynamic system that is  
18 influenced by the rivers that feed into it as well as  
19 by the Pacific Ocean. Thus, it is somewhat like a  
20 lake, also rivering, and also tidal, depending on the  
21 location, the season, and water year type, among other  
22 factors. But as Dr. Brett will explain, when the  
23 conditions that lead to HABs occur, HABs will form in  
24 many different types of water bodies.

25           Dr. Brett's surrebuttal testimony will explain

1 why Dr. Bryan and DWR are simply wrong about the idea  
2 that diverting 9,000 cubic feet per second of water  
3 from the Sacramento River would have no impact on the  
4 formation of HABs. We have already seen significant  
5 HABs in the Delta, and we will see more if the petition  
6 is granted.

7 Mr. Brett has been sworn in, so I think we can  
8 turn to direct testimony now.

9 CO-HEARING OFFICER DODUC: Thank you,  
10 Mr. Keeling.

11 Ms. Meserve?

12 MS. MESERVE: Thank you. Osha Meserve for  
13 LAND. Dr. Brett --

14 Oh, Chair Doduc, would it be possible to have  
15 30 minutes for this presentation? As you probably  
16 recall, we are responding to a very large body of  
17 rebuttal testimony put forth by DWR, and we would like  
18 to give Dr. Brett adequate time to speak to you.

19 CO-HEARING OFFICER DODUC: Well, let's see how  
20 wisely he uses the first 15 minutes, and then we'll go  
21 on from there.

22 MS. MESERVE: Thank you. I had a feeling you  
23 would say that.

24 CO-HEARING OFFICER DODUC: I'm becoming  
25 predictable. That's not good. I'll have to change it

1 up, then, Ms. Meserve.

2 MS. MESERVE: Thank you.

3 And I just want to note that I have given  
4 Mr. Long a thumb drive. There's a few exhibits that  
5 Dr. Brett will be referencing from the hearing record.  
6 There were about three of them that are quite long, and  
7 it would take a while to find. So we've made excerpts  
8 that are marked with the correct exhibits numbers for  
9 Mr. Long to bring up in those instances.

10 DIRECT EXAMINATION BY MS. MESERVE

11 MS. MESERVE: Now turning to you, Dr. Brett,  
12 is SJC-200 a true and correct copy of your surrebuttal  
13 testimony?

14 WITNESS BRETT: Yes, it is.

15 MS. MESERVE: And is SJC-201 a true and  
16 correct copy of your statement of qualifications which  
17 includes your -- a list of your peer-reviewed journal  
18 article publications and other published works?

19 WITNESS BRETT: Yes, it is.

20 MS. MESERVE: And have the journal  
21 publications listed in your statement of qualifications  
22 been peer-reviewed?

23 WITNESS BRETT: Yes, they have.

24 MS. MESERVE: And which ones are those in your  
25 SOQ?

1           WITNESS BRETT: They're -- the first 90  
2 references listed have gone through the peer-review  
3 process.

4           MS. MESERVE: And make sure to speak up a  
5 little and slowly for the court reporter.

6           WITNESS BRETT: The first 90.

7           MS. MESERVE: And, then, do you have any minor  
8 corrections to SJC-200?

9           WITNESS BRETT: Yes, I do. I have two.  
10           Could we bring up SJC-200, Page 4?

11           The citation to Dr. Bryan's testimony at  
12 Line 3 should be to DWR-8, Page 28-29.

13           And could we look at SJC-200, Page 16?

14           In reviewing the testimony, I found that the  
15 citation on Page 16, Line 8 of SJC-204, which is a 2006  
16 EPA report, is incorrect. It should be stricken.

17           It is actually -- in actuality, the  
18 200-micrograms-per-liter figure is taken from a raw  
19 data set downloaded from the DWR CDEC website for the  
20 Old and Middle Rivers at Tracy in the 2013 and 2016  
21 time period.

22           I would be happy to provide this Excel  
23 spreadsheet I relied on for this figure, if requested.

24           MS. MESERVE: Thank you. Can you just give us  
25 a thumbnail sketch of your professional background,

1 please?

2           WITNESS BRETT: Yes. I am a professor in the  
3 Department of Civil and Environment Engineering where  
4 I've been employed since 1997. I earned my doctorate  
5 in limnology at the department of -- at the Institute  
6 of Limnology at Uppsala University in Sweden in 1990.  
7 I attained my master's degree in zoology from the  
8 University of Maine in 1985 and my bachelor of science  
9 in fisheries from Humboldt State University in 1963.  
10 From 1991 to 1997, I was a post doc and then a research  
11 associate at UC Davis.

12           My research focuses on applied and biological  
13 limnology, particularly the response of lakes, rivers  
14 and estuaries to excessive nutrient inputs, especially  
15 eutrophication or regulation of algal biomass and  
16 secondary production.

17           Limnology, for those of you who have not heard  
18 that term before, is the study of the geology, the  
19 physics, chemistry, biology and management of inland  
20 waters, including lakes, rivers, and estuaries.

21           The courses I teach, the Department of Civil  
22 and Environmental Engineering at the University of  
23 Washington, include environmental engineering for our  
24 juniors, applied engineering for juniors and for  
25 seniors and graduate students, and lake and watershed



1 management.

2 MS. MESERVE: Thank you. Please proceed with  
3 the summary of your testimony.

4 WITNESS BRETT: My surrebuttal testimony  
5 responds to rebuttal testimony set forth in Exhibits  
6 DWR-81 and DWR-653 and associated references.

7 In these documents, Dr. Bryan opined that the  
8 California WaterFix would not alter channel velocities  
9 at various Delta locations to an extent that would make  
10 HABs, harmful algal blooms, more severe in the future  
11 with this project. He also opined that -- that the  
12 California WaterFix would not influence the water  
13 residence time of the Delta in a manner that would make  
14 HABs more severe in the future. And he testified that  
15 turbidity would not change in response to the  
16 California WaterFix in a manner that would make HABs  
17 more severe in the future.

18 He similarly testified that the California  
19 WaterFix would not affect temperature in a way that  
20 would promote more severe HABs in the future. And even  
21 more similarly, he testified that California WaterFix  
22 would not make nutrient concentrations more favorable  
23 for HABs in the future.

24 He did, however, acknowledge that cyanoHABs  
25 and in particular microcystis aeruginosa already forms

1 HABS in the Delta system, especially during low flow  
2 and drought years. So he acknowledged, I think, a very  
3 important point there.

4 The main point of my testimony today, I think,  
5 is very simple. If an aquatic system already has  
6 problems with HABS and you change the environmental  
7 conditions in that aquatic system to be more favorable  
8 for cyanobacteria, then you can expect the frequency  
9 and the magnitude of HABS to be more severe in the  
10 future. That's the gist of what I'm going to be  
11 talking about today.

12 Harmful algal blooms are generally associated  
13 with high nutrient concentrations, high temperatures,  
14 longer water residence times, sufficient light, and low  
15 salinity.

16 Can you please put up DWR-703, Page 21?

17 Okay. Thank you. Oh, just passed it.

18 MS. MESERVE: The figure.

19 WITNESS BRETT: It was not on Page 21. Sorry  
20 for that. That's not the figure we're looking for  
21 either. I apologize for that as well.

22 Okay. There we go. Thank you.

23 This is a conceptual figure that describes the  
24 environmental conditions that are associated with  
25 cyanoHABS or cyanobacteria harmful algal blooms. And

1 the most important conditions are high nutrient  
2 concentrations, high temperature -- cyanobacteria or  
3 cyanoHABs typically occur during summer periods -- low  
4 water residence time or long water residence time, low  
5 turbulent mixing, and low salinity and low flow.

6           So the main thing I want to focus on in my  
7 testimony today is kind of the contrast between flow  
8 velocity versus water residence time as kind of the key  
9 regulatory factors of whether you're likely to have  
10 cyanoHABs, and the reason for that is because those are  
11 the factors that are going to be most strongly  
12 influenced by the California WaterFix.

13           And there's two reasons to focus on these.  
14 They're obviously closely related because there's a  
15 direct mathematical relationship between flow, overall  
16 flow, and flow velocity, and there's a direct  
17 mathematical relationship between flow and water  
18 residence time. And so flow affects both of those in  
19 important ways and in ways that affect cyanobacteria  
20 ecology somewhat differently.

21           So the main impact of flow is through  
22 turbulent mixing, and that's important for  
23 cyanobacteria ecology because cyanobacteria have the  
24 capacity to regulate their position in the water column  
25 using buoyancy regulation. They have gas vacuoles, and

1 they can expand or contract those, and they can move up  
2 and down in a water column.

3           And if the water is very mixed, the mixing of  
4 the water is greater than their capacity to move  
5 themselves up and down in the water column, and they  
6 lose that ecological advantage. And when that happens,  
7 the other competitors that tend to sink out of the  
8 water column can gain a competitive edge over  
9 cyanobacteria. So they like kind of quiescent  
10 conditions.

11           CO-HEARING OFFICER DODUC: So hold on a  
12 second, Dr. Brett.

13           Ms. Ansley?

14           MS. ANSLEY: Hi, Jolie-Anne Ansley for the  
15 Department of Water Resources. I have two objections  
16 I'd like to parse a little.

17           The first is I don't know where this figure  
18 from Berg and Sutula -- excuse me, I don't remember the  
19 date of the article, but Berg and Sutula, I don't  
20 remember this figure being identified in the testimony  
21 as -- as part of his testimony that he was going to  
22 refer to and in some way impart that this figure is  
23 correct. I have not --

24           CO-HEARING OFFICER DODUC: Let's address that  
25 first.

1 MS. ANSLEY: Thank you.

2 CO-HEARING OFFICER DODUC: Dr. Brett.

3 WITNESS BRETT: Well, I did cite that report  
4 in my testimony. I cited the entire report. I didn't  
5 cite every single figure that's in it, so I don't know  
6 what's required of me.

7 MS. MESERVE: And as we've discussed in  
8 previous proceedings, if -- an expert may refer to  
9 anything that he or she has cited. I think we  
10 specifically addressed that.

11 CO-HEARING OFFICER DODUC: Ms. Ansley, next  
12 one. Overruled. Next one.

13 MS. ANSLEY: Okay. The next one is just a  
14 general objection that a lot of the background biology  
15 of microcystis is not included necessarily in  
16 Dr. Brett's testimony, including, you know,  
17 explanations of buoyancy. Certainly the final summary  
18 conclusions are included here.

19 So I would just like to lodge an objection to  
20 an extended sort of biology lesson on microcystis.  
21 It's outside the scope of this report. Thank you.

22 CO-HEARING OFFICER DODUC: That one, that  
23 objection does have some merit, Dr. Brett. I  
24 appreciate the detailed background, but I will ask you  
25 to stick to the content of your written testimony.

1           WITNESS BRETT: I see right here that I said  
2 that low turbulence allows cyanobacteria to utilize  
3 buoyancy regulation to optimize light nutrient  
4 availability. I believe that's in my written  
5 testimony.

6           CO-HEARING OFFICER DODUC: As long as you  
7 stick to what's in your written testimony.

8           WITNESS BRETT: Okay. I believe it's in  
9 there.

10          CO-HEARING OFFICER DODUC: Okay.

11          WITNESS BRETT: Okay. Thank you.

12                 And so water velocity relates to turbulent  
13 mixing, and it's directly influenced by flow. And flow  
14 also directly influences water residence time. And  
15 water residence time is important for cyanobacteria  
16 ecology because cyanobacteria are amongst the  
17 slowest-growing phytoplankton, and they are very  
18 strongly influenced by advective losses, which just  
19 basically means getting washed out of the system where  
20 they're growing. So they can't withstand higher rates  
21 of advective losses because their growth rate is lower  
22 than all the other phytoplankton. So that's a  
23 detriment for their ability to build up a large  
24 biomass.

25                 And so both factors are important, and both

1 factors were mentioned in the testimony by  
2 Dr. Bryan, and I want to just kind of revisit some of  
3 the points that he brought up and to kind of bring a  
4 different perspective to that.

5           So one of the points that he made in his  
6 testimony in DWR-81 is he said that the channel  
7 velocities at several mid-channel Delta locations would  
8 not be altered enough by the California WaterFix to be  
9 conducive to microcystis blooms -- to be more conducive  
10 to microcystis blooms relative to the no action plan.

11           I believe there's no -- there is insufficient  
12 basis to conclude, based on mid-channel modeling, that  
13 there would not be an effect of California WaterFix on  
14 microcystis blooms.

15           (Reporter interruption)

16           WITNESS BRETT: I believe's there is  
17 insufficient basis to conclude, based on mid-channel  
18 modeling, that there would not be an effect of  
19 California WaterFix on microcystis blooms in the Delta.

20           Please bring up DWR-8, Slide 29.

21           So the important point here is that the  
22 modeling that's been done is focused on mid-channel  
23 locations, on a small number of mid-channel locations  
24 in the Delta, nine, I believe. And the areas in the  
25 Delta that are actually going to -- that are most

1 likely to have cyanoHABs and which have already been  
2 observed to have cyanoHABs are the more kind of  
3 backwater areas -- sloughs, side channels, kind of the  
4 back alleys of the Delta, so to speak. And those areas  
5 were not modeled.

6           And I don't think anybody's made the claim  
7 that the cyanobacteria blooms are going to happen in  
8 the mid channel, the area the water is moving the  
9 fastest. And those are the areas that have been  
10 modeled. So the areas where the blooms are likely to  
11 occur have not been modeled, so the information isn't  
12 available for those areas. So I think that's a major  
13 problem.

14           So this is just reinforcing my point here.  
15 Well, I think -- yeah, we want two more slides. Okay.  
16 Thank you very much.

17           So this is just showing the nine locations  
18 where the modeling has been conducted. And it shows  
19 that they've all been kind of focused on the -- on the  
20 -- what we would call the thalweg, which is the main  
21 channel. And the main channel is the area with the  
22 highest velocity and the lower water residence time.  
23 And that is not favorable habit for cyanobacteria, and  
24 that's not where cyanobacteria blooms are currently  
25 occurring. They're going to occur in the -- kind of



1 the side areas. And like I said, those have not been  
2 actually represented properly.

3           Could you bring up --

4           So the key point I want to make about this is  
5 that, right now, the conditions are favorable for  
6 cyanobacteria in the system. And if you're changing  
7 the water residence time in the Delta system, they will  
8 become more favorable by increasing the water residence  
9 time.

10           So I have -- one of the other points I want to  
11 make is that in cross-examination Dr. Bryan conceded  
12 that he did not attempt to model the velocities in  
13 these backwater areas where the blooms are most likely  
14 to occur. So the areas that are most important haven't  
15 been represented in the modeling. And I don't think  
16 there's sufficient basis, based on that, to really make  
17 a strong conclusion about how the conditions in those  
18 areas would be affected by this relative to water  
19 velocity in particular.

20           And so I also had some concerns also about the  
21 literature that Dr. Bryan used to support his  
22 conclusions. I don't think the literature supports his  
23 conclusions as strongly as he claims it does.

24           Could you please bring up SJC-207, Figure 8.

25           One of the key studies he based his

1 conclusions on is a study by Mitrovic, et al., 2011 and  
2 2003, on the Darling River in Australia. It's a very  
3 different system from the -- than the Delta system for  
4 a number of reasons. It's a long river with several  
5 weirs on it, which are like -- basically, a weir is a  
6 small dam. So you can think of it as kind of a large  
7 series of channels. It's not -- it's not tidal like  
8 the Delta is.

9           This is the figure right here that I'm  
10 referring to [indicating]. And the point that I want  
11 to emphasize right here -- if I can do this without  
12 blinding anybody -- is that, if you see right up here,  
13 the highest concentrations of the cyanobacteria in this  
14 particular system were occurring always at the lowest  
15 flows. So this study is showing that there's a  
16 relationship between flow and cyanobacteria cell  
17 abundance.

18           So kind of where I differ with Dr. Bryan's  
19 interpretation of this is the relative importance of  
20 flow velocity versus water residence time and the --  
21 placed by the authors in the original studies.

22           So in the original studies, the authors  
23 acknowledged both mechanisms were important. They  
24 pointed out that the flow velocity disrupts thermal  
25 stratification, and thermal stratification gives you a

1 nice, calm, water body which allows the cyanobacteria  
2 to utilize their buoyancy regulation to go up and down  
3 and optimize light nutrients.

4           That was part of it, but they also were very  
5 clear to emphasize that a major mechanism for the  
6 relationship, the negative relationship between flow  
7 and cyanobacteria abundance was advection and washout  
8 of the cells. So in these weirs, you have water kind  
9 of sitting in these weirs, and the high flows pushed  
10 the bloom out of the system. And they made a big point  
11 to emphasize how important that was in their system.

12           And because their system is linear, flow  
13 washes the cells out of the system; whereas, in the  
14 Bay-Delta system, which is non-linear because it's  
15 being influenced by tides, you can push -- the bloom  
16 goes up with one direction with the tide and it goes  
17 back in. So it's a very different system to represent  
18 it. It's also a different species of cyanobacteria  
19 with very different ecological characteristics.

20           Some of the other studies that Dr. Bryan cited  
21 were studies done by Zhang 2007, Zhang 2015, and Lee  
22 2013. These were studies that were done on a lake in  
23 China, but they were done at a scale that I think is  
24 completely inappropriate to make inferences about the  
25 Bay-Delta system. They were done in flumes that had a

1 dimension of less than one cubic meter -- so about like  
2 this by about like that [indicating], so, you know,  
3 really a large aquarium.

4           And based on those experiments, they put pumps  
5 in large aquaria and were able to show that microcystis  
6 incidence or the proportion of the phytoplankton  
7 biomasses with microcystis decreased in these. But  
8 these are literally aquaria, and I don't think we can  
9 scale up from these flumes or aquaria to what's  
10 actually occurring in a much, much larger, more complex  
11 system like the Delta.

12           I also feel like that he tended to take a very  
13 broad perspective on the literature as it supports a  
14 relationship between flow velocity and cyanobacteria  
15 bloom frequency and biomass, and a very narrow  
16 perspective on the literature as it relates to water  
17 residence time in cyanobacteria bloom severity and  
18 frequency.

19           So he studied -- summarized all the literature  
20 he could find on studies that related to cyanobacteria  
21 broadly and flow velocity but then took a very narrow  
22 perspective to the literature as it related to water  
23 residence times and microcystis, and really oftentimes  
24 or several times in testimony noted that there wasn't  
25 an established relationship between water residence

1 time and microcystis in the Delta. So it hadn't been  
2 establish for the Delta. But then, when he was talking  
3 about velocity, flow velocity, he talked about  
4 cyanobacteria broadly for the whole world.

5           And I think there is a fairly substantial  
6 literature showing a relationship between the  
7 cyanobacteria ecology and water residence time and  
8 even, in particular, microcystis. There are some very  
9 substantial studies that have focused specifically on  
10 microcystis and water residence time that were kind of  
11 given a kind of lesser emphasis in his testimony.

12           So I think there was kind of an asymmetrical  
13 analysis of literature when it came to flow velocity  
14 and water residence time that kind of stacked the deck  
15 in terms of focusing on water residence time.

16           And the reason I think that that was going on  
17 is because the Bay-Delta system is a tidal system, so  
18 water residence time is -- I mean, water residence time  
19 is going to be affected much more by a water diversion  
20 than will flow velocity because flow velocity is being  
21 primarily determined by the movement of the water back  
22 and forth with the tides, whereas water residence time  
23 will be directly influenced if you divert a large  
24 fraction of the water that is moving through the  
25 Bay-Delta. And his analysis focused on the factor that

1 was much less likely to be important.

2 CO-HEARING OFFICER DODUC: So, Dr. Brett, I've  
3 given you some additional time. And I would encourage  
4 you to move on to --

5 WITNESS BRETT: Use that time judiciously.

6 CO-HEARING OFFICER DODUC: The next topic is  
7 turbidity, I believe?

8 WITNESS BRETT: The next topic is --

9 CO-HEARING OFFICER DODUC: Temperature.

10 WITNESS BRETT: -- water residence time. In  
11 particular I was mostly talking about water velocity  
12 right there.

13 So I would like to quote a statement from  
14 DWR-653. So, quote, "A given magnitude increase in  
15 water residence time will not always equate to a given  
16 magnitude increase in bloom size or an increase in  
17 bloom size at all." And this is, I think, more or less  
18 the straw man argument that's been put forth in terms  
19 of looking at water residence time as a key regulatory  
20 factor for cyanobacteria bloom development in the  
21 Delta.

22 I think this statement is overly simplistic  
23 and does not respond to any of the claims that have  
24 been made in prior testimony.

25 The basic argument that I would like to make

1 is, if you could please put up DWR-742, Figure 1 -- is  
2 that there isn't -- from the thumb drive -- is that  
3 there isn't a one-to-one relationship between water  
4 residence time and cyanobacteria bloom development.  
5 There's a probabilistic relationship so that, if you  
6 have a longer water residence time, you're likely to  
7 have a larger biomass. But it's not a direct linear  
8 relationship, and setting up the expectation that it  
9 should be is overly simplistic.

10           So what this figure shows in Panels B, D, and  
11 F is that there is a relationship based on this study  
12 of a lake, a reservoir in Spain, between flushing,  
13 which is the inverse of water residence time, and  
14 biomass accumulation. It's not a direct one-to-one  
15 relationship. It just suggests that water residence  
16 time is one of the factors that's important for bloom  
17 development. It's -- amongst a suite of factors it's  
18 important, but it's not a direct linear relationship.  
19 And we don't need to have a one-to-one relationship to  
20 recognize the importance of water residence time for  
21 these blooms.

22           And I would also note that despite the fact  
23 that he kind of dismisses the importance of water  
24 residence time, he also in other places acknowledges  
25 that in some of his earlier testimony.

1           So in DWR, he says that, because microcystis  
2 has a relatively slow growth rate, long residence times  
3 are required for cells to accumulate and form  
4 significant blooms.

5           There is other testimony that was provided by  
6 Berg and Sutula 2013, DWR-558, and they say,  
7 quote/unquote -- or quote, "The direct effect of  
8 increased residence time is to decrease the loss rate  
9 of cyanobacteria. Studies that report on the effective  
10 residence time suggest that cyanobacteria abundance,  
11 cell size, and toxin concentration are positively  
12 related to increased water residence time."

13           So there is a substantial literature, and I  
14 summarize that in my written testimony, between  
15 cyanobacteria ecology in general and even microcystis  
16 ecology specifically between water residence time and  
17 bloom development. It has not been done specifically  
18 for the Delta, but there have been studies done in the  
19 Delta that have noted that, during low flow years,  
20 there is a higher incidence of cyanobacteria blooms.  
21 That's the study by Lehman in 2017 and other studies by  
22 Lehman. So there is a well-established relationship  
23 between the two.

24           And the other point I want to make, if we can  
25 put up SJC-216, Page 18-198, which is an excerpt from



1 the Final EIR/EIS. And this is information about the  
2 water residence time that's been predicted by the  
3 modeling for the Delta. There is a prediction that the  
4 water residence time will increase substantially. And  
5 it's my professional opinion that that's very important  
6 for cyanobacteria bloom development, that water  
7 residence time is probably -- you know, right after  
8 nutrients and temperature, probably one of the most  
9 important factors in terms of cyanobacteria bloom  
10 development -- or nutrients and temperature are the  
11 most important, and water residence time's the third  
12 most important.

13           So this figure right here shows the change in  
14 the average water residence time for various scenarios  
15 in the Delta and showing the no action plan versus the  
16 Alternative Scenario 3 and 4. And it shows that there  
17 is consistently increase in the water resident time for  
18 the Delta with the California WaterFix. But the  
19 EIR/EIS said the effect was uncertain because  
20 purportedly there is no published relationship between  
21 microcystis occurrence and water residence time in the  
22 Delta. And so that's an example of where I'm saying  
23 they're taking a very specific perspective on the  
24 relationship between water residence time and bloom  
25 frequency in the Delta.

1           So in this case, they've narrowed it down to  
2 microcystis and water residence time in the Delta. And  
3 my point is that there is a very substantial literature  
4 that shows that there is a relationship between water  
5 residence time -- and microcystis in particular and  
6 cyanobacteria in general -- for the whole world. It's  
7 just that these studies haven't actually been done in  
8 the Delta yet. So it's kind of saying, you know,  
9 because it wasn't done in the Delta, it's not true.  
10 But there is a lot of literature that supports it for  
11 other areas.

12           And I'll point out that previously, when they  
13 used the literature for their assessment of flow  
14 velocity, they used the entire literature for the world  
15 for cyanobacteria as a group. And here, they're  
16 dismissing it because it hasn't been shown for the  
17 Delta for this one particular genus. And so I think  
18 it's kind of -- "stacking the deck" is a way I like to  
19 put it.

20           In my experience in the limnological  
21 literature, changes in water residence time of several  
22 days can be effective in promoting or discouraging  
23 HABs. Additional examples of this are provided in my  
24 written testimony. I've already stated that, I guess.

25           Can you put up Stockton 26, Page 40.

1           And, you know, one of the other claims that  
2 was made in Bryan is that the modeling showed that the  
3 mid-channel velocities would not change. And so the  
4 issue there is that it's really kind of missing the  
5 point. What's really important is not mid-channel  
6 velocities but off-channel water residence time because  
7 that's where the blooms are actually occurring. And  
8 it's the longer water residence time -- the longer  
9 water residence time occurs because you have less  
10 mixing with the main channel water, and you have more  
11 opportunity for the bloom to develop and less  
12 occurrence of them being affected.

13           So this slide right here shows the water  
14 residence time for various scenarios relative to the  
15 baseline conditions -- so the percent increase from  
16 baseline conditions. And if you look at the more  
17 expanded version of this table, you know, the key  
18 months that we pay attention to are the summer months  
19 in July and September when the cyanobacteria blooms are  
20 most likely to occur.

21           And I took the expanded version of this table,  
22 which is from the appendix of this paper, and I  
23 calculated an average increase in water residence time  
24 of 28, plus or minus 11 percent, for the Bay-Delta  
25 during the summer months when cyanobacteria blooms are

1 occurring. So this equates to an increase of about  
2 6-point -- about 7, plus or minus two days. And so 7  
3 plus or minus 2 days when the average residence time is  
4 about 30 days is very substantial for cyanobacteria in  
5 areas where you already have the blooms occurring.

6           So the blooms are happening, and then you're  
7 making conditions somewhat more favorable for them. So  
8 that was -- kind of the key introductory point was if  
9 you have conditions that are already favorable for them  
10 and you make them more favorable, then you're more  
11 likely to have cyanobacteria blooms in the future.

12           So I think there's very substantial evidence  
13 based on the modeling that there's going to be a clear  
14 increase in the water residence time. And really the  
15 increase in water residence time stems directly from  
16 the basic equation we use to calculate water residence  
17 time. Water residence time is just volume divided by  
18 flow. And if you change flow substantially -- and I've  
19 heard estimates of about 9,000 cfs, where 30, 40  
20 percent of the flow is going to be diverted, then  
21 you're going to change water residence time  
22 substantially by definition.

23           CO-HEARING OFFICER DODUC: All right. Let's  
24 give Dr. Brett five more minutes. That will be the 30  
25 minutes Ms. Meserve asked for.

1           And, Dr. Brett, I would urge you to focus on  
2 your remaining three points of temperature, turbidity,  
3 and nutrients.

4           WITNESS BRETT: Thank you very much.

5           So I will talk about temperature now.

6           Dr. Bryan stated in his testimony that the  
7 model predicted temperature increases for the Delta  
8 compared to the no action scenario would not  
9 substantially increase the frequency or magnitude of  
10 cyanobacteria blooms within the Delta.

11           I believe this conclusion regarding the  
12 effective model temperature increases are unsupported.  
13 The main reason -- main reason, if you can please show  
14 DWR -- okay, don't do that.

15           The main reason is that his analysis of  
16 temperature is only based on one operational scenario,  
17 and it's also based, as I previously noted, on the main  
18 thalweg. And that's not the areas that we're  
19 interested in. He claims that the modeling shows, for  
20 the main thalweg, only an increase of a few tenths of a  
21 degree Celsius. But I believe that the temperature  
22 changes will be much more substantial in the backwater  
23 areas.

24           It's my professional opinion that temperature  
25 in flowing systems like the Delta is dependant upon the

1 flow rate of the water. And if you dramatically change  
2 the flow of the water, you will influence the  
3 temperature of the river.

4           The next thing I would like to talk about is  
5 turbidity. He claimed that the change in velocity  
6 would not be sufficient to change turbidity. I think  
7 that there's two mistakes in this argument. One  
8 argument is that -- one mistake is that he's focusing  
9 on mid-channel velocity, and that's not the areas where  
10 the sediments would fall out of the water column and  
11 where turbidity would be affected. It is -- again,  
12 it's in the off-channel areas, which he did not model.

13           And the other mistake about his turbidity  
14 argument is that he claims that the cyanobacteria are  
15 not light limited in the Delta. And I think that  
16 there's substantial literature that argues the opposite  
17 of that. There's papers by Lehman and Jassby that make  
18 it very clear that there is strong light limitation of  
19 phytoplankton growth in the Delta oftentimes.

20           The mid-channel velocity issue is that, in the  
21 more backwater areas, when you have a longer water  
22 residence time, there's more time for particles to fall  
23 out of the water column, more time for particle  
24 settling, which is very strongly related to water  
25 residence time. And when you have particle settling

1 time, you lose turbidity. So that's my perspective on  
2 turbidity.

3 And then the last thing I want to talk about  
4 is nutrients. So he testified or he presented evidence  
5 suggesting that nutrients would not be affected by  
6 the -- not affected dramatically by the California  
7 WaterFix, and I do not agree with that perspective.

8 I found pertinent literature that does not  
9 support Dr. Bryan's opinion that the frequency and  
10 magnitude of HABS in Delta would not be increased as a  
11 result of the diversion.

12 The key points here is that the diversion will  
13 be removing some low-nutrient water which would  
14 otherwise dilute the higher-nutrient water coming in  
15 from the San Joaquin system and from even some  
16 agricultural return flows in the Delta itself.

17 And I also think that he confused short-term  
18 growth dynamics with long-term biomass accrual because  
19 he argued in his testimony that nitrogen and phosphorus  
20 concentrations that currently occur in the Delta are  
21 non-limiting, meaning that the nitrogen and phosphorus  
22 are more than adequate to maintain maximum growth of  
23 microcystis.

24 And I think there's a -- confusing the  
25 difference between short-term growth and long-term

1 biomass accumulation. So short-term growth is  
2 dependent upon the nutrients that are there right now.  
3 And we do that oftentimes in very short experiments.  
4 But the biomass accrual is more determined by -- the  
5 short-term growth is by the available nutrients, and  
6 the long-term growth is determined by the absolute  
7 amount of nutrients that end up then being used to  
8 support the entire bloom.

9           And so in the short-term you may see that more  
10 nutrients doesn't cause them to grow any faster because  
11 they haven't reach their capacity yet. But in the long  
12 term, it will be the overall biomass of nutrients that  
13 determines the biomass of the cyanobacteria.

14           So there's a distinction between how nutrients  
15 regulate what's going on with cyanobacteria growth  
16 depending upon the time scale. And by talking about  
17 limitation, he's talking about short time scale. And  
18 what's really important is the overall long time scale  
19 where you end up developing fully manifesting bloom.

20           The only way to meaningfully -- to assess the  
21 relationship between total nutrients and biomass is to  
22 do a long-term study of multiple stations over multiple  
23 years to see what that relationship is for the  
24 Bay-Delta. And that has not been done yet.

25           And as I mentioned before, the key effect for



1 nutrients will be by diverting a large fraction of  
2 low-nutrient flow, and that will leave the  
3 higher-nutrient water more represented in the water  
4 that remains because you're not diluting it with a  
5 low-nutrient water.

6 So the pertinent literature does not support  
7 Dr. Bryan's opinion that the frequency and magnitude of  
8 HABs in the Delta will not be increased as a result of  
9 the California WaterFix nutrient increases.

10 In summary -- thank you for your patience -- I  
11 disagree with Opinions 1 through 5 presented by  
12 Dr. Bryan's testimony. And I believe, based on my  
13 experience with algae and my study of the effect of the  
14 grant of the petition in preparing this testimony that  
15 the new diversions would lead to conditions in the  
16 Delta being more conducive to HABs formation, in  
17 particular, a fairly substantial increase in water  
18 residence time.

19 CO-HEARING OFFICER DODUC: Thank you.

20 May I get an estimate of cross-examination for  
21 Dr. Brett?

22 MS. ANSLEY: Good morning. Jolie-Anne Ansley  
23 for the Department of Water Resources. I have an hour  
24 to an hour and 20 minutes, depending on the flow of  
25 answers, but I do have an hour of questions at least.

1 CO-HEARING OFFICER DODUC: Any other  
2 cross-examination of Dr. Brett?

3 MR. EMRICK: Matthew Emrick, City of Antioch.  
4 About five minutes.

5 MS. DES JARDINS: Deirdre Des Jardins,  
6 California Water Research. Five to ten minutes.

7 MS. SUARD: Nikki Suard, Snug Harbor Resorts  
8 LLC. Five minutes.

9 CO-HEARING OFFICER DODUC: I will suggest,  
10 then, Ms. Ansley, that we allow Mr. Emrick,  
11 Ms. Des Jardins, and Ms. Suard to conduct their  
12 cross-examination, and then we will take a break and  
13 turn to DWR. Any objections?

14 (No response)

15 CO-HEARING OFFICER DODUC: All right. With  
16 that, then, Mr. Emrick.

17 MS. MESERVE: May I make a clarification for  
18 the record that I think may be helpful for some of the  
19 cross that we might hear?

20 During the testimony toward the beginning,  
21 Dr. Brett referred to DWR-703, which is the Berg and  
22 Sutula report. I believe I found another error in the  
23 testimony. We had referred to DWR-558, which is  
24 actually just three pages of that same report.

25 So I will submit an errata with the

1 corrections noted by Dr. Brett. And in addition, the  
2 citations to 558 should be to the complete report at  
3 DWR-703. And I think that may answer the confusion  
4 that Ms. Morris had.

5 CO-HEARING OFFICER DODUC: I believe it was  
6 Ms. Ansley, but --

7 MS. MESERVE: Oh, I'm sorry.

8 CO-HEARING OFFICER DODUC: All right. Thank  
9 you.

10 Mr. Emrick.

11 CROSS-EXAMINATION BY MR. EMRICK

12 MR. EMRICK: Matthew Emrick, City of Antioch.

13 Good morning. Just a couple of follow-up  
14 questions for Dr. Brett.

15 In your testimony, do you agree that water  
16 temperature in the Delta will be about the same as air  
17 temperature, generally?

18 WITNESS BRETT: I do not agree with that.

19 MR. EMRICK: Okay. And why not?

20 WITNESS BRETT: One is just, I guess, based on  
21 professional experience. I was recently on a master's  
22 thesis committee where the whole point of the analysis  
23 was to analyze about 25 years of temperature data for  
24 western Washington rivers. And in that analysis, flow  
25 turned out to be one of the most important regulatory

1 factors for temperature.

2           The other is I did some of my own statistical  
3 analysis. One of the claims that's been made is that  
4 the air temperature almost exclusively regulates the  
5 water temperature as an equilibrium with air  
6 temperature, I believe is what's been said.

7           And I looked at a data set that was -- I  
8 compared the water temperatures from the DWR site at  
9 the Tracy, Middle, and Old Rivers. So it was a data  
10 set from 2011 and 2016. So I looked at summer water  
11 temperatures, and I compared those to a NOAA data set  
12 of summer air temperatures for the Tracy Pumping  
13 Station. And like I said --

14           CO-HEARING OFFICER DODUC: And this is  
15 definitely outside the scope of your written testimony.

16           MS. MESERVE: In fact, he opines that -- I can  
17 find this.

18           CO-HEARING OFFICER DODUC: Actually, I'm  
19 reading it right now. He did opine about the  
20 temperature of the water being in equilibrium with air  
21 temperature, but he did not go into details with  
22 respect to any analysis that he conducted.

23           MS. MESERVE: I believe it would be within the  
24 scope if there's questions regarding why, what's the  
25 substantiation for that statement.

1 CO-HEARING OFFICER DODUC: But is that  
2 analysis submitted as part of his testimony to which  
3 then Ms. Ansley might conduct cross-examination?

4 MS. MESERVE: She's certainly free to ask him  
5 what the basis for his statement is on Page 15, Line 2,  
6 for instance.

7 CO-HEARING OFFICER DODUC: Yes, I see the  
8 statement. I see no associated analysis or data  
9 associated with it.

10 Ms. Ansley?

11 MS. ANSLEY: Yes, Jolie-Anne Ansley,  
12 Department of Water Resources.

13 I would be making the exact same objection as  
14 to -- you know, he can say, I guess, in his  
15 professional experience. But if there's not a detailed  
16 analysis submitted into the record, then I can't verify  
17 that analysis and I then certainly can't cross-examine  
18 based on our independent verification of that analysis.

19 CO-HEARING OFFICER DODUC: Sustained.

20 We'll just leave it based on your professional  
21 experience.

22 MR. EMRICK: Thank you.

23 If climate change is predicted to result in  
24 higher air temperatures, would that make reductions in  
25 Sacramento River flow from the project irrelevant?

1           WITNESS BRETT: No, it wouldn't. I think it  
2 would make the reductions in flow --

3           CO-HEARING OFFICER DODUC: Hold on. I believe  
4 an objection will be voiced that climate change is not  
5 discussed in his testimony.

6           MS. ANSLEY: Yes, I would be making that  
7 objection that the cross is limited to his surrebuttal  
8 testimony at this point.

9           CO-HEARING OFFICER DODUC: Sustained.

10          MR. EMRICK: Okay. That's all I have. Thank  
11 you.

12          CO-HEARING OFFICER DODUC: Thank you,  
13 Mr. Emrick.

14          I believe, Ms. Des Jardins, you're up.

15          CROSS-EXAMINATION BY MS. DES JARDINS

16          MS. DES JARDINS: Deirdre Des Jardins,  
17 California Water Research.

18          Mr. Bryan [sic], if -- your analysis is based  
19 on projected temperatures at 2025. And I just wanted  
20 to ask was there any other information available to you  
21 about temperature projections for other time periods  
22 within the permit lifetime?

23          CO-HEARING OFFICER DODUC: Ms. Ansley?

24          MS. ANSLEY: I'm struggling a little. I think  
25 the question probably assumes facts not in evidence,

1 lacks foundation, and I might be a little confused. I  
2 guess I don't see where 2025 versus other temperature  
3 data available to him is within the scope of his  
4 testimony. But maybe I need a rephrase of the  
5 question, actually.

6 MS. DES JARDINS: The question is not about  
7 whether he analyzed it but whether any information  
8 about other temperature projections or other time  
9 periods was available for his analysis.

10 CO-HEARING OFFICER DODUC: And that seems to  
11 be outside the scope.

12 I'm reading the section right now. Perhaps,  
13 Ms. Des Jardins, if you could point me to his testimony  
14 under Opinion No. 7 on temperature, which I assume is  
15 where you are focusing, on which you are basing your  
16 question, that might help us.

17 That will be on Page 14 and then continuing to  
18 Page 15.

19 MS. DES JARDINS: Let me look for just a sec.

20 He looks at ". . .model predicted temperature  
21 increases with the California WaterFix compared to the  
22 no action alternative."

23 CO-HEARING OFFICER DODUC: So what line are  
24 you on?

25 MS. DES JARDINS: Opinion No. -- it's just

1 Opinion No. 7, ". . .model predicted temperature  
2 increases with the California WaterFix compared to the  
3 no action alternative."

4 I think it's reasonable to request, you know,  
5 what model predicted temperature increases were  
6 available for his analysis. I'm not asking for him  
7 to -- to go beyond to scope of his testimony, but just  
8 what was available to him for that analysis.

9 CO-HEARING OFFICER DODUC: Ms. Ansley?

10 MS. ANSLEY: I guess I would say that he  
11 provides citations to what temperature data he is  
12 talking about. He makes some generalized conclusions.  
13 I do think that asking him what other unspecified  
14 temperature data are out there is beyond the scope. If  
15 there's a question about his conclusion from this  
16 temperature data, that would be within the scope.

17 CO-HEARING OFFICER DODUC: Dr. Brett, are the  
18 references cited in your testimony under this section  
19 the entirety of your analysis for temperature?

20 WITNESS BRETT: Yeah, I'm not aware of this,  
21 the information I'm being asked to respond to.

22 CO-HEARING OFFICER DODUC: Okay. Thank you.  
23 Move on, Ms. Des Jardins.

24 MS. DES JARDINS: That was the extent of my  
25 questioning.



1 CO-HEARING OFFICER DODUC: All right.

2 Ms. Suard?

3 CROSS-EXAMINATION BY MS. SUARD

4 MS. SUARD: Nikki Suard with Snug Harbor  
5 Resort LLC.

6 Could we get the graphic showing the velocity  
7 map from the Delta, please. That was brought up in the  
8 testimony.

9 CO-HEARING OFFICER DODUC: Can we be more  
10 specific, Ms. Suard?

11 MS. SUARD: It's the DWR's -- I'm sorry. I  
12 don't -- I didn't write down which one.

13 MS. MESERVE: Is that DWR-8, Page 29, Errata?

14 MS. SUARD: There we go. That was the one you  
15 used, I believe.

16 I just -- it's very brief questions.

17 My understanding is what you're saying is the  
18 blooms increase when the velocity is reduced, and  
19 therefore, the temperature increases; is that correct?

20 WITNESS BRETT: Well, there's -- there's a  
21 couple of different things being mixed together there.

22 But what I was saying is that, when the flow  
23 is lower, then you'll have a greater correspondence  
24 between air temperature -- it's my opinion you'll have  
25 a greater correspondence between air temperature and

1 water temperature. When the flow is higher, you'll  
2 have a lesser correspondence. There will be a bigger  
3 temperature difference when the flow is high.

4 MS. SUARD: Okay. Thank you.

5 I'd like to look at -- just notice the point  
6 that says Sacramento River at Freeport versus  
7 Sacramento River at Rio Vista.

8 Are you familiar with the Delta enough to know  
9 the waterways, which ones are fresh flow waterways and  
10 which ones are what I think you called backwater?

11 WITNESS BRETT: I'm not familiar with the  
12 particular details of the hydrology of the Delta  
13 system. I'm just familiar with the general  
14 relationship between flow and water residence time.  
15 That's my expertise -- and why that's important for  
16 cyanobacteria.

17 But I don't have any particular expertise on  
18 the hydrology of the Delta itself. I'm not an expert  
19 in that.

20 MS. SUARD: Okay. Then that knocks out most  
21 of my questions.

22 One simple one, then. If water temperature is  
23 consistently 80 degrees due to low flow for four months  
24 out of the summer, would that tend to increase blooms  
25 in shallow areas?

1 WITNESS BRETT: Cyanobacteria blooms --

2 MS. SUARD: Yes.

3 WITNESS BRETT: -- are favored by higher  
4 temperatures.

5 MS. SUARD: Excuse me?

6 WITNESS BRETT: Cyanobacteria blooms are  
7 favored by higher temperatures. So, yes, higher  
8 temperatures would favor cyanobacteria.

9 MS. SUARD: So 80 degrees Fahrenheit would be  
10 a high temperature for that area?

11 CO-HEARING OFFICER DODUC: I believe an  
12 objection is coming.

13 MS. ANSLEY: Yeah, I have an objection to this  
14 line of questioning going on. This is a hypothetical  
15 well outside the scope of his testimony, which doesn't  
16 associate particular degrees Fahrenheit with any  
17 microcystis growth, I guess I'll say, or HAB formation,  
18 although I do understand the general conclusions  
19 regarding the importance of temperature and HAB  
20 formation, but this specific hypothetical here.

21 CO-HEARING OFFICER DODUC: Would you like to  
22 strike the "80 degrees" from your question, Ms. Suard?

23 MS. SUARD: Actually, no, because I think it's  
24 very important to know what temperatures we're talking  
25 about because there is a very big difference of

1 temperature on different waterways in the Delta, and  
2 that's why there's monitoring stations all over.

3 CO-HEARING OFFICER DODUC: In that case, I  
4 will sustain the objection because he did not go into  
5 specifics with respect to a certain degree in his  
6 testimony. He discussed certain increases but not any  
7 specific temperature. So I gave you a chance,  
8 Ms. Suard.

9 MS. SUARD: Okay. Thank you. That's it.  
10 Thank you.

11 CO-HEARING OFFICER DODUC: All right. With  
12 that, then we'll go ahead and take our morning break  
13 for the court reporter. And we will return at -- oh,  
14 I'm sorry. Hold on.

15 MS. WOMACK: Just housekeeping. I have a  
16 person with a disability. Will you need me today, or  
17 do you think Thursday morning? Or should I be back at  
18 3:00 or -- because we're going to go for a bit.

19 CO-HEARING OFFICER DODUC: Thank you. Let's  
20 go ahead and have that discussion, then.

21 How much -- let me rephrase.

22 Ms. Des Jardins is no longer in the room.

23 Ms. Suard, you are in the room. How much do  
24 you anticipate needing for your rebuttal presentation?

25 MS. SUARD: Fifteen minutes to half an hour,

1 depending on if there's interruptions. Very simple.

2 CO-HEARING OFFICER DODUC: And

3 cross-examination of Ms. Suard?

4 MS. MCGINNIS: Robin McGinnis, Department of  
5 Water Resources. Approximately 20 minutes.

6 CO-HEARING OFFICER DODUC: Okay. So we'll  
7 guesstimate anywhere from 45 minutes to an hour.

8 And Ms. Des Jardins is not here.

9 Cross-examination for Ms. Des Jardins?

10 MS. ANSLEY: Ten to fifteen minutes.

11 CO-HEARING OFFICER DODUC: Okay. I expect we  
12 will be done today.

13 Would anyone object if Ms. Womack presents her  
14 rebuttal after Dr. Brett is done?

15 MS. WOMACK: We can come back. I don't want  
16 to -- oh, you mean, like at 3:00, come back at 3:00?  
17 Because it's looking like this is till morning, right?  
18 This is going to take the whole morning? So you said  
19 you were going to break --

20 CO-HEARING OFFICER DODUC: Actually, yes. If  
21 you come back at 3:00, that would be fine.

22 MS. WOMACK: Thank you.

23 CO-HEARING OFFICER DODUC: All right. Now we  
24 can take our break, and we will return at 11:25.

25 (Recess taken)

1 CO-HEARING OFFICER DODUC: All right. It's  
2 11:25. We're back in session, and I see Ms. Ansley and  
3 Mr. Berliner are ready to conduct their  
4 cross-examination.

5 MS. ANSLEY: Would you like a list of my  
6 topics?

7 CO-HEARING OFFICER DODUC: Please.

8 MS. ANSLEY: These are my topics. They  
9 generally follow his testimony. I have an initial set  
10 of questions about some terminology he uses,  
11 particularly mid-channel velocity. I have a couple  
12 questions on his testimony concerning sloughs and  
13 backwaters. I have some questions on his criticism of  
14 the use of the Darling River study, which is the  
15 Mitrovic study, and other studies that are cited in  
16 Dr. Bryan's testimony. I have a longer series of  
17 questions on his testimony concerning velocity and  
18 residence time, obviously; specific questions on his  
19 use of Dr. Paulsen's residence time data; and then  
20 quickly a couple questions on temperature, turbidity,  
21 light, and nutrients.

22 CO-HEARING OFFICER DODUC: All right.

23 CROSS-EXAMINATION BY MS. ANSLEY

24 MS. ANSLEY: Good morning, Dr. Brett.

25 At the outset I'd like to ask you a couple of

1 questions, as I said before, regarding the velocity  
2 terminology. On Pages 3 and 4 of your testimony, which  
3 is SJC-200, you mentioned Dr. Bryan's use of the DSM-2  
4 model to analyze velocity, correct?

5 WITNESS BRETT: Where, specifically, are you  
6 asking me?

7 MS. ANSLEY: Well, if you look at --

8 WITNESS BRETT: Actually, I didn't hear what  
9 you said. Which lines?

10 MS. ANSLEY: It's Pages 3 and 4, and it was  
11 just a general question. If you want to look at some  
12 lines, you could look at 1 through 4.

13 But you discuss at this point Dr. Bryan's use  
14 of the DSM-2 model to analyze velocity; is that  
15 correct?

16 WITNESS BRETT: Yes.

17 MS. ANSLEY: Do you yourself have any  
18 experience running DSM-2?

19 WITNESS BRETT: No, I do not.

20 MS. ANSLEY: Is it your understanding that the  
21 DSM-2 model provides mid-channel velocities? And by  
22 "mid-channel," I mean the point at the center of the  
23 channel.

24 WITNESS BRETT: No, I think that -- I believe  
25 it provides the average channel velocity.

1 MS. ANSLEY: Right. As you noted in your  
2 testimony, it provides the average velocity across a  
3 cross-section of the channel; is that correct?

4 WITNESS BRETT: Yes.

5 MS. ANSLEY: So technically, I think that  
6 there's just a bit of confusion.

7 The velocity returned is an average  
8 cross-sectional velocity and not the mid-channel  
9 velocity.

10 WITNESS BRETT: I believe that's correct.  
11 That is correct.

12 MS. ANSLEY: Okay. And so by averaging  
13 velocities across a cross-section of the channel, this  
14 would also incorporate velocities not only in the  
15 middle of channel but at the sides of the channel; is  
16 that correct?

17 WITNESS BRETT: Yes, it would.

18 MS. ANSLEY: So to also make sure that we're  
19 clear before we go forward, the average cross-section  
20 velocity also does not represent the thalweg velocity;  
21 is that correct?

22 WITNESS BRETT: That's correct.

23 MS. ANSLEY: Okay. Moving on to backwater  
24 sloughs and -- backwater sloughs.

25 So starting on about Page -- let's see. I



1 guess you do it in a couple places. But on Page 13 I  
2 think there's an earlier reference. Let's see.

3 On Page 4, you discuss generally what you call  
4 vegetated side channels and backwater sloughs; is that  
5 correct?

6 WITNESS BRETT: Where? Where on Page 4?

7 MS. ANSLEY: Okay. On Page 4, I would say  
8 roughly Line 8 -- I'm sorry. Go ahead.

9 That paragraph --

10 WITNESS BRETT: Okay.

11 MS. ANSLEY: -- starting about -- Line 5  
12 through 26; also Page 13, I think you talk about it  
13 Lines 5 through 8. Just generally, I know that  
14 throughout your testimony you talk about backwater  
15 sloughs; is that correct?

16 WITNESS BRETT: That's correct.

17 MS. ANSLEY: And it's your contention that  
18 this is where HABS are occurring?

19 WITNESS BRETT: That -- it is my contention  
20 that it is habitat that is preferable for HABS -- I  
21 mean, for cyanobacteria.

22 MS. ANSLEY: And you're familiar with the Berg  
23 and Sutula study, I believe you said 2013; is that  
24 correct?

25 WITNESS BRETT: Yes.

1 MS. ANSLEY: And this is a review article of  
2 cyanobacteria occurrence in the Delta?

3 WITNESS BRETT: Yes.

4 MS. ANSLEY: Isn't it true that nowhere in  
5 their study do they mention side channel environments  
6 or backwater sloughs?

7 WITNESS BRETT: As far as -- I won't contest  
8 that.

9 MS. ANSLEY: And you're also familiar with the  
10 work of Peggy Lehman and her team in the Delta; is that  
11 correct?

12 WITNESS BRETT: Yes, I am.

13 MS. ANSLEY: In specific, you have cited a  
14 couple of times her 2017 paper in your testimony?

15 WITNESS BRETT: Mm-hmm, yes.

16 MS. ANSLEY: Isn't it true that her 2017  
17 discussed the large bloom that occurred in the Delta in  
18 2014?

19 MR. KEELING: Objection, vague and ambiguous.

20 Is that the exclusive subject, or is that a  
21 passage within the report or the paper?

22 CO-HEARING OFFICER DODUC: Ms. Ansley?

23 MS. ANSLEY: Okay. Is the subject of Lehman  
24 2017 in its entirety the bloom occurrence in 2014 in  
25 the Delta?

1           WITNESS BRETT: I don't remember that that  
2 specifically.

3           MS. ANSLEY: You don't recall what Dr. Lehman  
4 was studying in her 2017 study?

5           WITNESS BRETT: I don't recall that it being  
6 exclusively focused on that one particular event, but I  
7 won't contest that.

8           MS. MESERVE: If there are specific --

9           CO-HEARING OFFICER DODUC: One at a time.

10          Ms. Meserve?

11          MS. MESERVE: If there are specific questions  
12 regarding a study, seeing as there are literally  
13 probably about a hundred studies on HABs, and they're  
14 each perhaps hundreds of pages long, I would ask that  
15 the cross-examiner put up the portion of the study that  
16 they would like to ask a question about to be able to  
17 allow the witness to answer.

18          MS. ANSLEY: Actually, my questions were just  
19 generally to what Lehman 2017 was studying. He cites  
20 it a number of times. And it's not a very long study,  
21 actually. We do have copies of it in the record. I do  
22 have a copy here, but --

23          CO-HEARING OFFICER DODUC: Hold on. Hold on.

24          Dr. Brett has answered that he does not recall  
25 the specifics that you --

1 MS. ANSLEY: Right. And I'm happy to move on.

2 CO-HEARING OFFICER DODUC: Just move on, yes.

3 MS. ANSLEY: And just to confirm, so I can  
4 knock out a couple more questions, you put up a map of  
5 Dr. Bryan's study locations, correct?

6 WITNESS BRETT: Yes.

7 MS. ANSLEY: Are you familiar with  
8 Dr. Lehman's study locations?

9 WITNESS BRETT: No, I'm not.

10 MS. ANSLEY: Okay. On Page 4 of your  
11 testimony, Lines 15 through 21, you provide Discovery  
12 Bay as an example of what you term a backwater slough,  
13 correct?

14 WITNESS BRETT: Yes.

15 MS. ANSLEY: And on Lines 15 to 21, you note  
16 the Contra Costa Health Department sampling of  
17 cyanobacteria inside Discovery Bay, correct?

18 WITNESS BRETT: Yes.

19 MS. ANSLEY: Can we see that, Mr. Long?

20 I'm only offering this as what he is  
21 referencing. I'm not going to mark this as an exhibit.  
22 This is just a web link in his testimony.

23 Is this the correct figure that you note in  
24 your testimony?

25 WITNESS BRETT: Yes, it is.

1 MS. ANSLEY: Does it show Discovery Bay?

2 WITNESS BRETT: Yes, it does.

3 MS. ANSLEY: And you note in your testimony on  
4 Lines 15 to 21 that the Contra Costa Health Department  
5 has found cyanobacteria blooms in Discovery Bay; you  
6 note also that the 2016 -- in the same location as the  
7 2016 Biological Assessment; is that correct?

8 MR. KEELING: Objection, goes beyond his  
9 testimony.

10 CO-HEARING OFFICER DODUC: Ms. Ansley?

11 MS. ANSLEY: Oh, I'm sorry.

12 If we could look at -- if you could keep that  
13 handy, we could look at Lines 15 through 21 of his  
14 testimony, where he states that cyanobacteria blooms  
15 have been documented in the shoreline areas and  
16 backwater sloughs of Discovery Bay by the Contra Costa  
17 Health Department -- then he provides the web link and  
18 citation of course -- where the 2016 Biological  
19 Assessment (BA) also discloses increased residence  
20 time.

21 CO-HEARING OFFICER DODUC: And your question  
22 is?

23 MS. ANSLEY: My question is, if we could  
24 put -- I'll move ahead. If we can put the figure back  
25 up -- are you suggesting that the Biological Assessment

1 sampled the same sites within Discovery Bay?

2 WITNESS BRETT: No.

3 MS. ANSLEY: Or sampled within Discovery Bay?

4 WITNESS BRETT: No.

5 MS. ANSLEY: Are you aware that the Discovery  
6 Bay is a man-made development constructed on former  
7 farmland in the Delta?

8 WITNESS BRETT: I am not aware of that, but  
9 that does not surprise me.

10 MS. ANSLEY: Have you ever visited Discovery  
11 Bay?

12 WITNESS BRETT: I have not visited Discovery  
13 Bay.

14 MS. ANSLEY: Have you -- so you have not  
15 studied the hydrologic conditions within Discovery Bay  
16 that promote HAB formation?

17 WITNESS BRETT: I have not studied the  
18 hydrological conditions of the Delta in general.

19 MS. ANSLEY: Is it your understanding that two  
20 of the locations that Dr. Bryan studied were in close  
21 proximity to Discovery Bay?

22 WITNESS BRETT: That is not my understanding,  
23 but I guess that depends on how you define "close  
24 proximity."

25 MS. ANSLEY: Move on to my next topic.

1           I believe you testified earlier today, and  
2 also on Pages 5 to 6 of your testimony, that you  
3 critiqued the use of the Darling River study, the  
4 Mitrovic study -- do I pronounce that correctly?  
5 "Mitrovic," "Mitrovic" -- the Mitrovic study in  
6 Australia as not an appropriate reference for the  
7 Delta, which is a tidal system; is that correct?

8           WITNESS BRETT: Yes.

9           MS. ANSLEY: Isn't it true that Lehman 2017  
10 also cited and referenced the findings of Mitrovic  
11 study in her discussion of flow in the Delta?

12           MS. MESERVE: Objection, vague. Where is she  
13 talking about?

14           MS. ANSLEY: I'm talking in Lehman 2017,  
15 didn't Lehman 2017 also reference the same study in her  
16 discussion of flow?

17           CO-HEARING OFFICER DODUC: Overruled.

18           MR. KEELING: Vague and ambiguous, out of  
19 context. For what purpose? If there's a cite in the  
20 study, let's see it.

21           CO-HEARING OFFICER DODUC: Hold on. I'm  
22 overruling for now.

23           Dr. Brett, please answer to the best of your  
24 ability. If you do not know, just say you don't know.

25           WITNESS BRETT: I believe she did cite it.

1 But the point I think she cited it for is that flow has  
2 an effect on blooms. And that's what Mitrovic says.

3 MS. ANSLEY: Sort of in the same vein on  
4 Page 7, Lines 6 to 7, you criticized Dr. Bryan's use of  
5 a couple studies from other systems to draw conclusions  
6 on the tidally influenced Delta; is that correct?

7 WITNESS BRETT: Yes, that's correct.

8 MS. ANSLEY: Isn't it a common practice to  
9 draw from the scientific literature to make conclusions  
10 and inferences on systems where information is lacking  
11 such as the Delta?

12 MR. KEELING: Objection, vague and ambiguous.

13 CO-HEARING OFFICER DODUC: Overruled.

14 WITNESS BRETT: Yes, we commonly cite papers  
15 in the literature, if that's your question.

16 MS. ANSLEY: Isn't it true on Page 12 of your  
17 testimony you cite a study on the cyanobacteria  
18 Oscillitoria, which is not common in the Delta?

19 WITNESS BRETT: Yes, that's true.

20 MS. ANSLEY: And similarly you cite Romo,  
21 et al., 2013, which is a shallow lake in Spain; is that  
22 correct?

23 WITNESS BRETT: Yes. And what's your point?

24 MS. ANSLEY: I'm moving on to my next --

25 CO-HEARING OFFICER DODUC: I believe she's



1 made her point.

2 Move on, please.

3 MS. ANSLEY: Moving next to your testimony on  
4 residence time generally. So starting on Page 8, maybe  
5 Lines 9 through 17, you discuss Dr. Bryan's choice of  
6 velocity as a surrogate for water column turbulence,  
7 correct?

8 WITNESS BRETT: Can you please get at Line --

9 MS. ANSLEY: Sure. I think it's Line 9  
10 through 17. Let's take a look.

11 WITNESS BRETT: Okay. Thank you.

12 MS. ANSLEY: But I think it's a generally  
13 large section of your testimony that I'm referencing  
14 now.

15 WITNESS BRETT: Yes.

16 MS. ANSLEY: Just generally, isn't it true  
17 that, in a tidally influenced system, a channel  
18 location where a particle can move back and forth with  
19 tidal influence could have the exact same or similar  
20 hydraulic residence time as a stiller system, such as a  
21 lake, but have very different levels of channel  
22 velocities or turbulence?

23 WITNESS BRETT: Yes, that's true.

24 MS. ANSLEY: Doesn't looking at residence time  
25 as well as velocity provide a more complete picture?

1           WITNESS BRETT: I believe both residence time  
2 and velocity can be important.

3           MS. ANSLEY: Excuse me. I'm crossing out some  
4 questions based on an earlier answer.

5           So on Pages 10 to 11 of your testimony, 10,  
6 Lines 24, I believe, through 11/1, you have a very  
7 lengthy quote from Dr. Bryan's technical report,  
8 DWR-653. Do you see that?

9           WITNESS BRETT: Please remind me what lines?  
10 10?

11          MS. ANSLEY: So if you start on Page 10 --  
12 actually, I think it's Line 19.

13          WITNESS BRETT: Okay.

14          MS. ANSLEY: And it concludes --

15          WITNESS BRETT: Yes, I see what you're talking  
16 about.

17          MS. ANSLEY: -- with your Footnote 2 on  
18 Page 11, Line 1.

19          WITNESS BRETT: Okay.

20          MS. ANSLEY: Do you see that?

21          So this quote -- so in this passage, Dr. Bryan  
22 actually goes on to mention another study, the Spear,  
23 et al., 2013 study; is that correct?

24          WITNESS BRETT: Where are we talking about  
25 Spear, et al.?

1 MS. ANSLEY: So in -- if you look at  
2 Page 11, Line 1 --

3 WITNESS BRETT: Okay. Page 11.

4 MS. ANSLEY: You have a footnote that sort of  
5 goes on to talk about that Dr. Bryan went on to talk  
6 about other studies.

7 Do you recall that the other study was the  
8 Spear, et al., 2013 study?

9 WITNESS BRETT: No, I do not recall that.

10 MS. ANSLEY: Do you know that study?

11 WITNESS BRETT: No, I do not. I read his  
12 testimony, not Spear, et al.

13 (Reporter interruption)

14 WITNESS BRETT: I read his testimony, but not  
15 the Spear, et al. document. I didn't read all of the  
16 papers he cited. I read a lot of them, but not all of  
17 them.

18 MS. ANSLEY: I'm sorry. I'm crossing out  
19 questions. I'm speeding it up, speeding it up. We're  
20 going to be done far sooner than an hour.

21 CO-HEARING OFFICER DODUC: Somebody better  
22 tell Ms. Des Jardins to get here.

23 MS. ANSLEY: On Page 12 of your testimony,  
24 Lines 3 through 8, you state that Dr. Bryan was  
25 incorrect that there was no published relationship

1 between microcystis occurrence and water residence time  
2 for the Delta. And you cite Romo et al., 2013; is that  
3 correct?

4 WITNESS BRETT: That -- that sentence should  
5 be modified.

6 MS. ANSLEY: And how so?

7 WITNESS BRETT: It should say that assertion  
8 is -- so there is an established and extensive  
9 literature for microcystis in general but not for the  
10 Delta specifically. That was one of the points I made  
11 in my testimony, is that the claim that's often been  
12 made is that there isn't specific information for  
13 microcystis and water residence time in the Delta. But  
14 there's general information for cyanobacteria and flow  
15 velocity in the world.

16 And that's where I was saying that I think  
17 they were kind of stacking the deck because they were  
18 looking at very specific information for microcystis in  
19 the Delta and comparing it to very general information  
20 for flow velocity and cyanobacteria globally.

21 And so that statement should note that there  
22 is a substantial literature for microcystis and water  
23 residence time. It is not for the Delta, but it is for  
24 the Romo study, and then there was a study on a Dutch  
25 lake that I cited in my written testimony that was

1 specifically a model of how water residence time would  
2 affect the biomass accrual of microcystis in the lake  
3 system that they were studying in Holland.

4 MS. ANSLEY: And the Romo study, just to  
5 clarify, is the lake studied in Spain?

6 WITNESS BRETT: It's in Spain.

7 MS. ANSLEY: And it should be Romo, et al.,  
8 2013, correct?

9 WITNESS BRETT: Yes, it should be.

10 MS. ANSLEY: I'm not missing a study?

11 WITNESS BRETT: Yes. No, it should be.

12 MS. ANSLEY: So you would like to modify your  
13 testimony on Line 6? So it's not true that the  
14 assertion made by Dr. Bryan is incorrect. You just  
15 have a nuanced argument; is that correct?

16 WITNESS BRETT: The --

17 MR. KEELING: Object to the characterization.

18 CO-HEARING OFFICER DODUC: Let's let Dr. Brett  
19 clarify his testimony.

20 WITNESS BRETT: Yeah. I'm saying that he's  
21 making the claim that there isn't a relationship for  
22 microcystis and water residence time. Then he throws  
23 in the little caveat for the Delta there which makes it  
24 sounds like it's a generally true statement.

25 It's not a generally true statement. There is

1 substantial literature that shows that there is a  
2 relationship between microcystis and water residence  
3 time. It just hasn't been done in the Delta; it's been  
4 done elsewhere.

5           And, you know, there are many studies that  
6 haven't been done in the Delta, but they've been done  
7 elsewhere. And when they were looking at the effect of  
8 flow velocity, they used the literature for all  
9 cyanobacteria in the whole world. But then, when they  
10 wanted to dismiss the relationship between water  
11 residence time and microcystis, they said, "But it  
12 hasn't been done in the Delta."

13           And so they availed themselves of the very  
14 substantial literature for flow velocity and then  
15 restricted themselves to the absence of a literature  
16 for water residence time to establish kind of the  
17 relative importance of the two things.

18           And my point in that passage was we should be  
19 comparing apples to apples. We should be talking about  
20 the influence of flow velocity on cyanobacteria  
21 globally, and we should be talking about the influence  
22 of water residence time on cyanobacteria globally.

23           And the key point about the Romo study is it  
24 is specifically about microcystis and water residence  
25 time. And even in places in his paper, he cites it as

1 if it doesn't specifically pertain to microcystis.

2 So I think there was not a fair comparison of  
3 the relative merits of flow velocity and water  
4 residence time as a factor that would have a strong  
5 influence on cyanobacteria bloom frequency and  
6 magnitude.

7 MS. ANSLEY: Just to confirm, however, you  
8 didn't read all the studies cited by Dr. Bryan, did  
9 you?

10 MR. KEELING: Asked and answered.

11 CO-HEARING OFFICER DODUC: Let's go ahead and  
12 answer it one more time.

13 WITNESS BRETT: Yeah, I read all the studies  
14 that he cited referring to flow velocity. I certainly  
15 read those studies. I didn't read every study in his  
16 report because -- I'm guessing he cited hundreds of  
17 papers. So I did not read hundreds of papers.

18 MS. ANSLEY: And to confirm, again, because  
19 this is an important point, you didn't read the  
20 Spear, et al. study on the Delta and microcystis  
21 conditions and bloom occurrence?

22 WITNESS BRETT: That's true; I did not read  
23 the Spear, et al. paper.

24 MS. ANSLEY: Okay. Moving to Page 13 of your  
25 testimony, which is your use of Dr. Paulsen's data on

1 residence time. Do you have that in front of you?

2 WITNESS BRETT: Yes, I have Page 13 in front  
3 of me.

4 MS. ANSLEY: And this would be for everyone  
5 else's reference, Lines 9 through 21. But it does go  
6 on. I believe the testimony goes on to the next page,  
7 14, Line 11.

8 Do you have an understanding of how  
9 Dr. Paulsen performed her residence time calculations?

10 WITNESS BRETT: Water residence time is  
11 calculated as volume divided by flow.

12 MS. ANSLEY: Do you know, for example, whether  
13 she used the entire Delta?

14 WITNESS BRETT: She did it for different  
15 locations within the Delta.

16 MS. ANSLEY: It's your understanding that she  
17 did it for different locations as opposed to the entire  
18 Delta divided by total monthly inflow?

19 WITNESS BRETT: Can you -- can we look at the  
20 table that she used?

21 MS. ANSLEY: We can look at -- what you cite  
22 in your testimony is Appendix F of Dr. Paulsen's  
23 Stockton-26.

24 But we can also look at -- I don't recall; I'm  
25 sorry -- the specific page number that you referenced,



1 a different table. But I know that her calculations  
2 are in Appendix F.

3 WITNESS BRETT: Okay.

4 MS. ANSLEY: So whichever you would like to  
5 look at, we can follow up.

6 WITNESS BRETT: I'd like to look at her table  
7 if we find it.

8 MS. MESERVE: I believe that's going to be in  
9 the original Stockton-26 if you want to see the table  
10 and the appendix. I don't know what she --

11 CO-HEARING OFFICER DODUC: So this is  
12 Stockton-26. Is this the table?

13 MS. MESERVE: It should be the excerpt of the  
14 table from the front of the report. So I don't know  
15 what Ms. Ansley would like to ask about, but. . .

16 WITNESS BRETT: It's Appendix F.

17 MS. ANSLEY: So this is the table that  
18 Dr. Brett referred to today in his surrebuttal summary.  
19 In his testimony on Page 13, Line 10 through 11, what  
20 he's referencing is Appendix F. And I believe that  
21 that table is probably put together from the tables in  
22 Appendix F, which are only two pages long. But I would  
23 be happy to start with 1, if you like, or my question  
24 is equally to both.

25 So Appendix F -- I'm sorry. I probably have

1 where that starts in the pdf. Okay. I don't. Sorry.  
2 Maybe while they're looking for Appendix F, if you can  
3 -- we just saw flash up on the screen, Table 5.

4 Is it your memory that Table 5 broke down  
5 residence time by particular locations in Delta?

6 WITNESS BRETT: I guess I'd like to see  
7 Table F before we get started.

8 MS. ANSLEY: There, there's Table 5. Whoops.  
9 Table 5 just went whizzing by. Here's Appendix F.

10 WITNESS BRETT: Okay. Let's start with  
11 Appendix F.

12 MS. ANSLEY: And you can just scroll through  
13 the two pages there and let Dr. Brett see the pages.

14 And scroll to the next page, please.

15 CO-HEARING OFFICER DODUC: And your question,  
16 Ms. Ansley?

17 MS. ANSLEY: My question is does this refresh  
18 your recollection that Dr. Paulsen produced residence  
19 time for the entire Delta and did not break it down by  
20 particular location?

21 WITNESS BRETT: Yes, that is correct.

22 MS. ANSLEY: Did you verify Dr. Paulsen's  
23 calculations in any way?

24 MR. KEELING: Objection, beyond the scope. I  
25 don't believe there's any assertion that he verified

1 some other --

2 CO-HEARING OFFICER DODUC: Then he may answer  
3 no.

4 WITNESS BRETT: No.

5 MS. ANSLEY: And you -- just to confirm, you  
6 did not do any independent modeling of impacts of the  
7 Cal WaterFix on residence time, correct?

8 WITNESS BRETT: I did no hydrologic modeling  
9 of the Delta system.

10 MS. ANSLEY: So going back to your testimony  
11 at Page 13 -- and I just want to confirm exactly what  
12 you did here. It looks like you can compare  
13 Dr. Paulsen's EBC2 conditions versus scenarios B1, B2,  
14 and Alt 4 of the model run; is that correct?

15 WITNESS BRETT: Yes, that's correct.

16 MS. ANSLEY: But you didn't individually  
17 compare EBC2 against B1, B2, and Alt 4. You actually  
18 averaged all of the data for July, August, and  
19 September, for all of the -- those model runs together;  
20 is that correct, to arrive at one number?

21 WITNESS BRETT: Yes, that's correct.

22 MS. ANSLEY: And that's where you come up with  
23 your 32.4 and then your difference of 6.9; is that  
24 correct?

25 WITNESS BRETT: Yes, that's correct.

1 MS. ANSLEY: So it's an average of all  
2 scenarios across the Delta, correct?

3 WITNESS BRETT: Yes, for water years critical,  
4 dry, normal, and wet --

5 MS. ANSLEY: Right. And you averaged --

6 WITNESS BRETT: -- July and September.

7 MS. ANSLEY: Yes. So those three months  
8 across all scenarios, across all water years types,  
9 you produced one number; is that correct?

10 WITNESS BRETT: Yes, that's correct.

11 MS. ANSLEY: So that matches up with my  
12 reproduction of your numbers.

13 And you reached the overall conclusion that  
14 compared to EBC2, which is an existing-conditions  
15 scenario by Dr. Paulsen, that there was a difference of  
16 6.9 -- I think earlier you said you rounded it to 7  
17 days; is that correct?

18 WITNESS BRETT: That's correct.

19 MS. ANSLEY: Are you familiar with the  
20 assumptions underlying these modeling scenarios?

21 WITNESS BRETT: No, I'm not.

22 MS. ANSLEY: So you're not aware that the  
23 scenarios B1, B2 and Alt 4 include -- incorporate  
24 assumptions of climate change and sea level rise?

25 WITNESS BRETT: I'm not familiar with all the

1 intricate details of the hydrologic modeling.

2 MS. ANSLEY: So you can't -- and you were not  
3 aware that EBC2, Dr. Paulsen's EBC2 does not include  
4 those assumptions of climate change and sea level rise?

5 MR. KEELING: Objection to the form of the  
6 question. The question is put in the form of testimony  
7 from the interrogating attorney. I'd like to have it  
8 as a question.

9 MS. ANSLEY: I think I started out with "you  
10 are not aware then that" --

11 CO-HEARING OFFICER DODUC: Dr. Brett, just  
12 answer the question.

13 WITNESS BRETT: No.

14 MS. ANSLEY: So accordingly, you can't tell,  
15 when you do this calculation the way you did it on  
16 Page 13, which effect is due to the Cal WaterFix as you  
17 calculate it and which effect might be due to climate  
18 change; is that correct?

19 WITNESS BRETT: Yeah, I think I can because I  
20 did my own independent analysis, and that analysis was  
21 looking at how much of the Sacramento River flow would  
22 be diverted and what contribution of the overall flow  
23 to the Delta came from the Sacramento, what  
24 contribution came from the San Joaquin and how the  
25 diversion of 30, 40 percent of the flow of the

1 Sacramento during the summer period would then modify  
2 the water residence time of the overall Delta if we  
3 know that the Sacramento -- I'm just going to throw a  
4 rough number out here because I don't remember exactly  
5 what the number is.

6 But if the Sacramento is about 80 percent of  
7 the overall flow, I can do a very quick  
8 back-of-the-envelope calculation and come up with a  
9 number that's about 30 percent. And so I --

10 MS. ANSLEY: I'm sorry. I'd like you to point  
11 that out in your testimony.

12 Otherwise, I'd like to lodge an objection to  
13 that whole testimony as outside the scope of his  
14 surrebuttal. I don't see where he made that  
15 calculation in his residence time argument on Pages 13  
16 to 14.

17 MR. KEELING: The interrogating attorney asked  
18 the question and got the answer in response to her  
19 question.

20 CO-HEARING OFFICER DODUC: Dr. Brett, I too  
21 was confused by your answer.

22 Is that analysis included in your testimony?

23 WITNESS BRETT: That specific analysis was how  
24 I verified that number, 28 percent, to make sure that  
25 it jibed with the data that I had available to me.

1           The calculation for water residence time is  
2 very straightforward. You know, it's volume divided by  
3 flow. And if you change flow dramatically, you're  
4 going to change water residence time.

5           And so in this case, I don't think it's in  
6 contention that the flow is going to be changed  
7 substantially. If you change flow substantially,  
8 you're going to change water residence time  
9 substantially. I don't think that's in contention.

10           MS. ANSLEY: Hearing Officer Doduc?

11           CO-HEARING OFFICER DODUC: That wasn't her  
12 question.

13           MS. ANSLEY: Yeah, I think it was -- I move to  
14 strike as non-responsive as well.

15           I do have questions in the section, which is  
16 on -- I think we move next to temperature, where he  
17 does start walking about flows in the Sacramento River  
18 water. But I do object that, one, he's non-responsive;  
19 and, two, any back-of-the-envelope analysis or  
20 calculation was not presented in his testimony on  
21 residence time. And therefore, I don't have questions  
22 on it.

23           CO-HEARING OFFICER DODUC: Was -- never mind.  
24 I won't repeat your question.

25           MS. ANSLEY: On Page 14, I just have a

1 clarifying question, since I also reproduced your  
2 numbers.

3 On Page 14, Lines 6 through 7, you again cite  
4 28 percent or seven days. But now you compare it to  
5 the no-action alternative.

6 Did you actually mean -- were you summarizing  
7 what you had on the page before as compared to the  
8 existing condition?

9 WITNESS BRETT: Yes, that is true.

10 MS. ANSLEY: So that's a correction you need  
11 to make there on Line 7?

12 WITNESS BRETT: I believe so. Thank you.

13 MS. ANSLEY: Thank you.

14 Final question. Were you aware -- and I think  
15 you answered earlier, perhaps, but just to make sure,  
16 were you aware that Dr. Paulsen's existing condition  
17 Scenario ECB2 is not the same existing condition used  
18 by the DWR in its environmental impact analysis?

19 WITNESS BRETT: No, I was not aware of that.

20 MS. ANSLEY: Moving on to Page 15 where you do  
21 bring up your flow -- let's see -- where you do state  
22 that flow was 30 to 40 percent less on the Sacramento  
23 River under the Cal WaterFix, which is Lines 17 to 18,  
24 roughly, on Page 15. Do you see that?

25 WITNESS BRETT: Yes.



1 MS. ANSLEY: And you provide no cite for this  
2 assertion. Is this coming from the testimony of expert  
3 Mr. Eric Ringelberg for this assertion?

4 WITNESS BRETT: No. I believe this comes from  
5 DWR-1.

6 MS. ANSLEY: I'm sorry? DWR- --

7 WITNESS BRETT: 1.

8 MS. ANSLEY: Did you do any independent  
9 modeling or analysis of the impacts of the Cal WaterFix  
10 on Sacramento River inflow yourself?

11 WITNESS BRETT: Can you restate your question?

12 MS. ANSLEY: Sure. So I heard you say that  
13 you believe you got this number from DWR-1, correct?

14 WITNESS BRETT: Yes.

15 MS. ANSLEY: And we're looking that up really  
16 fast. But I asked whether, separately, if you did any  
17 independent modeling or analysis of the impacts on flow  
18 of the California WaterFix?

19 WITNESS BRETT: No, I did not.

20 MS. ANSLEY: Okay. I'd like to move on for a  
21 minute just so we can look up -- there was no cite, so  
22 we don't know where that number was even coming from.

23 I would like to move on to temperatures for a  
24 minute, and maybe if I have a question, we can go back.

25 Would that be okay?

1 CO-HEARING OFFICER DODUC: Please do.

2 MS. ANSLEY: Okay. So looking at your  
3 testimony on temperature, which starts on Page 14, you  
4 claim that the use -- 14, Lines 24 to 26. You claim  
5 that the use of period means likely masked extreme  
6 conditions resulting from the California WaterFix,  
7 correct?

8 WITNESS BRETT: What lines again?

9 MS. ANSLEY: 24 to 26.

10 WITNESS BRETT: Yes. So could you restate the  
11 question?

12 MS. ANSLEY: I'm sorry. Go ahead. I was  
13 talking. Your question to me was?

14 WITNESS BRETT: Restate the question?

15 MS. ANSLEY: Okay.

16 WITNESS BRETT: Thank you.

17 MS. ANSLEY: So I only said -- I was trying to  
18 set up my line of questions. I wanted to reiterate  
19 that you claim on these lines that the use of period  
20 means likely masked extreme conditions that could  
21 result from the Cal WaterFix, correct?

22 WITNESS BRETT: Yes.

23 MS. ANSLEY: Isn't it true that, in addition  
24 to full period means for 1922 to 2003, Dr. Bryan also  
25 used monthly means by water year types and probability

1 exceedance plots to assess Cal WaterFix?

2 WITNESS BRETT: And we're talking about flow  
3 velocity right now?

4 MS. ANSLEY: We're talking about temperature,  
5 the section on temperature.

6 WITNESS BRETT: Oh. Yeah, that sounds -- I'm  
7 with you.

8 MS. ANSLEY: You agree that he did also do  
9 monthly means by water year types and he also included  
10 probability exceedance plots?

11 WITNESS BRETT: Yeah. I remember the  
12 probability exceedance plots, yes.

13 MS. ANSLEY: Wouldn't probability exceedance  
14 plots take into account individual mean monthly values?

15 WITNESS BRETT: Yes, they would. But I think  
16 the point that I'm trying to make here is that he's got  
17 his temperature data from one very specific location.  
18 And what's really important is the temperature  
19 responses that you're going to get where -- or from  
20 one -- nine very specific locations for one specific  
21 scenario.

22 And what's important is what's going to happen  
23 to the temperature in the areas of the Delta where the  
24 cyanobacteria blooms are going to occur, not what's  
25 happening at an average cross-sectional temperature for

1 one scenario at nine locations in the Delta. It's  
2 really -- it's going to be the extremes that's really  
3 important for the occurrence of cyanobacteria.

4 And that's not represented in the model  
5 because, as you mentioned before, the model's putting  
6 cross-section averages for channels. And it's not the  
7 cross-sectional average that's going to cause the bloom  
8 to be exacerbated. It's going to be the extremes on  
9 the end.

10 And so the model does not represent those  
11 extremes because, as you noted before, it is just a  
12 cross-sectional average. So the extremes get taken out  
13 of that cross-sectional average. It's a distribution  
14 of cross-sectional averages. But it does not include  
15 the extreme values that you get in the side channels up  
16 along the edge of the river, and it does not include  
17 the extremes that you would get in the more off-channel  
18 habitats, not the main channel sites that were modeled.  
19 So I think that his way of representing the temperature  
20 distributions would under-represent variability.

21 MS. ANSLEY: We touched on this a little bit  
22 earlier, and aside from the interior of Discovery Bay,  
23 are you familiar with the locations of HABs occurrences  
24 in the Delta?

25 WITNESS BRETT: I have not been out in the

1 field and studied these locations in the Delta.

2 MS. ANSLEY: And you confirmed to me that you  
3 were not aware of where Dr. Lehman's studies were  
4 located?

5 WITNESS BRETT: I do not know the specific  
6 locations of samples that have been collected in the  
7 Delta.

8 MS. ANSLEY: On Page 15, you assert that the  
9 reservoirs act as heat sinks. Do you recall that  
10 testimony?

11 WITNESS BRETT: Yeah. Just refer me to line,  
12 please.

13 MS. ANSLEY: Let me try and find the line.

14 CO-HEARING OFFICER DODUC: Line 4.

15 WITNESS BRETT: Line 4. I see it.

16 MS. ANSLEY: Thank you.

17 Are you suggesting that temperatures in the  
18 reservoirs upstream of the Delta affect temperatures in  
19 the Delta?

20 WITNESS BRETT: Yes.

21 MS. ANSLEY: What is your understanding of how  
22 far upstream reservoirs such as Oroville and Shasta are  
23 from the Delta?

24 WITNESS BRETT: Well, so you've asked me a  
25 specific question. I'd like to -- there has been

1 modeling that's looked at temperature control in the  
2 San Joaquin River by a research group at Stanford. And  
3 what they showed is that, when you have higher flows,  
4 the boundary conditions exert themselves at stronger  
5 influence farther downstream.

6 A lot of these reservoirs are discharging  
7 hypolimnetic water. And if flows are high, that cold  
8 hypolimnetic water is transported farther downstream  
9 because it has less time to warm up; it moves faster  
10 through the river.

11 CO-HEARING OFFICER DODUC: And that is not  
12 responsive to her question.

13 WITNESS BRETT: Well, she's asking me how the  
14 reservoirs affect river temperature.

15 CO-HEARING OFFICER DODUC: No, no. That's not  
16 what she asked.

17 Ms. Ansley, repeat your question.

18 MS. ANSLEY: I would be happy to repeat my  
19 question. I would first like to move to strike on the  
20 grounds that, one, it's non-responsive; and, two, it's  
21 not a study that he cites. And I know it's  
22 frustrating, but this is limited to the scope of the  
23 surrebuttal.

24 CO-HEARING OFFICER DODUC: Sustained. Ask  
25 your question again.

1 MS. ANSLEY: My question is do you have an  
2 understanding of how far upstream reservoirs such as  
3 Oroville and Shasta are from the Delta?

4 WITNESS BRETT: Yes.

5 MS. ANSLEY: And that understanding is?

6 WITNESS BRETT: If you want me to cite exact  
7 kilometers, I would not know the distance. But I've  
8 been to those sites personally many times. And I know  
9 that they're -- Shasta Dam -- I've done research  
10 projects on Shasta Dam. It's about three hours by  
11 drive north of the Delta, so I guess 180 miles. And  
12 Oroville is probably about an hour and a half from the  
13 Delta, so 90 miles, depending on how fast you drive,  
14 approximately.

15 MS. ANSLEY: Did you perform any analysis or  
16 modeling of the impacts of Cal WaterFix temperature to  
17 support your contention regarding reservoirs?

18 WITNESS BRETT: I did not do any hydrologic  
19 modeling for my testimony.

20 MS. ANSLEY: Can we -- I think we're prepared  
21 now to go back just really quickly to his assertion  
22 that flows will be decreased 30 to 40 percent in any  
23 particular time period by the Cal WaterFix.

24 And, Dr. Brett, you cited DWR-1.

25 If we could bring up DWR-1 -- it may be an

1 errata, the errata. There's an errata.

2 MR. OCHENDUSZKO: This is DWR-1 Errata  
3 Corrected.

4 MS. ANSLEY: Okay.

5 Can we go to Slide 5? Okay. Not Slide 5.  
6 Next one, Slide 6.

7 Is this the page that you were referring to?

8 WITNESS BRETT: Yes.

9 MS. ANSLEY: So your basis is that the  
10 capacity of the intakes is three intakes at 3,000 cubic  
11 feet, 9,000 cubic feet per second total? That's the  
12 basis for your claim of 30 to 40 percent decreased flow  
13 in the Sacramento River?

14 WITNESS BRETT: Yeah. You could up -- you  
15 could be -- so 9,000 is approximately 30 to 40 percent  
16 of the flow during that time period of the Sacramento  
17 River.

18 MS. ANSLEY: And do you provide any data  
19 regarding what the flow of the Sacramento River is at  
20 any particular time period?

21 WITNESS BRETT: I did not provide that in my  
22 testimony.

23 MS. ANSLEY: Okay. Have you reviewed any of  
24 the testimony of DWR's experts, including the testimony  
25 of Armin Munevar?



1 WITNESS BRETT: No, I have not.

2 MS. ANSLEY: Okay. I'm going to move on to  
3 turbidity now, try and finish up.

4 Looking at Page 15, Lines 18 through 21. I'll  
5 give you a moment to find it. Do you see that?

6 WITNESS BRETT: Yes.

7 MS. ANSLEY: You assert that increased water  
8 residence time -- you call it "WRTs" -- would result in  
9 a larger fraction of suspended solids settling out of  
10 the water column, which would allow more light for  
11 planktonic algae as well as the opportunity for  
12 cyanobacteria blooms to occur more frequently.

13 Do you see that?

14 WITNESS BRETT: Yes, I do.

15 MS. ANSLEY: Just to confirm preliminarily,  
16 you did no analysis or modeling of Cal WaterFix impacts  
17 on turbidity, did you?

18 WITNESS BRETT: No, I did not.

19 MS. ANSLEY: Wouldn't the fraction of  
20 suspended solids that settled out of the water column  
21 also be dependent on the flow velocity at any  
22 particular location in the Delta?

23 WITNESS BRETT: Yes, it would be dependent  
24 upon both the water residence time and the flow  
25 velocity.

1 MS. ANSLEY: Isn't it true that Lehman,  
2 et al., 2017, the paper that we have both now cited a  
3 couple of times, did not find turbidity to be  
4 correlated to microcystis blooms in the Delta?

5 MR. KEELING: Vague and ambiguous.

6 Is there a portion of the report that she is  
7 referring the witness to?

8 CO-HEARING OFFICER DODUC: Are you familiar  
9 enough with the report, Dr. Brett?

10 WITNESS BRETT: The Lehman et al. paper? I've  
11 read it, but I don't have it, like, committed to  
12 memory.

13 MS. ANSLEY: Okay. I'll move on from those  
14 questions. Moving to light -- well, I have a sort of a  
15 similar question there with Lehman.

16 You disagree with Dr. Bryan's claim of no  
17 light limitation in the Delta; is that correct?

18 WITNESS BRETT: Yes.

19 MS. ANSLEY: Do you recall Dr. Lehman et al.  
20 2017's conclusion on light limitation in the Delta?

21 WITNESS BRETT: On -- no, I do not [sic].

22 MS. ANSLEY: Are you familiar with any of  
23 Dr. Lehman's earlier work on microcystis in Delta, her  
24 2013 work or earlier?

25 WITNESS BRETT: I haven't read every one of

1 her papers.

2 MS. ANSLEY: Okay. I'm ready to move on to  
3 nutrients, which is my last four questions.

4 On Pages 16 to 18, the final section I  
5 believe, of your testimony, you provide a discussion  
6 regarding your opinion on the effect of nutrients on  
7 cyanobacteria bloom formation. Do you see that?

8 WITNESS BRETT: 16 through 18, on Page 17?

9 MS. ANSLEY: On Pages 16 to 18, I think that's  
10 the section where you provide testimony regarding  
11 nutrients?

12 WITNESS BRETT: Oh, okay.

13 MS. ANSLEY: On the bottom of Page 17 -- and  
14 maybe I fumbled and said that earlier, sorry -- you  
15 discuss the impact of diversion of Sacramento River  
16 water on -- on nitrogen and phosphorus concentrations  
17 in Delta waters?

18 WITNESS BRETT: Yes, that's true.

19 MS. ANSLEY: And specifically you talk about  
20 its purported dilution effect?

21 WITNESS BRETT: Yes.

22 MS. ANSLEY: Did you do any analysis on impact  
23 by Cal WaterFix on nutrients in the Delta?

24 WITNESS BRETT: No, I did not calculate that  
25 directly. That's just based on my knowledge of the

1 Sacramento River having lower flows than the  
2 San Joaquin River and in the Delta in general.

3 The San Joaquin concentration, nutrient  
4 concentrations are substantially higher than the  
5 Sacramento. And if you take out a large portion of the  
6 flow with low concentrations, then the aggregate  
7 concentration downstream will be higher. That's just  
8 mass balance.

9 MS. ANSLEY: And that's all you're relying on?  
10 You're not relying on the testimony of any other  
11 experts in this proceeding, on nutrients?

12 WITNESS BRETT: No, it's just mass balance.

13 MS. ANSLEY: And I'm very sorry to make this  
14 my last question, but suffice it to say, are you  
15 familiar with Dr. Lehman's findings that ammonia  
16 sourced from the Sacramento River was a driving -- was  
17 used as a primary nitrogen source of the bloom  
18 occurrence in 2014?

19 MR. KEELING: Objection, vague and ambiguous.

20 If there's a cite to a particular report,  
21 let's have it.

22 MS. ANSLEY: I believe I gave the cite as  
23 Lehman 2017. And this is my last question.

24 CO-HEARING OFFICER DODUC: And are you  
25 familiar with that study, enough to answer, Dr. Brett?

1           WITNESS BRETT: Not that specific conclusion,  
2 that study. I'm familiar with the ammonium question in  
3 the Bay-Delta.

4           (Reporter interruption)

5           WITNESS BRETT: I'm familiar with the  
6 literature on ammonium in the Delta and HABs in the  
7 Delta. There's an extensive literature by Pak Lippert  
8 [phonetic] and other people that delve into that topic.

9           MS. ANSLEY: I don't know how much time I  
10 took, but thank you very much. That is all my  
11 questions.

12           CO-HEARING OFFICER DODUC: Thank you,  
13 Ms. Ansley.

14           Any redirect?

15           MR. KEELING: Give us a moment.

16           (Sotto voce discussion between

17           Mr. Keeling and Ms. Meserve)

18           MS. MESERVE: Thank you. I just have a few  
19 questions on redirect.

20           REDIRECT EXAMINATION BY MS. MESERVE

21           MS. MESERVE: First of all, during your direct  
22 testimony, Dr. Brett, you mentioned at the very end  
23 that you disagreed with the rebuttal opinions of  
24 Dr. Bryan, No. 1 through 5.

25           Did you intend to say Opinions 5 through 9?

1 WITNESS BRETT: That's correct.

2 MS. MORRIS: Stefanie Morris. I think that's  
3 outside the scope of the cross-examination. It's  
4 talking about his direct testimony, and I don't believe  
5 any questions were asked on that.

6 CO-HEARING OFFICER DODUC: I get that, but I  
7 believe that was just a clarification of a misstatement  
8 that he made.

9 MS. MESERVE: Perhaps I should have done it  
10 during direct. I apologize.

11 CO-HEARING OFFICER DODUC: All right. Let's  
12 just go ahead and allow that clarification in the  
13 record even though it's really not redirect.

14 MS. MESERVE: Thank you. Let's see. If we  
15 can look at SJC-218, at the bottom of the Page 6-246.

16 CO-HEARING OFFICER DODUC: Hold on,  
17 Ms. Meserve. Let us get there. And if you could get  
18 closer to the microphone or move the microphone closer  
19 to you.

20 MS. MESERVE: This is the excerpt of the BA  
21 modeling that is SJC-218. And looking at Page 6-246 at  
22 the bottom, there is an entry there regarding Discovery  
23 Bay.

24 Now, you were asked about the residence times  
25 modeled in the BA. Isn't it true that this table shows

1 that residence times do increase in Discovery Bay, the  
2 bottom portion of this? You've got to scroll up.

3 MS. ANSLEY: May I lodge an objection?

4 CO-HEARING OFFICER DODUC: Go ahead,  
5 Ms. Ansley.

6 MS. ANSLEY: There's no evidence that he  
7 looked at this before providing -- before writing his  
8 rebuttal and providing his testimony regarding  
9 Discovery Bay. He can answer that.

10 WITNESS BRETT: I believe my testimony  
11 mentions that water residence time in Discovery Bay  
12 increased by 53 percent in this model run.

13 CO-HEARING OFFICER DODUC: And your testimony  
14 linked to this table is the basis for that testimony?

15 MS. MESERVE: Yes, it did.

16 Can you scroll up please, Mr. Long? Thank  
17 you.

18 CO-HEARING OFFICER DODUC: Then go ahead.  
19 Ms. Meserve, your question?

20 MS. MESERVE: Isn't it also -- if we could --  
21 well, that was my question regarding this table.

22 And then if we could look at SJC-216, Page  
23 8-198, this is the table in the EIR. And if we could  
24 go to that, please. Thank you. Down a couple of  
25 pages, Page 8-198.

1           So would your understanding, Dr. Brett, be  
2   that the residence times in the South Delta would be  
3   reflective of Discovery Bay?

4           WITNESS BRETT: Yes.

5           MS. MESERVE: And so how does your statements  
6   regarding your concern for Discovery Bay relate back to  
7   the BA modeling? I should clarify.

8           Isn't it true that, in the South Delta,  
9   looking at the Alternative 4, you're seeing increases  
10  in residence time under Alternative 4, correct?

11          WITNESS BRETT: Yes.

12          MS. MESERVE: So you would be concerned about  
13  an area like Discovery Bay, looking at these models,  
14  correct?

15          WITNESS BRETT: Absolutely.

16          MS. MESERVE: And just briefly looking at  
17  SDWA-261, Page 6, please. This is the testimony of  
18  Thomas Burke.

19          CO-HEARING OFFICER DODUC: And -- you're  
20  taking me on an extended tour here.

21          MS. MESERVE: Sorry.

22          CO-HEARING OFFICER DODUC: And how did  
23  Dr. Burke refer to this?

24          MS. MESERVE: Dr. Brett was asked regarding  
25  the "30 to 40 percent" statement.



1 MS. ANSLEY: I'd like to lodge an objection  
2 that his only source for that was DWR-1. He did not  
3 rely on or cite Dr. Burke -- or Mr. Burke, excuse me.

4 CO-HEARING OFFICER DODUC: That is correct.  
5 Sustained, on the objection.

6 MS. MESERVE: In cross, you're familiar -- you  
7 were asked some questions about your familiarity with  
8 the Delta hydrology.

9 Why do you think your opinions about the  
10 effect of diversion of a substantial portion of the  
11 river would be relevant even if you're not familiar  
12 with every nook and cranny of the Delta?

13 CO-HEARING OFFICER DODUC: Ms. Meserve, I did  
14 not understand that question.

15 MS. ANSLEY: I believe it was also beyond the  
16 exact scope of what I did ask, which is if he's  
17 familiar or aware of or has studied Delta hydrology;  
18 and he answered no.

19 CO-HEARING OFFICER DODUC: And, Ms. Meserve,  
20 your question again, succinctly and clearly, please.

21 MS. MESERVE: Why do you think your opinions  
22 about the effect of diversion of a large portion of the  
23 Sacramento River, even without having studied the Delta  
24 specifically for HABS, would be relevant?

25 MS. ANSLEY: Objection, assumes facts not in

1 evidence.

2 MS. MESERVE: I was trying to go to the  
3 evidence regarding the 30 to 40 percent. And an expert  
4 is allowed to rely on anything even -- and may discuss  
5 anything on cross.

6 CO-HEARING OFFICER DODUC: Ms. Meserve --  
7 Ms. Meserve, the expert was asked his basis for that  
8 statement. He pointed to DWR-1. You're trying to lead  
9 him somewhere else, and so that line of questioning is  
10 not allowed.

11 MS. MESERVE: That concludes my redirect.

12 CO-HEARING OFFICER DODUC: Any recross?

13 MS. ANSLEY: Yes, I believe. Just a second.

14 RE-CROSS-EXAMINATION BY MS. ANSLEY

15 MS. ANSLEY: So Ms. Meserve called up  
16 Table 6.620 of the Biological Assessment, which is  
17 SWRCB-104. Do you recall that from just a couple of  
18 minutes ago?

19 WITNESS BRETT: Yes.

20 MS. ANSLEY: And she had asked you about -- I  
21 believe -- it's Table 20; it's Point 20. And she had  
22 asked you about the findings of the Biological  
23 Assessment for Rock Slough and Discovery Bay Sub  
24 Region; is that correct?

25 WITNESS BRETT: I don't remember Rock Slough.

1 MS. ANSLEY: There you go. Look at the 20,  
2 which is one page up, please. At the bottom is the  
3 table that she asked about.

4 Do you see the title of that, "In the Rock  
5 Slough and Discovery Bay Sub Region."

6 WITNESS BRETT: Okay.

7 MS. ANSLEY: Is it your understanding that  
8 that is a sample site within Discovery Bay?

9 WITNESS BRETT: I do not know where the  
10 Discovery Bay sample sites are located.

11 MS. ANSLEY: Is it your understanding that  
12 this is one of the sample sites for Dr. Bryan's study?

13 WITNESS BRETT: No. I do not know where the  
14 sample sites are located.

15 MS. ANSLEY: If you don't know where this  
16 location is exactly, how is it, then, that you find it  
17 relevant to the occurrence of HABs within Discovery  
18 Bay?

19 MR. KEELING: Beyond the scope of redirect.

20 CO-HEARING OFFICER DODUC: It's a fair  
21 question.

22 WITNESS BRETT: Could you restate your  
23 question?

24 MS. ANSLEY: Oh, my gosh. If you do not know  
25 where this is located, this sample point, how is it

1 then relevant to your conclusions regarding HAB  
2 occurrence within Discovery Bay?

3 WITNESS BRETT: My conclusions are generally  
4 based on the relationship between cyanobacteria bloom  
5 development and water residence time.

6 CO-HEARING OFFICER DODUC: And not specific to  
7 this table.

8 WITNESS BRETT: Yeah. So if the water  
9 residence time in any part of the Bay-Delta increases  
10 substantially, then, based on my professional  
11 experience, I would predict that the likelihood of  
12 cyanobacteria blooms in that area would increase.

13 MS. ANSLEY: I think we're done. Thank you  
14 very much.

15 CO-HEARING OFFICER DODUC: I think we are as  
16 well. Thank you.

17 And at this time, I believe that concludes  
18 both LAND and San Joaquin County's rebuttal.

19 MR. KEELING: It does. May we submit our  
20 request by letter for the admission of exhibits?

21 CO-HEARING OFFICER DODUC: Yes, let's do that  
22 since there's been a lot of collaboration and  
23 coordination.

24 MR. KEELING: Thank you.

25 CO-HEARING OFFICER DODUC: Please do so by

1 noon tomorrow.

2 Thank you. Thank you, Dr. Brett --

3 WITNESS BRETT: Thank you.

4 CO-HEARING OFFICER DODUC: -- for coming to us  
5 all the way from Washington.

6 WITNESS BRETT: Thank you.

7 CO-HEARING OFFICER DODUC: All right.

8 Ms. Des Jardins?

9 And if I recall, I believe DWR has ten or 15  
10 minutes of cross-examination for Ms. Des Jardins.

11 MR. BERLINER: That's correct.

12 CO-HEARING OFFICER DODUC: Anyone else has  
13 cross-examination?

14 (No response)

15 CO-HEARING OFFICER DODUC: All right. We will  
16 take -- well, depending on how long Ms. Des Jardins  
17 takes, given that her testimony is not that lengthy, I  
18 will ask her to present it in 15 minutes. And we will  
19 take our lunch break at the completion of her  
20 cross-examination.

21 MS. DES JARDINS: I also wanted to provide an  
22 explanation before I testified of the relevance of the  
23 testimony.

24 CO-HEARING OFFICER DODUC: I'm sorry. Of the  
25 what?

1 MS. DES JARDINS: The relevance of the  
2 testimony.

3 CO-HEARING OFFICER DODUC: Of your testimony?

4 MS. DES JARDINS: Yeah, what it's directed  
5 towards.

6 CO-HEARING OFFICER DODUC: Well -- oh, you  
7 mean you wanted to provide an opening statement?

8 MS. DES JARDINS: Yes.

9 CO-HEARING OFFICER DODUC: You have five  
10 minutes to provide an opening statement.

11 MS. DES JARDINS: All right. So there were  
12 some statements during rebuttal about the possibility  
13 of planning for droughts. And Mr. Munevar stated it is  
14 not possible to represent measures that may be in  
15 response to a specific drought in a long-term planning  
16 model, as it would be dependant on the circumstances  
17 specific to that event, and it would be speculative to  
18 assume any such measures.

19 Nancy Parker also stated in  
20 recross-examination that droughts are unique. Recent  
21 experience -- she stated recent experience is that  
22 policy and regulatory decisions that govern project  
23 operations in a particular drought are unique. And the  
24 logic is not generalized to the point --

25 CO-HEARING OFFICER DODUC: Hold on,

1 Ms. Des Jardins.

2 Mr. Mizell?

3 MR. MIZELL: Trip Mizell, DWR. I'm objecting  
4 to this statement as being actual testimony. It seems  
5 as though she's citing to exhibits and making  
6 conclusions based upon those rather than simply  
7 explaining the relevance of her soon-to-be-professed  
8 surrebuttal testimony.

9 MS. DES JARDINS: I --

10 CO-HEARING OFFICER DODUC: Hold on.

11 I noticed that, but if she wants to take this  
12 time to do so, it will shorten her testimony, I would  
13 assume.

14 So please continue, Ms. Des Jardins.

15 MS. DES JARDINS: I'm just citing these so  
16 that -- I'm not citing other experts' opinion in my  
17 testimony. I'm just -- these are what my testimony  
18 will be responding to.

19 So it says -- and that logic has not been  
20 generalize to the point that it can be included in a  
21 planning model. But then there was other testimony by  
22 John Leahigh that was partly in the case in chief and  
23 partly in the -- he produced a specific equation that  
24 is used to govern carryover storage in Oroville  
25 Reservoir and produced testimony about how that was

1 arrived at, and it was arrived at by using CalSim II as  
2 a planning model. And this testimony is intended to  
3 show and rebut the assumption that you cannot have a  
4 long-term planning model that will prepare for drought.

5 DWR's own statement, which is quoted in my  
6 testimony, shows that there was planning for drought  
7 and that it used bad assumptions. And I will argue in  
8 my testimony that it continued to use bad assumptions  
9 and obviously with the equations that Mr. Leahigh  
10 testified to, and I will explain that.

11 The other areas of my testimony are governing  
12 Armin Munevar's rebuttal testimony on climate change  
13 and specifically there's another citation to the U.S.  
14 Army Corps of Engineers' standards on sea level rise.  
15 And I go into the specific standards on sea level rise  
16 and how they are not consistent with the assumptions  
17 used.

18 So that will be the -- that's sort of an  
19 outline of my testimony and what it will cover.

20 CO-HEARING OFFICER DODUC: Thank you. Now  
21 please proceed with your testimony. Give her 15  
22 minutes to do so.

23 DIERDRE DES JARDINS  
24 called as a surrebuttal witness on  
25 behalf of California Water Research,



1           having been previously duly sworn, was  
2           examined and testified further as is  
3           hereinafter set forth:

4           DIRECT TESTIMONY BY MS. DES JARDINS

5           WITNESS DES JARDINS: Yes. So I'm going to go  
6 to DWR's prior statement about drought planning, and  
7 this was in Bulletin 160-83 which was the 1983  
8 California water plan.

9           And that statement by DWR documents that  
10 Oroville Reservoir was designed for long-term carryover  
11 storage in case of a repeat of a six-year drought. And  
12 it literally states, "A few major reservoirs were  
13 developed for long-term carryover storage (water stored  
14 for use over several dry years) which means that  
15 storage capacity is several times the firm annual  
16 yield." It says, "Examples of such facilities are  
17 Shasta, Oroville, Berryessa, and New Melones."

18           The Bulletin 160-83 says -- I won't read the  
19 entire passage, but I'll read some parts of it. Under  
20 "Supply Dependability and Risk. The thrust in  
21 California water development over the past few decades  
22 has been to increase water supplies to match needs, and  
23 in many areas, to increase the dependability of  
24 supplies. Much attention has been given to this by the  
25 SWP and the CVP, which were designed to withstand

1 recurrence of the 1928 to 1934 drought."

2           And I'll skip over to the next -- the  
3 following sentence which states, "But uncertainty  
4 regarding the capability of increasing developed  
5 supplies over the next several decades may justify and  
6 in fact may require taking greater risks in delivering  
7 water to customers."

8           And it says -- it goes on later to state,  
9 "Some water projects could take greater risks by  
10 delivering a higher annual supply, leaving less  
11 carryover storage in case of droughts. This would  
12 allowed growing needs to be met in normal years."

13           And then it goes on to state, "The 1928 to '34  
14 dry period is estimated to have a reoccurrence of one  
15 in 200 to 400 years."

16           And this shows that DWR did do planning for  
17 drought. They used assumptions for drought  
18 reoccurrence, and this documents it.

19           I wanted to say specifically the estimate that  
20 the 1928 to '34 dry period has a reoccurrence of one in  
21 200- to 400-year droughts is not supported by the  
22 Sacramento Valley hydrology reconstructed from tree  
23 rings. PCFFA introduced exhibits and testimony by  
24 myself or PCFFA that six-year droughts of similar  
25 severity occurred in the 1840s and 1780s. And we all

1 know that four years after this bulletin, the 1987 to  
2 '92 drought began.

3           Since Bulletin 160-83 does not disclose what  
4 the actual changes were to the rule curves, I had to go  
5 to an academic publication by Riebsame called  
6 "Adjusting Water Resources Management to Climate  
7 Change." This cites an unpublished 1985 report by the  
8 Department of Water Resources called "Evaluation of the  
9 State Water Project Rule Curve Procedure," and another  
10 unpublished report in 1988, "State Water Project Rule  
11 Curve for 1988."

12           And there's a graph. Can we please bring up  
13 Exhibit -- my surrebuttal testimony, Exhibit DDJ-208?  
14 Because I would like to look at this graph, and it's on  
15 Page 5.

16           MR. LONG: Is it 208-Errata?

17           WITNESS DES JARDINS: Yes, Exhibit  
18 DDJ-208-Errata, the graph on Page 5. There it is.  
19 Zoom in a little so we can see the whole thing.

20           So this is from that unpublished report by the  
21 Department of Water Resources. And it shows the old  
22 procedure, which would have preserved end-of-year  
23 carryover storage through a repeat of the 1928 to 1934  
24 drought, and two proposed different curves that would  
25 allow the reservoir to be drained to dead pool within

1 several years.

2           And this rule curve was shown to John Leahigh  
3 on cross-examination in Part 1A of the WaterFix  
4 hearing, and Leahigh stated in response:

5                           "I wouldn't describe  
6                           this as any kind of change  
7                           in operations. The procedures  
8                           for making delivery  
9                           determinations have changed  
10                          many, many times over the years  
11                          as far as getting a good  
12                          balance."

13           In rebuttal testimony, he stated:

14                           "...the track record of  
15                           the projects for meeting water  
16                           quality standards has been  
17                           excellent other than recent  
18                           examples...Based on this  
19                           record, I find the broad  
20                           assertion by CSPA that the  
21                           Projects systematically leave  
22                           insufficient water in storage  
23                           to meet water quality standards  
24                           to be without merit."

25           There was no disclosed numeric criteria for

1 the operations rules until during cross-examination in  
2 rebuttal, Leahigh admitted that the carryover storage  
3 for Oroville had a floor of 1 million acre-feet, which  
4 was shown in the formula on Page 7 in Exhibit DWR-902.

5 Oh, excuse me. I need to first say this is a  
6 true and correct copy of -- I swear that this is a true  
7 and correct copy of my testimony and of the referenced  
8 exhibits.

9 So going next to Page 7, I'd like to go to the  
10 table on Page 7 which was shown to Leahigh in  
11 cross-examination. And Leahigh admitted that this was  
12 from the CalSim study of the -- there was a --  
13 operations and control office did a consultation in  
14 2005 about carryover storage rules using CalSim II as a  
15 planning model to determine that the carryover storage  
16 requirements were sufficient.

17 And the slide from that study shows that the  
18 2005 curve was 1 million acre-feet plus 0.5 times the  
19 storage the previous September, minus 1 million  
20 acre-feet. So half of the amount over 1 million  
21 acre-feet was storage for previous September.

22 The change was to -- that was made in 2005,  
23 was to multiply 0.5 times the actual State Water  
24 Project allocation which can be low in droughts. And  
25 I'm arguing that the effect of this is to essentially

1 drive carryover storage down during dry periods.

2 And in fact, if you go -- let's scroll down  
3 to -- a little further.

4 So I reproduce -- and this is drawn from the  
5 Sacramento Valley Water Users' no action alternative.  
6 And this shows that there are eight years. They're  
7 highlighted in red.

8 Let's scroll down. It says 1924, '29, '34 --  
9 '33, '34. Scroll down. 1977, '87, '92, and '94 and  
10 2001. So within this record there are eight years  
11 where carryover storage is drawn down below a million  
12 acre-feet. That is below the carryover storage target.  
13 And I believe this shows that the State Water Project  
14 can't make its required minimum deliveries with this  
15 carryover storage policy, and that results in the  
16 reservoirs being drawn to dead pool.

17 Because of this, I believe that Mr. Munevar's  
18 contention that comparison of the no action alternative  
19 and the with project alternative as showing no  
20 difference, is -- and no injury to legal users of water  
21 may not be correct because it is not clear that the  
22 no action alternative actually has an adequate plan to  
23 meet D1641 requirements or to comply with the  
24 coordinated operating agreement and meet in-basin water  
25 uses.

1           Mr. Leahigh testified that the floor was  
2 increased to 1.3 million acre-feet, but I believe this  
3 may still not be enough, given that the 2013  
4 end-of-September carryover storage was about 1.6  
5 million acre-feet.

6           So that concludes my part on carryover  
7 storage.

8           I wanted to talk about what Mr. Munevar said  
9 with respect to hydrology. He said that --

10           Let's scroll down to Page 10, to the graph on  
11 Page 10.

12           He said based on the extensive climate change  
13 analysis conducted for BDCP California WaterFix,  
14 including the recent Q2 climate change analysis for the  
15 BA -- that's the drier, warmer scenario -- the findings  
16 were consistent across the multiple climate change  
17 projections considered.

18           Overall, the incremental changes due to  
19 California WaterFix operations as compared to the NEA  
20 evaluated under a variety of future climate change --

21           (Reporter interruption)

22           WITNESS DES JARDINS: -- WaterFix operations  
23 as compared to the no action alternative evaluated  
24 under a variety of future climate change scenarios  
25 considered was similar to that described under the Q5

1 climate change projection included in the DWR and  
2 USBR's Part 1A direct testimony.

3           Now I want to look at this graph, and it shows  
4 that -- the black dotted line is the no action  
5 alternative. The blue one -- this graph is from the  
6 Biological Assessment, and it shows that the blue  
7 dotted line is -- which is under Q5 is somewhat worse  
8 for end-of-September carryover storage in Oroville.  
9 But if you look at the green dotted line, which is with  
10 the Q2 warmer, drier scenario, you see that  
11 end-of-September carryover storage is significantly  
12 worse.

13           So I wouldn't say it's similar. I would say  
14 that, not only is it worse, but it exacerbates the  
15 effects of this inadequate carryover storage policy  
16 that was just disclosed by Mr. Leahigh during  
17 cross-examination on rebuttal. And so this supports  
18 that the climate change analysis is inadequate for  
19 shifts in hydrology.

20           Mr. Munevar's -- next I want to go to the sea  
21 level rise exhibits.

22           And so Mr. Munevar's testimony states, with  
23 respect to sea level rise, that the assumptions were  
24 consistent with Vermeer and Rahmstorf 2009, the U.S.  
25 2007-'11 guidance for "Incorporating Sea Level Change



1 in Civil Works Programs," and the National Research  
2 Council's sea level rise projections from 2012.

3 The USACE guidelines are the ones that are the  
4 engineering guidelines for designing hydrolic projects.  
5 And an examination of the 2011 guidance for  
6 incorporating sea level change in civil works programs  
7 that he cites shows that the assumptions were not  
8 consistent with that guidance.

9 In the circular, the Army Corps recommends  
10 using low, intermediate, and high rates of sea level  
11 rise for the project's lifetime, calculated from curves  
12 modified from the National Research Council's sea level  
13 rise guidance.

14 Furthermore, the Army Corps of Engineers  
15 regulation incorporating --

16 I wanted to request a little more time to  
17 finish up with sea level rise, and then I'll be done.

18 CO-HEARING OFFICER DODUC: Please wrap up.  
19 Your time actually ran out a while ago.

20 WITNESS DES JARDINS: Okay. Sorry.

21 -- incorporating sea level rise in civil works  
22 programs superseded this engineering circular. It  
23 states, "The low, intermediate, and high scenarios at  
24 NOAA tide gauges can be obtained through the USACE  
25 online sea level calculator," and gives a hyperlink.

1           The closest tide gauge to the Delta is Port  
2 Chicago. The USACE low, intermediate, and high  
3 scenarios at the NOAA tide gauge at Port Chicago were  
4 provided in testimony for PCFFA/IFR. The curves were  
5 provided through 2135, which was the end of the  
6 estimated hundred-year lifetime of the project and are  
7 within the lifetime of the change protection.

8           The USACE intermediate and high rates of sea  
9 level rise are somewhat lower than those estimated by  
10 NOAA, which was cited in testimony for PCFFA, but are  
11 similar.

12           And it -- the -- it literally says, "Planning  
13 studies and engineering design over the project life  
14 cycle for both --"

15           CO-HEARING OFFICER DODUC: Ms. Des Jardins,  
16 now you are just reading your testimony.

17           WITNESS DES JARDINS: Okay. Never mind.

18           But anyway, they do state that, "...consider  
19 alternatives that are formulated and evaluated for the  
20 entire range of possible rates of future sea level  
21 change represented here by three scenarios of low,  
22 intermediate, and high sea level change."

23           To the extent that this only considers the  
24 intermediate value of sea level rise and only for 2025,  
25 it simply fails to follow the Army Corps of Engineers'

1 guidance. The Army Corps of Engineers' guidance is  
2 substantially -- it requires consideration of high sea  
3 level rise curves which were shown in those graphs.

4 CO-HEARING OFFICER DODUC: Thank you.

5 WITNESS DES JARDINS: So that concludes my  
6 testimony.

7 CO-HEARING OFFICER DODUC: All right.

8 Cross-examination by the Department?

9 CROSS-EXAMINATION BY MS. ANSLEY

10 MS. ANSLEY: Good afternoon. Jolie-Anne  
11 Ansley for the Department of Water Resources. We only  
12 have a couple questions, the majority of which are on  
13 the first part, which is the first nine pages have to  
14 do with Ms. Des Jardins' discussion of rule curves, and  
15 maybe just one or two questions on the last part.

16 CO-HEARING OFFICER DODUC: All right.

17 MS. ANSLEY: Could we go to Page 7 of  
18 Ms. Des Jardins' testimony, which you have up here on  
19 the screen. That part right there. Thank you.

20 Ms. Des Jardins, is it safe to say that your  
21 argument on the first section of your testimony, which  
22 I believe is Pages 1 through 9, concerns the change  
23 from the rule curve on this chart as B to the rule  
24 curve marked as C?

25 WITNESS DES JARDINS: No. It governs the

1 documentation, available documentation about the change  
2 in rule curves, which includes the change documented by  
3 Riebsame in that published chart. It governs the 2005  
4 rule curve, and it governs -- the pre-2005 rule curve  
5 is documented by this graph and attested to by Leahigh  
6 on cross-examination, and it governs the current 2005  
7 rule curve which is in this table and also was provided  
8 in Exhibit DWR-902.

9 MS. ANSLEY: Yeah, I think that I was asking  
10 for something a little bit simpler.

11 Is the gist of your critique the change from  
12 the rule curve that you've denoted here as Row B to the  
13 rule curve as Row C and the resulting operation -- or  
14 carryover storage that results from Rule Curve C there?

15 WITNESS DES JARDINS: No.

16 MS. ANSLEY: Okay.

17 WITNESS DES JARDINS: But that's far too  
18 constraining.

19 MS. ANSLEY: Okay. And maybe I can broaden  
20 that a little bit and see if we can shortcut my chart  
21 of questions.

22 I understand that you -- on Pages 3, Lines 20,  
23 through Page 4, Line 21, you discuss DWR Bulletin  
24 160-83; is that correct?

25 WITNESS DES JARDINS: Yes. And that's because

1 it was statements by the Department of Water Resources.

2 Yes.

3 MS. ANSLEY: Okay. And this is the California  
4 water plan issued in 1983, correct?

5 WITNESS DES JARDINS: Yeah. And it's prior  
6 statements by the California Department of Water  
7 Resources which contradict these other statements.

8 MS. ANSLEY: And you allege that this  
9 document, which is -- do you agree that this is a  
10 non-regulatory document?

11 WITNESS DES JARDINS: It -- I believe that it  
12 describes a change which is -- which was not published  
13 by the Department of Water Resources and does not  
14 appear to have been disclosed or examined for any  
15 regulatory process. And I believe that this equation  
16 that Mr. Leahigh produced on rebuttal may be the first  
17 time that the actual numeric equation and change has  
18 been disclosed.

19 MS. ANSLEY: Here -- and your testimony  
20 started on Page 3. You're talking about a change that  
21 you proposed was started in Bulletin 060-83 in that  
22 time that period, 1983 to 1985, roughly?

23 WITNESS DES JARDINS: I'm examining the  
24 evidence that there was a change and this is -- and  
25 producing evidence that there was a change.

1           Because the Department of Water Resources did  
2 not publish these rule curve changes and did not  
3 publish these documents, there is incomplete evidence.  
4 But I think that it is -- there is evidence that  
5 corroborates that there was a change around that time;  
6 a change consistent with that -- with that narrative  
7 description in Bulletin 160-83 was made.

8           MS. ANSLEY: I understand what you're saying.  
9 We're talking about a change that they describe in 1983  
10 that you think occurred in that general time frame.

11           WITNESS DES JARDINS: I was citing it as  
12 evidence. I believe it's -- that it likely occurred  
13 during that time frame. Without getting the actual  
14 unpublished rule curves by the Department of Water  
15 Resources, it's not possible to document fully.

16           MS. ANSLEY: Okay. I understand.

17           CO-HEARING OFFICER DODUC: Ms. Ansley, I'm  
18 going to ask you to be very direct, on point, succinct  
19 in your question. And I will ask Ms. Des Jardins to be  
20 equally direct and succinct in answering the question.

21           MS. ANSLEY: Thank you.

22           Would you agree just generally that Bulletin  
23 160-83 predates many of the regulatory constraints  
24 under which the SWP currently operates, such as the  
25 coordinated operating agreement, D1641, and the

1 Biological Opinion?

2 WITNESS DES JARDINS: I --

3 MS. ANSLEY: It's a yes-or-no question. It's  
4 a simple -- does it predate those?

5 WITNESS DES JARDINS: I believe it doesn't  
6 predate the original coordinated operating agreement  
7 which was signed -- which dates back to the original  
8 Bureau of Reclamation permit in Decision 990.

9 MS. ANSLEY: But it predates the current  
10 version of the COA, the Coordinated Operating  
11 Agreement?

12 WITNESS DES JARDINS: It does predate the 1986  
13 version of the COA. And there is a concern that this  
14 change was not disclosed or analyzed in the COA EIR.

15 MS. ANSLEY: Okay. That's a little bit beyond  
16 the scope of my question. I'm going to just move on.  
17 Okay?

18 And so with your discussion, you cited of the  
19 changes you allege happened coincident with, I guess,  
20 Bulletin 160-83, you cite Riebsame 1988; is that  
21 correct? Did I pronounce that right?

22 WITNESS DES JARDINS: Yes. This was a  
23 publication by an academic in the water resources  
24 development.

25 MS. ANSLEY: Actually, that is a yes-or-no

1 question. You cite Riebsame 1988, correct?

2 WITNESS DES JARDINS: I cite Riebsame, yes,  
3 and particularly because he has a copy of his  
4 unpublished rule curve.

5 MS. ANSLEY: Okay. And then I would like to  
6 ask a couple questions about that article. They're  
7 just really discrete.

8 Isn't it true that in that article by -- I'll  
9 say "Riebsame" -- Riebsame, he also stated in his  
10 discussion of these figures that no new rule curve had  
11 been adopted as of 1988.

12 Are you aware of that?

13 WITNESS DES JARDINS: I did submit that for  
14 the record. Can I -- I didn't see that specific  
15 statement. But he discussed the -- what I focused on  
16 was that he discussed the changes and -- Leahigh didn't  
17 say that the change --

18 MS. ANSLEY: I think you've responded to my  
19 question. You're not aware of that he made that  
20 statement?

21 WITNESS DES JARDINS: No.

22 MS. ANSLEY: Are you aware that he said that  
23 the DWR had been revising their protocols annually?  
24 Just yes or no.

25 WITNESS DES JARDINS: I don't believe that was



1 in there. If you could take me to that part of --

2 MS. ANSLEY: I can provide an exact reference,  
3 but I'm ready to move on to the graphs.

4 WITNESS DES JARDINS: No, I --

5 CO-HEARING OFFICER DODUC: One at a time.

6 MS. ANSLEY: Yeah.

7 CO-HEARING OFFICER DODUC: The poor court  
8 reporter is about to scream.

9 Move on, Ms. Ansley.

10 MS. ANSLEY: Sure. The reference would just  
11 be DDJ-210 which would be article Page 85, pdf Page 17.  
12 And I'm ready to move on.

13 Can we look at DDJ -- your testimony at  
14 Page 5, the graphs that you pulled from this article.  
15 Okay.

16 Is it your understanding from your reading of  
17 this article that the Option A and Option B are not  
18 specifically rule curves adopted by the DWR in that  
19 time period?

20 WITNESS DES JARDINS: It says they were  
21 proposed. It does not -- since I don't have the  
22 underlying report and John Leahigh was not more  
23 specific about this, DWR would have to produce records  
24 as to whether or not this was adopted, and they  
25 haven't.

1 MS. ANSLEY: I'm just going off what your  
2 testimony is.

3 Moving to Page 7 of your testimony, which if  
4 you could just scroll down to that original chart we  
5 were looking at in the beginning.

6 WITNESS DES JARDINS: Yes.

7 MS. ANSLEY: Thank you.

8 Isn't it correct that the 2005 updated rule  
9 curve predated the issuance of the current BiOps for  
10 the projects?

11 WITNESS DES JARDINS: The 2005 rule curve,  
12 that is exactly what Leahigh testified and produced.

13 CO-HEARING OFFICER DODUC: Did it predate the  
14 current BiOp?

15 WITNESS DES JARDINS: Which, the final BiOp?  
16 Which one are you referring to? Or the 2009 BiOp?

17 MS. ANSLEY: The 2009.

18 WITNESS DES JARDINS: No. It -- it predates  
19 it, but it was still in use through the report that  
20 Leahigh produced, which I believe was in 2012. It is  
21 not -- Leahigh didn't testify exactly when this was  
22 changed. But this is what is in the CalSim code.

23 MS. ANSLEY: Okay. Moving down on this page  
24 to -- just look at the bottom half of this page. And  
25 here you provide results from SVW, Sac Valley Water

1 Users 201, correct?

2 WITNESS DES JARDINS: Yeah. These were the  
3 end-of-month carryover storage extracted from the files  
4 that DWR provided, yes.

5 MS. ANSLEY: And this is specifically for the  
6 no action alternative?

7 WITNESS DES JARDINS: Yes.

8 MS. ANSLEY: And then looking back on Page 3  
9 of your testimony, which has sort of a summary of your  
10 conclusions.

11 WITNESS DES JARDINS: Yes.

12 MS. ANSLEY: You said that the Board needs to  
13 assess whether the reservoir operations in the no  
14 action alternative and the preferred alternative meet  
15 the obligations of the coordinated operating agreement  
16 and D1641, correct?

17 WITNESS DES JARDINS: Yes.

18 MS. ANSLEY: So your critique of the rule  
19 curve and the SWP operations occur both within the data  
20 of the no action alternative and the Cal WaterFix?

21 WITNESS DES JARDINS: I focused on the no  
22 action alternative. But, yes, I said -- because that  
23 was the baseline that's being compared to. I was  
24 responding to Mr. Munevar's assertion which compared  
25 the two and explaining that that's -- I believe it's

1 inadequate as a baseline.

2 MS. ANSLEY: So your critique is that the  
3 current -- well, I believe Mr. Leahigh testified that  
4 the rule curve has been further modified from the 2005  
5 rule curve; is that correct?

6 WITNESS DES JARDINS: Yes. So it's no longer  
7 reflected in the modeling, yes.

8 MS. ANSLEY: But the modeling is the 2005 rule  
9 curve, you assert?

10 WITNESS DES JARDINS: Yes. And I did produce  
11 that in Exhibit DDJ-213. It's a copy of the Oroville  
12 rule curve from the no action alternative, and it shows  
13 this 2005 rule curve, not the more recent one.

14 MS. ANSLEY: So the gist of your argument is  
15 SWP operations as modeled on the 2005 rule curve?

16 WITNESS DES JARDINS: I discuss -- that's  
17 constraining the testimony too much.

18 MS. ANSLEY: At this time, we would like to  
19 move to strike this portion of her testimony, which I  
20 believe is through Page 9, Line 11, on the grounds that  
21 it's not relevant to an impact of the Cal WaterFix, but  
22 it's actually a critique of SWP operations in carryover  
23 storage under the 2000 rule curve stemming, according  
24 to Ms. Des Jardins, from a philosophy change of the  
25 Department of Water Resources in the mid 1980s. Such a

1 change would be reflected in both the no action and the  
2 with project alternatives, and therefore this critique  
3 is beyond the scope of this proceeding.

4 CO-HEARING OFFICER DODUC: Ms. Des Jardins.

5 WITNESS DES JARDINS: This -- respectfully,  
6 this goes to the heart of whether there is injury or  
7 not. And petitioners have argued in this proceeding  
8 that Decision 1641 will be continued to be complied  
9 with to the extent that they have a reservoir carryover  
10 storage policy, which makes it impossible to meet  
11 Decision 1641 in eight years out of the record.

12 And there's a reason for it. It is not just  
13 that the simulation is inaccurate, but the simulation  
14 in -- it has to do -- goes to the heart of the  
15 interpretation of this drawing to dead pool, and it  
16 doesn't actually -- the dead pool conditions aren't  
17 significant, and they just show stressed water  
18 conditions. This is important for the record.

19 CO-HEARING OFFICER DODUC: All right. All  
20 right. Thank you, Ms. Des Jardins.

21 Objection is overruled. Motion is denied.  
22 We'll consider your concern in weighing the evidence.

23 Anything else, Ms. Ansley?

24 MS. ANSLEY: Let me see if I -- looking at  
25 your exceedance plot on Page 10 of your testimony at

1 the top half of Page 10.

2 CO-HEARING OFFICER DODUC: Do you have much  
3 more questioning?

4 MS. ANSLEY: I have, like, two.

5 CO-HEARING OFFICER DODUC: All right. Let's  
6 see if we can do this.

7 WITNESS DES JARDINS: Yes.

8 MS. ANSLEY: I think you heard you testify  
9 earlier, but do you agree that the Cal WaterFix is  
10 resulting in similar or better Oroville storage  
11 conditions relative to the no action alternative under  
12 all climate projections on this chart?

13 WITNESS DES JARDINS: Only under the Q4 wetter  
14 scenario, which would be great, but there's no  
15 guarantee. That -- the other scenarios represent risk.  
16 Q2 represents the worst risk. Even under Q5, there's  
17 somewhat worse storage. So no, it's not under all  
18 scenarios. It's only under future -- the wetter future  
19 climate change scenarios that it's better, and those  
20 are in red. So no, I don't. I don't agree.

21 MS. ANSLEY: You don't agree that, looking at  
22 these lines sort of by color, I guess, that the no  
23 action alternative tends to be lower, lower total -- a  
24 thousand acre-feet across these exceedance plots?

25 WITNESS DES JARDINS: No.

1 MS. ANSLEY: Okay. This, I believe is my last  
2 question. Is it your understanding that the modeling  
3 of the no action alternative and the Cal WaterFix  
4 scenarios in this plot assume continuation of existing  
5 regulations under all climate change projections?

6 WITNESS DES JARDINS: It assumed a number of  
7 things, including that.

8 CO-HEARING OFFICER DODUC: Thank you,  
9 Ms. Ansley. Was there anything else?

10 MS. ANSLEY: Okay. Thank you. There's  
11 nothing else. I'm done with my questions.

12 CO-HEARING OFFICER DODUC: All right. Any  
13 redirect of yourself?

14 WITNESS DES JARDINS: No.

15 CO-HEARING OFFICER DODUC: Thank you. At this  
16 time do you wish to move your exhibits into the record?

17 WITNESS DES JARDINS: Yes. I have -- the  
18 exhibits were provided in the list, updated list,  
19 07/10.

20 CO-HEARING OFFICER DODUC: Thank you.

21 Any objections?

22 Not hearing any -- the exhibits have been  
23 received. Thank you very much, Ms. Des Jardins.

24 We will now recess until 3:00 o'clock.

25 (The luncheon recess was taken at 1:02 p.m.)

1 AFTERNOON SESSION

2 ---o0o---

3 (Whereupon, all parties having been  
4 duly noted for the record, the  
5 proceedings resumed at 3:00 p.m.)

6 CO-HEARING OFFICER DODUC: All right. It is  
7 3:00 o'clock. Welcome back, everyone.

8 I see that Ms. Suard and her able assistant  
9 Mr. Keeling are ready. All right. Please proceed.

10 MR. KEELING: Ms. Suard will first give an  
11 opening statement on behalf of Snug Harbor.

12 NIKKI SUARD,  
13 called as a surrebuttal witness on behalf  
14 of Protestant Snug Harbor Resort LLC,  
15 having been previously duly sworn, was  
16 examined and testified further as is  
17 hereinafter set forth:

18 DIRECT TESTIMONY BY MS. SUARD

19 MS. SUARD: Good afternoon.

20 CO-HEARING OFFICER DODUC: I don't think your  
21 microphone is on.

22 MS. SUARD: There it goes.

23 CO-HEARING OFFICER DODUC: Perfect.

24 MS. SUARD: Nikki Suard for Snug Harbor  
25 Resorts LLC.



1           As an opening statement, I wanted to give a  
2 little bit of background on my perspective being on  
3 Steamboat Slough and that I have actually been  
4 following planning regarding Bay Delta's Conservation  
5 Plan, changed the name to WaterFix, and have been  
6 speaking at many meetings since 2008 regarding this  
7 exact same issue that I'm going to talk about today,  
8 which is impacts to Steamboat Slough and Lower  
9 Sacramento River.

10           So this isn't a new issue that I have brought  
11 to DWR in particular, and I wanted to bring that up as  
12 we go into the testimony for today, specifically  
13 responding to Dr. Nader-Tehrani testimony.

14           CO-HEARING OFFICER DODUC: Was that the  
15 entirety of your opening statement?

16           MS. SUARD: Yes.

17           CO-HEARING OFFICER DODUC: Okay. Succinct. I  
18 like that.

19           MS. SUARD: It was brief.

20           MR. KEELING: Ms. Suard is already under oath.  
21 She's already taken the oath.

22           DIRECT EXAMINATION BY MR. KEELING

23           MR. KEELING: Ms. Suard, is Exhibit SHR-504 a  
24 true and correct copy of your written surrebuttal  
25 testimony?

1           WITNESS SUARD: Yes, it is.

2           MR. KEELING: Could you please summarize that  
3 at this point.

4           WITNESS SUARD: My testimony is a rebuttal to  
5 comments and testimony of Dr. Nader-Tehrani. I'm going  
6 to refer to just a few of the specific ones.

7           Page 1 of my testimony, starting with Line 18,  
8 references Dr. Nader-Tehrani, DWR-79, Page 45. And he  
9 says -- Dr. Nader-Tehrani says, "In general, the water  
10 quality will continue to remain fresh at most places in  
11 the North Delta under WaterFix operations," in  
12 parentheses, "(at places upstream of Rio Vista  
13 including areas around Ryer Island)."

14           And then I also wish to focus on my Page 4,  
15 Line 15 and 16 from the same Nader-Tehrani testimony.  
16 And he says, "Water quality in and around  
17 Ryer Island has been fresh even during recent  
18 droughts."

19           And his oral testimony that came -- go to  
20 Page 5, top line. This is Dr. Nader-Tehrani, the video  
21 from May 11th, 2017. The location number on the video  
22 is 3:56:23 to 3:56:26, very short where  
23 Dr. Nader-Tehrani was responding to a question I asked.

24           And he said:

25   "I would consider EC

1 values below 300 as fresh."

2 And we were talking about Steamboat Slough.

3 So my testimony -- and you can read it. I'm  
4 not going to go through everything, but there's  
5 specific documents I wish to go through.

6 I have learned from experience that, when I  
7 compare DWR's documents that were provided to me  
8 stating what is going to be the minimum flows,  
9 depending on, you know, the boundary operations for  
10 WaterFix -- in fact, I'd like to refer to that.

11 Could we go to SHR-350, please?

12 I'm just going to remind you guys about which  
13 documents I'm talking about.

14 So when I asked for what would be the minimum  
15 flows on Steamboat Slough, Ms. Doduc directed DWR to  
16 provide that information. I had asked for an Excel  
17 spreadsheet. It wasn't provided in that way, but we do  
18 have this format.

19 And what this document -- really, DWR could  
20 describe more what it says -- but I was looking at and  
21 continue to be concerned about what is the impact from  
22 low flows. All the evidence you're provided by DWR and  
23 USBR gives you averages over months and over the series  
24 of time.

25 Impacts from salinity happen in a single day.

1 It can happen in a single hour. When you have too high  
2 of salinity, too low of flow in real life, that's where  
3 you are shown the real impacts. So the averages and  
4 the, you know, impacts or the assessments over time  
5 don't show what is the potential real impact to the  
6 legal users of water downstream of proposed intakes.

7 Now, again, this document is meant to be --  
8 this was generated by Department of Water Resources,  
9 but they handed it to me. So I introduced it into  
10 evidence.

11 And 352 -- could we go to 352, please, because  
12 it's going to look very similar.

13 This is basically the same information, only  
14 it includes the Delta Cross Channel because in 350, DWR  
15 had not included that particular waterway.

16 And basically what this document -- in  
17 summary, it says that there is going to be -- in  
18 worst-case scenarios in critical and dry years with  
19 WaterFix operational, we would have only about 6- to  
20 7,000 cubic feet of flow per second below the intakes,  
21 and that would be split between five different  
22 waterways in the North Delta.

23 What it came down to was that Steamboat  
24 Slough, for example, in September of a dry or critical  
25 year, we would only have 700 cubic feet per second.

1           Well, it just so happens that, when you  
2 compare what is the projected flow with WaterFix  
3 operational -- I don't know which version. There's  
4 this whole question now which version of operations, I  
5 guess, but this is what DWR provided in these  
6 documents.

7           And our projected low flow would be 700 cubic  
8 feet per second. I compared that to the low flows of  
9 2015, and it turns out that, you know, those were  
10 drought flows. And we actually had a little bit higher  
11 than that. We had about -- in September 2015, it was  
12 more like a thousand cubic feet per second on average.

13           So I'm going to go on to the other documents  
14 that I wish to present in all of this. I will just say  
15 that I based my opinion -- Dr. Nader-Tehrani said it's  
16 always been fresh on -- in or around Ryer Island.  
17 Well, historically that was true. However, in the very  
18 recent years, there's been substantial lower flows on  
19 Steamboat Slough that we've been seeing impacts.

20           So I'm not talking about computer models and  
21 theories. I'm talking about comparing DWR's projected  
22 flows to what happens in real life.

23           So -- and I'm just using documents that I  
24 found online from CDEC and other resources that are all  
25 public record-type resources.

1           So I'd like to go to HR-360, please.

2           And I'd like to point out that there is a  
3 small minor conflict of some of the labeling on some of  
4 these documents, and I've been working with your staff  
5 to make sure it's corrected. So we will be correcting  
6 it and then uploading that for the evidence. So this  
7 one in particular should be labeled SHR-360 Errata.

8           And so what this document is is a references  
9 document. And I combined the map from CDEC, and the  
10 reference to where you get that map is on there. I  
11 also -- the box to right explains how I pulled this  
12 together.

13           And then what I also did is I added the blue  
14 arrows to show the location of either businesses or  
15 homes. So you've got a couple commercial properties,  
16 couple public drinking water systems along Steamboat  
17 Slough. This is on the water side. Right? So what  
18 happens on Steamboat Slough happens to all of us along  
19 Steamboat Slough. And there's a residential -- lot of  
20 residential parcels.

21           I also circled the location of the monitoring  
22 stations because that's what this map shows, is  
23 monitoring stations. And I made -- I added the letters  
24 for the names of each of the monitoring stations so  
25 they're a little more readable.

1           And I am going to be talking about comparing  
2 flows and salinity impacts during low flow times  
3 between the Monitoring Station SSS all the way down to  
4 SRV.

5           The other ones -- excuse me. SOI is below  
6 Isleton on the Sacramento River. And there's -- SXS is  
7 lower Steamboat Slough, but it's below Snug Harbor.  
8 And then SUS is at the confluence of Steamboat Slough  
9 and Sutter Slough. And then that happens to be a  
10 compliance point with North Delta Water Agency. And  
11 then SSS is another -- going up Steamboat Slough,  
12 another monitoring -- that's a flow station.

13           So going to SHR-363, please, just straight  
14 363. There you go. Okay. So this one will be labeled  
15 Errata, I believe.

16           What this is is it's a document that I  
17 compiled, and it clearly says it there. I took the  
18 flow information from the -- the information that DWR  
19 provided for dry year, critical year when -- with  
20 WaterFix operational, that's the colored bar charts. I  
21 then took DWR-901. If people need to refer to that,  
22 that's the more grays-and-blue bar charts. And then I  
23 zeroed in on the numbers of what those different charts  
24 said.

25           And it -- and Dr. Nader-Tehrani had said that

1 basically that 901, DWR-901, the blues-and-gray chart,  
2 that our EC on Steamboat Slough would not be anything  
3 higher than 180 at that 7- minimum -- 700 cubic feet  
4 per second. I'm estimating because I didn't get the  
5 Excel spreadsheet; I only got charts. So I had to do  
6 some maneuverings with Excel spreadsheet to figure out.  
7 It was, worst-case scenario, 700 cubic feet per second.  
8 And that flow was at Station SSS. The EC was based on  
9 SUS location.

10           And then you look down. Go down to the  
11 Rio Vista area. And that -- down in the Rio Vista  
12 area, the bar charts were a little bit misleading in  
13 that the -- on the side, the left side, you would have  
14 different numbers.

15           So the flow at Rio Vista actually is higher  
16 than what you see on Steamboat Slough, even though the  
17 bar chart might not indicate it. So you just had to  
18 look at the flows in cfs on the axis there on the left.

19           So what DWR-901 had said was that EC -- the  
20 presumption was EC would be 700 at Rio Vista area. And  
21 in the reality, if we go on to the next document --  
22 well, wait a minute. Let me -- I'm sorry. Let me  
23 finish this. EC was actually substantially higher in  
24 real life in 2015. And we're going to go on and see  
25 that.



1           So now if we could go to -- I'm actually going  
2 to go to Page 3. So it's SHR-363-3. There we go. I  
3 think I wanted to go a little bit more in order.

4           So this graphic was compiled -- I compiled  
5 this by getting the water flow data from, again,  
6 through CDEC, and USGS also monitors -- has some data.

7           And so all the way to the left, this shows  
8 2015 flows at -- this would be -- let's see. Sorry --  
9 the average flows at SUS. So that is up at the higher  
10 end of Steamboat Slough.

11           And -- and the -- if you look at that graphic  
12 on the left with the blue -- I don't know what you'd  
13 call them because they're both blue lines. But all the  
14 way to the left, you see there's a dotted red line that  
15 says 700. And I added that "700" and the dotted red  
16 line to show that -- compare what DWR said is going to  
17 be the minimum flows on Steamboat Slough in September.

18           And we find out in 2015, in September, it is  
19 actually a little bit closer to a thousand. But I  
20 thought, okay, so this is as close an example as we can  
21 find to what it would be. And what I found was that,  
22 where the modeling said it would be 180 EC at the SUS  
23 confluence of Steamboat and Sutter Slough, that was  
24 actually at 215 to 220, and only about half the month  
25 did it get at 180 or lower.

1           And so that showed that there was a  
2   discrepancy there, you know, not a large one, but it  
3   does definitely show there's a discrepancy at that  
4   point.

5           So then let's go to Page 4.   SHR-363, Page 4.  
6   I'm sorry.   I'll talk faster.

7           CO-HEARING OFFICER DODUC:   How much additional  
8   time do you need, Ms. Suard?

9           WITNESS SUARD:   I have just a few more  
10  documents, but I do think another ten minutes.

11          CO-HEARING OFFICER DODUC:   All right.   Let's  
12  give you another ten minutes.

13          WITNESS SUARD:   So now we look at -- this is  
14  again looking at a chart provided by CDEC.   And we look  
15  at Steamboat Slough in summer of 2015.   And the chart  
16  all the way to the right and lower right shows that the  
17  flow was approximately -- on average at that month it  
18  was actually about 850 cubic feet per second.   You see  
19  the 700, which is what is projected or worst-case  
20  scenario, according to DWR, with WaterFix operational  
21  for flows for Steamboat Slough during those summer  
22  months.

23          And what I found, though, was that when we  
24  have flows that low on Steamboat Slough, our EC went  
25  above 300 most of the month, and it got as high as 610.

1 Yeah, it says "610."

2 So that is substantially higher than what was  
3 modeled by DWR. And you can -- you can -- plants and  
4 trees can't survive. When you are waterfront and your  
5 water table is, like, one foot below the surface  
6 sometimes, depending on the time of year, that is a  
7 very big difference in the water quality in that area.

8 So -- sorry. I just want to point it out  
9 that, if you compare flow to flow, whether it's under  
10 WaterFix or the water is being withheld to be directed  
11 somewhere else or the flow is blocked because of  
12 barriers -- it's all the same thing. When you're  
13 downstream from whatever is diverting that water, it  
14 impacts us. And on Lower Steamboat Slough, it was  
15 pretty impactful.

16 I'd like to go to Page 5; 363, Page 5. And  
17 I'm not going to go through huge details. I just want  
18 you to look at the graphics. Same thing again. When  
19 you compare --

20 MS. MCGINNIS: Excuse me. I have an  
21 objection.

22 CO-HEARING OFFICER DODUC: Hold on, Ms. Suard.

23 MS. MCGINNIS: Robin McGinnis, California  
24 Department of Water Resources. This figure is not  
25 referenced in Ms. Suard's testimony, so it's outside

1 the scope of her surrebuttal.

2 CO-HEARING OFFICER DODUC: Ms. Suard, I'm  
3 looking at your testimony, and point out to me where it  
4 is referenced.

5 WITNESS SUARD: Let's see if I can find that.  
6 I did -- I know that I referenced that. It wasn't just  
7 around --

8 CO-HEARING OFFICER DODUC: So far you've been  
9 on Page 5 of your testimony.

10 WITNESS SUARD: Okay. Perhaps I may need to  
11 come back to this.

12 My purpose was to show that it's not only --

13 CO-HEARING OFFICER DODUC: But if it's not in  
14 your testimony, Ms. Suard --

15 WITNESS SUARD: Okay. I thought I had said --  
16 okay.

17 CO-HEARING OFFICER DODUC: All right. Then  
18 objection -- unless Ms. Meserve is about to enlighten  
19 us.

20 MS. MESERVE: I believe it's Footnote 15.

21 CO-HEARING OFFICER DODUC: Hold on. Footnote  
22 15, which is just 363. But let's look at --

23 WITNESS SUARD: We may have to get back to it.

24 MS. MESERVE: Are you looking for exact page  
25 number? Is that --

1 CO-HEARING OFFICER DODUC: Actually, point me  
2 to the -- where in your testimony you discuss  
3 Sacramento River below Isleton?

4 WITNESS SUARD: Okay. So, Page 7. It's  
5 actually a little bit a roundabout in that I brought  
6 up, that when it comes to analyzing impacts for  
7 temperature effects and flow in this, flow and velocity  
8 are very closely related. DWR only analyzed one  
9 location, and that was up by Freeport. And I did not  
10 say the word "Lower Sacramento River" on there.

11 So I have to -- I thought I had. . .

12 CO-HEARING OFFICER DODUC: Ms. Meserve.

13 MS. MESERVE: Osha Meserve for LAND. I would  
14 just note it looks like she's discussing Isleton on  
15 Pages 2 and 3, and I guess I would say that I think, if  
16 she cited to -- you know, I mean, I don't think we  
17 should be hyper technical. I don't know that we've  
18 been that way for prior witnesses. I would think if  
19 she's within the general realm of her testimony, it  
20 should be -- she should be allowed to proceed.

21 WITNESS SUARD: I'd like to add to that, too,  
22 that DWR is just, you know, objecting to other people's  
23 testimony, and they're saying that each location is  
24 unique for soil and water quality and all that. And  
25 each location is unique. And impacts on Steamboat

1 Slough on one area of Steamboat Slough could be very  
2 different than five miles away on Steamboat Slough.  
3 And the same case is true for simply four miles away on  
4 the Sacramento River.

5 CO-HEARING OFFICER DODUC: All right. That's  
6 fine. That's fine.

7 WITNESS SUARD: Okay.

8 CO-HEARING OFFICER DODUC: Ms. McGinnis,  
9 you're overruled. Let's go ahead and proceed with  
10 this, and you may question her during cross-examination  
11 on the figure.

12 WITNESS SUARD: Thank you.

13 So -- and this really is, you know, it's -- I  
14 just wanted to point out that, as I said, just a few  
15 miles away, it is actually five miles away from the  
16 other monitoring station on Steamboat Slough when you  
17 look at the impact on the lower Sacramento River at  
18 that SOI monitoring station. And you can see for  
19 yourself at low flows, the salinity is substantially  
20 higher than what was projected by the DWR  
21 documentation, that is, SHR-350 and -352.

22 If we go to -- let's skip the next one.

23 Let me see. 3- -- I believe 360. No, we did  
24 that one. We got that one. Never mind.

25 Let's see. I'm just trying to make sure I

1 covered all of them.

2 SHR-407 -- or, I'm sorry -- 730 I think is  
3 more direct on that. And I refer to this one on Page 7  
4 of my testimony.

5 And if we could -- can we start at the  
6 beginning of this document, please? Okay. Then go --  
7 it's one or two pages down. Keep going. Okay.

8 So here's one of the graphics I wanted to  
9 refer to. I wanted to point out that DWR has done  
10 modeling specifically on impacts to Steamboat Slough  
11 and Sutter Slough. It was for a different reason. But  
12 as I said before, however you block the water, whether  
13 it's for barriers or for surface conveyance, when you  
14 take it away from North Delta, it impacts all of us,  
15 all the different waterways.

16 And this particular graphic came from a  
17 modeling that was done I believe around 2010. And we  
18 have to look at the data, the first page of it.

19 And this was in response to my requests for  
20 information on impacts to Steamboat Slough and Sutter  
21 Slough and the Lower Sacramento River from first the  
22 Bay Delta Conservation Plan proposal, and then they had  
23 varied proposals. And you can see this clearly says  
24 flows will be reduced.

25 Can we go down to the next graphic, please?

1 One more. Sorry. No -- let's -- keep going down.  
2 There's another similar graphic on this. That one.  
3 Thank you.

4 And it was modeled at that time that there --  
5 projected that there would be some increase in EC  
6 around Rio Vista and Lower Steamboat Slough and Lower  
7 Sacramento River. And I need to note that that was for  
8 a project that left substantially more flow on  
9 Steamboat Slough than what is projected by WaterFix  
10 based on what DWR has said would be our minimum flows.

11 Sorry. I want to make sure I cover all of  
12 them. Okay. SHR 715, please.

13 CO-HEARING OFFICER DODUC: Ms. McGinnis.

14 MS. MCGINNIS: Yes. I'm going to object to  
15 any discussion of SHR-715, SHR-716. Neither of those  
16 is referenced in Ms. Suard's surrebuttal testimony.

17 CO-HEARING OFFICER DODUC: Ms. Suard?

18 WITNESS SUARD: I did reference, say that I  
19 had provided testimony -- let's see. Let's go -- I  
20 provided testimony in two different agencies. See if I  
21 can find it.

22 Okay. So Page 7, Line 4. Starting with  
23 Line 4, I do point out that DWR and USBR had full  
24 access to computer modeling and estimates related to  
25 impacts to -- from Bay Delta Conservation Plan and in



1 fact DWR uploaded one of the documents related to  
2 barriers on Steamboat Slough and Sutter Slough, which  
3 there was an analysis of low flow impacts and increase  
4 in salinity. So DWR themselves uploaded that one. So  
5 then I also say that I provided comments on Bay Delta  
6 Conservation Plan, you know, as an example.

7           So my comments, one of them is from 2009, a  
8 preliminary for Bay Delta Conservation Plan, and the  
9 other one they're objecting to is to fisheries. And in  
10 both those comments, I bring up the issue of impact to  
11 water quality and impact to drinking water. So this is  
12 not a new issue. However, I don't see that I quoted  
13 exactly those documents.

14           CO-HEARING OFFICER DODUC: Loose connection.  
15 I will allow it, but we'll consider your objection in  
16 weighing the evidence, Ms. McGinnis.

17           WITNESS SUARD: And to summarize, I am  
18 comparing real life to -- and real impacts. And I want  
19 to point out some of the impacts because just saying we  
20 had higher salinity, that might not mean anything to  
21 some people. It means that trees die from the roots up  
22 and no amount of applied water is going to protect  
23 them.

24           And we actually had a fairly high salinity in  
25 2016 as well. And so the effects of that really showed

1 this year when our pear trees simply died, our peach  
2 tree didn't produce. One of the neighbors -- it wasn't  
3 my pomegranate tree, but a neighbor had several  
4 pomegranate trees along Snug Harbor Drive. They died.  
5 So sensitive crops do die.

6 Drinking water wells, shallow ones, they  
7 increase -- our salinity in one of our public drinking  
8 water wells doubled. It's almost out of range to be  
9 able to be used for drinking water. I'm having to deal  
10 with that, looking at filtration systems.

11 So water quality is impacted, and this was  
12 just from a short-term drought. WaterFix suspends us,  
13 if operational suspends us in a long-term drought, as  
14 long as WaterFix is operating. That's what it looks  
15 like, flows, just based on DWR's own numbers.

16 That's it. Thank you for listening.

17 MR. KEELING: Could you give us just one  
18 moment.

19 CO-HEARING OFFICER DODUC: To do what,  
20 Mr. Keeling?

21 MR. KEELING: I want to speak to Ms. Suard for  
22 just one moment to talk about the exhibits.

23 CO-HEARING OFFICER DODUC: All right.

24 Mr. KEELING: Thank you.

25 (Sotto voce discussion between

1 Mr. Keeling and Ms. Suard)

2 MS. SUARD: I'm requesting to move the  
3 exhibits by letter because there are some minor changes  
4 to the exhibits that were pointed out to me just this  
5 morning. I got the e-mail. So I have to correct  
6 those. So I will be moving all the exhibits that were  
7 listed under surrebuttal. They just have to be  
8 corrected to say "errata" or things like that. So yes,  
9 I am proposing moving them into evidence, subject to  
10 the corrected names and labeling.

11 CO-HEARING OFFICER DODUC: Not quite yet, but  
12 okay.

13 Cross, Ms. McGinnis?

14 MS. MCGINNIS: Robin McGinnis, California  
15 Department of Water Resources. I'm a little confused  
16 about what just happened. Did --

17 CO-HEARING OFFICER DODUC: Nothing has  
18 happened yet because I have not asked her to move  
19 anything into the record.

20 MS. MCGINNIS: Okay. Because I had my  
21 objections to the three exhibits we talked about  
22 already, but I have one more.

23 CO-HEARING OFFICER DODUC: Let's wait until  
24 after your cross-examination.

25 MS. MCGINNIS: Okay. That sounds good.

1 Thanks.

2 CO-HEARING OFFICER DODUC: All right. Anyone  
3 else besides DWR planning to conduct cross-examination?

4 (No response)

5 CO-HEARING OFFICER DODUC: All right. You're  
6 up, Ms. McGinnis.

7 How much time to do you anticipate needing,  
8 and what particular area will you be covering?

9 MS. MCGINNIS: Okay. I think I'm going to  
10 need about up to 20 minutes, and we're going to talk  
11 about DWR-901 that Ms. Suard referenced and used in her  
12 charts, and then we're going to talk about the 2015.  
13 And then --

14 CO-HEARING OFFICER DODUC: I'm sorry. About  
15 what?

16 MS. MCGINNIS: Sorry. The year 2015.

17 CO-HEARING OFFICER DODUC: Not Figure 2015.  
18 Okay.

19 MS. MCGINNIS: No, the year that Ms. Suard  
20 cites extensively in her testimony. And that -- and  
21 then we're going to talk about the -- her Exhibits 363,  
22 363-2, -3, and -4, and maybe -5 if I can scramble and  
23 figure out what to ask about it.

24 CO-HEARING OFFICER DODUC: You don't have to.  
25 Please proceed.

1 CROSS-EXAMINATION BY MS. MCGINNIS

2 MS. MCGINNIS: Good afternoon, Ms. Suard.

3 WITNESS SUARD: Good afternoon.

4 MS. MCGINNIS: On Page 2 of your testimony,  
5 you claim that DWR has not analyzed the impact of the  
6 California WaterFix to the Snug Harbor Resort area of  
7 Steamboat Slough; is that correct?

8 WITNESS SUARD: I have not been provided with  
9 that information. That is correct.

10 MS. MCGINNIS: Didn't DWR provide monthly  
11 average EC values under the WaterFix scenarios at  
12 Steamboat Slough at Sutter Slough?

13 WITNESS SUARD: Yes, they did. However, my  
14 business is not located at Steamboat Slough at Sutter  
15 Slough. I'm located at least seven miles downstream,  
16 and that location seven miles downstream is impacted  
17 very differently.

18 MS. MCGINNIS: Okay. Let's look at DWR-901.  
19 So on Page 2, second half of the page, it shows the EC  
20 values for Steamboat Slough at Sutter Slough, is that  
21 right?

22 WITNESS SUARD: Yes, that's what that says.

23 MS. MCGINNIS: And is the location of your  
24 resort in between that location and one of the other  
25 locations in DWR-901?

1 WITNESS SUARD: Yes.

2 MS. MCGINNIS: Which one?

3 WITNESS SUARD: Rio Vista. I don't believe  
4 there's one on this graphic for the SOI location, is  
5 there?

6 MS. MCGINNIS: So --

7 WITNESS SUARD: I'm just saying, if you have  
8 SOI on this, I don't believe it is, but if you had  
9 analyzed SOI location --

10 MR. MIZELL: I'd like to object. We're not in  
11 a two-way conversation in our cross-examination. If  
12 Ms. Suard is trying to direct Ms. McGinnis to ask  
13 different questions, I think that's wholly improper.

14 WITNESS SUARD: No. I'm trying to answer the  
15 question. Okay? So maybe if we slide down and look at  
16 what the next slide --

17 CO-HEARING OFFICER DODUC: Hold on. Hold on.  
18 Hold on.

19 Ms. McGinnis, what was the question that you  
20 asked Ms. Suard?

21 MS. MCGINNIS: The question was asked and  
22 answered, and it was is Snug Harbor Resort between  
23 Steamboat Slough at Sutter Slough and some other  
24 location that's also listed in DWR-901.

25 CO-HEARING OFFICER DODUC: Now, Ms. Suard, you

1 answer, and your question -- I gather from your answer  
2 that you didn't know whether or not that other Rio  
3 Vista was plotted in this document.

4 WITNESS SUARD: I believe Rio Vista is.

5 CO-HEARING OFFICER DODUC: Okay.

6 WITNESS SUARD: I do not believe SOI is.

7 MS. MCGINNIS: So the answer is yes.

8 CO-HEARING OFFICER DODUC: So the answer to  
9 her question was that your resort is located between  
10 Sutter Slough and Rio Vista.

11 WITNESS SUARD: Yes.

12 CO-HEARING OFFICER DODUC: Thank you.

13 Move on, please.

14 MS. MCGINNIS: Okay. So looking at the  
15 results on DWR-901 for Steamboat Slough at Sutter  
16 Slough for the month of September, all those results  
17 are pretty much the same; isn't that correct?

18 WITNESS SUARD: Yes. That's the appearance,  
19 yes.

20 MS. MCGINNIS: And isn't it true that DWR  
21 provided you with analyses of the impacts of the  
22 WaterFix on the flows in Steamboat Slough upstream of  
23 the Sutter confluence?

24 WITNESS SUARD: If you're referring to what is  
25 SHR-350 and -352, yes, if that's what you're referring

1 to.

2 MS. MCGINNIS: Yes.

3 So on Page 2 of your testimony, you reference  
4 conditions in 2015 on Steamboat Slough, correct?

5 WITNESS SUARD: Yes.

6 MS. MCGINNIS: And the summer of 2015 was an  
7 example of an extreme drought year, correct?

8 WITNESS SUARD: Yes.

9 MS. MCGINNIS: In fact, conditions in 2015  
10 were largely unprecedented, correct?

11 MR. KEELING: Objection, vague, ambiguous and  
12 beyond the scope.

13 WITNESS SUARD: Yes. I can't compare to other  
14 years. I didn't bring any documentation for that.

15 CO-HEARING OFFICER DODUC: All right.

16 MS. MCGINNIS: So is it your understanding  
17 that the recurrence of extreme drought conditions is  
18 independent of the WaterFix project?

19 WITNESS SUARD: I don't understand your  
20 question. Sorry.

21 MS. MCGINNIS: Will droughts occur whether the  
22 WaterFix project is built or not?

23 MR. KEELING: Objection, beyond the scope of  
24 surrebuttal and calls for expertise beyond that of this  
25 witness.



1 CO-HEARING OFFICER DODUC: Yes, Ms. McGinnis.

2 MS. MCGINNIS: Well, the reason for my  
3 questioning is that Ms. Suard provides data from  
4 September of 2015, which is the driest, hottest year  
5 we've had on record, and it's misleading. So I'm  
6 trying to make the point that what was going on in 2015  
7 is going to happen whether there's a WaterFix project  
8 or not.

9 CO-HEARING OFFICER DODUC: Was there,  
10 Ms. Suard, a particular reason why you provided data  
11 for 2015?

12 WITNESS SUARD: I -- I -- yes, because -- I  
13 used 2015 because the flows are similar to what is  
14 projected by DWR to be the flows on Steamboat Slough  
15 all the time during the summer months. And if I used,  
16 for example, October of 2015, it would have been worse.  
17 If I used some of the months from 2016, it would have  
18 been worse. So I didn't even provide the worst months.

19 CO-HEARING OFFICER DODUC: So your selection  
20 of 2015 was not because of the drought situation but  
21 because of your belief that it reflects the conditions  
22 that would occur under WaterFix?

23 WITNESS SUARD: You say it so much more  
24 eloquently. That's exactly it. I was looking at  
25 flows, comparing flows.

1 CO-HEARING OFFICER DODUC: All right. Thank  
2 you.

3 Based on that, I am sustaining the objection.

4 MS. MCGINNIS: So the flows that you were just  
5 talking about, did you get those numbers from your  
6 Figure SHR-350?

7 WITNESS SUARD: Sorry. There's a lot of  
8 documents, so I have to remember which one we're  
9 talking about.

10 Oh, okay. Yes. Okay.

11 So I actually do have a document, if you want  
12 to see it, explaining how --

13 MS. MCGINNIS: I want a yes or a no.

14 WITNESS SUARD: Could you ask the question  
15 again.

16 MS. MCGINNIS: The flow figures that you were  
17 talking about as reflecting drought conditions that the  
18 WaterFix project are going to cause, those flow  
19 figures, what are they based on? Are they based on  
20 SHR-350?

21 WITNESS SUARD: So --

22 MR. KEELING: Objection, compound. There were  
23 two questions there.

24 WITNESS SUARD: You were misstating what I was  
25 saying, too.

1 CO-HEARING OFFICER DODUC: All right. Let --  
2 help me understand, Ms. Suard. When you answered my  
3 question about conditions that you expect to see under  
4 WaterFix, on what document, on what information did you  
5 reach that determination?

6 WITNESS SUARD: On this document. And if we  
7 could enlarge it to show Steamboat Slough, please.

8 MR. KEELING: You identified this document?

9 WITNESS SUARD: Yes, I am. This is data  
10 provided to me by DWR.

11 CO-HEARING OFFICER DODUC: So this is SHR-350.

12 WITNESS SUARD: Yes, it is.

13 And SHR-352 is very similar, but it adds in  
14 the flows for Delta Cross Channel, which is --

15 CO-HEARING OFFICER DODUC: All right. Before  
16 you go any further, Ms. McGinnis, I believe that  
17 answers your question.

18 MS. MCGINNIS: I believe that as well.

19 So looking at SHR-350, these figures show  
20 monthly average net flow; is that correct?

21 WITNESS SUARD: It shows -- we would have to  
22 go to the top if you want the exact wording of what you  
23 guys put on it. But, yes, that's my understanding,  
24 that it would be -- it was average flows. I don't  
25 believe it says net, but we can scroll up to the top

1 and it will -- again, this is a DWR document. It just  
2 says monthly average flows at the locations you  
3 requested. It doesn't say anything about net.

4 MS. MCGINNIS: So do you -- is it your  
5 understanding that average flows are different than  
6 actual flows?

7 MR. KEELING: Objection, vague and ambiguous.  
8 What is the distinction between average and actual in  
9 the context of this question?

10 MS. MCGINNIS: Ms. Suard, what is your -- oh,  
11 sorry.

12 CO-HEARING OFFICER DODUC: Ms. McGinnis, if  
13 you would like to clarify your question.

14 MS. MCGINNIS: Ms. Suard, what is your  
15 understanding of the term "monthly average flow" as it  
16 is written on this document and depicted in this  
17 document?

18 WITNESS SUARD: I can base my understanding of  
19 monthly average flows from experiencing real life. And  
20 monthly average flow can mean that a certain waterway  
21 can get a huge volume of pulse flows for two days and  
22 then zero flows for the rest of the month. And then  
23 that's how you'd have your average flows.

24 MS. MCGINNIS: And do you -- is it your  
25 understanding that there are two high tides and two low

1 tides each day in tidally influenced areas of the  
2 Delta?

3 WITNESS SUARD: Yes, on average. It's a  
4 little bit less than -- it's a little less than 12-hour  
5 periods, yeah.

6 MS. MCGINNIS: So is it your understanding  
7 that average flows don't include the tidal influence  
8 and actual flows do?

9 WITNESS SUARD: Okay. So, again, this is a  
10 DWR document, and you guys didn't define that. It just  
11 says "Monthly Average Flows." That's all it says. So  
12 you -- actual flows, it says it could be significantly  
13 different from those that are shown, but you did not  
14 provide that information. This is all you provided.

15 MS. MCGINNIS: Okay. And on May 11th when you  
16 were cross-examining Dr. Nader-Tehrani, he explained to  
17 you in response to your question, what's the difference  
18 between net flow and actual flow.

19 His answer was "The observed flows are  
20 affected by the tide, so in a day-to-day there could be  
21 large fluctuations in flow which are significantly  
22 higher than what you see here."

23 CO-HEARING OFFICER DODUC: And your question,  
24 Ms. McGinnis?

25 MS. MCGINNIS: My question is do you

1 understand there's a difference between net flow and  
2 actual flow?

3 WITNESS SUARD: Yes, I do. And that's what I  
4 was pointing out. And the -- when you look at the  
5 difference between net flow and actual flow and the  
6 lack thereof, that's when you get the spikes in EC.

7 MS. MCGINNIS: And what do you understand is  
8 shown on SHR-350?

9 WITNESS SUARD: Can we scoot back down to  
10 Steamboat Slough, please?

11 This shows that, from the no action  
12 alternative of what they said is our no -- our flows  
13 all the way to Boundary 2, that there are different  
14 levels of flow, the lowest of which appears to be  
15 approximately 700 cubic feet per second on average.

16 MS. MCGINNIS: Net, correct?

17 WITNESS SUARD: The net wasn't in that -- it's  
18 a statement above. If DWR wants to provide a document  
19 that says net, I'd be happy to receive that.

20 MS. MCGINNIS: So I'm trying to figure out  
21 whether you understand that this graphic doesn't show  
22 the influence of the tides. Is that your  
23 understanding?

24 MR. KEELING: Objection, vague, ambiguous and  
25 constitutes testimony about the document.

1 CO-HEARING OFFICER DODUC: Actually, it says  
2 so in the upper right-hand corner of the document. So  
3 I'm not sure why you are harping on this, Ms. McGinnis.

4 MS. MCGINNIS: I -- I believe that this --  
5 Ms. Suard's understanding of what these numbers mean  
6 invalidates a lot of her exhibits because it doesn't  
7 show the actual flow. It shows the net flow.

8 So the movement of the water and the  
9 connection she's making to EC levels is -- it's  
10 incorrect.

11 WITNESS SUARD: DWR was directed to provide  
12 worst-case scenario minimum flows for the five  
13 waterways of the North Delta below the intakes, and  
14 that's how I took it as. Those are the minimum flows I  
15 should expect, and those are similar to September 2015.

16 CO-HEARING OFFICER DODUC: Mr. Berliner, do  
17 you wish to add anything to this?

18 MR. BERLINER: Thank you very much.

19 Ms. Suard, do you understand that the EC that  
20 affects your property is influenced by the tides?

21 WITNESS SUARD: It is influenced by the tides  
22 plus other factors.

23 MR. BERLINER: Yes, and the tides is one of  
24 them, correct?

25 WITNESS SUARD: Yes. Tides are influenced

1 also by flows or lack thereof. And also our EC is  
2 influenced by discharges from the farmers as well.

3 MR. BERLINER: And you are comparing -- if I  
4 understand your testimony, your actual real-life  
5 experience on Sutter Slough with modeling impacts that  
6 are used in a comparative sense pertaining to the  
7 WaterFix project, correct?

8 WITNESS SUARD: We're on Steamboat Slough, not  
9 Sutter Slough. And I am giving an example of why DWR  
10 and USBR modeling, with averages and monthly averages  
11 and all that, is incorrect when you're looking at real  
12 impacts to real legal users of water on Steamboat  
13 Slough.

14 MR. BERLINER: So I think your answer to my  
15 question is yes. Let me try it again because I think  
16 we're saying the same thing.

17 You're saying your real-life experience on  
18 Sutter Slough -- or on Steamboat Slough, excuse me --  
19 is that you experience times of high ECs or lower ECs  
20 throughout the course of a day or a month or whatever  
21 period of time it might be. They change, correct?

22 MS. SUARD: They change, based on flow into  
23 Steamboat Slough, freshwater flow into Steamboat  
24 Slough, which pushes back saltwater.

25 MR. BERLINER: And the saltwater comes from



1 downstream, and the freshwater comes from upstream,  
2 correct?

3 WITNESS SUARD: No, that's not entirely  
4 correct.

5 MR. BERLINER: Generally speaking?

6 WITNESS SUARD: That's just one of the  
7 sources. We also get backwash from Cache Slough area.

8 MR. BERLINER: Okay. And you are, if I  
9 understand it, comparing the impact of these different  
10 sources of water in realtime -- in other words, in your  
11 experiences day in and day out, 2015, 2016, today --  
12 against modeled impacts for the California WaterFix,  
13 correct?

14 WITNESS SUARD: Yes, and I'm trying to show  
15 that modeled impacts have nothing to do with reality.

16 MR. BERLINER: And your contention is that, if  
17 you look at this snapshot of a model and say, "You  
18 know, my experience on my property is different than  
19 what you're showing here," correct?

20 WITNESS SUARD: My experience at my property  
21 at 700 cubic feet per second in a dry year has higher  
22 salinity than what you project.

23 MR. BERLINER: And do you understand that  
24 these graphs are not meant to project daily EC or  
25 weekly EC in realtime? They are meant to compare EC

1 under -- or flows, as the case may be on this  
2 particular graphic, flows in a comparative sense from  
3 different WaterFix scenarios, no action against others?

4 MR. KEELING: To the extent the question calls  
5 for technical knowledge about the modeling underlying  
6 the DWR material, it would be beyond the scope of this  
7 witness's expertise.

8 CO-HEARING OFFICER DODUC: Ms. Suard, are you  
9 able to answer the question?

10 MS. SUARD: I didn't understand it, so no.

11 CO-HEARING OFFICER DODUC: Okay.

12 WITNESS SUARD: Can we try it again?

13 MR. BERLINER: In that case, I'm going to  
14 object to her use of these charts. If she's using them  
15 and, as a layperson, doesn't understand the purpose of  
16 these and what they're for and what they show, then her  
17 testimony is unsupported.

18 WITNESS SUARD: I understand that these charts  
19 show what is the minimum flows we can expect with  
20 WaterFix operations.

21 MR. BERLINER: I think that response speaks  
22 for itself. That is not what these charts show. I  
23 think -- her attorney has submitted a comment that I  
24 agree with. I think the witness has testified she  
25 doesn't understand these charts.

1 CO-HEARING OFFICER DODUC: The objection is  
2 overruled. We will include Ms. Suard's testimony. We  
3 will consider your concerns in weighing the evidence  
4 that she's provided.

5 MS. MCGINNIS: Okay. Looking at SHR-363,  
6 please. And actually, is it true that SHR-363 is  
7 listed twice on the Board's website?

8 WITNESS SUARD: This is part of the errata we  
9 have to correct. I took SHR-363, which was five pages.  
10 I split it out to -- you know, so in case there was an  
11 objection to, for example, Sacramento River, which  
12 would be the one that's, you know, a different number,  
13 the one that's 363-5 -- so this is where we have to do  
14 the correction so that there won't be a confusion of  
15 that.

16 MS. MCGINNIS: No, I'm talking about SHR-363  
17 that's listed as a rebuttal exhibit and then SHR-363  
18 that's listed as a surrebuttal exhibit.

19 CO-HEARING OFFICER DODUC: Go up -- yeah,  
20 under. And the same goes for 360.

21 MS. MCGINNIS: That's right.

22 WITNESS SUARD: Yes, 360 is exactly the same  
23 thing; that's true.

24 363, there is a change, I believe, in that I  
25 clarified and it needed to -- it needs to say "errata."

1 That's the difference.

2 MS. MCGINNIS: So what changed --

3 MR. BAKER: If I may interject?

4 MS. MCGINNIS: Sure.

5 MR. BAKER: 360 and 363, the commentary on the  
6 slides I noticed was different, almost revised from  
7 rebuttal.

8 364, from what I can tell, is an exact copy.  
9 So it's just 363 and 360 should be noted as a revised  
10 or an errata.

11 MS. MCGINNIS: So do you plan, Ms. Suard, to  
12 submit both SHR-360 and SHR-360 Errata and SHR-363 and  
13 SHR-363 Errata into evidence?

14 WITNESS SUARD: You know, I said this in the  
15 beginning. We do have to correct -- I don't plan to  
16 duplicate, but there was slight changes. I tried to  
17 explain where those documents came from, make it clear  
18 for the Board and anybody else looking at it. So it  
19 will just simply say 363-Errata.

20 MS. MCGINNIS: So I'm just trying to figure  
21 out whether I have to ask questions on both 363 and  
22 363-Errata --

23 WITNESS SUARD: Okay. Which --

24 MS. MCGINNIS: -- or just one. Do you plan to  
25 submit both into evidence?

1           WITNESS SUARD: Let's look at 363 under  
2 "Surrebuttal Exhibits." That's the one I plan to  
3 submit. 363-2 is the second page.

4           MS. MCGINNIS: Nope, nope. I don't want to  
5 look at that one yet.

6           WITNESS SUARD: Okay.

7           MS. MCGINNIS: So SHR-363 under "Surrebuttal."

8           WITNESS SUARD: Under -- and that will be  
9 corrected to say "Errata."

10          MS. MCGINNIS: Okay. Thank you.

11          Yeah. Okay. So on this SHR-363, which will  
12 be -- SHR-363-Errata --

13          CO-HEARING OFFICER DODUC: I'm sorry,  
14 Ms. McGinnis. How much additional time do you expect?

15          MS. MCGINNIS: I would like another ten  
16 minutes, please.

17          CO-HEARING OFFICER DODUC: All right.

18          MS. MCGINNIS: So the title there in the blue  
19 text says "Modeled or Projected Drinking Water  
20 Quality." But what you really show here is EC and flow  
21 information; is that correct?

22          WITNESS SUARD: Yes. And EC and flow affect  
23 the drinking water on Steamboat Slough.

24          MS. MCGINNIS: So do you understand that  
25 drinking water standards are different than EC and flow

1 standards?

2 WITNESS SUARD: EC is one of the measures for  
3 drinking water, and it's historically been freshwater  
4 on Steamboat Slough. And there are a lot of people who  
5 use that water. We don't use wells at our place, but  
6 there are definitely people who use that for drinking  
7 on Steamboat Slough. So the -- how high EC goes  
8 impacts people on Steamboat Slough.

9 MS. MCGINNIS: And do you understand that the  
10 EC figures that are in DWR-901 and are excerpted onto  
11 you exhibit here, SHR-363-Errata, those -- that  
12 modeling was done to show compliance with D1641?

13 WITNESS SUARD: Yes, I do understand that.

14 MS. MCGINNIS: And do you understand that  
15 D1641 protects beneficial uses and doesn't set drinking  
16 water standards?

17 WITNESS SUARD: The DWR-901 was showing  
18 compliance. And the evidence I presented of EC levels  
19 at SRV and Lower Steamboat Slough and SOI, that in real  
20 life you were not in compliance. So I was doing a  
21 comparison. You could see what really happens compared  
22 to what you say is happening.

23 MS. MCGINNIS: I'm going to try my question  
24 again.

25 So the EC levels that were presented in

1 DWR-901, those were -- is it your understanding that  
2 those -- that modeling was done to show compliance with  
3 D1641?

4 MS. SUARD: Can we go to 901, please? Let's  
5 read what it says.

6 MS. MCGINNIS: Could you read the title,  
7 please.

8 MS. SUARD: "Monthly Average EC Values for  
9 California WaterFix DSM-2 Modeling." So that's showing  
10 monthly averages. And again, I keep saying this.  
11 Monthly averages don't tell the real story. Monthly  
12 averages don't tell the real story.

13 MS. MCGINNIS: And the rest of the title where  
14 it says "Water Quality Monitoring Locations."

15 WITNESS SUARD: "At Water Quality Monitoring  
16 Locations in NDWA Contract."

17 MS. MCGINNIS: So that doesn't say "drinking  
18 water quality," does it?

19 WITNESS SUARD: No, it doesn't.

20 MS. MCGINNIS: Okay. So if we could go to  
21 SHR-360, please. I guess it will be SHR-360 Errata.

22 So these blue arrows, did you add those to the  
23 figure?

24 WITNESS SUARD: Yes, I did.

25 MS. MCGINNIS: And did you add those based on

1 your personal knowledge?

2 WITNESS SUARD: Yes.

3 MS. MCGINNIS: So I --

4 WITNESS SUARD: And I would like to point out  
5 that I didn't put all the homes. I didn't put  
6 everything there. You see the numbers there, the 3,  
7 the 8, the 28 plus 85, the 6? I didn't want to put  
8 that many numbers there. That's like a birthday cake  
9 for somebody who turned a hundred; it would melt.

10 So there's a lot more than the arrows show.

11 MS. MCGINNIS: I'm going to move to strike  
12 this -- at least the arrows. This is hearsay that  
13 cannot support a finding in Government Code 11513(d).  
14 I'm just going to put that objection in the record as  
15 required by that section of APA.

16 CO-HEARING OFFICER DODUC: And I believe  
17 Mr. Keeling has a response.

18 MR. KEELING: And for the record, yes, indeed,  
19 to the extent it's hearsay and this Board has exercised  
20 a somewhat relaxed approach to hearsay, it seems to me  
21 that goes to weight, not admissibility. And in any  
22 event, Ms. Suard is testifying as both percipient and  
23 expert with respect to her narrow area, and hearsay's  
24 allowed.

25 CO-HEARING OFFICER DODUC: I was going to



1 overrule, but since you're accusing me of being  
2 relaxed, Mr. Keeling, I don't know. I --

3 MR. KEELING: That's only --

4 CO-HEARING OFFICER DODUC: You might want to  
5 withdraw that particular portion of your statement.

6 WITNESS SUARD: May I say that I personally  
7 drove up and down and looked at the physical locations.  
8 So where it says "Marina," that's Hidden Harbor. They  
9 have six homes there plus all the boats and everything.

10 CO-HEARING OFFICER DODUC: Thank you. Thank  
11 you, Ms. Suard. I appreciate that you're testifying as  
12 an expert witness.

13 Ms. McGinnis, your objection is overruled.

14 MS. MCGINNIS: Okay. Can we go to SHR-730,  
15 please.

16 So this, what is the date of this presentation  
17 here?

18 WITNESS SUARD: June 17th, 2010.

19 MS. MCGINNIS: And could we go down to the  
20 figure that you discussed in your presentation of your  
21 surrebuttal? One up, I think.

22 So do you understand that in 2010 this was a  
23 different project?

24 WITNESS SUARD: Absolutely.

25 MS. MCGINNIS: And do you know the difference

1 in cfs that is proposed to be diverted?

2 WITNESS SUARD: I believe that WaterFix  
3 proposes to divert more water than what this project  
4 talks about. And my point is that, however you divert  
5 the water, whether it's by barriers or tunnels or  
6 surface conveyance, when you remove the water from  
7 Steamboat Slough, Sutter Slough, when you remove it  
8 from the North Delta, whatever method, you impact the  
9 water quality, you impact the water flow, velocity.  
10 It's impact.

11 And this particular -- this -- I had submitted  
12 this into evidence because it was an example of me  
13 going to the Bay Delta Conservation Plan meetings,  
14 asking that they come speak to us, Karla Nemeth and  
15 crew come and talk to us about impact on Steamboat  
16 Slough because we were concerned that this document and  
17 that plan lowered our flow by 50 percent potentially;  
18 while, if you go down further, it increased EC only a  
19 little bit on their modeling.

20 CO-HEARING OFFICER DODUC: All right. All  
21 right. All right.

22 WITNESS SUARD: But we were all questioning  
23 the modeling.

24 CO-HEARING OFFICER DODUC: I think this is  
25 going way beyond the question.

1 MS. MCGINNIS: And I'd move to strike that  
2 response as unresponsive to my question.

3 CO-HEARING OFFICER DODUC: And your question  
4 again?

5 MS. MCGINNIS: Do you understand that the  
6 current project proposes to divert less water than what  
7 was shown in this figure?

8 CO-HEARING OFFICER DODUC: Answer that  
9 question, Ms. Suard.

10 WITNESS SUARD: No. I believe it's the same  
11 amount or a little bit more.

12 CO-HEARING OFFICER DODUC: Ms. Meserve?

13 MS. MESERVE: I would just note I believe that  
14 the cross-examiner is trying to mislead the witness.  
15 There's always been various alternatives with respect  
16 to what used to be the BDCP, but the proposed project  
17 at that time, my understanding, was 9,000 cfs.

18 CO-HEARING OFFICER DODUC: In any case,  
19 Ms. Suard has answered the question. We are moving on.

20 MS. MCGINNIS: Would you give me just one  
21 moment to review my notes, make sure I don't have to  
22 ask any more questions?

23 CO-HEARING OFFICER DODUC: As she's doing  
24 that, Mr. Keeling, please consult with Ms. Suard about  
25 whether or not you need to redirect.

1 MS. MCGINNIS: No further questions. Thank  
2 you.

3 CO-HEARING OFFICER DODUC: Any redirect,  
4 Mr. Keeling?

5 MR. KEELING: No redirect. And we will be  
6 happy to follow whatever instructions the Board gives  
7 us with respect to the correction of any documents and  
8 the submission of an exhibit list so that we can move  
9 these into evidence.

10 CO-HEARING OFFICER DODUC: All right.  
11 Ms. Suard has requested that she be allowed to submit  
12 in writing her exhibits, the list of her exhibits and  
13 the corrections of their labeling.

14 You will have until noon tomorrow to do so.

15 And, Ms. McGinnis, Mr. Berliner, you may have  
16 until noon Thursday -- I hope my day's correct -- yes,  
17 Thursday to file the objections.

18 MR. BERLINER: If I could, is the -- are the  
19 corrections simply limited to labeling, or are they  
20 going to be changing the actual document?

21 CO-HEARING OFFICER DODUC: My understanding is  
22 it's the labeling.

23 WITNESS SUARD: Correct. It's the word  
24 "errata" on a couple of them, right? These guys were  
25 helping me this morning.

1 MR. BAKER: That is correct.

2 MR. BERLINER: Thank you very much.

3 CO-HEARING OFFICER DODUC: All right. Thank  
4 you, Ms. Suard.

5 WITNESS SUARD: Thank you.

6 MR. KEELING: Thank you.

7 CO-HEARING OFFICER DODUC: Let me ask the  
8 court reporter. Are you okay with us continuing?

9 THE REPORTER: (Nods.)

10 CO-HEARING OFFICER DODUC: All right.

11 Ms. Womack, thank you for waiting.

12 MS. WOMACK: Good afternoon. Suzanne Womack,  
13 Clifton Court LP.

14 I have a little question. The DWR could --  
15 let's see. They didn't have to present their witness,  
16 and I believe you said they could put into the record  
17 the documents. Are they in the record now? Is that  
18 something I can access now? Or is that something --  
19 I'm not sure. So they're in the record, so if I say  
20 the number, they'll pop up?

21 CO-HEARING OFFICER DODUC: Yes, they're in the  
22 record.

23 MS. WOMACK: Okay. That's great.

24 And then what I want to -- I have until the  
25 17th. I have two documents. They're actually DWR

1 documents from the 1970 and 1971. One's a photo that I  
2 will be submitting.

3           And, you know, I didn't do it earlier because  
4 I knew you frowned on looking in the past. So that's  
5 why I hadn't submitted too many documents from the past  
6 because it's -- you know, anyway.

7           So I can submit those. Can I submit them at  
8 the end here, or do I need to submit them from home, or  
9 can I use them here? What -- I just -- I don't know  
10 about -- I have the two documents.

11           CO-HEARING OFFICER DODUC: Since I don't  
12 exactly know what those documents are yet --

13           MS. WOMACK: Yes.

14           CO-HEARING OFFICER DODUC: Are they part of  
15 your rebuttal -- I'm sorry -- surrebuttal testimony?

16           MS. WOMACK: Well, they just back up facts and  
17 figures, and they will be going in. They're -- like I  
18 said, there's -- one is the DWR picture and one is a  
19 DWR settlement.

20           CO-HEARING OFFICER DODUC: So let me rephrase.

21           Are they specifically mentioned in your  
22 surrebuttal testimony that was submitted to us,  
23 CCLP-34?

24           MS. WOMACK: No, they couldn't be.

25           CO-HEARING OFFICER DODUC: Or are they

1 responsive to the ruling that we issued based on DWR's  
2 request for official notice?

3 MS. WOMACK: I believe they're responsive. I  
4 mean, they're what you said you can submit what you  
5 wanted as a response.

6 CO-HEARING OFFICER DODUC: So if they are not  
7 expressly mentioned in your surrebuttal testimony, then  
8 you may not bring it up today.

9 MS. WOMACK: Okay.

10 CO-HEARING OFFICER DODUC: But you may submit  
11 those to us per our ruling.

12 MS. WOMACK: Okay. I just -- you know,  
13 there's numbers, is all.

14 CO-HEARING OFFICER DODUC: Why don't you work  
15 with the staff in the numbering and in submitting that  
16 to us.

17 MS. WOMACK: No, no. I mean there's physical  
18 numbers of amounts of money and stuff that -- it's  
19 another document from DWR that they didn't put in that  
20 shows kind of a breakdown of what they paid for  
21 everything.

22 CO-HEARING OFFICER DODUC: That's fine. We  
23 will -- we will --

24 MS. WOMACK: So I may make references to it by  
25 accident. I'll try not to, but I don't know. It just

1 kind of shows -- it's very illuminating.

2 CO-HEARING OFFICER DODUC: Mr. Mizell.

3 MR. MIZELL: Yes, thank you. Tripp Mizell,  
4 DWR. According to your July 7th notice, the additional  
5 production of documents is limited to other court  
6 records or other official documents. To the extent  
7 that on the 17th we're looking at unsubstantiated  
8 photos or other documents that don't rise to the level  
9 of what is officially noticeable, DWR will have an  
10 objection to those as coming in.

11 CO-HEARING OFFICER DODUC: You may make that  
12 objection then.

13 MS. WOMACK: It's a DWR photo. I have the  
14 original with me. I can show you that.

15 CO-HEARING OFFICER DODUC: We are not going to  
16 get into that now.

17 MS. WOMACK: Good. Okay. Let's get going on  
18 this.

19 My father, last time we were here and spoke,  
20 was a deer in headlights because you cannot, I realize,  
21 read here, read a different document up there, and then  
22 respond to somebody. So I had said, "Why didn't you  
23 respond to Tripp Mizell when he brought up, you know,  
24 the old judgment thing?"

25 He said, "What are you talking about?"



1           So really it's like my father is here for the  
2 first time, and I would like him to be able to tell his  
3 story today. I'd like to shut up so he can. I'd like  
4 you to hear 50 years of what's happened. I'm going to  
5 kind of prod him along a little bit.

6           I don't think it will take more than a half  
7 hour at the most, but I'm going to try for 15.

8           CO-HEARING OFFICER DODUC: Okay. Thank you.

9           MS. WOMACK: So if --

10          CO-HEARING OFFICER DODUC: Before you start --

11          MS. WOMACK: Well, golly. Well, you know, it  
12 could take longer.

13          CO-HEARING OFFICER DODUC: Mr. Mizell?

14          MR. MIZELL: Yes, just as a point of  
15 clarification of process here, we have testimony  
16 submitted to and I guess sworn to by Ms. Womack. We  
17 have nothing submitted by her father. And at this  
18 point, I'm unclear as to what the boundaries are of  
19 what we are about to listen to.

20                 Is he taking her place as the testimony  
21 submitter, and is he going to be bound by the  
22 boundaries of what Ms. Womack submitted on June 8th?  
23 How are we going to proceed?

24          CO-HEARING OFFICER DODUC: Yes, I'm pulling up  
25 what you submitted, Ms. Womack, on June 8th, which is

1 CCLP-34. Now, Mr. Moore --

2 MS. WOMACK: Yes.

3 CO-HEARING OFFICER DODUC: -- must be  
4 consistent and stay within the parameters of what you  
5 submitted as part of CCLP-34.

6 MS. WOMACK: Sure, sure. I'm sure he will.  
7 Most of it's public knowledge. So let's see. We'll do  
8 our best.

9 CO-HEARING OFFICER DODUC: Mr. Mizell?

10 MR. MIZELL: Yes, I just have two additional  
11 procedural points, and they'll be quick.

12 Can we at least know for the record whether or  
13 not Mr. Womack has been sworn and also --

14 MS. WOMACK: It's Mr. Moore.

15 MR. MIZELL: Mr. Moore.

16 MS. WOMACK: And he was sworn last time.

17 MR. MIZELL: Very good. Also, DWR is going to  
18 lodge a standing objection to the basis of any  
19 testimony in surrebuttal that is premised on my  
20 questioning as a cross-examiner. That is not proper  
21 basis for surrebuttal testimony. And I'll leave it at  
22 that.

23 CO-HEARING OFFICER DODUC: All right. We'll  
24 make notice of that.

25 Now, Ms. Womack and Mr. Moore, please proceed.

1 MS. WOMACK: Thank you so much.

2 SHELDON MOORE and SUZANNE WOMACK  
3 called as surrebuttal witnesses on behalf  
4 of Protestant Clifton Court LP, having  
5 been previously duly sworn, were examined  
6 and testified further as hereinafter set  
7 forth:

8 DIRECT EXAMINATION BY MS. WOMACK

9 MS. WOMACK: Okay, Dad. So the project --  
10 we're going to go back to the -- you were at the  
11 beginning of the State Water Project. You moved into  
12 Clifton Court, 11,000 acres. It was a run-down  
13 property with great water.

14 My grandfather bought the property, spent over  
15 a hundred thousand upgrading the property, putting in  
16 asparagus, which means you plant something and you wait  
17 a couple years. It's kind of like almond trees, and  
18 they start producing, and then you have it for 15, 20  
19 years. So this --

20 CO-HEARING OFFICER DODUC: I've seen asparagus  
21 plants. They're really cool.

22 MS. WOMACK: They are really cool, yeah. I  
23 remember as a kid we used to go -- well, yeah. We used  
24 to grow asparagus.

25 CO-HEARING OFFICER DODUC: All right. We're

1 going off site here.

2 Mr. Berliner.

3 MS. WOMACK: Oh, golly, this is bad.

4 MR. BERLINER: I'm a bit unclear as to who the  
5 witness is here at this point. I thought Mr. Moore was  
6 going to testify, not Ms. Womack. So if there's a  
7 question for Mr. Moore, I think we ought to hear the  
8 question as opposed to lengthy testimony without any  
9 questions.

10 CO-HEARING OFFICER DODUC: Ms. Womack.

11 MS. WOMACK: I'll do my best. I am not a  
12 lawyer. I don't have the money to have -- how many  
13 lawyers?

14 CO-HEARING OFFICER DODUC: Let's do this.

15 Let's do this, Ms. Womack.

16 MS. WOMACK: Yes.

17 CO-HEARING OFFICER DODUC: Let's take 15  
18 minutes and present the information, the testimony,  
19 however you and Mr. Moore would like to --

20 MS. WOMACK: I appreciate that.

21 CO-HEARING OFFICER DODUC: -- that you're most  
22 comfortable with as long as, again, it is within the  
23 parameter of the testimony that you submitted to us.

24 MS. WOMACK: Mm-hmm. I believe it is.

25 Okay. So, Dad, over 50 years ago when,

1 obviously, we bought the ranch -- you didn't buy the  
2 ranch; my grandfather did.

3           Were you a landowner in -- when the  
4 condemnation took place? You owned -- yeah, you were  
5 not an owner of any of the condemned land.

6           So at that point when we knew about the State  
7 Water Project, what was the State Water Project  
8 presented to you as, that you knew it to be? What kind  
9 of water were they going to be pumping?

10           WITNESS MOORE: Yes. It was presented they  
11 were going to strictly pump -- well, first of all, they  
12 were -- they were strictly supposed to pump the -- they  
13 added the extra 5,000 feet to the canal so they could  
14 pump in the winter.

15           MS. WOMACK: What -- okay.

16           WITNESS MOORE: They were going to pump --  
17 they could pump 10,000 second-feet in the winter.

18           MS. WOMACK: So they were going to pump 5,000  
19 cfs to begin with in the winter.

20           WITNESS MOORE: That was the original plan.

21           MS. WOMACK: That was the original plan. And  
22 in 1967, when your property was taken in a three-day  
23 quit notice, is that what you believed to be what was  
24 going to happen?

25           WITNESS MOORE: I was confused. We didn't

1 know what was happening. They didn't tell us anything.  
2 And we -- and they omitted so much stuff. I mean,  
3 it's -- I was -- I was lead to believe totally  
4 different things.

5 MS. WOMACK: Okay. So I know we had the  
6 original press document of 5,000 cubic feet taken  
7 during the winter to prevent floods. This is how this  
8 project was sold.

9 Now, so what was it like in the area? They  
10 were -- you were -- you were taking 40 -- the whole  
11 area of Clifton Court was taking 40 cfs when you took.  
12 And you told me that the CVP was just getting going,  
13 and it was taking maybe a couple thousand. So you kind  
14 of were used to that.

15 What was it like when they started taking  
16 5,000 and then 10,000, and then during flood times  
17 15,000 cfs? What was that like?

18 WITNESS MOORE: Well, what happens is you'll  
19 have water always coming, but the tide is going out and  
20 the water is coming in. I mean, it's always going to  
21 the pumps. And then the tide's going out; it's coming  
22 in. It's a disaster.

23 MS. WOMACK: Disaster to your --

24 WITNESS MOORE: The property. They didn't  
25 take any consideration -- they didn't take any

1 consideration on the amount of water. They take up to  
2 this -- the -- both projects take 15,000 second-feet in  
3 an area that was used to taking 40 second-feet. There  
4 was no compensation. There was no mention of that.  
5 And it was a disaster.

6 And the problem with one is that they fixed  
7 some people. They worked with some people, paid them.  
8 They never did anything to us. They just stiffed us,  
9 and I was stuck for all years. So it's cost me a great  
10 deal of money.

11 MS. WOMACK: Let's talk about your -- let's  
12 talk about the levees to start with.

13 During the construction of the Clifton Court  
14 Forebay, there was problems with the levees. Could you  
15 talk about the problems with the levees during the  
16 construction? What happened? Why were the levees  
17 hurt?

18 WITNESS MOORE: Well, for some reason, they  
19 were -- they were putting rock in there, hundreds of  
20 truckloads when the water -- when we were at flood  
21 stage.

22 MS. WOMACK: But the hundreds of truckloads  
23 were to build the forebay wall; was that correct?

24 WITNESS MOORE: It was to build -- it was  
25 to -- it had to do with the -- it had to do with the

1 forebay.

2 MS. WOMACK: Construction of the forebay, so  
3 hundreds of trucks went by on our levees.

4 WITNESS MOORE: Yes, and they were bringing --  
5 the water was high, and there was -- I tried to stop  
6 them, and they -- I couldn't stop them.

7 MS. WOMACK: Okay.

8 WITNESS MOORE: And so -- and then --

9 MS. WOMACK: So -- so this is similar to what  
10 CWF says; "Oh, if there's levee problems, we'll fix  
11 them." So did they fix your levee?

12 WITNESS MOORE: No.

13 MS. WOMACK: You -- CCLP-15 shows that we  
14 spent over -- my grandfather spent over \$53,000 fixing  
15 those levees. The document that I will be submitting  
16 shows that after -- it appears in the judgment papers.  
17 After prolonged fighting, DWR gave you \$15,000 for  
18 those levees. Do you know why? Who knows, huh?

19 WITNESS MOORE: You know, I don't know.

20 MS. WOMACK: Were you part of negotiations?

21 WITNESS MOORE: No, I wasn't.

22 MS. WOMACK: You weren't an owner. What --  
23 you were -- what were you?

24 WITNESS MOORE: I had a lifetime lease.

25 MS. WOMACK: You had a lifetime tenancy.



1           So -- and I know my grandfather depended on  
2 you to turn the farm into a fabulous farm.

3           Now, since then, you've talked about the  
4 levees, about the pumping and what it does to the  
5 levees. Now, 40 to 80 is a hundred percent more water.  
6 We're talking 40 cfs to, at times this winter, 21,000  
7 cfs. I know we did to 15,000. That's 325 times, not  
8 percent, times the amount of water going through the  
9 same area.

10           Now, did DWR -- let's see. They gave you  
11 15,000 to fix the levees. Did they disclose what --  
12 that they would fix levees as they -- if anything  
13 happened in the future from their pumping? Was there  
14 any disclosure that they were going to pump more

15           WITNESS MOORE: Oh, no, no.

16           MS. WOMACK: Was there any disclosure that  
17 they would fix anything, or did you -- I just -- it's  
18 just so hard to understand.

19           Now, you talked earlier -- you talked earlier,  
20 and I really want to touch on this, that DWR tells us  
21 in August that we must sue to get any damages. But yet  
22 DWR has fixed somebody.

23           I know from 1992 to 2000, you were really  
24 interested in what DWR does. And in 1992 -- this is  
25 CCLP-17 -- they spent \$14 million dredging the forebay

1 and rocking Twitchell Island. We weren't given any  
2 sort of money for any -- any damages.

3 In 1997, the levee rehab of the South Delta  
4 after the floods, \$70 million was spent. Shortly after  
5 that time, our levees leaked. We had \$90,000 worth of  
6 damages. And then five years later, we had a permit we  
7 had to pay. It sure seems like they should have had  
8 the permit first.

9 But nobody during that 1997 time ever came and  
10 said, "Geez, we've been pumping so much water." Did  
11 they ever come and say, "Hey, how are your levees  
12 holding up?"

13 WITNESS MOORE: No. And any letters I sent to  
14 them, they ignored.

15 MS. WOMACK: And you sent letters on a regular  
16 basis asking for help?

17 WITNESS MOORE: Well, you know, as best I  
18 could.

19 MS. WOMACK: Did you make phone calls?

20 WITNESS MOORE: Did not.

21 MS. WOMACK: You didn't? You made phone  
22 calls. You referenced them sometimes.

23 WITNESS MOORE: Did I?

24 MS. WOMACK: Yeah. '85.

25 WITNESS MOORE: Well, phone calls, one time.

1 MS. WOMACK: Over the years I know you started  
2 writing because there was simply -- you were ignored.

3 And then in 2000, right next to Tracy fish  
4 facility -- we call it Dell's Boat Harbor.

5 CO-HEARING OFFICER DODUC: Okay. Ms. Womack,  
6 I am looking at your testimony.

7 MS. WOMACK: Yes.

8 CO-HEARING OFFICER DODUC: And I don't see any  
9 references to what you are discussing right now.

10 MS. WOMACK: Oh, that's in -- this is CCLP-5.  
11 I'm looking at --

12 CO-HEARING OFFICER DODUC: I'm looking at  
13 CCLP-34 --

14 MS. WOMACK: Oh, about what we did. Okay.

15 CO-HEARING OFFICER DODUC: -- which is your --  
16 your surrebuttal testimony --

17 MS. WOMACK: Okay.

18 CO-HEARING OFFICER DODUC: -- which is what  
19 you need to be focused on right now.

20 MS. WOMACK: Okay. Well, we can move on.

21 I just wanted to show that they -- you know,  
22 it's so hard. We weren't able to -- you know, we got  
23 all fired up about Alan Davis and had all this stuff,  
24 and then they withdrew their expert witness. And we  
25 had so many questions, and so it's a little murky, and

1 I do apologize, but that's why it's murky.

2 So anyway, moving on. There is yet another  
3 example, but I will skip that, of the 3 million.  
4 That's been in other -- it's already in our testimony.  
5 Anyway, this is just they pick and choose who they want  
6 to help.

7 Now, was -- did -- was an EIR/EIS ever done on  
8 the State Water Project?

9 WITNESS MOORE: Not that I know of. I asked  
10 about it. It's incredible.

11 MS. WOMACK: Yeah.

12 WITNESS MOORE: It's incredible.

13 MS. WOMACK: Yeah. Okay. Let's move on. So  
14 we've talked about levee damage.

15 Now, let's see. This is a little harder.  
16 Okay. We talked -- well, just a brief thing. Security  
17 patrols, when you signed these documents, there were  
18 24-hour security patrols.

19 What happened to the security patrols?

20 WITNESS MOORE: Budget cuts. Budget cuts.  
21 They cut them out.

22 MS. WOMACK: They cut them out. So they  
23 weren't worried about your security. They were worried  
24 about the budget.

25 And did you notice a change in vandalism after

1 the security cuts?

2 WITNESS MOORE: I couldn't keep up with them.

3 MS. WOMACK: The vandals?

4 WITNESS MOORE: Yeah. I couldn't keep up.

5 MS. WOMACK: There was constant vandalism.

6 Yeah, more money spent. So again, operations are huge.

7 So let's see. Let's see.

8 The change in the water quality, how did the

9 water quality change from 1970? Was it the same?

10 WITNESS MOORE: Well, actually, you know, the

11 clarity -- here's the problem. With all that pumping,

12 they suck -- all the silt that's in the rivers, they

13 suck it and try to send it south. I mean, they didn't

14 intend to do it, but that's the way it works out.

15 MS. WOMACK: You mean the rivers or the levee

16 banks or both?

17 WITNESS MOORE: When you suck all the silt out

18 of the bottom, then the levee banks tend to slough off

19 because the silt holds the levees. So you suck all

20 that out, and it was -- you know, I mean, it was just

21 major, major, major.

22 MS. WOMACK: Yeah, yeah. I -- well, in fact

23 you had to re-rock your levees. So you re-rocked them

24 in '70, and then you rocked them in 1980. You had to

25 pull money out of CDs to be able to afford to rock your

1 levees, but you had to, right?

2 WITNESS MOORE: I had no other source of  
3 money.

4 MS. WOMACK: Yeah. And then in 1990, '99,  
5 right after -- really, it's always after the floods  
6 that that happened.

7 So, next, let's see. Regarding seepage, I  
8 know, you don't --

9 My father says, "Eh, seepage, what the heck,"  
10 you know.

11 But you clearly didn't -- you spent -- 112,000  
12 of my grandfather's money -- of the settlement was  
13 spent putting in all kinds of settlement -- putting in  
14 drainage systems, moving your -- you went from having  
15 a -- a system -- a floodgate to you had to pump things  
16 in, you had to put in tile drains. You spent \$112,000.

17 I don't think -- did you believe that that  
18 would hold -- the engineers had told you that the CTB  
19 would hold. Did you believe that?

20 WITNESS MOORE: To tell you the truth, I  
21 didn't.

22 MS. WOMACK: Yeah. You were paid \$1620 in  
23 damages for 1970 and '71. And again, the paperwork I  
24 will be submitting shows that.

25 Was -- eventually, the CTB was replaced in the

1 Clifton Court Forebay, the concrete-treated base. That  
2 was the only thing was replaced with rock.

3           When that happened, did DWR ask you if you  
4 needed any rock or how your levees were doing since  
5 they were having to replace?

6           WITNESS MOORE: They never -- they never said  
7 a thing. They never -- they never offered any help in  
8 any time.

9           MS. WOMACK: Yeah.

10           WITNESS MOORE: Wouldn't even -- like I said,  
11 they wouldn't answer the letters.

12           MS. WOMACK: Wouldn't answer letters. Yeah.

13           WITNESS MOORE: Okay.

14           MS. WOMACK: So was Mr. -- was my  
15 grandfather --

16           CO-HEARING OFFICER DODUC: Hold on. Let's  
17 give them another five minutes to wrap up.

18           MS. WOMACK: Yeah, we're getting close. It  
19 took a while.

20           So was my grandfather wrong to take the  
21 engineer's word, and was he wrong to depend on the  
22 honesty and integrity? Because Mr. Mizell seems to  
23 think that, since you signed the judgment, DWR doesn't  
24 have to correct seepage problems with the forebay.

25           Have you ever not had seepage problems with

1 the forebay?

2 WITNESS MOORE: Well, not that I -- I've  
3 always had them as far as I know.

4 MS. WOMACK: Does the problems get worse when  
5 they dredge the Clifton Court Forebay?

6 WITNESS MOORE: Well, when they go through  
7 that sandbar that was in there, yeah, the water does  
8 come -- the silt kind of seals it, and they pump it  
9 back out, so it's worse.

10 MS. WOMACK: It's worse, yeah.

11 WITNESS MOORE: But they have to do it because  
12 all the -- it gets full.

13 MS. WOMACK: So the next thing is is  
14 technically -- I've talked to the dams people, and they  
15 say technically the forebay is a type of dam.

16 Did you expect -- I have a hard time not  
17 laughing. Did you expect the State to build a dam that  
18 would seep and leak and that they would never fix it?  
19 Did you expect that in 1970, '71?

20 WITNESS MOORE: We shouldn't. We shouldn't.  
21 I never did, no.

22 MS. WOMACK: Yeah. I don't know why. They  
23 assumed that -- did you assume that if there was a  
24 seepage problem that developed more, it would be fixed  
25 like they fixed it in '70 and '71?



1           WITNESS MOORE: Well, this is what I assumed,  
2 and I was wrong.

3           MS. WOMACK: Well, and as we've seen with the  
4 Oroville Dam, DWR has a bad habit of ignoring problems  
5 and simple maintenance. When small problems are fixed,  
6 they can become -- aren't fixed, they become huge  
7 disasters.

8           And I think I should -- I would like to just  
9 note at this point that, when I submitted this  
10 document, I had been trying to get Dams to respond to  
11 me, Safe Dams and Safety. After this document was  
12 submitted, two days later, they called me and they  
13 said, "Why, you have no reason to worry about seepage  
14 being" -- you know, "wrecking your embankments."

15           I said, "How do you know that?"

16           And they said, "Oh, well, we know because you  
17 would have seepage here."

18           And I said, "Well, have you been on my  
19 property?"

20           CO-HEARING OFFICER DODUC: All right,  
21 Ms. Womack.

22           MS. WOMACK: "No, we hadn't."

23           Well, I just find it very -- I don't even find  
24 it -- it's sad, you know, that we don't get anything.

25           The last part. In the 1970 judgment regarding

1 future damages, did they tell you how you could go  
2 about getting future damages?

3 WITNESS MOORE: No.

4 MS. WOMACK: There was nothing to say how, if  
5 there is a problem, this is how you get your damages.

6 So we have years of damages and years of SWP  
7 and CVP ignoring our requests to work out and fix  
8 damages. And recently, the last -- last August we were  
9 told we need to sue.

10 Well, I've been here at the water project.  
11 I've found that even the cities can't afford to sue.  
12 DWR can afford to keep lawyers going on and on and  
13 keep -- you know, I'm told hundreds of thousands of  
14 dollars to sue the State. We simply don't have that.  
15 But we would like things done.

16 Now, a second thing you can do when you're  
17 damaged by DWR is you can file a -- you know, I  
18 worked -- I of course work with the Delta Field  
19 Division. When they basically wrote back and said that  
20 we couldn't -- we didn't have seepage problems because  
21 they're Seep 6 and it's working. I asked my dad about  
22 Seep 6, and he said --

23 Well, tell us about Seep 6.

24 WITNESS MOORE: Well, Seep 6 is a drainage  
25 pump, and the problem is it's above ground level, the

1 bottom of it, as near as I can tell.

2 MS. WOMACK: It's on -- it's on --

3 WITNESS MOORE: It's above my ground level.

4 MS. WOMACK: So it couldn't possibly take your  
5 seepage water, but because it's working, we can't  
6 possibly have seepage is what we've been told.

7 So I wrote back very specific question. How  
8 deep is Seep 6? What type of pump is it? How far down  
9 do you drain the seepage water? What's the purpose?  
10 There's one Seep 6 on the entire mile and a half of  
11 levees.

12 We filed a -- we've heard nothing as of today.  
13 Let's update that.

14 We filed a formal complaint with DWR, and  
15 we've heard nothing. We are tired of being ignored.  
16 We're tired of being shabbily treated.

17 Now, why -- the last thing is -- it's really  
18 not the -- I guess it will have to be the last thing  
19 because I didn't know all the stuff they were going to  
20 turn in. But when the judgment came through, it was --  
21 the judgment -- let's see. They took your land in  
22 1967, August, and they paid a little bit to my  
23 grandfather.

24 And he immediately used all that money, had to  
25 use it to just to get the land -- so they took half the

1 land, but you couldn't farm on the other part either  
2 because there was no water drainage and all that. So  
3 they had to wait till there was a bank, and then they  
4 put in -- all of drainage and water systems had to go  
5 in. It was a year to two years, correct, before you  
6 were running?

7 WITNESS MOORE: It was several years, yeah.

8 MS. WOMACK: Several years. So not only did  
9 you not get money from the 570 acres and you couldn't  
10 replace it because you didn't get money until actually  
11 January '71 -- you didn't get it; my grandfather got  
12 money. But that -- so I lost my train of thought. I  
13 don't know why.

14 CO-HEARING OFFICER DODUC: Your last point,  
15 Ms. Womack --

16 MS. WOMACK: It's my last point, yes.

17 CO-HEARING OFFICER DODUC: -- is why he signed  
18 the 1970 judgment.

19 MS. WOMACK: Yeah. So -- but basically what  
20 I'm getting to is -- so basically we haven't -- I know.

21 It was -- so we have from August all the way  
22 until, basically, they got the money January -- because  
23 it was Christmas, so January 1971. Woo-hoo.

24 You sign this; you get the check.

25 You hadn't been able to -- you hadn't received

1 money for crops. You hadn't received money for lost  
2 land, nothing. You were just asked to hold on, kind of  
3 squeezing. Other people were paid off by '69, which of  
4 course the Mulvaney [phonetic] -- if you look at the  
5 Mulvaney -- the Mulqueeney [phonetic] versus us, the  
6 two different places.

7           So anyway, so why did you sign this? I know  
8 my grandfather was in ill health. He'd had a heart  
9 attack probably brought on by this. But why did you  
10 sign as a tenant?

11           WITNESS MOORE: I had no choice. I had no  
12 money, and I -- I had no money, and so I had to -- I  
13 needed some money, so even 15,000.

14           MS. WOMACK: Anything was better. So they  
15 kind of backed you into a corner.

16           WITNESS MOORE: Yeah.

17           MS. WOMACK: Yeah. So --

18           WITNESS MOORE: It was -- yeah.

19           MS. WOMACK: So do you trust DWR to fairly  
20 deal with us after our long history?

21           WITNESS MOORE: Well, the record's out there.  
22 You cannot trust them.

23           MS. WOMACK: Yeah. Anyway, that's basically  
24 it. Yeah.

25           I -- there's other things I would have gone

1 into more explanation, but I couldn't respond -- well,  
2 anyway. The other people -- Alan Davis brought up a  
3 lot of things I'd like to have responded to, but I  
4 can't. And I really -- I think it's tawdry to do that,  
5 not to allow to put things into evidence, to put in the  
6 whole -- if you're going to talk -- you said we're not  
7 going to the past. So, you know, I didn't bring in  
8 condemnation papers; you know, DWR did.

9 But, you know, I would rather -- I would like  
10 to have looked closer at the documents submitted, and I  
11 was unable to, and it's unfortunate. But I do have  
12 some -- they are actually DWR documents I will be  
13 submitting.

14 And I have a little bit of housekeeping.  
15 Could I see CCLP-11? This is to do with what we've  
16 done in the past, since we're at the end here.

17 And if you can bring that up just a little  
18 bit.

19 We -- gosh, I'm terrible in dates but --  
20 Oh, a little too much.

21 Western Canal, it's a historic canal that was  
22 built in the 1870s, not that that seems to matter  
23 anymore, but that's what it's called, Western Canal.  
24 DWR has shortened it to "West."

25 CO-HEARING OFFICER DODUC: And, Ms. Womack,

1 you're bringing this up why?

2 MS. WOMACK: Because you asked Mr. Mizell to  
3 meet with me about it, and he hasn't. I would like my  
4 name -- the name put on what it is. It's what we draw  
5 our water rights from, "Western Canal." I don't know  
6 why --

7 CO-HEARING OFFICER DODUC: And this is  
8 definitely outside the scope of your surrebuttal  
9 testimony.

10 MS. WOMACK: Oh, it is. This is housekeeping.  
11 This is -- when -- how many months do I wait on this?

12 Another thing is that Mr. Bednarski was  
13 supposed be talking to me about not being included in  
14 the license diversion. Not heard -- I haven't heard  
15 from him. We have these promises made to you. It's  
16 nice and shiny in here, but then, you know, I haven't  
17 heard anything. So anyway, those are two housekeeping  
18 things, and that's it. And we'd like to go.

19 CO-HEARING OFFICER DODUC: Well, you don't get  
20 to go just yet.

21 Mr. Mizell, I assumed you will be voicing an  
22 objection, but would you also, if not today, then when  
23 you can, submit to us a response to the two  
24 housekeeping items that Ms. Womack voiced.

25 MR. MIZELL: To be specific, one is why the

1 Department hasn't changed the County of Contra Costa's  
2 assessor maps to reflect what Ms. Womack believes is  
3 the correct name?

4 MS. WOMACK: This is Western Canal is what it  
5 is historically called. And this -- I believe the APN  
6 numbers. It was not called West Canal. You call it  
7 "West Canal" in all your documents. I would like it  
8 called "Western Canal." I would like to have it called  
9 "Western Canal."

10 MR. MIZELL: I'll file a stipulation that our  
11 record can be modified to Western Canal. I don't think  
12 anybody is going to have a concern with that, and I  
13 will make that submission to the Board soon.

14 CO-HEARING OFFICER DODUC: All right.

15 MS. WOMACK: Thank you.

16 CO-HEARING OFFICER DODUC: And then your  
17 second housekeeping item was regarding Mr. Bednarski.

18 MS. WOMACK: Yeah, 8/10/16, I was looking back  
19 through their notes, and you said, "Mr. Bednarski, I'd  
20 want you to" -- about licensed diversions -- we were  
21 not included in the licensed diversions and what was  
22 going on with that, that -- included as part of the  
23 group of licensed diversions for the -- I don't know,  
24 something to do with the licensed -- it's in the  
25 8/10/16.



1                   Anyway, I haven't heard from Mr. Bednarski.

2                   CO-HEARING OFFICER DODUC: Mr. Mizell,  
3 reexamine that portion of the transcript.

4                   MR. MIZELL: Certainly. Can I get a citation  
5 from Ms. Womack?

6                   MS. WOMACK: Oh, it's on 8/10/16. It's during  
7 Bednarski -- I don't know. I looked through and found  
8 it. I just -- it's in the -- you know, I -- it's --  
9 it's there. I guess you could cite Tam Doduc.

10                  CO-HEARING OFFICER DODUC: All right. Now,  
11 Mr. Mizell?

12                  MR. MIZELL: Certainly. I have an objection  
13 to the testimony that was proffered on Oroville Dam.  
14 That is not within the scope of her surrebuttal  
15 testimony, and I move to have it struck.

16                  MS. WOMACK: It was in my surrebuttal.

17                  CO-HEARING OFFICER DODUC: And refresh my  
18 memory.

19                  MS. WOMACK: Yeah. I -- it's -- oh, I read --  
20 I read.

21                  CO-HEARING OFFICER DODUC: Actually, it is.

22                  MS. WOMACK: Yeah, I know. Hot dog.

23                  CO-HEARING OFFICER DODUC: I see it.

24 Objection overruled.

25                  MS. WOMACK: Thank you.

1           MR. MIZELL: Very well. Then I will simply  
2 lodge an objection for the record under Government Code  
3 1151(3)(d), understanding that the Board has decided to  
4 accept hearsay testimony from both lay witnesses and  
5 expert witnesses.

6           But for our record purposes, I'm objecting  
7 to -- if we numbered the paragraphs in her testimony  
8 sequentially -- and I'm applying this hearsay objection  
9 to the oral testimony of Mr. Moore as well since they  
10 were speaking from the same document today -- that I'm  
11 objecting to the hearsay contained in Paragraphs 3, 4,  
12 5, 6, 7, 9, 10, 11, all but the first two sentences of  
13 12, 13, 14, 17, and 18.

14           CO-HEARING OFFICER DODUC: So noted. We'll  
15 add it to the list of outstanding objections.

16           MR. MIZELL: And we have no cross-examination.

17           CO-HEARING OFFICER DODUC: All right.

18           MS. WOMACK: Do I need to do anything with his  
19 not wanting my stuff? Because, you know, I can only  
20 say it's our experience and that's --

21           CO-HEARING OFFICER DODUC: And you have said  
22 so for the record.

23           MS. WOMACK: Thank you, I really appreciate  
24 the time you've taken.

25           CO-HEARING OFFICER DODUC: Hold on. You're

1 not done yet.

2 Ms. Des Jardins.

3 MS. WOMACK: Oh, sorry.

4 MS. DES JARDINS: I did have about five to ten  
5 minutes of cross-examination for Ms. Womack.

6 CO-HEARING OFFICER DODUC: All right. Go  
7 ahead and take a seat, and give us an outline of the  
8 topics you will be covering. And keep in mind it must  
9 stay within the scope of their surrebuttal testimony.

10 CROSS-EXAMINATION BY MS. DES JARDINS

11 MS. DES JARDINS: My name is Deirdre Des  
12 Jardins with California Water Research.

13 And can you pull up DWR-920 while we're here.

14 I wanted to ask Ms. Womack about the process  
15 whereby her land -- DWR took the land with an order of  
16 immediate possession, and whereby --

17 Please go to Page -- pdf Page 3. It's  
18 document Page 2.

19 So my questioning is specifically about the  
20 process about DWR acquiring the land with an order of  
21 immediate possession as if negotiations had been  
22 successful, and then -- and then only doing a  
23 condemnation and paying the full value of the land at  
24 some time later.

25 And that's -- it's -- so --

1 CO-HEARING OFFICER DODUC: Mr. Berliner.

2 MR. BERLINER: Yes, I have an objection to  
3 this line of questioning. This questioning concerns a  
4 court process that occurred over 45 years ago. It's  
5 totally unrelated to the California WaterFix. There's  
6 no showing thus far of any relationship to the WaterFix  
7 by the witness. These are gripes about past ills which  
8 have been allowed to come in, but no relationship has  
9 been made. And any questioning along this line,  
10 there's no relationship to the WaterFix.

11 CO-HEARING OFFICER DODUC: Ms. Des Jardins,  
12 make the linkage.

13 MS. DES JARDINS: Yes, so I can link this up,  
14 and I ask in fairness and equity that I be allowed to  
15 do so. It's through -- because petitioners did not  
16 submit a list of parcels that they were going to  
17 acquire, as is required by statute and regulation. And  
18 it's in LAND-69, which is the DCE agreement about  
19 property acquisition. And it contains a very specific  
20 order of immediate possession and then condemnation.  
21 And I was going to link the two if that is allowed.

22 CO-HEARING OFFICER DODUC: Property  
23 acquisition is not an issue before us. The reason I  
24 allowed Ms. Womack and Mr. Moore to present their  
25 testimony was they linked it to the issue of trust and

1 DWR and project proponent giving assurance that they  
2 would address any harm and injury, potential harm or  
3 injury, not to get into the detail of the possession  
4 and the acquisition, which sounds like what you are  
5 trying to explore.

6 So I am sustaining Mr. Berliner's objection.

7 MS. DES JARDINS: May I make one further  
8 response? That is that this is specifically with  
9 respect to them feeling coerced to sign documents by  
10 this procedure for releasing DWR from all future  
11 damages for seepage from the impoundment of water in  
12 Clifton Court Forebay.

13 CO-HEARING OFFICER DODUC: And they have  
14 stated so in both their written as well as verbal  
15 testimony. So that point has been made.

16 MS. DES JARDINS: Okay.

17 MS. WOMACK: I'm confused. How can  
18 Mr. Berliner object to DWR-920 being used since he's  
19 the one that brought it up? I was -- isn't that  
20 confusing? Isn't that what he just said, that we  
21 shouldn't be using it? Sorry. It's just so bad. I  
22 mean, you know, I'm just a teacher.

23 CO-HEARING OFFICER DODUC: Next line of  
24 questioning, Ms. Des Jardins.

25 MS. DES JARDINS: That was the entirety of my

1 line of questioning, was the link between this  
2 procedure that they went through where they felt  
3 coerced to sign papers where -- relieving DWR of all  
4 future seepage and this document submitted by LAND  
5 which shows a similar -- a similar plan of first doing  
6 an order of immediate possession -- and it's in LAND-69  
7 -- and then doing an order of condemnation. In their  
8 case, I think it took about two and a half years.

9 CO-HEARING OFFICER DODUC: And they made that  
10 point in both their written and in their oral  
11 testimony.

12 MS. DES JARDINS: Okay. Thank you.

13 CO-HEARING OFFICER DODUC: Thank you,  
14 Ms. Des Jardins.

15 Thank you, Ms. Womack.

16 MS. WOMACK: Thank you. I appreciate your  
17 time, and I appreciate you considering the little  
18 people. We get shuffled, and only you can make  
19 differences in how -- you may not be able to stop the  
20 huge tide of the California WaterFix, but you can  
21 certainly add some recommendations of what should be  
22 happening with how they treat their people because we  
23 should not be here. We should be poster children for  
24 DWR, in a good way. Thank you so much.

25 CO-HEARING OFFICER DODUC: Thank you. Thank

1 you, Ms. Womack, and thank you, Mr. Moore.

2 WITNESS MOORE: Thank you.

3 CO-HEARING OFFICER DODUC: And, oh, have I  
4 forgotten to ask you to move your exhibits -- or your  
5 one exhibit, I guess, into the record?

6 MS. WOMACK: The two I have I will, I guess,  
7 be sending in. I'll have my son do that.

8 CO-HEARING OFFICER DODUC: But you'll now move  
9 CCLP-34?

10 MS. WOMACK: Yes. And then I have, like I  
11 said, the two that explain in more detail the  
12 settlement. And you can see it's very strange to have  
13 damages for two years and yet be told that the rest of  
14 your life -- anyway, thank you so much.

15 CO-HEARING OFFICER DODUC: Thank you.

16 And my counsel has advised me, Mr. Mizell, in  
17 response to your objection, that I do not need to rule  
18 on hearsay objections. I just need to note them for  
19 record. So they are so noted.

20 All right. I think this takes us to at least  
21 completion of surrebuttal for Part 1.

22 As discussed earlier this morning, we have the  
23 outstanding motion by the Sac Valley Water Users group  
24 which we will take under consideration, and we will  
25 await the written objection to the motion by DWR and

1 others as well as any response to that objection before  
2 we rule on that.

3 Ms. Des Jardins.

4 MS. DES JARDINS: Yes, I submitted a  
5 procedural objection.

6 CO-HEARING OFFICER DODUC: I see that. And I  
7 will expect that the petitioners will want to respond  
8 to that as well.

9 Do you wish to do that now or later,  
10 Mr. Mizell?

11 I'm sorry?

12 MS. HEINRICH: They already did.

13 CO-HEARING OFFICER DODUC: Already did? Okay.  
14 You guys are quick. We will take that under  
15 advisement.

16 All right. Again, assuming that we do not --  
17 I guess I don't know yet what we're going to do with  
18 respect to the Sac Valley Users motion. But to the  
19 extent that, when we do close Part 1, the hearing team  
20 will post -- actually, no, the hearing team will post  
21 the remaining transcripts for surrebuttal to our  
22 website as soon as they are available, and you already  
23 know to make separate arrangements with the court  
24 reporter if you want the transcript earlier.

25 Mr. Mizell, did you have anything to add



1 before I move on?

2 MR. MIZELL: Going back to Ms. Des Jardins'  
3 objection filed this afternoon, I'm not sure that the  
4 Department has responded to that yet. It came in --

5 CO-HEARING OFFICER DODUC: Yes, I didn't think  
6 so, but --

7 MR. MIZELL: -- just after lunch, I believe.

8 CO-HEARING OFFICER DODUC: This was a new  
9 objection that she filed today.

10 MS. HEINRICH: Sorry. I didn't see that. I  
11 thought we were talking about the one she filed  
12 yesterday.

13 CO-HEARING OFFICER DODUC: No.

14 MR. MIZELL: We did respond to yesterday's --

15 MS. HEINRICH: Okay.

16 MR. MIZELL: -- but this was the 2:58 p.m., I  
17 believe, objection. And my anticipation was to the  
18 extent it overlaps with the Sac Valley Water Users, if  
19 it pleases the Hearing Officers, I could combine it  
20 into a single joint response or I can break them into  
21 two, whichever you would like.

22 CO-HEARING OFFICER DODUC: That's fine.

23 All right. With that, then, as stated in our  
24 March 15th, 2017 ruling, parties are permitted to  
25 submit written closing briefs once we've determined

1 that Part 1 is concluded. And again, it will be  
2 optional at this point if you want to submit closing  
3 briefs. I think we will provide more detail on that  
4 later. But at this time, I expect that those written  
5 briefs will be due approximately 30 days after  
6 transcripts are available for the entirety of Part 1 of  
7 the hearing.

8           The hearing staff will send an e-mail to the  
9 service list letting parties know when that occurs.  
10 The e-mail will also specify a date and time certain  
11 that these optional closing briefs will be due as well  
12 as any other limitations.

13           Again, we encourage parties with common  
14 interests to work together and submit joint closing  
15 briefs that efficiently summarize their positions. A  
16 reminder that closing briefs should not cite to  
17 evidence outside the evidentiary record or attempt to  
18 introduce new evidence.

19           Then some quick notes about Part 2.

20           Part 2 of this hearing will not commence until  
21 completion of the CEQA, NEPA and CESA compliance for  
22 the project. As of this moment, petitioners have not  
23 completed their CEQA, NEPA compliance processes or have  
24 obtained an incidental take permit pursuant to the  
25 California Endangered Species Act.

1           The petitioners did submit the Final EIR/EIS  
2 in December of 2016. The National Marine Fisheries  
3 Services and U.S. Fish and Wildlife Service issued  
4 their biological opinions for the project dated June  
5 16th and June 23rd, 2017, respectively.

6           DWR has not certified the Final EIR. Once the  
7 Final EIR has been certified, the Department of Fish  
8 and Wildlife -- that's the California Department of  
9 Fish and Wildlife will consider whether to issue an  
10 incidental take permit. In addition, Reclamation needs  
11 to file a record of decision for the Final EIS.

12           Once the petitioners complete their CEQA,  
13 NEPA, and CESA processes, we ask that they notify us  
14 and the service list in writing of that completion.

15           This notification letter should include  
16 directions to parties on how to access the biological  
17 opinions, incidental take permits, Final CEQA/NEPA  
18 documents, and any other environmental documents  
19 related to WaterFix, although we note that these  
20 documents have been available online.

21           So once we receive this notification, we will  
22 then schedule Part 2 of the hearing.

23           Mr. Mizell, are you able at this time to give  
24 an update as to when petitioners estimate the final  
25 sign-offs will occur?

1           MR. MIZELL: I believe the only update to give  
2 at this time is that the Department is finalizing its  
3 document and that it is working with Reclamation on  
4 some final aspects of their action as well, but I  
5 cannot give you an update as to a date specific.

6           CO-HEARING OFFICER DODUC: All right. So  
7 given that we are still taking under consideration the  
8 Sac Valley Users' motion and that I've given people  
9 until July 19th to file responses to DWR's possible  
10 objection, I think we can say at this time that the  
11 hearing dates noticed for the rest of this week as well  
12 as next week are vacated.

13           But I would ask that for now you maintain the  
14 remainder of the noticed hearing dates for July through  
15 August -- I believe it's the 10th, in case we need to  
16 re-adjourn -- to reconvene. And we will certainly let  
17 you know as soon as possible after reviewing DWR's  
18 opposition as well as any corresponding responses.

19           And with that, I believe that concludes our  
20 business for today, and we are adjourned.

21           (Whereupon, the proceedings adjourned  
22 at 5:02 p.m.)

23

24

25

