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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  
  
SIERRA MEETING ROOM  
  
1001 I STREET  
  
SECOND FLOOR  
  
SACRAMENTO CALIFORNIA  
  
PART 2 SURREBUTTAL

Monday, October 1, 2018  
9:30 A.M.

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Reported By: Deborah Fuqua, CSR No. 12948

1 APPEARANCES:

2 CALIFORNIA WATER RESOURCES BOARD

3 Division of Water Rights

4 Board Members Present

5 Tam Doduc, Co-Hearing Officer:

Felicia Marcus, Chair and Co-Hearing Officer:

6 Dorene D'Adamo, Board Member

7 Staff Present

8 Andrew Derringer, Senior Staff Attorney

Conny Mitterhofer, Senior Water Resources Control Engr.

9 Jean McCue, Senior Water Resources Control Engr.

10

11 PETITIONERS:

12 For California Department of Water Resources

13 Tripp Mizell, Senior Attorney

14 Duane Morris, LLP

By: Thomas Martin Berliner, Attorney at Law

15 By: Jolie-Anne Ansley, Attorney at Law

16

U.S. Department of the Interior, Bureau Reclamation,

17 and Fish and Wildlife Service

Amy Aufdemberge, Assistant Regional Solicitor

18

19 PROTESTANTS AND OTHER INTERESTED PARTIES:

20 State Water Contractors

21 Stefanie Morris, Attorney

Adam Kear, Attorney

22 Becky Sheehan, Attorney

23

24 (continued)

25

1 APPEARANCES (continued)

2 PROTESTANTS AND OTHER INTERESTED PARTIES:

3 Central Delta Water Agency, South Delta Water Agency  
4 (Delta Agencies)

4 Dean Ruiz

5

San Joaquin County

6 Thomas Keeling

7

Local Agencies of the North Delta

8 Osha Meserve

9

California Sportfishing Protection Alliance, California

10 Water Impact Network, AquAlliance

Michael Jackson

11

12 City of Antioch

Matthew Emrick

13

14 California Water Research

Deirdre Des Jardins

15

16

Clifton Court, LLP

17

Suzanne Womack

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1	I N D E X	
2		PAGE
3	Opening Remarks by Co-Hearing Officer Doduc	1
4		
5	SURREBUTTAL WITNESSES CALLED BY PETITIONERS	
6	JOHN BEDNARSKI and CHANDRA CHILMAKURI	
7	CROSS-EXAMINATION BY:	PAGE
8	MS. WOMACK and MS. DES JARDINS	7
9	MR. EMRICK	30
10		
11	SURREBUTTAL WITNESSES CALLED BY PROTESTANTS DELTA AGENCIES	
12	TOM BURKE	
13	DIRECT EXAMINATION BY:	PAGE
14	MR. RUIZ	43
15	CROSS-EXAMINATION BY:	
16	MS. MORRIS and DR. CHILMAKURI	47
17	MS. DES JARDINS	101
18		
19	E X H I B I T S	
20	PETITIONERS	ADMIT
21	DWR-1415, DWR-1417 through DWR-21	41
22	SWRCB-113	42
23	PROTESTANTS SOUTH DELTA WATER AGENCY	ADMIT
24	SDWA-328	107
25		

1 Monday, October 1, 2018 9:30 a.m.

2 PROCEEDINGS

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4 CO-HEARING OFFICER DODUC: All right. Good  
5 morning, everyone. Welcome back.

6 I'm Tam Doduc. To my right is Co-Hearing  
7 Officer and Board Chair Felicia Marcus. We will be  
8 joined shortly by Board Member DeeDee D'Adamo. To my  
9 left will be Andrew Deeringer, and right now are  
10 Conny Mitterhofer and Jean McCue.

11 Welcome back to this Water Rights Change  
12 Petition Hearing for the California Waterfix project.  
13 We are in a new room -- well, not new, but not one we  
14 frequently use. So please take a moment and identify  
15 the exit closest to you. And the rest of you know the  
16 rest of that spiel, so I won't continue, except for the  
17 most important parts, since we've been away from each  
18 other for a couple days.

19 Please take a moment and check to make sure  
20 that your noise-making devices are on silent, vibrate,  
21 "do not disturb."

22 All right. We have -- thank you, Ms. Womack  
23 and Mr. Emrick, for being ready. We have the  
24 completion of your cross-examination of DWR's  
25 witnesses.

1           Then we will turn, Mr. Ruiz, to Mr. Burke.

2           And at this time, I only have about 80 minutes  
3 or so of cross requested for Mr. Burke: State Water  
4 Contractors, DWR for 60; LAND for 10; and CSPA for 10.

5           Are there any other requests?

6           (No response)

7           CO-HEARING OFFICER DODUC: All right. With  
8 that, then, I expect we at least will complete this  
9 portion today. We still have a pending request from  
10 Ms. Morris. Is that request still valid?

11           I'm seeing a nod from Ms. Morris. We will,  
12 either during the morning break or our lunch break  
13 today, discuss that.

14           Ms. Des Jardins.

15           MS. DES JARDINS: Yes. I just -- given that  
16 there is another phase of this surrebuttal part of the  
17 hearing --

18           CO-HEARING OFFICER DODUC: There might be.  
19 There is a request. And I've also noted your request  
20 as well, at the same time that Ms. Morris made her  
21 request, regarding your subpoena of a DWR witness.

22           MS. DES JARDINS: There was one more. Just  
23 that there -- the Draft Supplemental EIR is ruled  
24 beyond the scope of surrebuttal based on that there  
25 wasn't testimony on it in Part -- in the rebuttal phase

1 of the hearing. And for the most part, that was true.

2 But there was one appendix. There was the flow test.

3 CO-HEARING OFFICER DODUC: This was the

4 floating -- the floating issue.

5 MS. DES JARDINS: Yeah. So I wanted to renew

6 my request for -- to allow some rebuttal on that, since

7 it was ruled beyond the scope of surrebuttal.

8 CO-HEARING OFFICER DODUC: And on what new

9 grounds to you make that request for reconsideration?

10 MS. DES JARDINS: Just that there should --

11 rebuttal to that testimony should be allowed in some

12 part of the hearing.

13 CO-HEARING OFFICER DODUC: Because? The

14 rationale? The new rationale that you are providing?

15 Because we did rule on it previously.

16 MS. DES JARDINS: It's part of due process

17 under State and Federal Constitution that all parties

18 have a right to examine and rebut evidence. It's been

19 settled law for a hundred years. I can provide a case

20 citation.

21 CO-HEARING OFFICER DODUC: That rationale, I

22 think, was provided before. But thank you.

23 Are there any other outstanding motions that I

24 have forgotten to mention?

25 Motions, requests, objections?

1 MS. MESERVE: Good morning. Anything, right?

2 It's not really a motion. I guess I just  
3 wanted to add on a little bit to what Ms. Des Jardins  
4 said in a slightly different note is that we still do  
5 have the environmental review prepared by the Bureau  
6 and DWR, which is out and that I think the Board's  
7 rulings have indicated would eventually need to come  
8 within the record and I think also indicated that, if  
9 and when that happened, we would revisit whether  
10 additional testimony was necessary.

11 CO-HEARING OFFICER DODUC: That all is true.

12 MS. MESERVE: Since we're getting toward the  
13 -- what may be the end of Part 2 Surrebuttal, I guess I  
14 just want to make a place saver that I definitely do  
15 have and will have arguments about that with respect to  
16 how that relates to the evidentiary --

17 CO-HEARING OFFICER DODUC: I expect others  
18 will as well. And we have stated in writing in, as a  
19 matter of fact, that, when that final document is  
20 submitted to us, we will then ask for input from the  
21 parties and consider what additional steps are  
22 necessary.

23 MS. MESERVE: Yeah. Because, I mean, just to  
24 clarify, the reason why I'm brining it up is there's  
25 kind of two tracks going on here. One, the Water Board



1 is the responsible agency which can just receive  
2 documents, and that's part of it's responsible agency  
3 records.

4 With respect to evidentiary proceedings and  
5 the water rights, it's a little different. So I just  
6 want to make sure --

7 CO-HEARING OFFICER DODUC: I understand,  
8 Ms. Meserve.

9 MS. MESERVE: Thank you.

10 CO-HEARING OFFICER DODUC: I have a note that  
11 the Webcast may be down. So all the lucky people who  
12 are watching do not get to see this.

13 All right. Mr. Mizell.

14 MR. MIZELL: Yes, Tripp Mizell, DWR. At this  
15 time, the Department would withdraw the request for  
16 further witnesses based upon the trust issue that we  
17 discussed on Friday.

18 CO-HEARING OFFICER DODUC: I'm sorry? So  
19 you're withdrawing your request.

20 Does the State Water Contractors' request  
21 still stand?

22 MS. MORRIS: No, we're withdrawing.

23 CO-HEARING OFFICER DODUC: All right.

24 All right. Mr. Emrick, I guess we are now  
25 finally to you.

1           MR. EMRICK: Yes. For this morning, I think  
2 because it's going to be a little bit more technical  
3 questions, Ms. Des Jardins is going to help -- or is  
4 going to assist Ms. Womack. I'll be here to provide  
5 assistance with respect to clarification or objections.

6           CO-HEARING OFFICER DODUC: All right. I think  
7 Mr. Hunt, who is assisting us today, was quite generous  
8 in setting the timer.

9           Last night, I believe there was request for --  
10 I think it was 30 minutes from you, Mr. Emrick, and  
11 then five questions from Ms. Womack. Has that changed  
12 overnight -- I mean, over the weekend?

13          MS. WOMACK: Well, no, no. Mine are kind of  
14 rounds of -- there's a few things that lead up to the  
15 questions. So there actually might be four questions,  
16 but there are a few parts to get to them, and it  
17 depends on the cross. So mine would probably be no  
18 more than a half hour.

19          CO-HEARING OFFICER DODUC: And Mr. Emrick?

20          MR. EMRICK: Yeah, I think probably no more  
21 than 45 minutes.

22          CO-HEARING OFFICER DODUC: In total. All  
23 right. Let's reset the clock to 45 minutes.

24          And looks like the Webcast is working again.  
25 So welcome to all of the those who are watching. Sorry

1 you don't get the morning off. All right.

2 With that, we will turn to -- is it

3 Ms. Womack, or Ms. Des Jardins?

4 MS. WOMACK: I'll go ahead and start out.

5 JOHN BEDNARSKI and CHANDRA CHILMAKURI,

6 called as Part 2 Surrebuttal witnesses

7 by Petitioner California Department of

8 Water Resources, having been previously

9 duly sworn, were examined and testified

10 further as hereinafter set forth:

11 CROSS-EXAMINATION BY MS. WOMACK and MS. DES JARDINS

12 MS. WOMACK: Let's see. I need to start here.

13 So could I have -- well, this is -- first question is

14 for Mr. Bednarski.

15 And in your testimony on Page 6 at Line 15, it

16 states that DWR may assist with securing permits -- do

17 we need to get that on the screen -- for alternative

18 water supplies? Is that something you --

19 WITNESS BEDNARSKI: That's correct.

20 MS. WOMACK: That's correct? Thank you.

21 WITNESS BEDNARSKI: That's consistent with my

22 previous testimony in Part 1.

23 MS. WOMACK: Thank you.

24 So, Mr. Hunt, could we get up CCLP-70, please.

25 MS. WOMACK: This is a -- I guess an eWRIMS

1 map; these things -- I can't imagine -- that shows two  
2 of CCLP diversions, licensed diversions. One is right  
3 next to the intake of the Clifton Court Forebay, and  
4 then there are -- right there, you can see where one  
5 set of control gates are. And the other is down here  
6 in the Delta-Mendota intake that you propose to change  
7 the name to the Jones Channel. So those two are there.

8 Are you aware that a change petition would be  
9 needed to change either of our points of diversion?

10 WITNESS BEDNARSKI: I'm assuming there would  
11 be. I believe we spoke about that in Part 1 in my  
12 original testimony. We talked about potentially having  
13 to move diversions near the intakes. So I think it  
14 would be the same, same process.

15 MS. WOMACK: A change petition. Okay. And  
16 that would be -- you say DWR may assist with that?

17 WITNESS BEDNARSKI: I believe we've written  
18 the wording flexible so DWR could take the lead if  
19 necessary. You know, we're flexible on our role on  
20 that.

21 MS. WOMACK: Okay. All right. Well, let's  
22 move on.

23 So let's see. This kind of goes between  
24 Mr. Chilmakuri -- Dr. Chilmakuri and -- is it doctor or  
25 mister? Doctor? Sorry about that -- and

1 Mr. Bednarski.

2           So I just -- I will refer to this map again  
3 because I think it really does a nice job of showing  
4 where Clifton Court is -- where our property is, where  
5 two of our diversion points are, where Old River is,  
6 and Western Canal, all the canals that are kind of  
7 affected.

8           So on -- let's see. Mr. Chilmakuri, on  
9 DWR-1304, Mr. Hunt, 5-6 on PDF 62 of the Conceptual  
10 Engineering Report -- I will -- so DWR, if we could put  
11 up DWR-1304, Chapter 5, 5-6, PDF 62. And on Section --  
12 let's see. Okay. If we scroll down to 5.1.6.3 --  
13 that's perfect.

14           Does it not state that the control gates will  
15 control flow out of the Byron Tract Forebay, the  
16 Clifton Court Forebay, and the Old River to meet target  
17 delivery at Jones and Banks? And let's see --

18           MS. DES JARDINS: At Jones and Banks Pumping  
19 Plants.

20           MS. WOMACK: Pumping plants, I'm sorry.

21           CO-HEARING OFFICER DODUC: So that would be  
22 the first sentence of the third paragraph, Ms. Womack?

23           MS. WOMACK: I believe so.

24           CO-HEARING OFFICER DODUC: I'm sorry, the  
25 second sentence.

1 MS. WOMACK: Yeah, it's kind of stated a few  
2 different ways in here.

3 MS. DES JARDINS: Mr. Bednarski?

4 WITNESS BEDNARSKI: Yes, that's what the text  
5 says.

6 MS. WOMACK: Okay.

7 MS. DES JARDINS: And -- and so the goal here  
8 is to control it to meet target deliveries; is that  
9 correct?

10 WITNESS BEDNARSKI: To control what?

11 MS. DES JARDINS: It says to -- to -- the --

12 MS. WOMACK: Control the flow out of --

13 MS. DES JARDINS: -- to control flow out of  
14 Byron Tract Forebay, Clifton Court Forebay, and Old  
15 River, the goal in controlling those flows is to meet  
16 target delivery?

17 WITNESS BEDNARSKI: That's correct, target  
18 pumping deliveries, exports.

19 MS. DES JARDINS: Target export deliveries?

20 WITNESS BEDNARSKI: Yes.

21 MS. WOMACK: These are for export. Okay.

22 Does it not state that the control flow system  
23 will be such that it maximizes diversion opportunities  
24 from the North and South Delta intakes?

25 CO-HEARING OFFICER DODUC: That's what it

1 says.

2 WITNESS BEDNARSKI: That's what it says, yes.

3 MS. WOMACK: And -- okay. So let's go to the  
4 Design, Water Surface Elevations on Page 63. I believe  
5 it's the next page of the CER. And if we could just  
6 start at the top.

7 Doesn't the design -- doesn't it say at the  
8 top that the -- state, at top of these, are only  
9 recommending these flows, at the very top.

10 MS. DES JARDINS: Elevations.

11 MS. WOMACK: Water level elevations?  
12 Mr. Bednarski?

13 WITNESS BEDNARSKI: Yes, that's what it  
14 states.

15 MS. WOMACK: And at the bottom in the  
16 footnote, doesn't it say, Mr. Bednarski, that the WSE  
17 for a potential dual-source operational scenario will  
18 be refined during later design phase? And that would  
19 be -- perhaps we could go up a little. Or can you see  
20 that?

21 WITNESS BEDNARSKI: I can see that, yes.  
22 That's what it says.

23 MS. DES JARDINS: So, Mr. Bednarski, the  
24 design water surface elevations have not yet been  
25 determined; would that be correct?

1           WITNESS BEDNARSKI: The final water surface  
2 elevations have not been determined; that's correct.

3           MS. DES JARDINS: Thank you.

4           CO-HEARING OFFICER DODUC: If everyone could  
5 please move the microphone closer. The court reporter  
6 is having a hard time hearing you.

7           MS. DES JARDINS: Sorry.

8           Mr. Bednarski, in forming your opinion about  
9 whether the dual operation of the control gates would  
10 affect Clifton Court's Forebay, did you take into  
11 account the specification of CCLP's pump?

12           WITNESS BEDNARSKI: We don't have any  
13 information on their pump. No, we did not.

14           MS. DES JARDINS: Are you aware that CCLP has  
15 wanted to replace that pump with -- okay. Never mind.

16           MS. WOMACK: Okay. Let's move on to  
17 throttling at Jones control structure.

18           CO-HEARING OFFICER DODUC: So that question  
19 was withdrawn?

20           MS. WOMACK. Yes, yes.

21           CO-HEARING OFFICER DODUC: I think there was  
22 an objection pending about facts not in evidence. So  
23 you're withdrawing it, and moving on.

24           MS. WOMACK: Thank you. I'm sorry.

25           Okay. I want to move on to throttling and --



1 throttling -- I guess it's all the control structures.

2           So, sorry, Mr. Hunt. We're moving -- need to  
3 move -- oh, it's Page 62. Go back to Section 5.1.6.3,  
4 on Page 62.

5           So, Mr. Bednarski, doesn't it state that the  
6 control structures will need to be capable of  
7 throttling flow from all three sources: the Byron Tract  
8 Forebay, the Clifton Court Forebay, and Old River?

9           WITNESS BEDNARSKI: That's what the text says,  
10 yes.

11          MS. WOMACK: What does "throttling" mean?

12          WITNESS BEDNARSKI: It typically means  
13 restricting the flow to break the hydraulic grade so  
14 that you can control the flow to reach certain --

15          MS. WOMACK: Would reducing and restricting be  
16 same thing?

17          WITNESS BEDNARSKI: I'm sorry. I don't  
18 understand the question.

19          MS. WOMACK: Is the flow going to be reduced?

20          WITNESS BEDNARSKI: I believe I explained last  
21 week that we most probably in this channel will have  
22 the gates open to minimize the restriction at this  
23 point. And we will be using the gate in the  
24 interconnecting channel to throttle the flow coming  
25 from the North Delta Diversions to match the water

1 surface elevation that's in the Jones intake channel,  
2 that that, with our conceptual design, is the scheme  
3 that we're planning to use now.

4 MS. WOMACK: When during -- you also -- well,  
5 when will the control structure be closed on the -- on  
6 the Jones -- or, well, on the DMC intake where my  
7 diversion is, when will that be closed?

8 WITNESS BEDNARSKI: Right. Under the scheme  
9 that we have now, the times that it will be closed, as  
10 I explained Friday, would be when we are taking North  
11 Delta Diversions and we are not diverting from the  
12 south, we would have that gate closed, fully closed.

13 MS. DES JARDINS: Mr. Bednarski, does it not  
14 state that the open channel that feeds the Jones  
15 Pumping Plant downstream of the Tracy Fish Facility  
16 must maintain a lower water surface elevation from all  
17 three sources to maintain flow control?

18 WITNESS BEDNARSKI: Yes, but I think the way  
19 that sentence was meant to be implied or understood is  
20 that it would have a lower water surface elevation than  
21 at the control structure with the North Delta  
22 deliveries because that's where we're going to do our  
23 main throttling. So we need to have the water surface  
24 in that -- in the Delta-Mendota/Jones Intake Channel  
25 lower than in the interconnecting channel so we can

1 have a lower hydraulic gradient there and actually  
2 break head into that channel from the higher hydraulic  
3 gradient.

4 MS. WOMACK: So what you're saying -- well,  
5 what you're saying then is that, in Jones, it's going  
6 to be lower where my -- where my diversion is?

7 WITNESS BEDNARSKI: It will not change from  
8 where it is now. That's what I was explaining on  
9 Friday, that that will continue to ride on the tidal  
10 influence as it does now when that gate is open.

11 The water surface elevation, as it comes out  
12 of the tunnels and before it flows through that control  
13 structure that allows the water to go into the Jones  
14 intake channel, that will be at a higher water surface  
15 elevation than in the Jones intake channel. So we'll  
16 break head there and allow that water to flow into that  
17 channel and then into the Bank -- into the Jones  
18 Pumping Plant.

19 MS. DES JARDINS: Mr. Bednarski, can you  
20 explain the discrepancy between your testimony just now  
21 and the Conceptual Engineering Report which states the  
22 open channels at the Banks and Jones Pumping Plant  
23 downstream of the Skinner Fish Facility and downstream  
24 of the Tracy Fish Facility must maintain a lower WSE  
25 from all three sources to maintain flow control of all

1 the throttling gates at each source?

2 WITNESS BEDNARSKI: I really think we're kind  
3 of splitting hairs here in that we have to recognize  
4 that we have a conceptual design that's been done. And  
5 I've been trying to do my best to explain how we wrote  
6 this some months ago and the way that I understand that  
7 the system would be designed and operated. And those  
8 final refinements will be made in preliminary design.

9 And we've offered to share that information as  
10 we're designing that, you know, to make sure that there  
11 are no impacts on Clifton Court LP's pumping  
12 facilities.

13 MS. WOMACK: But how will the Board be able to  
14 make a decision if they don't have proper information?

15 WITNESS BEDNARSKI: Well, I believe that, you  
16 know, through my testimony, we've presented sort of an  
17 overarching set of commitments to not have a negative  
18 impact on the CCLP diversions. And that would be the  
19 vehicle that we would use to accomplish that, either  
20 through the design of this facility or potentially  
21 moving the diversion.

22 Those were all listed in my mitigation  
23 measures. And we would follow that path as we're going  
24 through the process.

25 MS. DES JARDINS: But Mr. Bednarski, as of

1 this point, there's no information about the specific  
2 design or the specific mitigation measure.

3 CO-HEARING OFFICER DODUC: Mr. Mizell.

4 MR. MIZELL: Misstates the record.

5 CO-HEARING OFFICER DODUC: Sustained.

6 MS. DES JARDINS: Mr. Bednarski, this is all a  
7 conceptual design, and you testi- -- you -- that it  
8 could change?

9 CO-HEARING OFFICER DODUC: Asked and answered.

10 MS. WOMACK: Okay. Have you done analysis to  
11 show how the blocked control gates that will reduce the  
12 channel WSE will raise Old River water levels? Have  
13 there been studies, impact studies?

14 CO-HEARING OFFICER DODUC: I'm not sure I  
15 understand.

16 MS. WOMACK: Let me clarify.

17 CO-HEARING OFFICER DODUC: Please.

18 MS. WOMACK: So in my mind, we're -- there's  
19 daily changes in pumping. It says every day it can  
20 change. So we have -- say we have them pumping with  
21 the gates open, other than where the structure  
22 interferes, so it's not completely open. And they're  
23 pumping.

24 And then they decide, "Oh, we've got a BTF  
25 coming in from the north. We're going to close the

1 control structure." Well, you know, water doesn't just  
2 stop. So it's going to keep flowing in. And it's used  
3 to going in that direction -- it kind of stops.

4 So my water levels, I would, imagine are going  
5 to be rising when that control structure comes down.  
6 It just makes sense. So there's going to be kind of a  
7 back and forth.

8 And I wonder if that has been modeled. In my  
9 mind, it makes sense to me.

10 CO-HEARING OFFICER DODUC: Thank you. I  
11 understand the question now.

12 Mr. Mizell.

13 MR. MIZELL: Yes, I object that -- facts not  
14 in evidence. If she's like to pose it as a  
15 hypothetical. . .

16 CO-HEARING OFFICER DODUC: We'll consider it a  
17 hypothetical. Please answer the question.

18 WITNESS CHILMAKURI: So as Mr. Bednarski  
19 explained to you on Friday, there needs to be  
20 additional hydraulic modeling that needs to be  
21 conducted, which he explained that, for the entire  
22 system, starting at Jones Pumping Plant intake in the  
23 South Canal all the way up to the North Delta  
24 Diversions, there needs to be hydraulic modeling  
25 conducted to estimate the hydraulic grade lines and

1 to -- for designing the control gate structures. That  
2 has to be conducted.

3 And what we've been saying is that, when that  
4 modeling is conducted and when that design is going to  
5 be -- is taken to the next level, the CCLP's pumping  
6 plant and their -- their needs will be considered in  
7 designing those control gates, in making sure that they  
8 would not be impacted because of these operations.

9 MS. WOMACK: Yes. Mr. Hunt, could you put up  
10 CCLP-70 one more time.

11 So this is for, I believe, Mr. Bednarski or  
12 Mr. Chilmakuri. Has DWR, C- -- or the California  
13 WaterFix stepped foot on my levees or conducted studies  
14 of -- well, stepped foot to conduct studies on my  
15 levees to see how it they would be affected, they could  
16 be affected by raised water levels?

17 We have a mile of -- over a mile that starts  
18 at the intake for the CCF, and it goes all the way down  
19 to the Tracy Fish Facility. This is a huge amount of  
20 levee that only Clifton Court has to take care of  
21 because we don't have a -- Reclamation 802 had to go  
22 out of business. We couldn't afford to run it.

23 CO-HEARING OFFICER DODUC: Mr. Mizell.

24 MR. MIZELL: I'm going to object again to  
25 facts not in evidence. The evidence that's in the

1 record shows no rise in water elevations in the South  
2 Delta region, so I'm not sure where these facts are  
3 coming from. And we haven't had a chance to assess  
4 them.

5 MS. WOMACK: One final question. So during  
6 times of flood, like in 2017, who decides if the  
7 control gates are closed or open?

8 MR. BERLINER: Objection. Are you asking that  
9 question in general as a hypothetical in the event that  
10 there were high flows, or are you asking specifically  
11 about 2016?

12 MS. WOMACK: 2017. In the example of the  
13 flooding situation, who decides whether or not the BTF  
14 gets to take or -- or the control gates down -- you  
15 know, who gets to take the water, the flood water?

16 CO-HEARING OFFICER DODUC: We'll consider that  
17 a hypothetical if you are able to answer.

18 WITNESS BEDNARSKI: Yeah, that's beyond my  
19 knowledge as part of the engineering team as to who  
20 would make calls during flood conditions as to which  
21 gates in the Delta are open and which ones are closed.

22 MS. WOMACK: Mr. Bednarski, are you aware that  
23 the original mandate of the SWP and the CCF was to  
24 prevent flooding in the South Delta, that was why it  
25 was put in? That's in the very original documents.



1           MR. MIZELL:  Objection, assumes facts not in  
2 evidence.

3           MS. WOMACK:  I will find it and bring it up.  
4 Thank you.

5           MS. DES JARDINS:  Mr. Chilmakuri, I did want  
6 to -- since there was an objection about assuming facts  
7 not in evidence, I'd like to go to the modeling of  
8 water levels.

9           So if we could go back, I'd like to pull up  
10 Exhibit SWRCB-102, Mr. Hunt.  And yeah, Volume 1.  And  
11 then I'd like to go to Appendix 5-A, Additional  
12 Modeling, Section D, Attachment 6.  Scroll down.  It's  
13 down further.  That's it, yes.  And I'd like to go to  
14 Page 9, please.  And then let's zoom in on the lower  
15 left corner where Clifton Court Forebay is.  Zoom in  
16 more, please.  Yeah.  Continue zooming.

17           So Mr. Chilmakuri, you testified about this  
18 modeling.

19           And let's -- scroll over to the left.

20           So the DMC intake -- you testified yesterday  
21 that the DMC intake leading to the Tracy Pumping Plant  
22 was Channels 214 and 216; would that be correct?

23           WITNESS CHILMAKURI:  Mr. Hunt, could you  
24 please move the mouse a little bit there.  Thank you.

25           Yes.

1 MS. DES JARDINS: All right. And Ms. Womack's  
2 diversion is in Channel 214; is that correct?

3 WITNESS CHILMAKURI: I -- it would be -- I  
4 don't know sitting here. I'd have to look into the  
5 details of the channel lengths -- or DSM-2 inputs to  
6 determine the channel lengths. And I need to look at  
7 Ms. Womack's -- where Ms. Womack's intake is located in  
8 reference to the Jones Pumping Plant or the junction  
9 with Old River to determine that.

10 MS. DES JARDINS: Is Node 70 -- but is Node 70  
11 the Tracy Fish Facility?

12 WITNESS CHILMAKURI: Approximately. I mean,  
13 that is -- Node 70 is roughly the junction of Old River  
14 and Jones Pumping Plant intake channel.

15 MS. DES JARDINS: So Mr. Jones [sic], you've  
16 testified previously -- Mr. Chilmakuri, you testified  
17 previously that -- if there's no explicit  
18 representation of the gates or the control structure on  
19 Jones, the proposed control structure, I'm wondering,  
20 doesn't the DSM-2 model only consider exports from the  
21 Jones Pumping Plant at intervals of the day?

22 WITNESS CHILMAKURI: That's correct.

23 MS. DES JARDINS: And doesn't it also only  
24 consider exports from the isolated facility at  
25 intervals of a day?

1           WITNESS CHILMAKURI: The time series inputs  
2 for those exports are daily, but the model is running  
3 on a 15-minute time step. So the model assumes that  
4 the export values will be the same throughout the day.  
5 But for every 15 minutes, it just assumes that the  
6 export will be close to the daily average value. But  
7 the inputs to the model are a daily average.

8           MS. DES JARDINS: But -- so you don't have any  
9 modeling of the effect of intermittent diversions from  
10 either the Tracy Pumping Plant or the North Delta  
11 intakes in the DSM-2 model?

12          WITNESS CHILMAKURI: DSM-2 model runs on a  
13 15-minute time step. I don't know what you mean by  
14 "intermittent" -- or intermittent operations. And in  
15 fact, in the North Delta Diversion, the diversions are  
16 actually changing on a 15-minute basis.

17          I'm just saying that the input boundary  
18 conditions are on a daily average basis, but that means  
19 the model is just assuming the amount of exports at  
20 North Delta Diversion or even from the South Delta  
21 channels will be e- -- at any given 15-minute time step  
22 will be equal to the daily average value.

23          MS. DES JARDINS: Mr. Hunt, could we go back  
24 to DWR-1304, please. And I'd like to go to Page 66.  
25 And scroll back up.

1           And where it says -- on the third paragraph on  
2 the top, Mr. Chilmakuri, doesn't it indicate that there  
3 could be intermittent diversions from the -- from the  
4 North Delta intakes?

5           WITNESS CHILMAKURI: Yes.

6           MS. DES JARDINS: And doesn't it state there  
7 that -- that they could be specific to the tidal --  
8 tidal state?

9           WITNESS CHILMAKURI: Yes.

10          MS. DES JARDINS: So DSM-2 doesn't model --

11          WITNESS CHILMAKURI: No.

12          MS. DES JARDINS: -- those intermittent  
13 diversions, correct?

14          WITNESS CHILMAKURI: No, you're wrong.

15          Actually, DSM-2 does take into consideration  
16 the tidal influence. And that's what I was describing,  
17 that, in the model, the DSM -- when we are simulating  
18 the North Delta Diversion in DSM-2 in a given day,  
19 there are stretches of time when the diversion is shut  
20 off if the sweeping velocity requirement is not met.  
21 And there will be stretches of day that there will be  
22 diversion on. That's the intermittent operation that  
23 the sentence is describing and the model reflects that.

24          MS. DES JARDINS: Thank you.

25          I'd also like to ask, the DSM-2 model assumes

1 Priority 3 gate operations for Clifton Court Forebay;  
2 isn't that correct?

3 WITNESS CHILMAKURI: For both No Action and  
4 WaterFix, yes.

5 MS. DES JARDINS: But Priority 3 gate  
6 operations are not a regulatory requirement, are they?

7 MR. MIZELL: I'm going to object to the  
8 question. Lack of foundation that this has to do with  
9 the water rights at CCLP's diversion points.

10 As Dr. Chilmakuri just answered, the  
11 assumptions on Priority 3 are the same with or without  
12 the project. And without a further showing that this  
13 has an influence on CCLP, I think it's out of scope.

14 MS. DES JARDINS: I would like -- just  
15 exploring the basis of his opinion about the tidal  
16 effects on water levels and water levels have been  
17 modeled.

18 CO-HEARING OFFICER DODUC: Overruled,  
19 Mr. Mizell.

20 WITNESS CHILMAKURI: Could you repeat the  
21 question?

22 MS. DES JARDINS: Yeah, is -- is it a  
23 regulatory requirement by Priority 3 gate operations  
24 they are not a regulatory gate requirement, are they?

25 WITNESS CHILMAKURI: The water levels in the

1 DMC Intake Channel or the Jones Pumping Plant intake  
2 channel where Ms. Womack's intake is, the water levels  
3 there are not necessarily -- well, actually --

4 MS. DES JARDINS: Mr. Chilmakuri --

5 WITNESS CHILMAKURI: It's not --

6 CO-HEARING OFFICER DODUC: Hold on. You need  
7 to speak one at a time for the court reporter.

8 And, Ms. Des Jardins, please let  
9 Dr. Chilmakuri finish his response.

10 MS. DES JARDINS: I would like an --

11 CO-HEARING OFFICER DODUC: Hold on.

12 MS. DES JARDINS: -- answer to the question.

13 CO-HEARING OFFICER DODUC: Hold on.

14 Dr. Chilmakuri, are you finished?

15 WITNESS CHILMAKURI: No, I'm not. I'm trying  
16 to answer the question.

17 CO-HEARING OFFICER DODUC: Go ahead then.

18 WITNESS CHILMAKURI: Yes. It's not -- as far  
19 as I know, it's not a regulatory requirement, the  
20 Priority 3 is not a regulatory requirement. However,  
21 it is an operational consideration that DWR makes on a  
22 daily basis to maintain the water levels in the South  
23 Delta channels to be protective of those water levels.

24 So it is a representation of how the different  
25 Clifton Court radial gates would be operated to be

1 protective of the South Delta water channels. And that  
2 operation does not change between the No Action and the  
3 WaterFix scenarios.

4 MS. DES JARDINS: Mr. Chilmakuri, I'd like to  
5 bring up Exhibit CCLP-75, please -- or Mr. Hunt -- no,  
6 that's -- I believe it's -- I'm sorry. Is that  
7 CCLP-75? Okay. Then I don't have the correct -- I  
8 would like to scroll down -- can we go to Page 2,  
9 please, of this exhibit.

10 CO-HEARING OFFICER DODUC: Let's establish  
11 what this is and that the witnesses --

12 MS. DES JARDINS: It's a --

13 CO-HEARING OFFICER DODUC: Hold on. Please,  
14 allow me to finish.

15 -- and whether or not the witnesses are  
16 familiar with this document.

17 Now you may respond.

18 MS. DES JARDINS: Mr. Bednarski, there was a  
19 letter from Local Agencies of the North Delta and  
20 Central Delta Water Agency about the need to identify  
21 the impacted diversions. Are you aware of this letter?

22 WITNESS BEDNARSKI: No, I'm not.

23 MS. DES JARDINS: I would like to ask about  
24 the action recommended on Page 2. Can we go to Page 2.

25 There was a concern expressed that DWR and

1 Reclamation had failed to identify the affected intakes  
2 and that there was a truncated and vague discussion of  
3 injury to legal users of waters and that the  
4 Supplemental Information section is deficient, did not  
5 correct the deficiency. So you were not -- you were  
6 not aware of this concern that was raised?

7 CO-HEARING OFFICER DODUC: I believe there's  
8 an objection forthcoming.

9 MR. BERLINER: Yes. If we are referring to  
10 No. 2, which refers to Page 2, the recitation that  
11 Ms. Des Jardins just finished is not contained within  
12 this paragraph.

13 So object to the form of the question. And it  
14 assumes facts not in evidence because her dissertation  
15 on the background of this question is not contained  
16 anywhere on this page.

17 CO-HEARING OFFICER DODUC: So help me  
18 understand where you're going with this,  
19 Ms. Des Jardins. What's the connection you're making?

20 MS. DES JARDINS: It's just that there was  
21 notice to -- was -- Mr. Bednarski, who was the section  
22 manager and as DWR's witness, was this information  
23 about need to identify -- it says, the truncated and  
24 vague discussion of injury to legal users of water  
25 buried in the supplemental information section does not



1 correct the deficiency in identifying the legal users  
2 of water impacts.

3 CO-HEARING OFFICER DODUC: Ms. Des Jardins --  
4 Ms. Des Jardins, that's what it says. But you need to  
5 put it in the context for me of this surrebuttal which  
6 is an impact on CCLP's water rights. How does this  
7 relate, directly relate?

8 MS. DES JARDINS: Were CCLP's water rights  
9 identified?

10 CO-HEARING OFFICER DODUC: I believe that has  
11 been asked and answered.

12 MS. DES JARDINS: Yeah, and was he aware that  
13 there were early comments that this needed to be done  
14 for the petition?

15 CO-HEARING OFFICER DODUC: That is too broad  
16 of a question. You need to limit it to the impact on  
17 CCLP's water rights. And if the question is whether or  
18 not they considered it, that has been asked and  
19 answered numerous times.

20 MS. DES JARDINS: Okay. Let's move on. Thank  
21 you.

22 MS. WOMACK: Mr. Emrick?

23 MR. EMRICK: Okay. Are you guys done?

24 MS. WOMACK: Mm-hmm.

25 CO-HEARING OFFICER DODUC: And please remind

1 me, now, Mr. Emrick, what are your remaining lines of  
2 questioning?

3 MR. EMRICK: I'm going to -- these are going  
4 to focus on Dr. Chilmakuri. I have three or four  
5 questions. They'll be dealing with water quality in  
6 the South Delta as set forth in his testimony.

7 CO-HEARING OFFICER DODUC: Thank you.

8 CROSS-EXAMINATION BY MR. EMRICK

9 MR. EMRICK: If we could have DWR-1421 on the  
10 screen.

11 That's your testimony; is that correct,  
12 Dr. Chilmakuri?

13 WITNESS CHILMAKURI: Yes.

14 MR. EMRICK: And if I could have you go to  
15 Page 5, please. And if you go up a little bit more to  
16 show the -- I'm sorry, the other way, to show the  
17 graphs there.

18 Dr. Chilmakuri, you've presented two figures  
19 here, Figure CL2 and Figure EC5. My question is this  
20 is a comparison between the preferred operational  
21 modeling, CWF H3+, compared the No Action Alternative;  
22 is that correct?

23 WITNESS CHILMAKURI: The reason I included  
24 these graphs is just to note that this analysis --

25 CO-HEARING OFFICER DODUC: I'm sorry. His

1 question is more specific. Can you just answer that?

2 WITNESS CHILMAKURI: Yeah, it includes that,  
3 the CWF H3+ and No Action, but it also includes the H3,  
4 H4, and BA H3+ scenarios.

5 MR. EMRICK: Well, what I was going to ask you  
6 is isn't it true that these graphs show that CWF H3+  
7 will have greater impacts on water quality, degrading  
8 impacts on water quality, than the No Action  
9 Alternative in the South Delta?

10 WITNESS CHILMAKURI: Not necessarily, no.  
11 What these graphs are showing there is that they  
12 would -- the salinity conditions would be similar to a  
13 large extent, but there may be cases -- occasional  
14 cases there would be increased salinity, as you can see  
15 in the October-November, for example, in the top graph  
16 there. This is Old River at Clifton Court chloride  
17 concentrations.

18 And that modeled increase, as I explained to  
19 you on Friday and it was explained before, largely is a  
20 result of, one, the Head of Old River Gate operation  
21 differences between the No Action Alternative and the  
22 WaterFix scenario.

23 MR. EMRICK: So that's -- if you can explain  
24 to me a little bit more, that's where you're testifying  
25 that the difference between CWF H3+ and the No Action

1 Alternative, that's the reason for it?

2 WITNESS CHILMAKURI: That's one -- that's --  
3 for South Delta channels, the changes in salinity, the  
4 primary reason is that. And also, of course, there is  
5 a change in the export operations between the No Action  
6 Alternative and the WaterFix scenarios at the South  
7 Delta intakes. And that's another driver.

8 MR. EMRICK: Has DWR done any investigation,  
9 you yourself or any investigation that you know of,  
10 that investigated the potential impacts on CCLP in the  
11 modeled increases in salinity or EC in the South Delta?  
12 For instance, have -- has DWR looked at what the  
13 impacts to ability to grow crops or conduct farming  
14 would be under increased salinity levels in the South  
15 Delta?

16 WITNESS CHILMAKURI: As part of the EIR/EIS, I  
17 believe there was an extensive analysis on the  
18 agricultural impacts to -- in the Delta. So I would  
19 say yes.

20 MR. EMRICK: Do you know what section that's  
21 in?

22 WITNESS CHILMAKURI: I don't recall the exact  
23 number.

24 MR. EMRICK: Do you know whether that included  
25 CCLP?

1           WITNESS CHILMAKURI: Well, again, it's not  
2 specific. It was for the entire Delta, so they would  
3 be part of it.

4           MR. EMRICK: Is there a reason why you didn't  
5 model Boundary 1 -- or excuse me, why you didn't look  
6 at Boundary 1 for the analysis with respect to impacts  
7 to CCLP? Or at least why it's not shown in this --  
8 this -- in your testimony?

9           WITNESS CHILMAKURI: This -- so the -- again,  
10 the reason Boundary 1 is not shown in these graphs is  
11 this is just -- again, as I was trying to explain  
12 earlier, these are just examples of the information  
13 that was included in the testimony already which  
14 presents information that's related to CCLP.

15           Now, if you go back to Part 1,  
16 Dr. Nader-Tehrani's testimony, we have exact same  
17 graphs with Boundary 1 included.

18           MR. EMRICK: Do you know whether Dr. Tehrani,  
19 however, looked at -- specifically looked at impacts to  
20 CCLP with respect to Boundary 1?

21           WITNESS CHILMAKURI: Again, when you say  
22 "specific," I mean, all this information is providing a  
23 reasonable -- reasonably what we can expect at CCLP  
24 with WaterFix. So as a -- I don't know how to answer.  
25 This is -- we are trying to infer -- using the

1 information that we have available today, we're trying  
2 to infer or project what the potential impacts to CCLP  
3 would be.

4 So I would say yes, the information is  
5 available for -- to assess what the impacts will be to  
6 CCLP from WaterFix.

7 MR. EMRICK: Okay. That's all I have.

8 I think -- I think that's all we have.

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

11 MS. WOMACK: Can I have just one more check?

12 MR. EMRICK: Ms. Womack wants to take a  
13 moment.

14 MS. WOMACK: Thank you so much.

15 MR. EMRICK: I think we're done.

16 CO-HEARING OFFICER DODUC: Any redirect,  
17 Mr. Mizell or Mr. Berliner?

18 MR. MIZELL: No, we have no redirect.

19 CO-HEARING OFFICER DODUC: Thank you. I  
20 believe staff has questions for this panel. And a  
21 question -- I think Ms. McCue has a clarification  
22 regarding exhibits that we need to follow-up on.

23 MR. DEERINGER: Good morning, I believe this  
24 question's properly directed at Mr. Bednarski, but if  
25 Dr. Chilmakuri is able to answer as well, that will be

1 helpful.

2           At any point in developing any of the WaterFix  
3 proposals, have the petitioners evaluated the  
4 feasibility of moving the control structure downstream  
5 of Clifton Court's point of diversion?

6           WITNESS BEDNARSKI: We have looked at that as  
7 an option. We ran into some potential issues with some  
8 sensitive environmental concerns, habitats south of  
9 there. But our plan is to actually sort of ground  
10 truth that, once we get into preliminary design, go out  
11 in the field and check to see if these sensitive habits  
12 actually exist.

13           They were in a library that's a preexisting  
14 library that we use as a database to sort of categorize  
15 the different areas. And in that library, it showed up  
16 as a sensitive habitat.

17           We would propose to go out during the  
18 preliminary design and actually determine whether it is  
19 or not. And if it isn't, then we would be open to  
20 moving the control structure south of where it is now.

21           MR. DEERINGER: Thank you. And was that  
22 evaluation documented somewhere in the WaterFix record,  
23 to your knowledge?

24           WITNESS BEDNARSKI: I'm not aware that it has.  
25 It would probably be in our working documents

1 somewhere.

2 MR. DEERINGER: Okay.

3 MS. WOMACK: Mr. Deeringer, could I -- I know  
4 that's a question for him, but we have a very big  
5 concern either side. It's not a question of moving  
6 the --

7 CO-HEARING OFFICER DODUC: Hold on. Hold on,  
8 please.

9 MS. WOMACK: Is that something --

10 CO-HEARING OFFICER DODUC: No, no, no. We're  
11 not going to --

12 MS. WOMACK: Okay.

13 CO-HEARING OFFICER DODUC: -- provide  
14 arguments at this time.

15 MS. WOMACK: Oh, it's not an argument. It's  
16 just we -- there's concerns on both side. So there's  
17 more concerns either way.

18 MR. DEERINGER: That was all I had. Thank  
19 you. And I think Ms. McCue has a question.

20 MS. McCUE: I believe both Dr. Chilmakuri and  
21 Mr. Bednarski referred to the -- in their testimony,  
22 referred to the Administrative Draft Supplemental EIR  
23 or the Public Draft Supplemental EIR/EIS. And then in  
24 Mr. Bednarski's testimony, you say the Public Draft  
25 Supplemental EIR/EIS was submitted as Exhibit DWR-1416.



1 But there's no 1416 on the exhibit identification index  
2 and nothing was submitted. So I'm just --

3 MR. MIZELL: Yes, Ms. McCue, I can answer  
4 that.

5 Tripp Mizell.

6 That is probably an editorial oversight on the  
7 part of myself when I was looking at the exhibit  
8 numbers and cross-referencing them for what we would be  
9 submitting.

10 There was the notice by the Hearing Staff  
11 about the use of a State Water Board exhibit number for  
12 the Public Draft SEIR, and that reference escaped my  
13 notice at the time.

14 It should properly reference SWRCB-114.

15 MS. McCUE: 114.

16 MR. MIZELL: Yes.

17 MS. McCUE: But you didn't include it on your  
18 exhibit identification index, and we don't have it in  
19 our possession. We just marked it with -- you know,  
20 marked it for somebody to submit it. Gave it an  
21 exhibit number in case somebody submitted it.

22 MR. MIZELL: Yes. If you would like, I will  
23 modify our exhibit index to reference the website where  
24 the Public Draft SEIR is available, much as we did with  
25 the previous copies of the environmental document.

1 CO-HEARING OFFICER DODUC: So do the  
2 references in these witnesses' testimony need to be  
3 corrected?

4 MR. MIZELL: I believe Ms. McCue has  
5 identified the one spot. So we can either correct that  
6 here on the record -- the verbal -- or the written  
7 reference is to the Public Draft SEIR, and that is --  
8 that has been given a State Board exhibit number at  
9 this time. That's the only change there.

10 MS. McCUE: I think you do need to submit the  
11 file, though, and not a web- -- a link to the website,  
12 so that we have them.

13 MR. MIZELL: I'd be happy to coordinate with  
14 Hearing Staff offline if that is a better use of the  
15 Hearing Officers' time, or we can discuss it here.

16 But we have submitted the previous copies of  
17 the environmental document in a few different ways, and  
18 we're happy to provide it in whatever format you'd  
19 like.

20 MS. McCUE: Okay.

21 CO-HEARING OFFICER DODUC: Ms. Meserve?

22 MS. MESERVE: Sorry. Just a point of  
23 clarification. I guess I do object to the submittal of  
24 the public review draft into the record at this time.

25 I understand that there's been a designation

1 of what the exhibit number would be. But at this  
2 point, it has not been submitted, and no one has been  
3 allowed to submit testimony on it.

4           So I think -- my understanding is that the  
5 reference to that exhibit number in the testimony that  
6 we heard today should just be corrected to refer to the  
7 Admin Draft SEIR because we don't have -- none of the  
8 rest of us were able to refer to or use the public  
9 review draft in our testimony. So I'm not sure why DWR  
10 would be able to either.

11           CO-HEARING OFFICER DODUC: Ms. Des Jardins?

12           MS. DES JARDINS: Yes, and it would be  
13 arbitrary to rule that the admin draft was beyond the  
14 scope of surrebuttal for all of the protestants and  
15 then to allow the petitioners to submit the entire  
16 public -- to rule that the public draft was beyond the  
17 scope of surrebuttal for all the protestants and then  
18 to allow the petitioners to submit the entire public  
19 draft.

20           And I do not see any of this testimony that  
21 relies on or in any way uses information in the public  
22 draft. It's well beyond the scope of this part of the  
23 hearing. And to the extent there's new information in  
24 it, it should not be submitted at this time because of  
25 the scoping rules.

1 CO-HEARING OFFICER DODUC: Thank you.

2 Mr. Mizell.

3 MR. MIZELL: Yes, just to make this easy on  
4 the Hearing Officers and Hearing Staff. We will  
5 provide revised copies of both witnesses' testimonies  
6 and strike any reference to the Public SEIR Draft.

7 We provided parallel citations. We thought it  
8 was more informative. But obviously it's causing more  
9 headache than it's worth. So we will provide written  
10 revisions.

11 CO-HEARING OFFICER DODUC: Thank you. And at  
12 this time, do you wish to move your exhibits into the  
13 record, not including the public draft?

14 MR. MIZELL: Yes, if you'd give me one second.

15 So the Department would like to move DWR-1415,  
16 1417, 1418, 1419, 1420, 1421, 1425 and 1426 into the  
17 record.

18 CO-HEARING OFFICER DODUC: Thank you.

19 Any objections?

20 MS. McCUE: I just have a question. Is 1425  
21 and 1426 cross-examination exhibits? And are we  
22 waiving --

23 CO-HEARING OFFICER DODUC: There is no 1426.  
24 1425 is Stockton's Response Ruling to Produce  
25 Information.

1 MS. McCUE: No, that's 1415.

2 CO-HEARING OFFICER DODUC: I'm sorry.

3 MS. McCUE: I thought he included 1425 and  
4 1426 at the end of his list.

5 CO-HEARING OFFICER DODUC: Oh.

6 MR. MIZELL: I did include 1425 and 1426.

7 MS. McCUE: And were those cross-examination  
8 exhibits?

9 MR. MIZELL: Yes.

10 MS. McCUE: So are we waiting, or is this the  
11 time?

12 CO-HEARING OFFICER DODUC: Ah, yes. Let's go  
13 ahead and wait on cross-examination exhibits, please.

14 MR. MIZELL: Very well. I'll resubmit 1425  
15 and 1426 at a later time.

16 CO-HEARING OFFICER DODUC: All right. With  
17 that then, 1415, 1417, 1418, 1419, 1420, and 1421 are  
18 received into the record.

19 (Department of Water Resources Exhibits  
20 DWR-1415, DWR-1417, DWR-1418, DWR-1419,  
21 DWR-1420, and DWR-1421 admitted into  
22 evidence)

23 MR. MIZELL: I have one further point. So the  
24 website does not reflect that SWRCB-113 has been  
25 admitted into evidence, I don't want to make

1 duplicative motions, but if is not, then the Department  
2 would submit SWRCB-113 also into evidence at this time.

3 CO-HEARING OFFICER DODUC: 113 is the  
4 Administrative Draft Supplemental EIR/EIS.

5 MR. MIZELL: That's correct.

6 CO-HEARING OFFICER DODUC: All right. Hearing  
7 objection, so received into the record.

8 (State Water Resources Control Board Exhibit  
9 SWRCB-113 admitted into the record)

10 CO-HEARING OFFICER DODUC: Thank you,  
11 Dr. Chilmakuri, Mr. Bednarski.

12 Before we take our morning break, let me  
13 confirm to see what else is on our to-do list.

14 DWR and the State Water Contractors have  
15 withdrawn your request to produce additional witnesses.  
16 And with that, then we are also -- with respect to  
17 Ms. Des Jardins's two requests, they are denied. One  
18 was regarding the subpoena of a DWR witness. The other  
19 was with respect to the scope of surrebuttal.

20 And with that, we will take a break until  
21 10:45, upon when we will hear from Mr. Burke.

22 (Recess taken from 10:26 to 10:45)

23 CO-HEARING OFFICER DODUC: All right. It is  
24 10:45, please take your seats. And we welcome back  
25 Mr. Burke.

1           Mr. Ruiz, before we get to Mr. Burke's  
2 testimony, are there any objections that need to be  
3 stated for the record at this time?

4           Ms. Des Jardins.

5           MS. DES JARDINS: Not an objection but I would  
6 like to reserve up to 15 minutes for cross-examination  
7 of Mr. Burke.

8           CO-HEARING OFFICER DODUC: All right.

9           Mr. Ruiz, please begin.

10                                   THOMAS BURKE,  
11 called as a Part 2 Surrebuttal witness  
12 by protestant South Delta Water Agency,  
13 Central Delta Water Agency (Delta  
14 Agencies) having been previously duly  
15 sworn, was examined and testified  
16 further as hereinafter set forth:

17                                   DIRECT EXAMINATION BY MR. RUIZ

18           MR. RUIZ: Good morning, Hearing Officers.  
19 Dean Ruiz for South Delta Water Agency parties.  
20 Mr. Burke is present with us this morning.

21           Mr. Burke, is SDWA-328 a true and correct copy  
22 of your surrebuttal testimony for Part 2 of this  
23 proceeding?

24           WITNESS BURKE: Yes, it is.

25           MR. RUIZ: Can you please summarize your

1 testimony at this point.

2 WITNESS BURKE: The testimony that I submitted  
3 as the surrebuttal are in response to Dr. Chilmakuri's  
4 rebuttal testimony and his Opinion No. 7, where he  
5 takes issue with some of the elements of our salt  
6 budget that we put together for the project.

7 I've broken down some of his statements into  
8 seven different elements that I'd like to address.  
9 They're expressed in detail in my write-up, so I'll  
10 just briefly go over those now in my oral presentation.  
11 I'd like to just address six of those seven.

12 The first statement was Dr. Chilmakuri stated  
13 that I did not take into account the internal salt  
14 budget components within the South Delta that are  
15 within the study area. And actually, to the contrary,  
16 the residual of the salt budget represents the internal  
17 sources and sinks of the salt budget. So all the  
18 elements of the salt budget are accounted for within  
19 the model.

20 The second element from Dr. Chilmakuri's  
21 rebuttal testimony is that he takes issue with the fact  
22 that I used a single EC-chloride relationship for each  
23 of the inflow-outflow locations within the salt budget.

24 The data used to create an EC-CH, or chloride  
25 relationships, represent the actual data that was



1 corrected over a long period of time at each of these  
2 locations or -- locations that are representative for  
3 each of the inflow and outflow points within the salt  
4 budget.

5           This data that was collected over that period  
6 of time represents the real variability of the  
7 EC-chloride relationship from the many sources that  
8 contribute flow to that location. By default, this  
9 represents the real variation in the sources that lead  
10 to this -- each location.

11           The third element is Dr. Chilmakuri is  
12 concerned with the accuracy of the salt budget. The  
13 budget was based on output from the petitioner's model.  
14 Any inaccuracy in this budget would be based on the  
15 inaccuracy of the DSM-2 model itself and would apply to  
16 the salinity analyses that have been deducted in this  
17 hearing process, the EIR/EIS, and the BA.

18           Fourth element is Dr. Chilmakuri's states that  
19 the budget residual is negative and therefore the salt  
20 must be flowing out of the South Delta. This is  
21 actually a misrepresentation or misunderstanding of  
22 what the residual of the salt budget actually  
23 represents.

24           Dr. Chilmakuri is thinking that the residual  
25 of the budget is actual removal of salt from the South

1 Delta area. What the residual represents is actually  
2 the net Delta consumptive use, the seepage that occurs  
3 within the South Delta area, and that the salinity that  
4 remains -- or salinity change that remains within the  
5 channel.

6 And so you can't look at the resulting  
7 positive or negative value as an inflow or out -- net  
8 inflow or outflow but actually just the components that  
9 are within each of those budgets for the No Action  
10 Alternative and the WaterFix here, WaterFix  
11 alternative.

12 What you need to look at is the difference  
13 between those residuals. That's showing the change  
14 that is occurring within what remains within the South  
15 Delta given the changes that are inherent within the No  
16 Action Alternative and the WaterFix scenario.

17 The fifth element I'd like to address is that  
18 Dr. Chilmakuri misunderstands what the 30,000 metric  
19 ton increase in salt represents. That 30,000 metric  
20 tons of salt is not what was brought into the South  
21 Delta but actually what remains in the South Delta  
22 given the inflow and outflow of salt over that period  
23 of time.

24 And the last element that I'd like to address  
25 is Dr. Chilmakuri represents that EC be used to

1 evaluate salinity rather than a salt loading budget.  
2 And I differ with that. I think that's an incorrect  
3 approach because looking at just EC would not take into  
4 account the flow-related effects of the amount of salt  
5 that's moving into or out of the system.

6 By looking at the flow, an EC of, say, 5 or 10  
7 or 100 would have a much different effect if it was  
8 associated with a flow of 10 cfs, whereas if that same  
9 EC was associated with a flow of 100 or 1,000 cfs.  
10 Therefore, you need to take the volume-weighted  
11 component of that EC in order to understand what the  
12 true mass of salt is that's moving through the system.

13 And that's all my presentation.

14 CO-HEARING OFFICER DODUC: Thank you,  
15 Mr. Burke.

16 All right. DWR has requested, actually, a  
17 joint cross with State Water Contractors for 60  
18 minutes.

19 CROSS-EXAMINATION BY MS. MORRIS and DR. CHILMAKURI

20 MS. MORRIS: I'm just going to take a second  
21 to get organized.

22 (Pause in proceedings)

23 MS. MORRIS: Good morning. Happy new water  
24 year. And there's rain in the forecast, so we should  
25 all be happy.

1           I have some questions about -- and it really  
2 just tracks the points that Mr. Burke makes, so it's  
3 just going to be walking through, mostly in order of  
4 his testimony.

5           In your surrebuttal testimony, SDWA-328, the  
6 WaterFix scenario you say you used for the salt budget  
7 analysis is CWF H3+, correct?

8           WITNESS BURKE: No, I believe this is related  
9 to the Preferred Alternative BA, CWF BA. This was --  
10 the salt budget was developed before that H3+ was  
11 issued.

12          MS. MORRIS: So if we could look at your  
13 testimony on Page 7, looking at Line 11.

14          So your CWF H3+ is actually CWF BA H3+?

15          WITNESS BURKE: That's correct.

16          MS. MORRIS: So is it fair to assume that any  
17 reference in SDWA-328 that says CWF H3+ is the modeling  
18 BA CWF H3?

19          WITNESS BURKE: The modeling was actually  
20 conducted on the BA H3+. But in our analysis of the  
21 BA H3+ and CWF H3+, we found very little difference in  
22 the salinity elements for the modeling.

23          MS. MORRIS: Oh, good. I have questions for  
24 you about that.

25          So you're still using for your surrebuttal

1 testimony the salt budget analysis that you referenced  
2 in your surrebuttal testimony SDWA-291, correct?

3 WITNESS BURKE: That's correct.

4 MS. MORRIS: And in SDWA-291, when you refer  
5 to CWF PA, that's the BA H3+ modeling as well?

6 WITNESS BURKE: It was referred to as the  
7 Preferred Alternative at that time.

8 MS. MORRIS: So yes?

9 WITNESS BURKE: I believe so.

10 MS. MORRIS: And when you refer to CWF H3+,  
11 then you're -- I'm sorry.

12 Do you know that the exports in the salt  
13 budget area changed between BA H3+ and CWF H3+?

14 WITNESS BURKE: Yes, I do.

15 MS. MORRIS: And -- but you didn't repeat the  
16 salt budget analysis for CWF H3+, correct?

17 WITNESS BURKE: No. The rebuttal and the  
18 surrebuttal is based on the original SDWA-291 which was  
19 conducted before CWF H3+ was made available.

20 MS. MORRIS: So you know that they changed,  
21 but you never did the analysis?

22 WITNESS BURKE: In the analysis that we've  
23 done on previous review of the salinity elements within  
24 the South Delta, we saw very little change in the  
25 salinity that we saw within the system. And so we feel

1 that the CWF H3+ and the BA H3+ will produce basically  
2 a similar results.

3 MS. MORRIS: So, you're -- I'm sorry. I'm  
4 confused. I'm going to go back because I think I  
5 misunderstood your answer then.

6 So your testimony is that the exports in the  
7 salt budget would not change between BA H3+ and  
8 CWF H3+?

9 WITNESS BURKE: Not significantly in terms of  
10 what the salt loading would be into the South Delta  
11 area.

12 MS. MORRIS: What do you mean by "not  
13 significantly"?

14 WITNESS BURKE: I don't believe that the  
15 changes that we've seen within the components of H3+  
16 for BA and the CWF H3+ are significant enough to change  
17 the elements within the salt budget based on our review  
18 of the salinity levels at different points within the  
19 South Delta.

20 MS. MORRIS: But you didn't redo your salt  
21 budget analysis with the CWF H3+ modeling, correct?

22 WITNESS BURKE: No, we didn't completely redo  
23 the analysis.

24 MS. MORRIS: What do you mean by "completely"?

25 WITNESS BURKE: That means do it from scratch

1 with the new model.

2 MS. MORRIS: So what portions did you look at?

3 WITNESS BURKE: In previous analysis, what  
4 we've done is looked at salinity levels at different  
5 locations within the South Delta.

6 MS. MORRIS: Between CWF H3+ and BA H3+?

7 WITNESS BURKE: That's correct.

8 MS. MORRIS: And where did you produce this  
9 analysis?

10 WITNESS BURKE: I don't believe we've produced  
11 that analysis in terms of the comparison. It's just  
12 our own internal review of what we saw when we looked  
13 at the two models.

14 MS. MORRIS: Why didn't you produce it?

15 WITNESS BURKE: Because we didn't see a  
16 significant change.

17 MS. MORRIS: Can you produce it now?

18 WITNESS BURKE: No, I don't have it with me.

19 MS. MORRIS: Can you make it available?

20 MR. RUIZ: I'm going to object that. He's  
21 responding in surrebuttal to Dr. Chilmakuri's rebuttal,  
22 which was clearly based on the Part 2 alternative prior  
23 to CWF H3+. So his testimony is pretty clear in that  
24 regard.

25 We're not going to start producing internal

1 analyses that were just basically sensitivity analyses  
2 that demonstrate there's little or no difference, which  
3 supports his testimony.

4 MS. MORRIS: Mr. Burke just testified that,  
5 based on that analysis, he finds that there is little  
6 to no difference between the H3+ and BA modeling. So  
7 if he's opining about that, I'd like to be able to see  
8 the analysis and make it produced -- and have it  
9 produced.

10 CO-HEARING OFFICER DODUC: Overruled,  
11 Ms. Morris. What he considered in producing isn't --  
12 what he considered not relevant to his surrebuttal  
13 testimony is then outside the scope of his surrebuttal  
14 testimony.

15 MS. MORRIS: Right. But in his testimony,  
16 he's claiming that they would be similar, so it is  
17 within the scope.

18 MR. DEERINGER: I'm sorry. Are you lodging a  
19 motion for reconsideration?

20 MS. MORRIS: Yes.

21 MR. DEERINGER: Okay. Just for the record.

22 CO-HEARING OFFICER DODUC: I'm sorry,  
23 Ms. Morris. I'm trying to follow your line of logic.  
24 He did an analysis that, in his opinion, did not show  
25 a -- well, did not -- he believed it was not relevant



1 to his surrebuttal testimony; therefore, he did not  
2 include it in his surrebuttal testimony. And now  
3 you're suggesting that it be provided.

4 MS. MORRIS: But he's actually opining. I  
5 just asked him, and he said they're similar.

6 CO-HEARING OFFICER DODUC: Yes.

7 MS. MORRIS: So what he believes is similar  
8 without being able to describe to me what the  
9 differences are --

10 CO-HEARING OFFICER DODUC: Yes. We're --

11 MS. MORRIS: We're not able to evaluate  
12 whether that's accurate or whether we would agree that  
13 they're similar. And a lot of this testimony, as you  
14 can see, deals with 5 to 6 percent changes or small  
15 percents, and there's disagreement among the experts.

16 So my argument is that it is relevant because  
17 he's now saying that the modeling, in the -- without  
18 running the salt budget analysis again, that the  
19 changes between CWF H3+ and BA were not significant.

20 CO-HEARING OFFICER DODUC: Ms. Ansley.

21 MS. ANSLEY: I was merely going to add that  
22 Mr. Burke's conclusions here in his surrebuttal  
23 testimony are specifically to CWF H3+ and not to the BA  
24 H3+ modeling. So he is making the leap now and  
25 providing expert opinion on the actual salinity budget

1 of, I guess, CWF H3+ -- because that was the purpose of  
2 Ms. Morris's original clarifying question, so that we  
3 could understand where this analysis comes from  
4 basically because now he's using the term "CWF H3+."

5 CO-HEARING OFFICER DODUC: Mr. Ruiz.

6 MR. RUIZ: Yes. What Mr. Burke decided as not  
7 being relevant or what he didn't use -- there's many  
8 things he probably didn't use. If he didn't use it,  
9 it's not part of his surrebuttal testimony, it's  
10 outside of the scope.

11 If she wants to ask questions, as she has,  
12 about why does he refer to CWF H3+ versus the previous  
13 PA, she can do that, and he's responded to that. But  
14 he doesn't have to produce anything that he's done  
15 internally. There's many things he's done that are not  
16 part of the surrebuttal testimony.

17 CO-HEARING OFFICER DODUC: And there's many  
18 things petitioners have done that are not part of this.

19 Request for reconsideration denied.

20 MS. MORRIS: But you do agree that, in your  
21 testimony when you refer to CWF H3+, it's based on the  
22 BA H3+ modeling, correct?

23 WITNESS BURKE: That's correct.

24 MS. MORRIS: Thank you.

25 WITNESS BURKE: In my professional opinion, I

1 feel that, in terms of the salt budget, they would be  
2 relevantly the same.

3 MS. MORRIS: But you haven't produced the  
4 analysis to verify that, have you?

5 MR. RUIZ: Objection, asked and answered,  
6 argumentative.

7 CO-HEARING OFFICER DODUC: Sustained.

8 MS. MORRIS: Did you or your staff rerun the  
9 petitioners' No Action Alternative and BA H3+ DSM-2  
10 models to get the EC values needed for your salt budget  
11 analysis?

12 MR. RUIZ: I'm going to object just to  
13 vagueness in terms of time. You mean originally or in  
14 preparation for his surrebuttal testimony?

15 MS. MORRIS: Originally. And this is within  
16 the scope because he refers to his testimony at 291,  
17 and his surrebuttal analysis is based on the same  
18 analysis.

19 CO-HEARING OFFICER DODUC: All right.

20 Mr. Burke?

21 WITNESS BURKE: Yes, we did rerun the  
22 petitioners' models because we needed to insert outputs  
23 at the exact locations where we're doing an inflow and  
24 outflow to the South Delta area. The original model  
25 didn't have output locations for those points that we

1 thought were important.

2 We didn't change any of the internal  
3 components of the model. We just changed how much  
4 information was being output from the model so it that  
5 it matched up with the locations that we were  
6 calculating the salt budget for.

7 MS. MORRIS: So which version of the DSM-2 did  
8 you use to rerun the NAA and BA H3+ models?

9 WITNESS BURKE: We were using the 8.06.

10 MS. MORRIS: And just to be clear, you did not  
11 submit the NAA and BA H3+ models that you reran or the  
12 EC outputs that you used for your analysis into the  
13 record, correct?

14 WITNESS BURKE: I don't believe that those  
15 were submitted as exhibits for the salt budget  
16 analysis.

17 MS. MORRIS: Did you show anywhere in your  
18 testimony if your reruns of the NAA and the BA H3+  
19 provided exactly the same results as the petitioners?

20 MR. RUIZ: I'm going to object that misstates  
21 his testimony and lacks foundation.

22 CO-HEARING OFFICER DODUC: Mr. Ruiz, I can  
23 barely hear you.

24 MR. RUIZ: I'm sorry. Objection, it misstates  
25 his testimony and lacks foundation.

1 CO-HEARING OFFICER DODUC: How do you believe  
2 it misstates his testimony?

3 MR. RUIZ: Well, I believe she used the term  
4 "exactly the same," and I don't think he said  
5 anything's exactly the same.

6 CO-HEARING OFFICER DODUC: All right.  
7 Ms. Morris, rephrase, please.

8 MS. MORRIS: It's a different context of the  
9 question. I'm not asking, again, about his opinion  
10 between the CWF H3+ and the BA, where he said they were  
11 similar but not exactly the same.

12 What I'm asking now is whether -- if he showed  
13 anywhere in his testimony that the reruns of the NAA  
14 and BA H3 provided exactly the same results as the  
15 petitioners' DSM-2 modeling.

16 CO-HEARING OFFICER DODUC: And the word  
17 "exactly" is important?

18 MS. MORRIS: Well, in his surrebuttal  
19 testimony, he says that he -- and he just orally said  
20 that he used the petitioners model, and it didn't  
21 change. So I'm trying to confirm that.

22 CO-HEARING OFFICER DODUC: All right.

23 MR. RUIZ: Yeah, I'll withdraw that aspect.  
24 The "exactly" I misunderstood in terms of the context.

25 CO-HEARING OFFICER DODUC: All right.

1 Mr. Burke, will answer, but before he does,  
2 Mr. Deeringer, if you could move your name tag that  
3 way, so I don't have to -- I can see Ms. Morris. Thank  
4 you.

5 All right. Mr. Burke?

6 WITNESS BURKE: I'm sorry. After all that,  
7 can you repeat the question, please?

8 MS. MORRIS: I will repeat the question.

9 Did you show anywhere in your testimony if  
10 your reruns of the NAA and BA H3+ provided exactly the  
11 same results as petitioners' modeling?

12 WITNESS BURKE: I don't believe we went back  
13 and tried to verify that petitioners numbers were  
14 correct. Since we didn't change any of the model  
15 itself except the output locations, we didn't go back  
16 and try to verify that the model submitted -- or the  
17 results from our model matched what was originally  
18 submitted by the petitioners.

19 MS. MORRIS: So you didn't show it in your  
20 testimony, correct?

21 MR. RUIZ: I'm just going to say his testimony  
22 speaks for itself. It's clear what's in his testimony  
23 and what's not.

24 CO-HEARING OFFICER DODUC: Let's just answer  
25 it, then, if it's not in his testimony.

1           WITNESS BURKE: No, I didn't include that in  
2 my testimony.

3           MS. MORRIS: Then I want to just, in the next  
4 set of questions, when I say the South Delta budget  
5 area or South Delta subregion, I'm talking about the  
6 subregion delineated in SDWA-291, Figure 1.

7           If we can pull that up.

8           I just want to make sure you're okay with that  
9 characterization. Or we can call it whatever you'd  
10 like, but -- for ease of asking the next set of  
11 questions.

12           So do you agree we can just call this the  
13 South Delta subregion or South Delta budget area?

14           WITNESS BURKE: Yeah, that's a rough map that  
15 outlines the area. I'd agree with that terminology.

16           MS. MORRIS: And it's your map, though?

17           WITNESS BURKE: That's correct.

18           MS. MORRIS: The salt budget analysis which is  
19 the subject of your surrebuttal testimony only includes  
20 chlorides, correct?

21           WITNESS BURKE: That's correct.

22           MS. MORRIS: It doesn't include bromide,  
23 sulfates, or other salt components?

24           WITNESS BURKE: No, it doesn't.

25           MS. MORRIS: Mr. Burke, in your calculations

1 of your salt budget for South Delta, you did not  
2 include the salt mass associated with agricultural  
3 diversions, return flows, and seepage, correct?

4 WITNESS BURKE: I did, actually. Those  
5 components are what the residual actually is equivalent  
6 to. The residual is those -- the residual represents  
7 those components.

8 MS. MORRIS: Okay. Let's go and look at your  
9 testimony, SDWA-291, Page 6.

10 And isn't it true that this Table 1 is showing  
11 what you -- what the inputs were to your South Delta  
12 water budget component?

13 WITNESS BURKE: These are the external inputs  
14 to the South Delta water budget, that's correct.

15 MS. MORRIS: And where can I find that it says  
16 "agricultural diversions"?

17 WITNESS BURKE: Agricultural diversions aren't  
18 an external input to the South Delta budget. It's the  
19 internal residual of what's left over in the South  
20 Delta budget.

21 MS. MORRIS: So you're saying that you  
22 considered ag diversions, return flows, and seepage  
23 because they are necessarily the output of your  
24 calculation?

25 WITNESS BURKE: That's correct. The residual



1 of the external loading to the South Delta.

2 MS. MORRIS: And looking at SDWA-328, Page 4.  
3 Lines 2 to 4, you say that the difference between the  
4 NAA and BA H3 are relatively minor for the salt  
5 associated with ag diversion and seepage flows,  
6 correct?

7 WITNESS BURKE: That's correct.

8 MS. MORRIS: Did you present any analysis to  
9 show that the difference in the salt mass for the  
10 agricultural diversions and seepage is minor between  
11 the NAA and BA H3+?

12 WITNESS BURKE: No, I was just assuming that  
13 the Project Alternative, the H3+ scenario, would not  
14 have dramatic impact on the agricultural production in  
15 the South Delta so that it wouldn't have any difference  
16 or -- an impact on those loading and return rates.

17 MS. MORRIS: But we're not talking about  
18 agricultural use. We're talking about a salt load  
19 analysis, correct?

20 WITNESS BURKE: Well, when you're talking  
21 about a salt load analysis, you need to determine what  
22 the agricultural use is, or the consumptive use within  
23 the Delta. You can't leave that out of your  
24 calculation.

25 MS. MORRIS: So, but you didn't actually

1 analyze any agriculture production; you just assumed it  
2 was the same?

3 WITNESS BURKE: No, I'd left that as a  
4 residual of the budget. It wasn't necessary to  
5 annualize exactly what the inflow or outflow was. It  
6 is the residual of the budget.

7 MS. MORRIS: Looking at SDWA-328, Page 7,  
8 Lines 8 through 12, here you show the two equations to  
9 calculate the residual salt for the NAA and the BA H3+,  
10 correct?

11 WITNESS BURKE: That's correct.

12 MS. MORRIS: And you have two terms labeled  
13 "consumptive use" and "seepage," correct?

14 WITNESS BURKE: That's correct.

15 MS. MORRIS: Is it correct to say that these  
16 two terms represent the amount of salt mass leaving the  
17 budget area either the agricultural diversions or  
18 seepage in that region?

19 WITNESS BURKE: The consumptive use actually  
20 has two terms in it. Some of -- one is a withdrawal  
21 term for the irrigation diversions, and another is  
22 return flow. The diversion is salt lost to the system,  
23 and return flow is the salt addition to the system.

24 MS. MORRIS: Would those two have the same EC?

25 WITNESS BURKE: No, they don't.

1 MS. MORRIS: You assume that these two terms  
2 "consumptive use" and "seepage" for the NAA and the  
3 BA H3+ are identical, correct?

4 WITNESS BURKE: No, I didn't say "identical,"  
5 but I said they're going to be similar.

6 MS. MORRIS: Referring to what you labeled as  
7 "consumptive use" and "seepage" in your equation in  
8 SDWA-328, Page 7, to compute the salt mass for these  
9 two terms, the volume of agricultural diversions and  
10 seepage should be multiplied by the corresponding  
11 salinity at locations where the diversion and seepage  
12 are occurring, correct?

13 WITNESS BURKE: That's correct.

14 MS. MORRIS: And the flow volume is the DSM-2  
15 input and therefore is identical for the NAA and  
16 BA H3+, correct?

17 WITNESS BURKE: Which flow volume are you  
18 referring to?

19 MS. MORRIS: I'm looking at your testimony on  
20 Page 3, SDWA-328, Page 3, Lines 22 through 24. You  
21 were talking about the flow values assigned for the  
22 three components.

23 WITNESS BURKE: Let me take a look at that for  
24 a second.

25 Okay. That's correct.

1 MS. MORRIS: Okay. And you in fact have  
2 testified that there's a substantial increase in EC in  
3 the South Delta area under the CWF compared to the  
4 No Action Alternative, correct?

5 WITNESS BURKE: That's correct.

6 MS. MORRIS: Did you present the analysis  
7 showing that the flows would be minor?

8 MR. RUIZ: I'm just going object to the  
9 question as vague and ambiguous.

10 MS. MORRIS: Let me try to re-ask the  
11 question.

12 Did you present the analysis showing that the  
13 differences in flows would be minor?

14 WITNESS BURKE: No, I didn't present the  
15 analysis because my analysis was based on the data  
16 produced by the petitioners in their model, and to look  
17 at the flow data in the model, they're identical.

18 MS. MORRIS: You used the same EC-chloride  
19 conversion equations for the NAA and the BA H3+ in your  
20 salt budget analysis, correct?

21 WITNESS BURKE: That's correct.

22 MS. MORRIS: Would you say the same  
23 EC-chloride equation could be used for conducting the  
24 salt budget analysis for any of the CWF scenarios that  
25 have been presented for this hearing?

1           WITNESS BURKE: I think there's too many  
2 variables in order for me to analyze -- or answer that  
3 correctly.

4           MS. MORRIS: I'm sorry?

5           WITNESS BURKE: There's too many unknowns in  
6 just saying "all scenarios." I have to look at each  
7 one individually to see what that scenario represents  
8 and how it's being modeled to know whether that would  
9 be the correct EC-chloride relationship to use for that  
10 particular scenario.

11           MS. MORRIS: Okay. I just thought -- because  
12 you said in your testimony that you would use the same  
13 one to make sure there was no bias due to the  
14 conversions when comparing the CWF to the NAA, that  
15 that would also be true for Boundary 1, Boundary --  
16 H3+, H4, and Boundary 2; is that not accurate?

17           WITNESS BURKE: Well, now you're listing the  
18 actual scenarios that I know of. Before, it was just  
19 any scenario.

20           For those scenarios -- the B1, B2, H3, and  
21 H4 -- I would probably use the same EC-chloride  
22 scenarios for each of those.

23           MS. MORRIS: And looking at your testimony on  
24 Page 4, Line 27, when you say "each source," you mean  
25 each component of Table 1 in SDWA-291, correct?

1           WITNESS BURKE: Let me take a look at that for  
2 a second, please.

3           CO-HEARING OFFICER DODUC: Can we go back to  
4 the table, please, Mr. Hunt.

5           WITNESS BURKE: Okay. I've looked at it.

6           MS. MORRIS: I'm sorry. Do I need to restate  
7 the question?

8           WITNESS BURKE: Pardon?

9           MS. MORRIS: Do I need to restate the  
10 question?

11          WITNESS BURKE: I'm not sure that we ever got  
12 to a question. You were just referring --

13          MS. MORRIS: Oh, no. I -- no, the question  
14 was when you -- when we're looking at Page 4 of your  
15 surrebuttal testimony, when you say "each source," do  
16 you mean each component that's listed on Table 1 of  
17 SDWA-291? Is that what you mean by "each source"?

18          WITNESS BURKE: I believe so, yes.

19          MS. MORRIS: And looking at SDWA-291, Pages 10  
20 and 11 -- let's start with 10, sorry. Equations 3, 4,  
21 5, and 6 are what you used to convert EC to chloride,  
22 correct?

23          WITNESS BURKE: That's correct.

24          MS. MORRIS: You used different equations for  
25 different salt components in your analysis?

1           WITNESS BURKE: I used different equations for  
2 different locations in my analysis.

3           MS. MORRIS: And you didn't use the same  
4 equation for all the salt components because the source  
5 of flow and salt would be different for each component  
6 in your analysis, correct?

7           WITNESS BURKE: That's correct.

8           MS. MORRIS: And that's because the source of  
9 water and salt at those two locations is different,  
10 correct?

11          WITNESS BURKE: That's correct.

12          MS. MORRIS: So if there's a large shift in  
13 the source of water under CWF scenario compared to the  
14 NAA for each flow component in your analysis, you  
15 should not be using the same EC-chloride conversions,  
16 correct?

17          WITNESS BURKE: If you had a large change and  
18 the distribution of flow is from different sources at a  
19 specific location, you would probably want to modify  
20 your equation to reflect that. But we've looked at the  
21 change and source components to each of these  
22 locations, and the largest change we saw was 3/10ths of  
23 1 percent for the Martinez flow going to Old River. We  
24 didn't think that was a significant enough change, only  
25 3/10ths of 1 percent, to modify the equation.

1 MS. MORRIS: But if, for example, the  
2 No Action Alternative had a component of, let's say, 50  
3 percent of Sacramento water and 50 percent San Joaquin  
4 water and the California WaterFix had a change of  
5 30 percent Sacramento water and 70 percent San Joaquin  
6 water, you would necessarily need to change your  
7 chloride concentrations, correct -- or equation?  
8 Apologies.

9 MR. RUIZ: I'm going to object as incomplete  
10 hypothetical.

11 CO-HEARING OFFICER DODUC: Are you able to  
12 answer the question, Mr. Burke?

13 WITNESS BURKE: Yeah, if you had a large  
14 change like that, you might want to evaluate whether or  
15 not you had to change your EC-CL relationship. But  
16 you'd have to look at what the different sources are  
17 and the volume of change for each source to know  
18 whether or not it's a significant enough change to  
19 modify your equation.

20 MS. MORRIS: Okay. Looking at SDWA-291,  
21 Figure 3, Page 12, it shows the EC-chloride conversion  
22 equation you used for both Old River and Middle River  
23 flow components, correct?

24 WITNESS BURKE: That's correct.

25 MS. MORRIS: And Figure 3 is an example of the



1 best -- what you characterize as the best fit on the  
2 EC-to-chloride relationship that you developed for the  
3 Middle River at Bouldin Bridge, correct?

4 WITNESS BURKE: It's based on the collected  
5 data at that location that best represents the mix of  
6 sources and the concentrations of EC and CL at that  
7 location.

8 MS. MORRIS: Under "Historical Conditions"?

9 WITNESS BURKE: That's correct.

10 MS. MORRIS: And just because -- for my own  
11 clarity so I can make sure, connecting the dots, the  
12 line on this figure is your equation, and the dots are  
13 the historical observations, correct?

14 WITNESS BURKE: That's correct.

15 MS. MORRIS: And you indicate that, on this  
16 figure, that there's an R squared of 0.94 and that you  
17 would -- that you think it's a -- strike all of that.

18 Sorry. Tongue-tied.

19 You indicate an R squared of 0.94. And would  
20 you agree that that is statistically a good fit?

21 WITNESS BURKE: I would agree that generally  
22 looking at the distribution of dots around the fit line  
23 and the R squared together that looks like a good fit  
24 to me.

25 MS. MORRIS: And yet some individual data

1 points have a fair amount of scatter, correct?

2 WITNESS BURKE: That's correct.

3 MS. MORRIS: So just as an example, if we look  
4 at the value on the bottom of EC 400 and we look across  
5 at the chloride on your equation, it shows it would be  
6 the chloride at 60, correct? That's where the line  
7 intersects with your equation?

8 WITNESS BURKE: That's correct.

9 MS. MORRIS: And visually I can see that  
10 there's points above and below that that vary from  
11 between 48 to 72; would you agree?

12 WITNESS BURKE: That's correct.

13 MS. MORRIS: So there could be up to a  
14 20 percent variation among the data points, even with a  
15 fairly good statistical fit, correct?

16 WITNESS BURKE: That's what the natural  
17 variability of EC to CL's showing us at that location.

18 MS. MORRIS: So that means that the real  
19 chloride concentrations can differ up to 20 percent at  
20 the 400 EC, correct?

21 WITNESS BURKE: Based on the collected data  
22 that we see here, yes.

23 MS. MORRIS: It appears for all data points  
24 corresponding to EC levels below about 240 -- so if I  
25 look at the bottom line of this figure, about 240, and

1 move up to your equation line, that the actual chloride  
2 concentrations were higher than the estimated line,  
3 correct?

4 WITNESS BURKE: For those low EC levels,  
5 that's correct.

6 MS. MORRIS: So at this location, you would be  
7 likely under-predicting the chloride concentration if  
8 the EC values were below 240?

9 WITNESS BURKE: That's correct, you would be.  
10 But you'd be applying this equation to both scenarios,  
11 so that you wouldn't achieve any bias in your  
12 comparison.

13 MS. MORRIS: And this plotting of data points  
14 does not take into consideration any hydrological  
15 variation, does it?

16 WITNESS BURKE: Yes, it does. It represents  
17 all of the hydrological variation that's been  
18 experienced at that point over the period of record  
19 where data was collected.

20 MS. MORRIS: Right. But that's a nice  
21 interpretation of my question. Let me try again. I  
22 didn't ask a very clear question.

23 It doesn't consider differing hydrology  
24 because it simply takes into account all the data  
25 points. So, for example, I could not look at one point

1 and say whether or not that occurred in a dry period or  
2 a wet period or a high flow or a low flow, could I?

3 WITNESS BURKE: Not from this chart alone, no.

4 MS. MORRIS: Okay. Thank you.

5 Thank you for forcing me to ask hard -- or  
6 better questions.

7 Looking at SDWA-291 -- I'm sorry, we already  
8 confirmed that's the location.

9 Well, let's just pull it up anyway, sorry.  
10 SDWA-291, Figure 1, Page 8, that's the boundary  
11 location for your salt budget area, correct?

12 WITNESS BURKE: That's correct.

13 MS. MORRIS: And one of these boundaries is  
14 labeled "Old River." Do you see that?

15 WITNESS BURKE: Yes, I do.

16 MS. MORRIS: Is it correct that you used the  
17 same EC-chloride conversion you developed for Middle  
18 River to calculate the salt flux at Old River?

19 WITNESS BURKE: Yes, I did.

20 MS. MORRIS: Do you have any evidence in your  
21 testimony to show that the EC-chloride relationship at  
22 Old River is identical to the Middle River location?

23 WITNESS BURKE: I don't have any evidence in  
24 my testimony to say that they are identical, but I  
25 believe they are comparable in my professional opinion.

1 MS. MORRIS: But you didn't show that analysis  
2 in any of your testimony for Part 2 or this surrebuttal  
3 testimony, correct?

4 WITNESS BURKE: No, I didn't.

5 MS. MORRIS: And similarly, you used the  
6 equation for Vernalis and Fern Cut locations -- the  
7 same, correct?

8 WITNESS BURKE: That's correct.

9 MS. MORRIS: In SDWA-328, Page 5, Lines 5 to 6  
10 you're referring to Figures 3 of DWR-932; is that  
11 correct?

12 WITNESS BURKE: That's correct.

13 MS. MORRIS: Is it correct that you're saying  
14 the largest change in the monthly average percentage  
15 contribution for Martinez is 0.1 to 0.2 percent?

16 WITNESS BURKE: That's correct.

17 MS. MORRIS: And you believe this small change  
18 is not going to affect the EC-chloride relationship,  
19 correct?

20 WITNESS BURKE: No, it's not going to change  
21 EC-chloride relationship significantly.

22 MS. MORRIS: And looking at DWR-932, Figure 3  
23 on Page 11 -- okay. Thanks.

24 Looking at this figure, it shows the long-term  
25 average monthly Martinez contributions for Boun- --

1 H3 -- I'm sorry, H -- Boundary 1, H3, H4, and  
2 Boundary 2, correct?

3 WITNESS BURKE: That's correct.

4 ATTORNEY AT PODIUM: And this obviously  
5 doesn't include CWF H3+, correct?

6 WITNESS BURKE: That's correct.

7 MS. MORRIS: Would you agree that the Martinez  
8 contribution represents the effects of sea water?

9 WITNESS BURKE: I'm not sure what you mean my  
10 "effects."

11 MS. MORRIS: In DSM-2, isn't Martinez  
12 considered the boundary for ocean water?

13 WITNESS BURKE: That's correct.

14 MS. MORRIS: So let's focus on the comparison  
15 of -- in this figure of NAA to H3, so NAA being blue,  
16 and H3 being the green.

17 Looking at the month of November between the  
18 blue and the green line, do you agree there's about a  
19 0.5 percent difference in the Martinez contribution  
20 between the NAA and the H3?

21 WITNESS BURKE: That's true. It looks like it  
22 is about a 0.5.

23 MS. MORRIS: Would you agree for the month of  
24 January and August the difference is about 0.3 percent?

25 WITNESS BURKE: It could be. It's hard to

1 read from the graph, but I could see it's generally  
2 around that.

3 MS. MORRIS: So in fact, then, isn't it true  
4 that your statement on Page 5, Lines 5 to 9 is not  
5 correct?

6 WITNESS BURKE: It's a little low, I agree.

7 MS. MORRIS: Do you agree that a small change  
8 in contribution from Martinez, say 0.5 percent, which  
9 represents the sea water contribution, may have a  
10 not-so-small effect on EC and chloride?

11 WITNESS BURKE: It will have a larger effect  
12 on chloride and a much smaller effect on the  
13 EC-chloride relationship. And my analysis takes into  
14 account that effect on EC.

15 MS. MORRIS: Okay. Looking at -- sorry,  
16 Mr. Hunt. We're going to have to go on a little  
17 adventure here. State Water Resources Control Board  
18 102. And it's going to be in Chapter 8. So you can  
19 go -- yeah, perfect, and then Chapter 8. Water  
20 Quality, top one. Thank you. Perfect. And then it's  
21 PDF Page 171. Perfect. Okay.

22 Looking at this SWRCB-102, do you see that the  
23 San Francisco Bay, which is at Martinez, shows a range  
24 of average chloride between 3,757 and 9,414 milligrams  
25 per liter?

1           MR. RUIZ: I'm going to object to this line of  
2 questioning. This is getting outside of his -- of the  
3 scope of his surrebuttal testimony. I don't think he  
4 referred to this or relied on this or mentioned this in  
5 his testimony.

6           CO-HEARING OFFICER DODUC: Ms. Morris.

7           MS. MORRIS: I'm testing -- he is challenging  
8 Dr. Chilmakuri's challenge or criticism of his  
9 testimony about the proper chloride concentration. And  
10 what I'm trying to demonstrate here is that there are  
11 differences in equations and that there are differences  
12 between the contributions from the ocean at Martinez  
13 that he did not take into account.

14          CO-HEARING OFFICER DODUC: Overruled,  
15 Mr. Ruiz. She may pull up documents in her  
16 cross-examination.

17          WITNESS BURKE: Could you repeat the question?

18          MS. MORRIS: Sure. This shows a range of  
19 average chloride concentration at Martinez between  
20 3,757 and 9,414 milligrams per liter, correct?

21          WITNESS BURKE: That's correct.

22          MS. MORRIS: Assuming a value of  
23 9,414 milligrams per liter chloride concentration at  
24 Martinez, would you agree that a 0.5 percent of  
25 Martinez contribution, based on the concentration at



1 that high level, is approximately 47 milligrams per  
2 liter?

3 WITNESS BURKE: I can't do the calcs in my  
4 head, but --

5 MS. MORRIS: Do you have a phone you can do  
6 it, or -- do you agree that essentially, if I take  
7 9,414 and times it by 0.5 percent that I'm going to get  
8 roughly 47 milligrams per liter chloride?

9 MR. RUIZ: I'm going to object, incomplete  
10 hypothetical.

11 MS. MORRIS: I'm sorry.

12 MR. RUIZ: Whether or not she can pull up  
13 documents, it's still outside the scope of his  
14 surrebuttal testimony.

15 CO-HEARING OFFICER DODUC: She is allowed to  
16 test the basis of his testimony by pulling up her  
17 exhibit, so. . .

18 But I believe the witness has answered he  
19 can't do math that fast in his head, Ms. Morris.

20 WITNESS BURKE: But I'll concede to your  
21 calculation.

22 MS. MORRIS: What about at 1 percent? That  
23 would be more -- easier.

24 WITNESS BURKE: Okay.

25 MS. MORRIS: Easier math.

1 WITNESS BURKE: Okay.

2 MS. MORRIS: What would be the change in the  
3 chloride concentration?

4 WITNESS BURKE: So at 1 percent, that would be  
5 944 to 1.

6 MS. MORRIS: So -- and then we have to divide  
7 that by a hundred, so it would be 9.4.

8 WITNESS BURKE: Okay.

9 MS. MORRIS: 94. I should never do math. 94,  
10 correct?

11 WITNESS BURKE: That's correct.

12 MS. MORRIS: And DWR -- I'm sorry. SWRCB-102,  
13 it also shows that the San Joaquin River chloride  
14 concentration, if we're looking at that column, it  
15 seems, on the mean, 81.4, it's roughly 12 times greater  
16 than the Sacramento River correct?

17 WITNESS BURKE: That's correct.

18 MS. MORRIS: And referring to -- if you can  
19 look at STKN-26. And I have printed these out. If you  
20 want to pull it up -- but I wanted him to be able to  
21 compare.

22 In this -- if you could go to PDF page --

23 CO-HEARING OFFICER DODUC: Could we establish  
24 what this is and whether Dr. Burke is familiar with it?

25 MS. MORRIS: This is Exhibit STKN-26 that is

1 in evidence. It's Susan Paulsen's report on the  
2 effects of California WaterFix.

3 Is that what you see on the screen, Mr. Burke?

4 WITNESS BURKE: I see the label on the report.

5 MS. MORRIS: And you're familiar with DSM-2  
6 fingerprinting, correct?

7 WITNESS BURKE: Yes, I am.

8 MS. MORRIS: And you are able to look at and  
9 read results from DSM-2 fingerprinting, correct?

10 WITNESS BURKE: Yes, I am.

11 MS. MORRIS: So I'm going to show you some DSM  
12 fingerprinting from this exhibit.

13 And if we could go to STKN-26, Page -- PDF  
14 Page 223.

15 MR. RUIZ: And I'm going to object for the  
16 record as to this as Dr. Burke -- Mr. Burke isn't  
17 familiar with this exhibit, has not reviewed this  
18 exhibit.

19 CO-HEARING OFFICER DODUC: We'll take that  
20 into consideration.

21 MS. MORRIS: And I'm not -- and so this says  
22 source fingerprinting -- source water fingerprints at  
23 Buckley Cove, correct? On the screen?

24 WITNESS BURKE: Yes.

25 MS. MORRIS: Okay. And what I want to do is,

1 if you can go also to, now, to PDF Page 225. And then  
2 if you can focus on the -- so I want to look at the  
3 two. And the reason I printed them out for you is the  
4 other one that you have listed as Exhibit -- as A,  
5 marked, is an excerpt on PDF Page 267 -- 247, sorry,  
6 and -- of that same exhibit.

7           And the reason that we have to look at them  
8 this way is that this shows the NAA on the one that's  
9 been marked B as red, and it shows the Alternative 4A  
10 as orange on a separate sheet. And I want to direct  
11 your attention to -- at first to the Sacramento River  
12 water dry year on both exhibits, which is the top left  
13 box. Do you see those?

14           WITNESS BURKE: I see that.

15           MS. MORRIS: Okay. The Sacramento River  
16 contribution in the dry year for July is 20 percent  
17 greater -- is 20 percent for the NAA, correct?

18           WITNESS BURKE: I'm not sure which plot you're  
19 looking at.

20           MS. MORRIS: I'm looking at -- I think it's  
21 confusing. But I'm looking at what's on the screen in  
22 the top left corner and what's been marked in front of  
23 you as Section B of STKN-26.

24           WITNESS BURKE: Okay. I see the top left  
25 graph.

1 MS. MORRIS: And it shows that the  
2 contribution of Sacramento River water at Buckley Cove  
3 is 20 percent in July, correct?

4 WITNESS BURKE: That's correct.

5 MS. MORRIS: And if we look at what's been  
6 marked as STKN-26, but what I've shown you as A, which  
7 is not currently on the screen but you have in front of  
8 you, in the top left it shows that the Alternative 4A,  
9 that the contribution of Sacramento River water in dry  
10 years for Alternative 4A is between 0 and 1 percent,  
11 correct?

12 MR. RUIZ: Can we just slow down. I'm trying  
13 to object for the record. I'm trying to figure out  
14 what is A, if we're looking at the same thing.

15 CO-HEARING OFFICER DODUC: Mr. Ruiz, you need  
16 to pull the microphone closer to you.

17 MR. RUIZ: I'm sorry. I'm objecting because  
18 I'm not sure that we have -- we have the same  
19 information, or at least, for the record, I'm not  
20 clear.

21 This says STKN-26, and you said something  
22 about marked as A.

23 CO-HEARING OFFICER DODUC: On the cover sheet  
24 of what she handed you there's an A and there's a B.

25 MR. RUIZ: Okay.

1 MS. MORRIS: It's all in the same exhibit.  
2 The reason that I printed the page is so that you can  
3 compare the two, so it might be easier for people to  
4 see. But I wasn't trying to -- I was trying to make it  
5 easier, not more confusing.

6 CO-HEARING OFFICER DODUC: Actually, I think  
7 Mr. Hunt has found a way to put both on the screen.

8 MS. MORRIS: Okay. So if you could go to --

9 CO-HEARING OFFICER DODUC: Actually, no. Go  
10 to Page 245.

11 MS. MORRIS: 47.

12 CO-HEARING OFFICER DODUC: 245 on yours.

13 MS. MORRIS: There you go. Okay.

14 So do you need me to re-ask the question now?

15 MR. RUIZ: Yes. Well, I request that you do.

16 MS. MORRIS: Okay. So looking at the  
17 Sacramento River water contribution at Buckley Cove in  
18 the dry water year in July, it shows a 20 percent  
19 contribution, correct?

20 WITNESS BURKE: That's correct.

21 MS. MORRIS: For the NAA, correct?

22 WITNESS BURKE: For the NAA, that's correct.

23 MS. MORRIS: Right. But looking at the second  
24 screen on the right, which is PDF Page 247 of the same  
25 exhibit, for Alternative 4A, it shows that the

1 Sacramento contribution is somewhere between -- in  
2 July, at about between 0 and 1 percent, correct?

3 WITNESS BURKE: That's correct.

4 MS. MORRIS: And then similarly, if we look at  
5 the San Joaquin River on the No Action Alternative --  
6 so the one to your left on PDF Page 225, the San  
7 Joaquin River contribution in a dry year is -- for  
8 July, is 45 percent under the NAA, correct?

9 WITNESS BURKE: In July?

10 MS. MORRIS: In July.

11 WITNESS BURKE: About 50, actually, but --

12 MS. MORRIS: It's -- if you look at the line,  
13 it's 50 -- okay. It's a little bit lower than 50.  
14 Okay. Roughly.

15 And then if we look at PDF Page 267, in July  
16 it shows -- it's about 60 percent, correct, for the  
17 Alternative 4A?

18 WITNESS BURKE: Close to 60, yes.

19 MS. MORRIS: So the contribution from  
20 Sacramento and San Joaquin and for Martinez change  
21 under the CWF is different than the NAA, correct?

22 WITNESS BURKE: That's correct.

23 MS. MORRIS: So it's not possible that  
24 99 percent of the flow will have the same EC-chloride  
25 relationship as the NAA, correct?

1           WITNESS BURKE: I'm not sure if I understand  
2 the statement.

3           MS. MORRIS: In your testimony, 328, Page 5,  
4 Lines 6 through 9, you say that the small change -- the  
5 small change can affect the salinity concentration, but  
6 changing 0.1 percent of the data is not going to have a  
7 significant effect on the development of the  
8 EC-salinity relationship, especially considering that  
9 99.8 to 99 percent of the flow will have the same  
10 EC-chloride relationship.

11           So looking at what we've looked at, the  
12 different sources, it's not possible that 99 percent of  
13 the flow will have the same EC-chloride relationship  
14 between the BA H3+ and the NAA, correct?

15           WITNESS BURKE: No, you're confusing the EC  
16 calculations, which take into the -- the difference in  
17 the volume of flow comes from the different sources  
18 which we did take into account in our analysis. You're  
19 confusing that with the EC-chloride relationship in  
20 order to produce chloride from an EC value.

21           Now, the dominant flow in there will be what  
22 flow is driving that EC-chloride relationship. If you  
23 put 1 or 2 or 3 percent Martinez flow in there, you  
24 will dramatically increase the EC, but you're not going  
25 to dramatically change the EC-chloride relationship.



1           And we are accounting for that increase in EC  
2 due to the change the in flow source, but it's not  
3 having a dramatic effect on the EC-chloride  
4 relationship.

5           MS. MORRIS: If the salt mass associated with  
6 the ag diversions and seepage for the NAA and BA H3+ is  
7 different and they were accounted for in your analysis,  
8 when is the 30,000 metric tons you were reporting  
9 change?

10          WITNESS BURKE: Not at all. What we're seeing  
11 here is the actual change in what's the residual of  
12 that salt budget from the different scenarios. How  
13 that salt is affected by seepage, drainage, or  
14 irrigation usage or consumptive use is intrinsic to  
15 that residual value.

16          We're only interested in what the difference  
17 in that residual is. We're not trying to evaluate how  
18 that residual, for any different scenario, is being  
19 utilized.

20          MS. MORRIS: Let me take a step back and see  
21 if I can understand this. What I was pointing out to  
22 you is that there appears to be significant changes, up  
23 to 20 percent, in the sources of the water in different  
24 scenarios, correct?

25          WITNESS BURKE: That's correct. And we're

1 taking that into account in our analysis.

2 MS. MORRIS: But you didn't change the  
3 chloride conversion calculation. You used the same  
4 one, correct?

5 WITNESS BURKE: For the sources that we've  
6 looked at, the change in the source value for each of  
7 the calculation points for the salt budget were not  
8 significant enough to have a dramatic effect on the  
9 EC-chloride relationship.

10 It does change the EC, but it does not have a  
11 significant change on EC-CL relationship given the  
12 dominant amount of water coming from other sources.

13 MS. MORRIS: Looking at SDWA-328, Page 9,  
14 Lines 14 through 16, here you're referring to the  
15 SDW -- sorry. You're referring to SDWA-78 and stating  
16 that, during the summer period, salinity values for H3  
17 scenario is higher than the NAA 90 percent of the time,  
18 correct?

19 WITNESS BURKE: That's correct.

20 MS. MORRIS: But if we could please pull up  
21 SDWA-78, Page 22.

22 CO-HEARING OFFICER DODUC: If you go to "view"  
23 you should be able to rotate it.

24 MS. MORRIS: I'm looking for Page 22 -- PDF  
25 Page 24. Sorry. That might help you. That's not the

1 right one. There you go. Now you have to rotate it  
2 back.

3 Okay. Looking at this table, is this where  
4 you got the information about the increase in the EC  
5 being 90 percent?

6 WITNESS BURKE: For H3+ -- for H3, that's  
7 correct.

8 MS. MORRIS: And that's just for summer of  
9 1977, correct?

10 WITNESS BURKE: That's correct.

11 MS. MORRIS: So your statement was  
12 specifically about Old River at Tracy site, too,  
13 correct?

14 WITNESS BURKE: That's correct.

15 MS. MORRIS: And so essentially you're making  
16 a generalized statement as to one year and one  
17 location?

18 WITNESS BURKE: Well, we're saying that the  
19 salinity levels could be as high as 90 percent.

20 MS. MORRIS: But it's based on one year and  
21 one location, correct?

22 WITNESS BURKE: For a worst case scenario,  
23 that's correct.

24 MS. MORRIS: And looking at SDWA-328, Page 9,  
25 Lines 14 through 16 -- oh, I'm sorry. I want to skip

1 that.

2           Actually, if -- I think I'm almost done, but I  
3 need to go through my notes. If we could take a quick  
4 break and then I could finish up, that would be  
5 helpful.

6           CO-HEARING OFFICER DODUC: Okay. We'll take a  
7 quick break until -- how much time do you need, 11:50?

8           MS. MORRIS: Yeah.

9           CO-HEARING OFFICER DODUC: Okay.

10           (Recess taken from 11:44 to 11:50)

11           CO-HEARING OFFICER DODUC: All right. We're  
12 back.

13           MS. MORRIS: I'm going to try this, and then I  
14 may have to turn over to my technical advisor.

15           CO-HEARING OFFICER DODUC: Okay.

16           MS. MORRIS: Okay. So SDWA-328, if you could  
17 pull that up on Page 7.

18           And then, Mr. Burke, just to confirm, I think  
19 that you testified earlier that your equation does take  
20 into consideration ag diversion, seepage, and return  
21 flows from ag diversions because those are necessarily  
22 the outputs of this equation, correct, the residual?

23           WITNESS BURKE: The way we've set our equation  
24 up is to have the residual equal to the net consumptive  
25 use and seepage and remaining salt within the channel.

1 MS. MORRIS: So that means, just looking at  
2 this -- I'm trying to simplify this. So looking at the  
3 consumptive use portion between the NAA and the  
4 CWF BA H3+, you essential- -- I think you testified  
5 that the consumptive use, essentially, you accounted  
6 for that as the same. So in between these formulas,  
7 that would both be the same?

8 WITNESS BURKE: No, I accounted for the flows  
9 for the consumptive use as being the same. But the  
10 salinity for the consumptive use changes depending on  
11 the parameter that you're evaluating within the  
12 consumptive use.

13 MS. MORRIS: Right. Okay. So let me -- so  
14 the flows are the same, but it's true you did testify  
15 that the ECs would be different?

16 WITNESS BURKE: The EC for the irrigation  
17 diversion would be based on the EC in the channel at  
18 the time the diversion occurs, but the EC for the  
19 return flow is a fixed value within the DSM-2 model.

20 MS. MORRIS: And it doesn't change between the  
21 two equations, correct, because it's an input?

22 WITNESS BURKE: That's correct.

23 MS. MORRIS: So if I understand your testimony  
24 correctly, if I go to the equal side, the  
25 48,693 million tons and the 18,370 million tons --

1 metric tons, that includes the ag diversion, the  
2 seepage, the return flows, and the existing salts that  
3 are leaving from -- and the change in the existing  
4 salts from the area, correct?

5 WITNESS BURKE: It's the existing salt within  
6 the channels in South Delta.

7 MS. MORRIS: So it includes all four of those  
8 things?

9 WITNESS BURKE: That's correct.

10 MS. MORRIS: So how can you tell that  
11 the 18 -- the 30 metric tons in your equation is all  
12 attributable solely to the California WaterFix?

13 WITNESS BURKE: Because it's looking at those  
14 flow components of the WaterFix that are affecting  
15 salinity that enter or exit the South Delta area.

16 MS. MORRIS: So it doesn't look -- you're only  
17 looking at the flow components; you're not looking at  
18 the salt components?

19 WITNESS BURKE: Well, the flow and salt  
20 components that come together at the boundaries of the  
21 South Delta study area.

22 MS. MORRIS: Okay. I'm turning it over.

23 DR. CHILMAKURI: Mr. Burke, on Line 20, you're  
24 showing that the salt mass change for -- under WaterFix  
25 compared to the No Action Alternative will be

1 30,000 metric tons, correct?

2 WITNESS BURKE: That's correct.

3 DR. CHILMAKURI: Now, scroll back up to  
4 Lines 8 through 12, please.

5 And you just said that the salinity in the  
6 South Delta is changing, correct?

7 WITNESS BURKE: That's correct.

8 DR. CHILMAKURI: So the salt load associated  
9 with the ag diversions is also changing, correct?

10 WITNESS BURKE: Not necessarily. If the -- it  
11 can change if the salinity within the channel changes,  
12 so the diversion would pull more salt in if the  
13 salinity in the channel was increasing.

14 DR. CHILMAKURI: So which is correct, then?  
15 Is the salinity changing or the salt load is not  
16 changing? Which one of the two statements that you've  
17 just made is correct?

18 MR. RUIZ: I'm going to object as asked and  
19 answered.

20 CO-HEARING OFFICER DODUC: Mr. Ruiz, please  
21 allow Mr. Burke to answer because it will help me.

22 WITNESS BURKE: Actually, I was going to ask  
23 you if you could repeat the question, please.

24 DR. CHILMAKURI: So you just told me that the  
25 salinity in the South Delta channels will increase,

1 correct?

2 WITNESS BURKE: That's correct.

3 DR. CHILMAKURI: But you're also saying that  
4 the salt load associated with the ag diversions in the  
5 South Delta channels would not change, correct?

6 WITNESS BURKE: No, I didn't say that.

7 DR. CHILMAKURI: You said it may not change,  
8 correct?

9 WITNESS BURKE: The return flow will not  
10 change, but the irrigation diversion will -- could  
11 change.

12 DR. CHILMAKURI: Okay. So the irrigation  
13 diversion salt load will change is what you're saying,  
14 correct?

15 WITNESS BURKE: I'm saying it could change.

16 DR. CHILMAKURI: It could change. Okay.  
17 That's fine.

18 So how do you know that the 30,000 metric tons  
19 that you're showing on Line 20 is entirely related to  
20 WaterFix if the ag diversions salt load could change?

21 WITNESS BURKE: Because the residual for the  
22 project alternative already takes into account what the  
23 ag diversions will be for that particular scenario and  
24 the salinity that's in the channel for that scenario.  
25 So now we're just taking the difference between those



1 scenarios, which then comes out to be 30,000 metric  
2 tons.

3           How that 30,000 metric tons is divided among  
4 the residual -- is more of it going into the irrigation  
5 diversions, is more of it going into the channel  
6 salinity -- we haven't siphoned or filtered those two  
7 components out. We just know that somehow, between  
8 consumptive use, seepage, and channel salinity, they're  
9 going to have to accept 30,000 more metric tons divided  
10 over those components.

11           MS. MORRIS: I think I have just one more  
12 question.

13           I think about five to six more questions.

14           If we could pull up SDWA-328, Page 8. So,  
15 actually, we've already establish that. So maybe we'll  
16 go to -- the additional amount of 30,000 metric tons of  
17 salt over time should lead to an increase in NC -- in  
18 EC within your defined salt budget equation, correct?

19           WITNESS BURKE: Could you rephrase, that  
20 please?

21           MS. MORRIS: I'll restate it. The additional  
22 amount of salt, over time, should lead to an increase  
23 in EC within your defined salt budget region, correct?

24           WITNESS BURKE: I would expect that to happen,  
25 that's correct.

1 MS. MORRIS: And in fact, over time, if your  
2 analysis is accurate, one should expect a larger and  
3 larger accumulation of salt in the salt budget region  
4 under the BA H3+ as compared to the No Action  
5 Alternative, correct?

6 WITNESS BURKE: Not necessarily because, as I  
7 stated earlier, there are three components where that  
8 salt could go. It could go into channel salinity; it  
9 could be sucked up by irrigation diversions; or it  
10 could go down into seepage. How it's split among those  
11 three components, I don't really know; we didn't filter  
12 that out.

13 But if it stays as salinity within the  
14 channel, it's an impact; if it gets sucked into the  
15 irrigation diversions and goes on the fields, that's an  
16 impact. So we just left that all together as potential  
17 impacts due to the increase in salinity within South  
18 Delta area.

19 MS. MORRIS: We can -- to oversimplify it,  
20 inside the box, you looked at what's coming in and  
21 what's going out, but you didn't determine what was  
22 going on in the box, correct?

23 WITNESS BURKE: Yeah. There's three little  
24 balls bouncing around in that box. And we didn't  
25 determine which of those three little balls got the

1 increase in salinity or increase in salts.

2 MS. MORRIS: And you looked at an 82-year  
3 DSM-2 simulation from 1922 to 2003, correct?

4 WITNESS BURKE: That's correct.

5 MS. MORRIS: And if we can look at SDWA-328,  
6 on Page 10, Figure 1.

7 You provided this figure showing the  
8 difference in EC between the H3+ -- BA H3+ and the NAA  
9 based on DSM-2 results for water year 1973, correct?

10 WITNESS BURKE: I believe this particular year  
11 was based on the CWF H3+ and the NAA. It was produced  
12 after the CWF H3+ model was available.

13 MS. MORRIS: So you do have modeling for  
14 CWF H3+, and you are relying it on in [sic] this  
15 testimony? This is not the BA H3+?

16 WITNESS BURKE: The modeling that went into  
17 the salt budget is the BA Preferred Alternative for the  
18 WaterFix scenario at that time.

19 This figure was brought into the testimony to  
20 show that there are going to be increases in salinity  
21 within the channel system based on the residual salt  
22 that's left over from salt budget.

23 MS. MORRIS: Okay. So with that correction,  
24 you're showing CWF H3+ and NAA based on the DSM-2  
25 results for water year 1973?

1 WITNESS WILDER: That's correct.

2 MS. MORRIS: And from the start of the DSM-2  
3 simulation in 1922, 1973 is the 51st year in that  
4 simulation, roughly? Correct?

5 WITNESS BURKE: Roughly.

6 MS. MORRIS: Okay. Good. Based on your  
7 analysis, by this time, roughly 30,000 metric tons per  
8 year -- so times 51, which is approximately 1.5 million  
9 metric tons of additional salt -- would have  
10 accumulated in the South Delta region under the BA H3+  
11 versus the NAA, correct?

12 WITNESS BURKE: Not necessarily because, as we  
13 mentioned earlier, there's three components. That  
14 salt, as it accumulates within the South Delta, is  
15 being taken out through seepage; some of it's being  
16 taken out of the system through irrigation diversions;  
17 some of it remains the system as increased salinity,  
18 which is being -- what's shown here on this figure.

19 MS. MORRIS: But we can't really account for  
20 that in your salt budget analysis because those three  
21 dots that are bouncing around in the box, you didn't do  
22 any analysis, correct?

23 MR. RUIZ: That's been asked and answered  
24 multiple times.

25 CO-HEARING OFFICER DODUC: And since it's a

1 complicated matter, let's confirm that, please,  
2 Mr. Burke.

3 WITNESS BURKE: No, we didn't try to parse out  
4 what was being absorbed into the channel versus what  
5 was being drawn into the field versus what was seeping  
6 into the ground below the Delta because we felt that  
7 all these of those components are all impacts in their  
8 own right and therefore can't be lumped together as  
9 impacts due to the H3+ model.

10 MS. MORRIS: Looking again at Figure 1, do you  
11 see in December of 1972 that there is, in fact, a very  
12 small difference between EC between the CWF H3+ and the  
13 NAA at this location?

14 WITNESS BURKE: Could you repeat what month  
15 that was?

16 MS. MORRIS: It's December, 1972. It's the  
17 one that is -- has basically a flat line at zero.

18 WITNESS BURKE: Yeah, I see that. Okay.

19 MS. MORRIS: Can you answer the question?

20 WITNESS BURKE: I'm sorry. What -- can you  
21 repeat the question?

22 MS. MORRIS: For -- for -- I'm sorry.

23 Isn't it true that, in December, there's  
24 basically a very small difference in the EC between the  
25 CWF H3+ and the No Action Alternative?

1           WITNESS BURKE: For that particular month,  
2 that's correct.

3           MS. MORRIS: And at that location?

4           WITNESS BURKE: And at that location.

5           MS. MORRIS: And, in fact, for a short period,  
6 for the month of June and July in this graph -- in this  
7 figure, CWF H3+ is actually lower in EC as compared to  
8 the No Action Alternative?

9           WITNESS BURKE: That is correct. And that's  
10 why we use monthly averages because some years are  
11 going to have a higher influx of salt and some years  
12 are going to have a lower influx of salt resulting in  
13 different salinity concentrations within the channel.

14          MS. MORRIS: Looking at SDWA-291, Table 3 and  
15 Table 4. These are monthly -- these show monthly value  
16 for an 82-year average, correct?

17          WITNESS BURKE: These are mean monthly values  
18 for the 82-year.

19          MS. MORRIS: I'm sorry. Each monthly value is  
20 an 82-year average though, correct?

21          WITNESS BURKE: That's correct.

22          MS. MORRIS: And looking at Page -- your  
23 testimony 328, Page 10, Lines 24 to 25, if the averages  
24 for two scenarios are not showing differences, doesn't  
25 this mean that there are years with lower salinity even

1 if some of the years show increases?

2 WITNESS BURKE: Can you repeat that again,  
3 please.

4 MS. MORRIS: Looking at your testimony, 329,  
5 Page 10, Lines 24, 25.

6 WITNESS BURKE: Okay.

7 MS. MORRIS: If the averages for two scenarios  
8 are not showing differences, doesn't that mean that  
9 there are years with lower salinity even if some years  
10 show increases in salinity?

11 WITNESS BURKE: I'm sorry. I'm not sure I'm  
12 understanding the question.

13 DR. CHILMAKURI: Mr. Burke, you showed one  
14 example of the year from 1940 to 1973 as salinity  
15 increasing under CWF H3+, correct?

16 WITNESS BURKE: Just as an example of showing  
17 increased salinity in the South Delta.

18 DR. CHILMAKURI: And you're saying in this  
19 testimony right here that, if you average on a  
20 long-term, the differences would be minor, right?

21 WITNESS WILDER: It all depends on how you're  
22 using those averages. If you're looking at  
23 instantaneous values, an average might not give you a  
24 correct value.

25 But when you're looking at a cumulative

1 aggregation of salt that occurs from month to month,  
2 then it's actually more appropriate to use an average  
3 monthly value.

4 DR. CHILMAKURI: So your use of average is  
5 different than what I used?

6 WITNESS BURKE: Yeah, because --

7 MR. RUIZ: I'm just going object as vague and  
8 ambiguous.

9 CO-HEARING OFFICER DODUC: Actually, it might  
10 be helpful if Mr. Burke could clarify, please.

11 WITNESS BURKE: It is. And the reason why  
12 it's more appropriate to use averages when you're  
13 looking at this is because we are looking at a  
14 cumulative aggregation of values as you go from month  
15 to month through the year.

16 You're taking these averages and saying this  
17 is just going to be an instantaneous value and  
18 therefore there's no impact based on that averaging.

19 The impact that we're looking at here comes  
20 from the accumulation of salt over the time period that  
21 we're running our model for.

22 DR. CHILMAKURI: But before you accumulated  
23 that month to month to month, you actually averaged the  
24 data for 82 years, correct, for mutual months?

25 WITNESS BURKE: That's correct.



1 DR. CHILMAKURI: Just going back to your --  
2 Page 7 of your testimony and the equations on Lines 8  
3 through 12.

4 CO-HEARING OFFICER DODUC: I see this equation  
5 in my sleep now.

6 DR. CHILMAKURI: Just one question, really.

7 Dr. Burke, would the EC-chloride conversions  
8 be the same for all the ag diversions in the South  
9 Delta region?

10 WITNESS BURKE: Probably not because there are  
11 different locations.

12 DR. CHILMAKURI: Okay. Thank you.

13 MS. MORRIS: We're done, thanks.

14 CO-HEARING OFFICER DODUC: Thank you.

15 Between Ms. Des Jardins, Ms. Meserve, and  
16 Mr. Jackson?

17 MR. JACKSON: No questions.

18 MS. MESERVE: I don't have questions.

19 CO-HEARING OFFICER DODUC: Ms. Des Jardins  
20 then.

21 All right. Thank you, Mr. Hunt.

22 Ms. Des Jardins requested 15 minutes.

23 MS. DES JARDINS: Thank you. Mr. --

24 CO-HEARING OFFICER DODUC: Microphone, please.

25 CROSS-EXAMINATION BY MS. DES JARDINS

1 MS. DES JARDINS: Deirdre Des Jardins with  
2 California Water Research. Good afternoon, Mr. Burke.  
3 Mr. Hunt, can you bring up Exhibit DWR-1217,  
4 Page 29.

5 And Mr. Burke, you criticize Dr. Chilmakuri's  
6 Figure 11 in his rebuttal testimony, correct? On Page  
7 16 of your testimony.

8 CO-HEARING OFFICER DODUC: Ms. Des Jardins,  
9 you really need to bring the microphone in.

10 MS. DES JARDINS: I apologize.

11 And this is on Page 16 of your testimony,  
12 you've criticized this. And you call this figure a  
13 classic example of the improper use of statistics,  
14 correct?

15 WITNESS BURKE: That's correct because the  
16 figure is looking at long-term averages to try to  
17 evaluate impacts. So now long-term averages, in that  
18 respect, would not give you a correct evaluation of  
19 whether an impact is occurring or not.

20 MS. DES JARDINS: And you state that -- and  
21 you consider it surprising that any differences are  
22 showing after all the long-term averaging?

23 WITNESS BURKE: That's correct.

24 MS. DES JARDINS: And I believe you compared  
25 it -- you said, "If I performed the same type of gross

1 averaging analysis on stream flow data in California,  
2 it would indicate that California's history has been  
3 devoid of floods or droughts"?

4 WITNESS BURKE: It kind of an artifact of what  
5 happens when you start averaging values. When you  
6 start looking at averages for values, you cut off the  
7 high values and you cut off the low values.

8 And when you're looking at -- specifically,  
9 for my example in terms of floods, you want to evaluate  
10 what the impacts are from a flood. But if you average  
11 all those values, you won't see that impact because  
12 there will be no high values. You've trimmed all those  
13 high values out.

14 And that kind of differs from how we did our  
15 averages is that we weren't looking at instantaneous  
16 values to try to determine whether or not a value had  
17 an impact. We summed those values up over an 82-year  
18 period. We're looking at an aggregate net production  
19 of salt in the system rather than looking at just an  
20 average value for salt.

21 MS. DES JARDINS: Thank you. Also on Page 5  
22 of your testimony, you responded to Mr. Chilmakuri's  
23 criticism that -- we can pull it up if you would like.

24 It's Exhibit SDWA-328. And I'd like to go to  
25 Page 5 at Line 19 to 20.

1           And you respond to Mr. Chilmakuri's criticism  
2   that an accurate salt flux analysis requires much more  
3   precision than you utilized, correct?

4           WITNESS BURKE: That's what he stated, that's  
5   correct.

6           MS. DES JARDINS: And I believe your expressed  
7   opinion that any inherent inaccuracy in the data you  
8   used in your salt budget analysis is attributable to  
9   inaccuracies in the DSM-2 model itself?

10          WITNESS BURKE: That's correct because we were  
11   just using the output from the DSM-2 model. So if  
12   there are inaccuracies in the salinity or flow for any  
13   of these locations, that same inaccuracy would have  
14   carried over to all the other salinities analyses that  
15   have been conducted as part of this project.

16          CO-HEARING OFFICER DODUC: Ms. Morris.

17          MS. MORRIS: I just want to object that that  
18   misstates the testimony because it was more than just  
19   looking at the DSM-2. He used chloride conversions, so  
20   it's not the exact result.

21          CO-HEARING OFFICER DODUC: Hold on. We are  
22   going through and just asking Mr. Burke to affirm his  
23   testimony. Is there a specific question you have?

24          MS. DES JARDINS: Yeah. So I did want to ask  
25   you a little further about inaccuracies in the model.

1 So Mr. Burke, wasn't the DSM-2 model developed in the  
2 late 1990s?

3 CO-HEARING OFFICER DODUC: Outside the scope.

4 MS. DES JARDINS: Ms. -- the -- DWR and the  
5 State Water Contractors were allowed to explore the  
6 inaccuracies in the model. And I wanted to ask him  
7 about that.

8 CO-HEARING OFFICER DODUC: I didn't even hear  
9 that last mumble.

10 MS. DES JARDINS: And I wanted to ask  
11 Mr. Burke about another source of inaccuracy.

12 CO-HEARING OFFICER DODUC: How does that tie  
13 into the statement that you -- that you first  
14 referenced in his testimony on Page 5?

15 MS. DES JARDINS: That the inaccuracy in the  
16 data would be directly attributable to the inaccuracies  
17 in the DSM-2 model.

18 CO-HEARING OFFICER DODUC: Okay. So that's a  
19 statement.

20 MS. DES JARDINS: Mr. Burke, are there other  
21 inaccuracies in the model that could contribute to  
22 inaccuracies in the model output?

23 CO-HEARING OFFICER DODUC: Outside the scope.  
24 He did not go into specific inaccuracies.

25 MS. DES JARDINS: I do want to lodge an

1 objection to having substantially more limitations  
2 placed on my cross-examination about the DSM-2 model.

3 CO-HEARING OFFICER DODUC: Mr. Burke, in your  
4 testimony did you discuss specific inaccuracies in the  
5 DSM-2 model itself?

6 WITNESS BURKE: No, I didn't.

7 CO-HEARING OFFICER DODUC: It's outside the  
8 scope.

9 MS. DES JARDINS: And that's a very different  
10 ruling than previously.

11 I will -- I did want to ask, Mr. Burke, did  
12 you consider that, when you chose data collected at the  
13 actual site locations to convert EC to chloride, was  
14 this because you considered this the best available  
15 data?

16 WITNESS BURKE: That's correct. Whenever  
17 you're doing a hydrologic analysis, you always want to  
18 try to use actual collected data at the location that  
19 you're evaluating whenever possible.

20 You can do different types of modeling  
21 analysis to try to simulate the data at these  
22 locations, but that's introduces another level of  
23 complexity and another potential for error. If you  
24 have data collected there -- and luckily we did have  
25 data collected at these locations -- it gives us much

1 better perspective of what the actual salinities were  
2 that were noted at each point.

3 MS. DES JARDINS: Okay. Thank you. That  
4 concludes my questions.

5 CO-HEARING OFFICER DODUC: Any redirect,  
6 Mr. Ruiz?

7 MR. RUIZ: No redirect.

8 CO-HEARING OFFICER DODUC: Then I thank you,  
9 Mr. Burke. As always, I find your work fascinating.

10 WITNESS BURKE: Thank you, thank you.

11 CO-HEARING OFFICER DODUC: At this time,  
12 Mr. Ruiz, do you wish to move your exhibits into the  
13 record?

14 MR. RUIZ: Yes, at this time, I'd like to move  
15 SDWA-328 into the record. Our other exhibits have  
16 already been admitted in.

17 CO-HEARING OFFICER DODUC: Any objections?

18 (No response)

19 CO-HEARING OFFICER DODUC: Not hearing any,  
20 I've received it into the record.

21 (South Delta Water Agency Exhibit SDWA-328  
22 admitted into the record)

23 CO-HEARING OFFICER DODUC: At this time, I do  
24 believe we're at the end of surrebuttal for Part 2.

25 Let the record note that I just made Mr. Jackson very

1 happy.

2 Are there any matters that staff needs to  
3 bring up? We will be working on a ruling letter with  
4 directions with respect to closing briefs. Let me ask  
5 Mr. Mizell, when we last asked you about the projected  
6 date for completion of the final environmental document  
7 supplemental, you had indicated that it would be in  
8 December?

9 MR. MIZELL: Yes. And that date has not  
10 changed, as far as I'm aware.

11 CO-HEARING OFFICER DODUC: All right. At that  
12 point, then, we will expect to hear from you.

13 And at that point, we will provide some notice  
14 to the parties to obtain their inputs on potential next  
15 steps.

16 MR. MIZELL: Thank you. And also I believe I  
17 committed previously, should the date change and should  
18 we have something earlier, I'll let you know as soon as  
19 I'm aware of it.

20 CO-HEARING OFFICER DODUC: All right.

21 Are there any other housekeeping matters?

22 MR. MIZELL: When would you like  
23 cross-examination exhibits?

24 CO-HEARING OFFICER DODUC: Ah, thank you. I  
25 had forgotten about that. Today is Monday. Please



1 have cross-examination exhibits be submitted to us by  
2 noon on Wednesday. And everyone may have until noon on  
3 Friday to file any objections.

4 Ms. Des Jardins.

5 MS. DES JARDINS: Yes, I did ask about  
6 submitting a request for correction of the hearing  
7 record. And following the Hearing Officer's direction,  
8 I did submit it to the court reporter.

9 There seemed to be some confusion. The last I  
10 heard, they had went back to the Hearing Team. And I'd  
11 just -- I would like some clarification on what further  
12 steps need to be taken to have the court reporters  
13 actually view the video because it does show that I was  
14 the one who asked the question and not Mr. Jackson or  
15 whoever made the motion.

16 CO-HEARING OFFICER DODUC: I will turn to one  
17 of the staff to respond to that.

18 MR. DEERINGER: One moment, please.

19 CO-HEARING OFFICER DODUC: While we get to  
20 that, Ms. Meserve?

21 MS. MESERVE: Thank you. And maybe this is  
22 just a clarification. I'm not sure I heard correctly.

23 I guess I just wanted to make clear for the  
24 record that I would oppose any closing briefing prior  
25 to completion of the record, including the final

1 environmental documents for this project. And I'm not  
2 sure whether I understood if you had said that you may  
3 be --

4 CO-HEARING OFFICER DODUC: I haven't said  
5 either way, but now that you have made the objection  
6 let's go ahead and hear your arguments, and I can get  
7 any additional joinders or any response of petitioners.

8 MS. MESERVE: I think at this point I don't  
9 have a lot of -- I mean, I think we've already  
10 explained that the Draft Supplemental EIR has some  
11 additional pieces to it that weren't in the Admin  
12 Draft, and those haven't been part of these hearings  
13 yet. There's least two additional exhibits as well as  
14 the whole executive summary was not included in the  
15 Admin Draft. So we haven't had that document before  
16 us.

17 In addition, when a document goes to final it  
18 includes responses to comments and may include other  
19 changes to project. Right now, they've closed the  
20 comment period on the CEQA review and the NEPA review  
21 comment period has just opened. And so I could not  
22 predict right now, standing here today, any better than  
23 anyone what may occur between now and when the federal  
24 and state governments may proceed to final and actually  
25 approve these documents and the changes that have been

1 proposed.

2           And so, I guess, all I can say right now is  
3 that I would object to having to produce closing briefs  
4 about a project for which there still it not a complete  
5 description of and that may still be subject to even  
6 more changes than we have scene the Admin Draft  
7 Supplemental EIR.

8           CO-HEARING OFFICER DODUC: Thank you.

9           Any additional input on that particular  
10 objection?

11           MS. DES JARDINS: Deidre Des Jardins,  
12 California Water Research.

13           And I've -- just wanted to note that, to the  
14 extent that we saw there was some new information in  
15 the Supplemental Draft EIR or the Public Draft EIR and,  
16 I think, similar to what happened with -- between the  
17 2015 partially recirculated Draft EIR and the Final  
18 EIR, we're likely to see significant new information.  
19 And I would object to the Board relying on that new  
20 information without our having a chance to respond to  
21 it in this hearing. And --

22           CO-HEARING OFFICER DODUC: Ms. Des Jardins,  
23 that will be a different objection than Ms. Meserve's.

24           MS. DES JARDINS: Yeah.

25           CO-HEARING OFFICER DODUC: So -- and, in fact,

1 your objection has already been addressed. I think we  
2 have said in writing that, when this document is  
3 submitted, we will ask for input from the parties on  
4 how to consider it and whether additional proceedings  
5 are necessary.

6 So we will note your objection, but we're not  
7 taking any action on it right now. What I'm asking for  
8 input on is Ms. Meserve's objection, which is actually  
9 more imminent at the moment.

10 And that is -- your objection, Ms. Meserve, is  
11 with respect to submitting closing briefs prior to that  
12 process of accepting the final supplemental and any  
13 proceedings as a result of that. Okay. So that's what  
14 I'm focusing on at the moment.

15 MS. DES JARDINS: Respectfully, Madam Chair, I  
16 think it likely that an additional component of the  
17 hearing to consider if any new information will be --

18 CO-HEARING OFFICER DODUC: I'm not disagreeing  
19 with you. I'm just saying we're not there yet.

20 MS. DES JARDINS: Well, in that case, I would  
21 -- it's just that I would consider the -- filing  
22 closing briefs then before the conclusion of the  
23 hearing, wouldn't that be premature?

24 CO-HEARING OFFICER DODUC: That is exactly  
25 Ms. Meserve's objection, which I now understand you're

1 joining. So, thank you.

2 MS. DES JARDINS: Okay.

3 CO-HEARING OFFICER DODUC: Mr. Jackson.

4 MR. JACKSON: I would just like to add, first  
5 of all, I support what Ms. Meserve said.

6 CO-HEARING OFFICER DODUC: Thank you for being  
7 clear on that.

8 MR. JACKSON: And I'd like to add that there  
9 are lots of other parties who are not here today which  
10 I'm sure would be supporting Ms. Meserve's situation.

11 My question is that we -- I don't mean to  
12 start anything new here. But I'm still trying to  
13 figure out whether the federal government's in this  
14 project or not. And I need their environmental  
15 documentation in order to determine that.

16 And writing a brief at this point without  
17 knowing what the federal government's documents are  
18 going to say and what their position is going to be is  
19 just almost impossible.

20 CO-HEARING OFFICER DODUC: All right. Let's  
21 hear from Mr. Ruiz before I give petitioners a chance  
22 to respond.

23 MR. RUIZ: Dean Ruiz from South Delta Water  
24 Agencies parties.

25 I join in Ms. Meserve's objection and

1 Mr. Jackson's comments. And in relation to that, DWR  
2 just came out on September 20th with another economic  
3 analysis. And in that, it simply references a CalSim  
4 model run which all 9,000 cfs goes to the SWP.

5 I don't believe that model run is something  
6 that's been before us. It's something that DWR is  
7 obviously seriously considering. It goes way beyond  
8 the discussion on the float approaches before.

9 I asked Mr. Mizell about it over the weekend,  
10 and he responded to me this morning that he's looking  
11 into it because I requested the model run.

12 But that then it goes along with what  
13 Mr. Jackson indicated, the federal government's  
14 involvement or not involvement; that's one issue. But  
15 we've got a model run that is, I think, seriously what  
16 is -- where the project is heading. And that's not  
17 something that's been vetted before this Board. We  
18 haven't seen that model run. It changes things.

19 And I think we need to get an answer on that  
20 before you make any of these final decisions.

21 CO-HEARING OFFICER DODUC: Thank you,  
22 Mr. Ruiz.

23 All right. Mr. Mizell, Ms. Aufdemberge.

24 MR. MIZELL: Yes. It would be the  
25 Department's opinion that we do not need to await the

1 Final EIR/EIS in order to establish a briefing schedule  
2 for closing briefs.

3 As the Hearing Officers indicated, we can  
4 assess the Final EIR and EIS at that time, and should  
5 the changes that are in that document be germane to  
6 this hearing, then we can -- we can determine if it  
7 needs to be briefed and more evidence needs to be  
8 produced.

9 There's no indication at this time that  
10 changes are going to be made that would bear on the  
11 testimony that you've heard over the last several  
12 years. So I don't -- I don't necessarily think it's  
13 necessary to delay the writing of the closing briefs.

14 If I might take a moment to address Mr. Ruiz's  
15 question, the -- the economic report that he's  
16 referencing has not been submitted as an exhibit in  
17 this hearing, and none of the testimony that you've  
18 heard from DWR witnesses relies upon the contents of  
19 that report.

20 So I guess I would -- I would parrot  
21 Mr. Ruiz's own objection earlier today about the  
22 necessity to produce modeling that isn't relevant to  
23 the testimony that's been brought before you.

24 At this point in time, I will be looking into  
25 what's behind the economics report, but again, it

1 hasn't been a part of the testimony and exhibits  
2 brought before you for support of the Department's  
3 petition.

4 CO-HEARING OFFICER DODUC: Anything to add,  
5 Ms. Aufdemberge?

6 MS. AUFDEMBERGE: So I haven't thought through  
7 this exactly, but I just wanted to point you to there  
8 is some precedent for additional environmental work  
9 following a closing brief and close of evidence. And  
10 that was in the Katrema [phonetic] hearing where there  
11 was a limited reopener for the purposes of receiving  
12 the final environmental document.

13 CO-HEARING OFFICER DODUC: As Hearing Officer,  
14 I do recall that.

15 Ms. Morris.

16 MS. MORRIS: I would just note as well in the  
17 Santa Ana River, we had this similar situation. And  
18 the EIR came in and was opened up and the briefing was  
19 done.

20 So my suggestion is that, I'm not opposing one  
21 way or the other, but that we could do briefing and  
22 that there could be an opportunity for a narrower scope  
23 of supplemental briefing, if necessary, based on what  
24 we find out. That way we could use our time  
25 efficiently.



1 I agree with Mr. Mizell that the testimony is  
2 unlikely to change from Part 1 to Part 2. And so those  
3 issues could likely be briefed. And if there were  
4 subsequent changes, those narrow issues could be  
5 handled in supplemental briefing.

6 CO-HEARING OFFICER DODUC: Thank you.

7 Ms. Des Jardins.

8 MS. DES JARDINS: I did want to point out that  
9 the new modeling that Mr. Ruiz just cited is directly  
10 contradictory to testimony received by the Board in  
11 this hearing in rebuttal. And that's the testimony on  
12 the float analysis and the Supplemental EIR.

13 So we know there is at least one set of  
14 information for which one set of testimony on the  
15 public draft supplemental that was received here for  
16 which new information is available. And so I would  
17 object to Mr. Mizell's characterization that any new  
18 information is likely to merge. And, in fact, the  
19 existence of such evidence has been referred as of this  
20 date. And I would request that the Board take this  
21 very seriously because a fundamental misrepresentation  
22 of the modeling of the operations and the scenario is  
23 not a valid basis for the Board's decision. Thank you.

24 CO-HEARING OFFICER DODUC: Ms. Meserve, along  
25 that line, that topic, or something else?

1 MS. MESERVE: Not necessarily on the float but  
2 on the larger concept of the efficiency was mentioned a  
3 couple of times. So I wanted to just respond to that  
4 briefly.

5 CO-HEARING OFFICER DODUC: So let me ask  
6 Mr. Mizell if he wanted to specifically respond to  
7 Ms. Des Jardins before we move on to Ms. Meserve.

8 MR. MIZELL: Yes, please. Thank you.

9 The economics analysis, as I understand --

10 CO-HEARING OFFICER DODUC: Is your microphone  
11 on?

12 I think we've worn out all the microphones in  
13 here. We actually wore out the Coastal video  
14 equipment. That's why we had to be in here today.

15 MR. MIZELL: Thank you. The economics  
16 analysis that Ms. Des Jardins is referencing has not  
17 changed the Department's petition. As we went through  
18 this in previous portions of this hearing, whether or  
19 not the Department is exploring options through either  
20 the economics analysis or other decision making within  
21 the Department on a single-tunnel project, a State  
22 Water Project-only project, any number of variations  
23 that might be considered in conversations amongst the  
24 Department staff, it has not changed the basis of this  
25 petition.

1           We have not indicated any intent to modify the  
2 petitioned project at this time. Where we landed on  
3 these sorts of issues before was, until the Department  
4 has officially modified its petition, there hasn't been  
5 a decision in front of the Hearing Officers that would  
6 indicate that we're modifying the project.

7           And I would say that the economics report and  
8 the sensitivity analysis referred to by Ms. Des Jardins  
9 are not clear indicators of anything in terms of the  
10 testimony you've heard. It does not modify any of our  
11 petitioners' witnesses or testimony or exhibits at this  
12 point in time.

13           CO-HEARING OFFICER DODUC: Ms. Meserve?

14           MS. MESERVE: Thank you. I just want to --  
15 thanks.

16           I just want to speak briefly to the issue of  
17 efficiency, since that was brought up by State Water  
18 Contractors. And over the course of the past three  
19 years, I think, despite all our efforts, I think this  
20 hearing has been anything but efficient and that's  
21 largely because the petition and the modeling and the  
22 project continue to change and that we've been --  
23 protestants have been pushed to continue putting forth  
24 evidence and then having that evidence become  
25 irrelevant and then having to put in new evidence and

1 then reexplain that and then be cross-examined about  
2 why we relied on old models versus new models.

3           So it's created a tremendous burden, and it's  
4 created a lot of confusion. And I would just urge the  
5 Hearing Officers to really see if we can get the  
6 project to settle in and then go to briefing would make  
7 the most sense.

8           And even without respect to the issue of the  
9 federal participation, which I believe is a big issue,  
10 I think it's very important that, at this time, the two  
11 petitioners have circulated a revised project review,  
12 and the discretion rests with those two agencies as to  
13 what project they will adopt and what changes they will  
14 make and what additional mitigation measures they may  
15 adopt in particular or other things like that.

16           So it's very premature to say we know what  
17 those agencies will do and to have the parties to this  
18 proceeding rely on what appears to be, again a moving  
19 target for briefing, I think would just add to the  
20 confusion and the complexity of an already really  
21 complex record.

22           And I also want to make sure, like Mr. Jackson  
23 pointed out, I mean, there's a lot of us protestants  
24 and there's a lot of parties and any kind of -- and I  
25 think the Board has always asked for input on this

1 stuff. And I think this is a perfect example of  
2 something I want to make sure everybody had input on.  
3 So there may be other things that I haven't thought of  
4 today. Thank you.

5 CO-HEARING OFFICER DODUC: Thank you. Not  
6 seeing anything else, we will take all that under  
7 consideration.

8 The staff has a response to Ms. Des Jardins  
9 regarding the correcting the transcripts.

10 MR. DEERINGER. Thank you. So, not at this  
11 time, but at some future date, you'll get some  
12 direction from the Hearing Officers requesting that if  
13 there are any corrections at any point during the  
14 hearing needed to the transcript, that those be  
15 submitted -- any alleged errors be identified and  
16 proposed corrections submitted, and staff will consider  
17 those and work with the court reporter in considering  
18 those.

19 And if there's any follow-up, then that  
20 will occur in due course with the service listing  
21 copies so everyone's aware of the corrections being  
22 proposed to the transcript.

23 And then at some point later than that, there  
24 will be a final full set of transcripts.

25 MS. DES JARDINS: Thank you, Mr. Deeringer. I

1 did submit back in early September, I did submit to the  
2 hearing list.

3 CO-HEARING OFFICER DODUC: We have it.

4 MS. DES JARDINS: Thank you.

5 CO-HEARING OFFICER DODUC: All right. Thank  
6 you all. It's been quite a journey since July 26,  
7 2016. It's not over yet, but I have appreciated  
8 everyone's participating in this effort.

9 I think we've learned a lot. We've, well,  
10 learned what we know, learned what we don't know. But  
11 we've all grown together.

12 And thank you especially for those who are new  
13 to our water rights process. I know that at times it  
14 can seem extremely -- well, I won't use adjective. But  
15 you have all been very patient with all of our  
16 proceedings and been responsive, at least for the most  
17 part, to our ruling and direction, and for which we are  
18 very much appreciative.

19 I am going to go ahead and -- assuming my  
20 Co-Hearing Officer agrees -- cancel the October 4th and  
21 5th hearing dates, which is Thursday and Friday of this  
22 week.

23 I'm going to reserve October 10th and 11th for  
24 now. We do want to discuss what we've heard today as  
25 well as some other matters. And we will issue a ruling

1 by the end of the week with respect to what additional  
2 next steps are required and whether or not we might  
3 want to get together October 10th or 11th for any  
4 further discussions.

5 But, again, appreciate your participation and  
6 your input into this process. Thank you.

7 And with that we are -- what is the official  
8 word. Can I say recessed or adjourned? Over with?

9 MR. DEERINGER: I think adjourned for today's  
10 work.

11 CO-HEARING OFFICER DODUC: Adjourned for  
12 today. All right. Thank you, all. We are adjourned  
13 for the day. And special thank you to our court  
14 reporters.

15 (Whereupon, the proceedings adjourned  
16 at 12:37 p.m.)

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1 STATE OF CALIFORNIA                     )  
  )  ss.  
2 COUNTY OF MARIN                     )

3                I, DEBORAH FUQUA, a Certified Shorthand  
4 Reporter of the State of California, do hereby certify  
5 that the foregoing proceedings were reported by me, a  
6 disinterested person, and thereafter transcribed under  
7 my direction into typewriting and which typewriting is  
8 a true and correct transcription of said proceedings.

9                I further certify that I am not of counsel or  
10 attorney for either or any of the parties in the  
11 foregoing proceeding and caption named, nor in any way  
12 interested in the outcome of the cause named in said  
13 caption.

14               Dated the 10th day of October, 2018.

15

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17   DEBORAH FUQUA

18   CSR NO. 12948

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