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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
COASTAL MEETING ROOM
1001 I STREET
SECOND FLOOR
SACRAMENTO CALIFORNIA
PART 2 REBUTTAL

Friday, August 10, 2018
9:30 A.M.

VOLUME 39
Pages 1 - 219

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

Thaddeus Hunt, Assistant

10

11 FOR PETITIONERS:

12 California Department of Water Resources

Tripp Mizell, Senior Attorney

13

Duane Morris, LLP

14 By: Thomas Martin Berliner, Attorney at Law

By: Jolie-Anne Ansley, Attorney at Law

15

16 U.S. Department of the Interior, Bureau Reclamation,
and Fish and Wildlife Service

17 Amy Aufdemberge, Assistant Regional Solicitor

18

19 FOR PROTESTANTS:

20 State Water Contractors

21 Stefanie Morris, Attorney

Adam Kear, Attorney

22 Becky Sheehan, Attorney

23

24

25 (Continued)

1 APPEARANCES (continued)

2 FOR PROTESTANTS:

3 Cities of Folsom and Roseville, San Juan Water
4 District, and Sacramento Suburban Water District
5 Ryan Bezerra

6 Contra Costa County, Contra Costa County Water Agency,
7 and Solano County
8 Curtis Keller

9 City of Antioch
10 Matthew Emrick

11 San Joaquin County
12 Thomas Keeling

13 Local Agencies of the North Delta
14 Osha Meserve

15 San Joaquin Tributaries Authority
16 Timothy Wasiewski

17 California Sportfishing Protection Alliance, California
18 Water Impact Network, AquAlliance
19 Michael Jackson
20 Chris Shutes

21 South Delta Water Agency
22 Dean Ruiz

23 California Water Research
24 Deirdre Des Jardins

25 Clifton Court, LLP
Suzanne Womack

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I N D E X

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by Co-Hearing Officer Doduc

PART 2 REBUTTAL WITNESSES CALLED BY PETITIONERS
PANEL 2:

- MARIN GREENWOOD
- ERIK REYES
- NANCY PARKER
- KRISTIN WHITE
- CHANDRA CHILMAKURI
- RICK WILDER
- COREY PHILLIS
- SERGIO VALLES

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- MR. JACKSON 130
- MS. WOMACK 188

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1 Friday, August 10, 2018 9:30 a.m.

2 PROCEEDINGS

3 ---000---

4 CO-HEARING OFFICER DODUC: Good morning,
5 everyone. It is 9:30. Welcome back to this Water
6 Rights Change Petition Hearing.

7 I'm Tam Doduc. Joining us shortly to my right
8 will be Board Chair and Co-Hearing Officer Felicia
9 Marcus. And right now to my far right is Board Member
10 DeeDee D'Adamo. To my left, Andrew Deeringer and Conny
11 Mitterhofer. We are also being assisted by Mr. Hunt
12 today.

13 It's Friday. I see all familiar faces. So if
14 an alarm sounds, follow somebody. Speak into the
15 microphone after making sure that it is turned on and
16 that the green light is lit. And most importantly,
17 please take a moment and make sure that all your
18 noise-making devices are on silent, vibrate, do not
19 disturb. All right.

20 We have now been joined by Chair Marcus.

21 Any housekeeping matters before we turn to the
22 San Joaquin Tributaries Authority for its
23 cross-examination?

24 Ms. Des Jardins.

25 MS. DES JARDINS: This is a request I have

1 just with respect to there's been an ongoing narrative
2 about the technical issues in the cross-examination and
3 particularly about -- questions about the modeling by
4 attorneys for DWR and the State Water Contractors.

5 And if a significant question arises, such as
6 what I believe arose yesterday about the
7 two-thirds/one-third split, I'd like to request that
8 the Chair, you know, go out, pause, and allow for
9 parties to make argument on the issue.

10 And secondly, I would like to request that, if
11 there are excessive, meritless objections, that the
12 onus not be on the party doing cross-examination but on
13 the attorneys making the objections to show that
14 they're legitimate and not an attempt to interfere with
15 cross. Thank you.

16 CO-HEARING OFFICER DODUC: Thank you.

17 The onus is on all participants, as far as I'm
18 concerned, in order to support either their objections
19 or their line of cross-examination.

20 With that, all right.

21 I believe you estimated about 60 minutes, an
22 hour, for your cross?

23 MR. WASIEWSKI: Yes. Good morning. Tim
24 Wasiewski for the San Joaquin Tributaries Authority. I
25 won't need that full hour. So those who are after me,

1 just, I guess, that's a warning.

2 MARIN GREENWOOD, ERIK REYES, NANCY PARKER,

3 KRISTIN WHITE, CHANDRA CHILMAKURI

4 RICK WILDER, COREY PHILLIS,

5 and SERGIO VALLES

6 called as Part 2 Rebuttal, Panel 2

7 witnesses by the Petitioners, having

8 been previously duly sworn, were examined

9 and testified further as hereinafter

10 set forth:

11 CROSS-EXAMINATION BY MR. WASIEWSKI

12 MR. WASIEWSKI: These questions will be for

13 just Ms. Parker and Ms. White. We can start by pulling

14 up Ms. Parker's testimony, which is DOI-43.

15 CO-HEARING OFFICER DODUC: Are there any

16 particular aspects of Ms. Parker and Ms. White's

17 testimony on which you will be focusing?

18 MR. WASIEWSKI: Yes. Just briefly on, I

19 guess, fully, it will be holistic or integrated

20 operations of the CVP and also briefly on Reclamation's

21 re-initiation of consultation, which Ms. Parker

22 mentions.

23 So we'll start on Page 1. If you can scroll

24 down just a little bit to the third paragraph.

25 Ms. Parker, do you see where it says that

1 "Reclamation operates CVP facilities in a fully
2 integrated manner," and that "flexibility is key to
3 achieving multiple purposes of the CVP, including its
4 regulatory obligations"?

5 WITNESS PARKER: I see that.

6 MR. WASIEWSKI: Okay. So when you say that
7 "Reclamation operates CVP facilities in a fully
8 integrated manner," does that include all CVP
9 facilities?

10 MS. AUFDEMBERGE: Objection. This is unclear
11 whether he's talking about a legal obligation for
12 full -- fully integration or if it's a practical or if
13 it's modeling only or what -- what angle is he reaching
14 "fully integrated manner"?

15 MR. WASIEWSKI: I'm not talking about -- I'll
16 clarify that, then.

17 I am not talking about modeling. I'm talking
18 about operations and adhering to legal requirements or
19 RPAs or any obligations that Reclamation believes it
20 has.

21 CO-HEARING OFFICER DODUC: And you're asking
22 Ms. Parker to answer that as an operator, not as an
23 attorney?

24 MR. WASIEWSKI: Yes, yes.

25 MS. AUFDEMBERGE: And I would object that

1 Ms. Parker is not an operator.

2 CO-HEARING OFFICER DODUC: She's a modeler;
3 that is correct.

4 So how would you like to rephrase that
5 question, Mr. Wasiewski?

6 MR. WASIEWSKI: I would like to know if she's
7 familiar.

8 I guess I'll start by asking are you familiar
9 with operations, considering that you have to model
10 them?

11 WITNESS PARKER: I'm familiar enough with
12 operations to understand the context in which we are
13 modeling them. The sentence was intended to convey
14 primarily the integration of our North of Delta storage
15 operations.

16 I've received input and knowledge throughout
17 my career from operators about how that integration
18 works, and that's what's reflected in that statement.

19 MR. WASIEWSKI: Okay. That's -- I'll confine
20 my question, then, about full integrations to your
21 extent of knowledge, then.

22 Ms. White, is your knowledge basically the
23 same in that regard?

24 WITNESS WHITE: I would probably answer that
25 that I think "fully integrated" can have a lot of

1 different meanings. We do consider the entire CVP to
2 be fully integrated, but how that affects and can
3 control the reservoir operations or system operations
4 of each component differs.

5 MR. WASIEWSKI: Okay. I'll just get right to
6 the next question, then.

7 So based on what you meant when you said
8 "operates in a fully integrated manner," does that
9 include operations at New Melones Reservoir?

10 WITNESS WHITE: New Melones is an integrated
11 piece of the CVP.

12 MR. WASIEWSKI: Okay.

13 WITNESS WHITE: However, its integration is
14 different because of its origin and water rights,
15 although I'll be clear, I'm not a water rights expert.
16 But the -- but the integration is different because of
17 the controls around the facility.

18 MR. WASIEWSKI: Okay. And would that
19 integration, to the extent that you just specified it,
20 would that continue if the WaterFix petitions were
21 approved?

22 WITNESS WHITE: I don't think there's anything
23 about the entire San Joaquin system, not just New
24 Melones, that is changing with the proposal of
25 WaterFix.

1 MR. WASIEWSKI: Okay. So the integration,
2 then, would be the same except that you would
3 incorporate whatever changes are happening North of
4 Delta?

5 WITNESS WHITE: I want to be clear. I'm
6 speaking from Reclamation at CVP operations. There's a
7 lot of controls around New Melones and the San Joaquin
8 system in general that are not Reclamations'
9 discretion. They're not our decision.

10 So from how we operate, there is no proposed
11 changes in -- with or without the WaterFix on the San
12 Joaquin system.

13 MR. WASIEWSKI: Okay.

14 WITNESS WHITE: Is that clear?

15 MR. WASIEWSKI: I think so.

16 So if we could pull up DWR-1143 and go to
17 Page 4. I guess this will be for either Ms. Parker or
18 Ms. White.

19 Do you see the bullet point under the Part 1
20 column that says -- that begins with "April, May"?

21 WITNESS PARKER: Yes.

22 MR. WASIEWSKI: Okay. Do you see where it
23 says there, "Allowable OMR flows depend on gauged flow
24 measured at Vernalis and will be determined by a linear
25 relationship"? Do you see that section?

1 WITNESS PARKER: I do.

2 MR. WASIEWSKI: And so what that's telling us,
3 then, is that OMR flows would be required under -- the
4 Old -- excuse me. I'll restart that.

5 The OMR flows that are required under this
6 proposal or would be required if this criteria was
7 adopted are dependant on inflow that's measured at
8 Vernalis on the San Joaquin; is that correct?

9 MS. AUFDEMBERGE: I want to lodge an objection
10 here. We are straying far from Ms. Parker and
11 Ms. White's testimony. Ms. Parker already testified
12 that, when she talked about a fully integrated system,
13 she meant the North of Delta storage reservoir. That's
14 the subject of her testimony.

15 This particular exhibit is the witnesses -- to
16 speak about this, particular witnesses are put on by
17 DWR: Mr. Eric Reyes and Chandra -- Dr. Chilmakuri.

18 CO-HEARING OFFICER DODUC: Let me keep your
19 objection in mind, Ms. Aufdemberge, but I want to hear
20 where Mr. Wasiewski is going with this. And if the
21 answer -- if the question is more appropriately
22 directed to Dr. Chilmakuri or Mr. Reyes, then I'm sure
23 Mr. Wasiewski would accept an answer from them.

24 MR. WASIEWSKI: Yes, I would. Okay.

25 So the question was the OMR flows that are

1 required under this proposal or that would be required
2 are dependant on inflow that's measured at Vernalis; is
3 that right?

4 WITNESS PARKER: I wouldn't call it inflow; I
5 will call it "flow."

6 MR. WASIEWSKI: That's -- I'll accept that.

7 And part of the way that the projects achieve
8 these OMR requirements or comply with them is through
9 managing exports; is that right?

10 WITNESS PARKER: That's correct.

11 MR. WASIEWSKI: But, of course, another
12 component is what the inflow is at Vernalis; is that
13 right?

14 WITNESS PARKER: That's correct.

15 Just want to point out as we've mentioned
16 before that there is no change in flow at Vernalis
17 between the No Action Alternative and the WaterFix
18 scenario. So there's no difference in how this
19 criteria is implemented between the No Action
20 Alternative and the WaterFix scenario.

21 MR. WASIEWSKI: Okay.

22 WITNESS WHITE: I would also like to add --
23 just something because I think you asked two questions
24 side by side -- or made two statements side by side,
25 and I want to make sure it's clear.

1 We do manage exports to meet OMR. We do not
2 manage Vernalis flows to meet OMR.

3 MR. WASIEWSKI: Okay.

4 WITNESS WHITE: OMR is a product of Vernalis
5 flows. And that's true; it's the biggest factor in the
6 equation for calculating OMRs. That's true regardless
7 of WaterFix. But I believe we do not manage to that.

8 MR. WASIEWSKI: Okay. Then the next question
9 I guess would be would it be possible for you to change
10 operations at New Melones to sort of influence or
11 dictate what the OMR requirements would be, considering
12 that they are different depending on what flow at
13 Vernalis is?

14 MS. AUFDEMBERGE: Objection. We are now way
15 beyond Ms. Parker and Ms. Kristen's [sic] testimony for
16 rebuttal.

17 CO-HEARING OFFICER DODUC: Mr. Wasiewski, I'm
18 thinking that you're trying to understand 1143.

19 MR. WASIEWSKI: I'm trying to understand 1143
20 in connection with the testimony that the CVP operates
21 in a fully integrated manner.

22 CO-HEARING OFFICER DODUC: Overruled -- the
23 objection, that is.

24 MR. WASIEWSKI: So I'll just say that again in
25 case you forgot.

1 The question was is it possible -- I
2 understand what the proposal is, but is it possible
3 that Reclamation could operate New Melones Reservoir in
4 a way that would dictate or influence what the OMR --
5 relevant OMR criteria are?

6 MR. MIZELL: Object as compound. Could we
7 break it into "dictate" in one question and "influence"
8 in another? Those could be very different
9 circumstances.

10 MR. WASIEWSKI: I'll start with -- I'll do
11 both then, I guess, if they see a difference, and start
12 with the word "dictate."

13 Could you operate New Melones in a way to
14 dictate what OMR criteria would be relevant?

15 WITNESS WHITE: So I want to be clear. You're
16 asking outside of the proposed action for WaterFix?

17 MR. WASIEWSKI: Yes.

18 WITNESS WHITE: So this is irrelevant of any
19 proposed projects, just OMR?

20 MR. WASIEWSKI: Well, I'm not asking what
21 you're proposing; I'm asking what's possible.

22 WITNESS PARKER: So I think if we can scroll
23 down to Footnote 37.

24 Part of this footnote -- if we can make it so
25 we can see the whole footnote. Make it narrower. Can

1 you make it smaller? It's a very long footnote. Can
2 you scroll over -- yeah, there we go.

3 Footnote 37 says in part, "The OMR targets
4 would not be achieved through releases from CVP/SWP
5 reservoirs." I think that kind of captures the entire
6 intent of this criteria.

7 MR. WASIEWSKI: I'm sorry. Could you direct
8 me to that again?

9 WITNESS PARKER: So Line 37 is at the very
10 bottom of that page.

11 MR. WASIEWSKI: Yes, yes.

12 WITNESS PARKER: And the second sentence in
13 Footnote 37 says, "The OMR targets would not be
14 achieved through releases from CVP/SWP reservoirs."

15 MR. WASIEWSKI: Right. I think that's
16 consistent with what you said before, that you would
17 achieve them through managing exports. But what I'm
18 asking is slightly different.

19 Could you change which criteria are applicable
20 at a given time by managing New Melones Reservoir in a
21 way to change flows at Vernalis? Is it possible is all
22 that I'm asking.

23 WITNESS WHITE: Okay. So to be clear, we're
24 not talking about the WaterFix proposal, just general
25 control of OMR?

1 MR. WASIEWSKI: I'm not asking what you
2 proposed; I'm asking what's possible.

3 MS. AUFDEMBERGE: I'm going to object as
4 vague -- vague and incomplete hypothetical.

5 CO-HEARING OFFICER DODUC: Okay. Who is
6 making that ringing noise?

7 MS. AUFDEMBERGE: It's coming from outside in
8 the hallway.

9 CO-HEARING OFFICER MARCUS: Would you like me
10 to tell everybody out there to turn their cell phones
11 off?

12 CO-HEARING OFFICER DODUC: Yes, please.

13 I'm sorry. Ms. Aufdemberge, what was your
14 objection, again?

15 MS. AUFDEMBERGE: Vague and incomplete
16 hypothetical.

17 CO-HEARING OFFICER DODUC: I will agree to the
18 "vague" because I'm trying to understand your question,
19 Mr. Wasiewski.

20 MR. WASIEWSKI: Sure. Let's go -- I'll make
21 it clear by doing this. If you could scroll back up to
22 the bullet point for April and May. It says -- I think
23 that's the second sentence, "If Vernalis flow is below
24 5,000 cfs, OMR flows will not be more negative than
25 negative 2,000." Then the next sentence discusses what

1 the OMR flows would be if Vernalis was 6,000.

2 What I'm asking is could you operate New
3 Melones in a way that would dictate whether the
4 5,000 cfs criteria was applicable or the 6,000
5 criteria -- or cfs criteria was applicable?

6 CO-HEARING OFFICE DODUC: So I'm sorry. Are
7 you asking if New Melones could be operated in a way to
8 influence Vernalis flow?

9 MR. WASIEWSKI: Yes. And, more specifically,
10 which of the criteria would then be applicable with
11 respect to the OMR flow requirements since they are
12 dependent -- I think you were directly onto it.

13 Yes, I'm asking could you operate New Melones
14 in a way to dictate what Vernalis flow is and then, by
15 extension, also determine which of these OMR flow
16 criteria is applicable?

17 MS. AUFDEMBERGE: And I'm going to object.
18 Ms. White has basically testified now several times
19 that this is irrelevant to the Cal WaterFix proposal.

20 MR. WASIEWSKI: I don't think it's irrelevant
21 until we know whether it's possible or not.

22 MR. MIZELL: I'd like to object as to vague.

23 I believe that Mr. Wasiewski is trying to get
24 to the purpose of the releases from New Melones.
25 However, the question is silent on purpose.

1 Clearly the criteria say whatever Vernalis
2 flow results in a different OMR. So it's pretty clear
3 that the Vernalis flow will change the OMR. But for
4 what purpose is Vernalis flow being reduced? And if
5 Mr. Wasiewski is trying to say will Vernalis flow
6 change for the purpose of allowing for more exports,
7 then maybe the question could be phrased in that manner
8 and not ambiguous.

9 CO-HEARING OFFICER DODUC: Let's backtrack
10 because I thought I understand Mr. Wasiewski's
11 question.

12 And it's an operational question, not a legal
13 question, correct?

14 MR. WASIEWSKI: Yes, of course.

15 CO-HEARING OFFICER DODUC: So operationally,
16 physically, Ms. White, Ms. Parker, could you operate
17 New Melones in such a way to influence the flow
18 measured at Vernalis whether it be 5,000 or 6,000 or
19 whatever number?

20 WITNESS WHITE: Sure. So I'm going to answer
21 that in a couple of different pieces because there is a
22 legal aspect to that.

23 When we operate New Melones, it's our
24 understanding as operators and as we've been directed
25 by our water rights experts and solicitors, that we

1 cannot operate New Melones for exports. So that's how
2 we operate now, and there's no proposal to change that
3 in the future. So I can't give you specifics of which
4 water rights and how that interpretation goes. That's
5 how we're -- that's how we operate New Melones in -- at
6 CBO.

7 The second part of that is I testified in
8 Part 1, I believe, pretty explicitly that New Melones
9 is an over-allocated system, and we already have
10 challenges meeting the current Vernalis requirements.
11 So I have trouble saying it's even possible to operate
12 New Melones to increase Vernalis flows because we're
13 already -- we're already so tight and over-allocated as
14 is. So -- but it's certainly a fact that New Melones
15 flows influence Vernalis flows.

16 But to -- yeah, I hope that answers your
17 question.

18 MR. WASIEWSKI: I think it partly does.

19 So are you saying that there's a legal
20 requirement that would preclude you from operating New
21 Melones in a way that would dictate what the flows were
22 at Vernalis as an attempt to change which OMR criteria
23 were applicable?

24 MS. AUFDEMBERGE: Objection, calls for a legal
25 conclusion.

1 CO-HEARING OFFICER DODUC: But she did offer a
2 legal opinion.

3 MS. AUFDEMBERGE: She did not. She said
4 that's how they interpret that at CBO.

5 CO-HEARING OFFICER DODUC: So based on your
6 interpretation, Ms. White.

7 WITNESS WHITE: Based on our interpretation,
8 we cannot operate New Melones for exports at South
9 Delta.

10 MR. WASIEWSKI: So that includes operating New
11 Melones in a way that would influence which OMR
12 criteria are applicable?

13 WITNESS WHITE: We are currently under a
14 significant number of OMR criteria, and we do not
15 operate New Melones to affect any of them. So I don't
16 want to draw any legal conclusion about the specificity
17 of where those legal requirements end, but we don't do
18 it now, and I -- we're not proposing to change that in
19 the future.

20 MR. WASIEWSKI: Let's move, then, to the
21 operations standpoint where you said you're essentially
22 so tight, I guess, on water at that facility that you
23 don't do it. But if the condition -- okay.

24 WITNESS WHITE: That's not what I said.

25 MR. WASIEWSKI: Then I'll let you -- if you

1 want to remind me exactly what you said so that I can
2 ask that question about operations. What exactly
3 was -- were you saying, then?

4 WITNESS WHITE: I said New Melones is an
5 over-allocated system that already has challenges
6 meeting its existing Vernalis requirements.

7 MR. WASIEWSKI: Okay. So if conditions
8 were -- are you able to meet Vernalis requirements
9 sometimes?

10 MS. AUFDEMBERGE: Objection. This is way
11 beyond the scope of Ms. Parker and Ms. White's
12 testimony. We have made the point repeatedly that all
13 these questions deal with the No Action Alternative as
14 well as the with-project. This is not relevant to the
15 impact of Cal WaterFix.

16 It's clear from the previous testimony, at
17 this point, none of this is relevant to impacts of Cal
18 WaterFix.

19 MR. WASIEWSKI: I didn't bring up -- I'm not
20 the one that brought up compliance at Vernalis;
21 Ms. White brought it up. I'm just following up on
22 that. And I think we're still clearly within DWR-1143
23 here, and I'm just exploring the same area that we've
24 been in so far.

25 I'm trying to get to -- I'm not even sure what

1 question we're at, Ms. White, but I think I asked you
2 about the operations standpoint.

3 CO-HEARING OFFICER DODUC: I'm going to
4 overrule Ms. Aufdemberge for now.

5 But, Mr. Wasiewski, you need to stay very
6 focused moving forward and not reach too far backwards.

7 MR. WASIEWSKI: Okay. I guess I'll just jump
8 right in, then.

9 Is there a proposal in DWR-1143 or anywhere
10 else that would preclude Reclamation from operating New
11 Melones in a way that influenced the OMR criteria or
12 which of the OMR criteria was applicable?

13 CO-HEARING OFFICER DODUC: I'm sorry. Could
14 you repeat that for me?

15 MR. WASIEWSKI: Yes.

16 Is there a proposal in DWR-1143 or anywhere
17 else which would preclude Reclamation from operating
18 New Melones in a way to influence which of the OMR
19 criteria were applicable at a given time?

20 WITNESS WHITE: I don't think New Melones is
21 mentioned anywhere in 1143 because there were no
22 proposed changes and it's not a -- an existing
23 operation that's available, so. . .

24 MR. WASIEWSKI: So is that no, then?

25 WITNESS WHITE: It's not a part of the

1 proposed action for WaterFix.

2 MR. WASIEWSKI: I fully understand that.

3 But is there -- I'm going a step further and
4 asking are you -- is Reclamation proposing to restrict
5 itself from operating New Melones in a way that would
6 influence which OMR criteria were applicable?

7 MR. MIZELL: I'm going to object at this
8 point. Ms. White has answered to the best of her
9 ability the question that Mr. Wasiewski is looking for.

10 I would also agree with Ms. Aufdenberge that
11 this is beyond the scope of not only the proposed
12 project but also beyond the scope of rebuttal in that
13 the Supplemental doesn't address any changes on the
14 San Joaquin because the San Joaquin system is not part
15 of the project, and Ms. White's testimony and
16 Ms. Parker's testimony does not go into the management
17 of the San Joaquin system.

18 The fact that we have an OMR criteria listed
19 in 1143 is a Delta condition criteria and is a product
20 of Vernalis but does not go the other way. The OMR
21 does not dictate Vernalis. And that's already been
22 brought out through testimony.

23 So I'm going to object now as beyond the scope
24 and asked and answered.

25 CO-HEARING OFFICER DODUC: Asked and answered

1 maybe, Mr. Mizell, but it is within my understanding of
2 the scope because we are trying to understand 1143,
3 what is being proposed, what is not being proposed.
4 And petitioners have made a point of saying what will
5 change and what will not change under the proposed
6 WaterFix project.

7 And an understanding of current operations is
8 part of understanding what it is that you are proposing
9 and what is it that you are proposing that would change
10 and what would not change.

11 So I am -- I assume that's where
12 Mr. Wasiewski, I believe, is attempting to go. But I
13 will agree that the question has been answered several
14 times by Ms. White now. In her way, she has answered
15 it.

16 MR. WASIEWSKI: Okay. I'll ask Ms. Parker,
17 then, if she has anything to add to that answer that
18 Ms. White gave.

19 MS. AUFDEMBERGE: Objection, vague.

20 MR. WASIEWSKI: I can restate the question.

21 CO-HEARING OFFICER DODUC: Let's not. I'm
22 sure Ms. Parker can either answer, or if she needs to
23 have it restated, she will say so.

24 WITNESS PARKER: I have nothing to add.

25 MR. WASIEWSKI: Okay. Thank you.

1 Let's go to -- back to Ms. Parker's testimony,
2 Page 2, DOI-43. So the second paragraph, to the last
3 sentence, you state, "Reclamation is continuing to work
4 with" -- National Marine Fisheries Service -- "NMFS on
5 appropriate revisions to the RPA through the
6 Reinitiation of Consultation on Long Term Operations
7 process."

8 Are you familiar with some of the proposals
9 that are being considered by Reclamation as part of
10 what they called -- what they were calling Track 1 of
11 that process?

12 MS. AUFDEMBERGE: Objection. This is outside
13 the scope of the rebuttal testimony.

14 MR. WASIEWSKI: Well --

15 CO-HEARING OFFICER DODUC: Help me understand.

16 MR. WASIEWSKI: Yes. So what she has
17 essentially said in this paragraph is that the NMFS DPA
18 isn't the relevant process. Reclamation has said that
19 they haven't agreed to that and quite -- and that they
20 don't believe it's feasible to achieve the DPA and that
21 the relevant process here is the Reinitiation of
22 Consultation.

23 And so I think we should be permitted to -- if
24 that's the case, if that's the relevant process here,
25 we should be able to ask what she knows about it.

1 Otherwise, this is sort of just, I guess, a deflection
2 without accountability behind it. So I'd like to just
3 explore what she knows about it.

4 CO-HEARING OFFICER DODUC: Overruled.

5 Objection overruled.

6 WITNESS PARKER: I'd like to clarify first
7 that my intention in including that information was to
8 convey the fact that NMFS itself is not insisting that
9 Reclamation adhere to the draft proposed amendment. So
10 that's one thing.

11 The second -- or the next -- to address your
12 question directly, I am familiar with some of the
13 studies that have been part of Track 1. That has not
14 been my primary focus.

15 MR. WASIEWSKI: Ms. White, what's your
16 familiarity with that?

17 WITNESS WHITE: I'm having a hard time
18 remembering exactly what Track 1 was since the
19 terminology has changed and, I think, some of the
20 divisions between timelines, I guess, have changed --

21 MR. WASIEWSKI: Yes.

22 WITNESS WHITE: -- now, not to use the word
23 "tracks." But I was familiar with what was Track 1 at
24 one time.

25 MR. WASIEWSKI: Okay. Good. If I were to

1 show you a presentation that was publicly released by
2 Reclamation on the Track 1 process, might that jog your
3 memory as to some of the proposals that were in it?

4 WITNESS WHITE: Sure.

5 MR. WASIEWSKI: If we could bring up SJTA-501.

6 CO-HEARING OFFICER DODUC: Mr. Wasiewski, I'm
7 now a bit concerned. If you're going to delve into
8 specific proposals being discussed, how is that --
9 that's going -- that might be going beyond the scope.

10 MR. WASIEWSKI: Well, Ms. Parker has told us
11 that essentially the relevant sort of process here is
12 Reclamation's reinitiation with consultation. And what
13 I'd like to do is explore whether or not the ideas
14 being considered there are consistent with what
15 Reclamation is telling the Board it will do in
16 DWR-1143.

17 MS. AUFDEMBERGE: Objection. This is getting
18 a little ridiculous. The -- Mr. Wasiewski keeps saying
19 that Ms. Parker is -- has an opinion upon which is the
20 appropriate process for the Shasta RPA, and that is not
21 at all the intent or purpose of her testimony.

22 Her purpose -- the purpose of her testimony is
23 rebuttal to parties who have suggested that, as a -- as
24 a term and condition on approval of the Cal WaterFix,
25 that the Board implement the Shasta RPA. This is way

1 beyond the scope of that testimony.

2 CO-HEARING OFFICER DODUC: And Ms. Parker did
3 not go into any specifics regarding that, what might be
4 currently discussed as part of that re-consultation.

5 Is that your --

6 MS. AUFDEMBERGE: Right. She is not -- she
7 doesn't have -- she's just stating a fact that this
8 particular issue will be handled through Rec on LTO.
9 She's not talking about what the appropriate procedure
10 is.

11 CO-HEARING OFFICER DODUC: Mr. Wasiewski.

12 MR. WASIEWSKI: Well, I don't think I said she
13 was telling us what the appropriate procedure was, but
14 I do think that she was telling us what the relevant
15 revisions were going to be or what the relevant update
16 process was and that it is not the DPA process; it is
17 the Reinitiation of Consultation process.

18 And given that she's brought that up and the
19 entire thrust of her rebuttal testimony is that the CVP
20 is operated holistically, I would like to explore
21 exactly what she knows about the Reinitiation
22 Consultation -- of Consultation process and whether or
23 not the ideas being brought up there are consistent
24 with what Reclamation is proposing to the Board that it
25 will do in DWR-1143.

1 CO-HEARING OFFICER DODUC: So stop right
2 there, Mr. Wasiewski.

3 Ms. Parker or Ms. White, can any one of you
4 answer that question without us having to go through
5 multiple documents and spending a lot of time?

6 Thank you, Mr. Wasiewski, for going directly
7 to the heart of the matter.

8 Now I'll ask either Ms. White or Ms. Parker to
9 answer that question.

10 WITNESS WHITE: So I know you don't want to
11 drag this out, but I would have to have more
12 information about what -- what part of proposals and
13 what part of reinitiation you're talking about. I
14 don't think there's anything in reinitiation that
15 contradicts anything that we're proposing in WaterFix.

16 CO-HEARING OFFICER DODUC: Thank you. That
17 was the answer I was looking for in terms of what your
18 level of understanding is. So your answer to
19 Mr. Wasiewski is that, to your knowledge --

20 WITNESS WHITE: To my knowledge, there's
21 nothing in the Reinitiation of Consultation that's
22 contradicting in WaterFix. The Reinitiation of
23 Consultation is very big, so it's hard to give
24 specifics on any one part.

25 CO-HEARING OFFICER DODUC: And at what stage

1 is that re-consultation in right now?

2 WITNESS WHITE: I do not know.

3 CO-HEARING OFFICER DODUC: Could things change
4 later on as part of that?

5 WITNESS WHITE: There are a lot of -- yes,
6 there are a lot of changes.

7 CO-HEARING OFFICER DODUC: At this point are
8 you able to answer any specific questions about what
9 might be discussed?

10 WITNESS WHITE: No. I -- Ms. Parker and I are
11 both kind of loosely on the edge of that team. We are
12 not kind of the drivers or the project managers of that
13 team.

14 CO-HEARING OFFICER DODUC: What additional
15 information might be you seeking, Mr. Wasiewski?

16 MR. WASIEWSKI: Well, now her testimony is
17 that there are no inconsistencies between what's being
18 considered in the Reinitiation process and what's being
19 proposed here. And given that she has just said that,
20 I'd like to explore whether or not that's true.

21 CO-HEARING OFFICER DODUC: And how are you
22 proposing to do that?

23 MR. WASIEWSKI: Well, she also said that if we
24 showed her some of the -- if I showed her this
25 presentation that Reclamation has presented on Track 1,

1 it could jog her memory as to what some of the ideas
2 being considered in that process are.

3 CO-HEARING OFFICER DODUC: So you are
4 attempting to refute her statement that nothing being
5 discussed is in conflict with what's being proposed to
6 WaterFix?

7 MR. WASIEWSKI: Exactly, yes.

8 CO-HEARING OFFICER DODUC: All right.

9 MS. AUFDEMBERGE: I object. She also just
10 testified that it all could change.

11 CO-HEARING OFFICER DODUC: We'll note that for
12 the record.

13 MR. WASIEWSKI: Okay. So if we could pull
14 that SJTA-501 back up on the larger screen.

15 WITNESS WHITE: I would also like to add that
16 the -- this presentation --

17 MR. WASIEWSKI: I don't have a question
18 pending yet, but if you have something to say on
19 rebuttal, you can certainly -- or Ms. Aufdemberge can
20 certainly direct you to do that.

21 So I'll move -- if you could go to Page 24 of
22 SJTA-501.

23 Do you see this -- so this slide says "Fall X2
24 Ideas."

25 Do you see the bullet point that says, "Modify

1 averaging period to two months to allow for more
2 flexible operations"?

3 WITNESS WHITE: I would also like to add for
4 the Board that this is a public process, and this
5 presentation is from April. There have been numerous
6 public meetings since this presentation of which I have
7 not been attending.

8 So although I can verify statements that
9 are -- that I can read statements out of this
10 presentation, I cannot verify these are still the
11 details of this proposed action.

12 MR. WASIEWSKI: I won't ask you to do so.

13 WITNESS WHITE: So, yes, I can see that text
14 on the screen.

15 MR. WASIEWSKI: Okay. And under the
16 current -- maybe we should scroll up one slide, please.

17 Under Current Biological Opinion, the 2008
18 Biological Opinion, it doesn't say it in that section,
19 but are you aware that, for September and October,
20 Fall X2 has to be achieved independently for each of
21 those months?

22 WITNESS WHITE: Are you asking if I understand
23 the current Fall X2 RPA?

24 MR. WASIEWSKI: Yes.

25 WITNESS WHITE: Yes.

1 MR. WASIEWSKI: Okay. And you understand that
2 September and October are achieved -- have to be
3 achieved independently of one another for purposes
4 of X2?

5 WITNESS WHITE: That's our understanding of
6 how we operate now.

7 MR. WASIEWSKI: Okay. And if we could scroll
8 back down to that other slide, where it says, "Modify
9 averaging period to two months to allow for more
10 flexible operations."

11 If you were reading that in your role at
12 Reclamation, would you understand that to mean --
13 because I think maybe you could enlighten me here a
14 little bit. Does that mean that they would average
15 September and October together instead of achieving
16 them independently?

17 MS. AUFDEMBERGE: Objection. He's laying an
18 inference out here that "Fall X2 Ideas," this slide,
19 says that these are Reclamation ideas. These are not
20 necessarily attributable to Reclamation.

21 At the bottom of the slide, it says "Draft,
22 Subject to Revision." This was for purposes of a
23 public meeting. There's no indication as to whose
24 ideas these are or why they're being laid out there.
25 And Ms. White has already testified that she is not

1 involved in this presentation and did not attend this
2 meeting.

3 CO-HEARING OFFICER DODUC: And, Mr. Wasiewski,
4 your response as to the value of this?

5 MR. WASIEWSKI: I am willing to ask Ms. White
6 or Ms. Parker if they are familiar with this idea, and
7 if they're not, that will be it.

8 WITNESS WHITE: My understanding of this idea,
9 and I'm not sure where it came from, was that it would
10 allow more flexible operations to meet a certain
11 salinity requirement within the two-month period.

12 I -- we had some internal discussions about
13 whether or not this would make any difference because
14 we still have to operate to salinity without knowing
15 what's coming in the future. So I don't know -- I
16 don't even know that we would think about it as
17 operating differently, from an operations perspective.

18 MR. WASIEWSKI: Okay. But would the thrust of
19 this idea be something different than what's in the
20 2008 Biological Opinion?

21 WITNESS WHITE: I'm not --

22 MS. AUFDEMBERGE: Objection. Again, he said
23 where he was going with this was to show that
24 Reclamation is proposing something different than in
25 the proposal. There has been no testimony that this

1 was a Reclamation idea.

2 MR. BERLINER: I have a further objection,
3 which is --

4 CO-HEARING OFFICER DODUC: Hold on before you
5 get there. We've gone through this several times, and
6 Ms. White -- I thought I heard Ms. White say that these
7 ideas were discussed by -- internally in Reclamation,
8 but not necessarily that this was a proposal that
9 Reclamation was making.

10 WITNESS WHITE: Right, that's correct. Yes.
11 I'm not sure where these proposals came from, but once
12 they were on -- this is a very public process, so a lot
13 of ideas have been solicited from a lot of different
14 sources. So once they're out, obviously, we're going
15 to talk about them.

16 This presentation was from April, which was --
17 in the terms of Reinitiation of Consultation, was quite
18 a long time ago.

19 CO-HEARING OFFICER DODUC: So given
20 Ms. Aufdemberge's objection that these are not
21 Reclamation's proposal, per se, what is your response
22 that, Mr. Wasiewski?

23 MR. WASIEWSKI: I accept that they may not be
24 Reclamation's proposals. I don't think I intended to
25 convey that they were. I wanted to bring this up to

1 Ms. White and ask if these are ideas that are being
2 considered by Reclamation, whether or not they have
3 proposed them or not.

4 CO-HEARING OFFICER DODUC: And she has
5 answered that.

6 Mr. Berliner?

7 MR. BERLINER: I have a further objection,
8 which is I understood this line of questioning was
9 going to the veracity of Ms. White's statements.

10 CO-HEARING OFFICER DODUC: Correct.

11 MR. BERLINER: If these aren't Reclamation
12 ideas, I fail to see how this is relevant at all to the
13 veracity of her statement.

14 MR. WASIEWSKI: Well, it's relevant in the
15 sense that, if Reclamation is proposing to you in this
16 proceeding that it will follow one set of rules --
17 which we have not quite gotten to yet -- but if they're
18 proposing that they will follow one set of rules and
19 then simultaneously considering different rules to
20 abide by, I think that's relevant here.

21 CO-HEARING OFFICER DODUC: Mr. Wasiewski, as
22 you know, I mean, we ourselves are involved in a lot of
23 public processes. And as part of that public process,
24 you consider a variety of proposals from a variety of
25 sources. But until an official proposal or decision is

1 made, I will tend to agree with Mr. Berliner and
2 Ms. Aufdemberge that you have not shown that these are
3 formal proposal --

4 MR. WASIEWSKI: I don't have an intent to.
5 All I wanted to know from Ms. White or Ms. Parker was
6 whether or not they were considering these ideas as
7 part of the Reinitiation of Consultation process.

8 CO-HEARING OFFICER DODUC: And Ms. White has
9 answered that question.

10 MR. WASIEWSKI: And yet the answer was, I,
11 believe, "yes."

12 CO-HEARING OFFICER DODUC: That they have been
13 discussed.

14 MR. WASIEWSKI: I'll accept that.

15 WITNESS WHITE: I'd like to clarify. I said I
16 can verify what's on the screen and what was presented
17 in public meetings, but there have been numerous public
18 meetings and numerous changes through the Reinitiation
19 of Consultation. I can't verify what's in the --
20 exactly what's in the current, which -- which I'm not
21 sure where that came from.

22 CO-HEARING OFFICER DODUC: Understood.

23 MR. WASIEWSKI: Yeah, I'm not asking to verify
24 what is in the current sort of ideas process, but I'm
25 asking you were you aware that this was discussed?

1 MS. AUFDEMBERGE: Objection --

2 CO-HEARING OFFICER DODUC: Asked and answered.

3 MR. WASIEWSKI: Okay. Let's go to DWR-1143,

4 Page 7. Do you see the table or the box that says

5 "Fall Outflow"?

6 WITNESS PARKER: Yes.

7 MR. WASIEWSKI: Do you see to the right of

8 that where it says, "No change. September, October,

9 November: implement the U.S. Fish and Wildlife Service

10 2008 BO Fall X2 requirements in wet and above-normal

11 year types"? Do you see that?

12 WITNESS PARKER: Yes.

13 MR. WASIEWSKI: Is that the proposal as part

14 of this proceeding?

15 WITNESS PARKER: I think the proposal is to

16 operate to all existing regulations and standards, and

17 that's part of what we currently operate to.

18 MR. WASIEWSKI: Would that be consistent with

19 the idea of modifying the Fall X2 requirement to

20 average two -- across two months?

21 MS. AUFDEMBERGE: Objection. This is --

22 CO-HEARING OFFICER DODUC: Sustained.

23 Move on, Mr. Wasiewski.

24 MR. WASIEWSKI: That's actually going to be

25 the end of it, actually. All right. Thank you.

1 CO-HEARING OFFICER DODUC: Thank you.

2 All right. Mr. Herrick -- oh, Mr. Ruiz.

3 And for planning purposes, Debbie, Mr. Ruiz
4 anticipated 30 minutes. And then after him is
5 Mr. Keeling, who anticipates 10, so we'll take a break
6 after that.

7 MR. KEELING: I may have understated it but by
8 no more than five minutes.

9 CO-HEARING OFFICER DODUC: Okay.

10 CROSS-EXAMINATION BY MR. RUIZ

11 MR. RUIZ: Good morning. Dean Ruiz for the
12 South Delta Water Agency protestants. And I said 30
13 minutes. It's probably closer to 20. I just have some
14 questions for Dr. Chilmakuri.

15 Good morning.

16 WITNESS CHILMAKURI: Good morning.

17 MR. RUIZ: Dr. Chilmakuri, your Part 2
18 Rebuttal testimony critiqued Mr. Burke's salt loading,
19 salt residual analysis which is SDWA-291, correct?

20 WITNESS CHILMAKURI: Yes.

21 MR. RUIZ: Would you agree that Mr. Burke's
22 salt loading analysis compares generally the amount of
23 salt entering and exiting the South Delta for the No
24 Action Alternative as compared to the WaterFix scenario
25 by simply evaluating DWR's own DSM-2 data?

1 WITNESS CHILMAKURI: Actually, I think
2 Mr. Burke's analysis is incomplete.

3 MR. RUIZ: I understand that, but what I'm
4 trying to say is he didn't run his own models; I mean,
5 he used the DSM-2 data and then did some -- he derived
6 some computations based on that, correct?

7 WITNESS CHILMAKURI: Again, there is no way
8 for me to verify. In fact, it's actually confusing if
9 you read his testimony. I wasn't sure whether actually
10 he reran the model or -- because he does go into some
11 detail explaining not all the outputs he used were
12 available in petitioners' modeling.

13 So I'm not sure if he actually reran the
14 models or he actually used petitioners' model.

15 MR. RUIZ: Okay. But either he reran the
16 DSM-2 model, it's your understanding, or he used -- he
17 didn't do his own model, in other words? You do
18 understand that, correct?

19 WITNESS CHILMAKURI: No. That's exactly what
20 I'm saying is I actually don't know whether he reran
21 the model or not.

22 MR. RUIZ: Understanding and recognizing that
23 you have some critiques with his analysis, is it a fair
24 assessment to say that Mr. Burke's analysis is
25 attempting -- or the focus of it is to compare the

1 change in the mean annual residual salt in the South
2 Delta as a result of the WaterFix scenario by comparing
3 that to the No Action Alternative?

4 WITNESS CHILMAKURI: Again, it's incomplete,
5 and that's -- the approach Mr. Burke used is not
6 correct, in my opinion.

7 MR. RUIZ: I understand that that's your
8 opinion. My question is do you understand that the
9 focus of his analysis was to compare the change in the
10 mean annual residual salt in the South Delta between
11 the WaterFix scenario and the No Action Alternative?

12 WITNESS CHILMAKURI: As I understand, again,
13 as stated in his testimony, the objective was to
14 evaluate salt loading and salt residuals. Those were
15 his words in his testimony. And to get to that point,
16 the analysis as conducted is not sufficient.

17 MR. RUIZ: I understand that that's your
18 opinion. I'm just asking --

19 CO-HEARING OFFICER DODUC: One moment,
20 Mr. Ruiz. Let me ask -- because Ms. Ansley has been
21 standing there -- for her to go ahead and speak, and
22 then I have a follow-up question.

23 Ms. Ansley.

24 MS. ANSLEY: And I'm objecting now to where
25 Mr. Ruiz is going right now with this question. This

1 is asked and answered. He's asking Dr. Chilmakuri
2 to -- and Dr. Chilmakuri has answered what he believes
3 Mr. Burke said in his testimony was his own purpose.
4 It is irrelevant and somewhat vague and ambiguous to
5 ask him to speculate on what Mr. Burke's purpose is.

6 He's answered, and Mr. Ruiz is going there
7 again, and I think that that's asked and answered and
8 answered to the best of Dr. Chilmakuri's knowledge,
9 what Mr. Burke's purpose is.

10 CO-HEARING OFFICER DODUC: Actually, let me
11 now turn to Dr. Chilmakuri.

12 I understand your critique of Mr. Burke's
13 analysis. I think what Mr. Ruiz is trying to get at,
14 at least I think, is what is your understanding of how
15 he -- the comparative method that Mr. Burke used in his
16 analysis, to what extent were you able to ascertain
17 that from reading his testimony?

18 WITNESS CHILMAKURI: I actually disagree with
19 the way he computed the -- or compared the residuals
20 from the two individual scenarios.

21 CO-HEARING OFFICER DODUC: And how, in your
22 understanding, did he compare that residual?

23 WITNESS CHILMAKURI: So in my understanding,
24 Mr. Burke included the salts coming into the South
25 Delta region and going out of the South Delta region

1 for each scenario. And then for each scenario, he
2 computed in that residual for South Delta region and
3 then computed the difference between the residuals and
4 said that's the amount of salt WaterFix is actually
5 bringing in to the South Delta.

6 CO-HEARING OFFICER DODUC: And that's your
7 understanding of how he conducted that analysis?

8 WITNESS CHILMAKURI: Yes. That's exact- --
9 that's how it's described in his testimony.

10 MR. RUIZ: I understand you disagree with the
11 analysis. So I just have a couple of related questions
12 to that.

13 WITNESS CHILMAKURI: Actually, it's not
14 disagreement. I mean, I do disagree with the approach.
15 I just described what was actually in his testimony. I
16 summarized what's actually written in his testimony.

17 MR. RUIZ: Correct, but you disagree with the
18 approach that he took, obviously?

19 WITNESS CHILMAKURI: Yes.

20 MR. RUIZ: Okay. Mr. Burke didn't attempt to
21 analyze the ultimate disposition of the salt remaining
22 in the South Delta for his analysis, correct?

23 WITNESS CHILMAKURI: Well, his conclusion does
24 point to that. The ultimate disposition is that it
25 would either bring -- his two conclusions are, in his

1 written testimony, he said that there would be more
2 salt brought in under WaterFix, and upon -- during the
3 redirect, he did say that he meant to say that there is
4 salt accumulating in the South Delta.

5 I think that is actually implying a
6 disposition of where the salt is going to be. He's
7 saying that there would be more salt accumulating in
8 South Delta. He's actually concluding that there would
9 be -- WaterFix would actually bring in or add more salt
10 to the region.

11 So I disagree with what you're saying there.

12 MR. RUIZ: Maybe you didn't understand what
13 I'm saying. Yes, he opines that there will be an
14 additional 30,000 metric tons of salt on an annual
15 average basis in the South Delta, but that's the basis
16 of his analysis.

17 He doesn't go on to try to describe what the
18 ultimate disposition of that 30,000 extra tons of salt
19 is, whether it goes in the root zone or anywhere else,
20 correct? He just says it's going to be brought in and
21 remain in the system, in the South Delta; is that
22 correct?

23 WITNESS CHILMAKURI: Yeah, he did not -- I'm
24 trying to remember what went through the
25 cross-examinations and the -- during the

1 cross-examination, at one point, he did indicate that
2 the -- one of the effects would be to increase the
3 salinity in the South Delta channels. He also went on
4 to say that that would impact Ms. Womack's drinking
5 water.

6 So I don't -- I still disagree with your
7 question that he did not make any disposition.
8 Actually, he did conclude that it would impact the
9 salinity in the South Delta channels and one of the
10 protestant's use.

11 MR. RUIZ: It's your recollection that he
12 opined on the effect on drinking water?

13 WITNESS CHILMAKURI: Yes, he did.

14 MR. RUIZ: Okay. Are you aware that the
15 primary reason that Mr. Burke opines there will be an
16 increased residual of salt in the South Delta is due to
17 the decreased use of the South Delta export pumps?

18 WITNESS CHILMAKURI: Could you repeat that?
19 Sorry.

20 MR. RUIZ: Yes. Do you agree with Mr. Burke's
21 reasoning or opinion that the primary reason there will
22 be, in his view, an increased residual of salt in the
23 South Delta is due to a decreased use of the South
24 Delta export pumps?

25 MR. CHILMAKURI: I --

1 MS. ANSLEY: I'm going to --

2 CO-HEARING OFFICER DODUC: Hold on.

3 MS. ANSLEY: I'm going to object as vague and
4 ambiguous, whether he's asking him to opine on what
5 Mr. Burke thinks or is he asking him to agree that
6 decreased pumping in the South Delta would increase
7 salinity. I think there was some sort of a compound
8 thing going on in there that varied from the beginning
9 of the question to the end. And I find it vague and
10 confusing, and I'd like that clarified before
11 Dr. Chilmakuri answers.

12 CO-HEARING OFFICER DODUC: Mr. Ruiz, are you
13 trying to confirm Dr. Chilmakuri's understanding of
14 Mr. Burke's testimony, or are you trying to get him to
15 opine --

16 MR. RUIZ: Actually, it's both.

17 So the first thing is do you understand that
18 -- or do you agree that the basis, the primary basis
19 for Dr. Burke's reasoning that there will be more salt
20 -- 30,000 metric tons -- remaining in the South Delta
21 is due to a decrease of the use of the South Delta
22 pumps? Do you understand that's the primary basis of
23 his testimony?

24 CO-HEARING OFFICER DODUC: Dr. Chilmakuri, do
25 you recall -- do you recall that from Mr. Burke's

1 testimony?

2 WITNESS CHILMAKURI: I recall Mr. Burke did
3 state that he thinks the increase is because of salt --
4 reduction in South Delta exports under WaterFix.

5 MR. RUIZ: Okay. And do you agree that, under
6 the WaterFix scenario, the South Delta export pumps
7 will be utilized less due to the North Delta Diversions
8 as compared to the current situation?

9 WITNESS CHILMAKURI: Yes, I agree that it is
10 possible that the South Delta exports would be lower
11 under WaterFix relative to the No Action Alternative.

12 MR. RUIZ: Do you think it's possible that
13 South Delta exports will be less through the South
14 Delta exports, or is it in fact are they going to be
15 less since there's going to be or there would be the
16 new Delta -- North Delta Diversion?

17 WITNESS CHILMAKURI: I think my answer is it
18 is possible.

19 CO-HEARING OFFICER DODUC: Ms. Ansley.

20 MS. ANSLEY: I know this is a belated
21 objection. I just didn't have -- didn't know if I
22 heard that correctly. But he said, "Is it possible
23 that the South Delta exports will be less due to the
24 South Delta exports." Is there -- was there a
25 clarification to what will be less?

1 I don't know what each individual heard, but
2 that's what the transcript now says.

3 MR. RUIZ: I think Dr. Chilmakuri heard it
4 correctly, but I'll say it again for clarification.

5 Do you believe that it's possible or it is a
6 fact that, if the project moves forward, the South
7 Delta export pumps will be used less as compared to how
8 they are used today?

9 CO-HEARING OFFICER DODUC: And his answer was
10 it's possible.

11 WITNESS CHILMAKURI: And now, actually, you
12 changed it a little bit because you -- you said "South
13 Delta pumps." So the pumps that -- what I was talking
14 about, the amount of water exported out of the
15 South Delta channels directly. That's what I was
16 referring to.

17 The pumps are the same pumps for both North
18 Delta Diversion and South Delta Diversion.

19 I don't know if that new answer is clearer,
20 but. . .

21 MR. RUIZ: Well, I'll try it this way. Will
22 there be less water diverted from the South Delta
23 through the South Delta export facilities under the
24 WaterFix scenario than as compared to today?

25 WITNESS CHILMAKURI: And as I said, it is

1 possible that Water -- under WaterFix, the exports from
2 the South Delta channels would be lower than No Action
3 Alternative.

4 MR. RUIZ: And do you agree that the operation
5 of the South Delta pumps exporting water from the South
6 Delta does result in a removal of salts from the South
7 Delta?

8 MR. MIZELL: I'm going to object to this line
9 of questioning.

10 Dr. Chilmakuri has presented rebuttal evidence
11 to Mr. Burke's claims about the accumulation of salt.
12 At no point did Mr. -- or Dr. Chilmakuri go into
13 Mr. Burke's reasoning as to where that salt was
14 originating vis-a-vis the South Delta Water Agencies'
15 argument about it recirculating from the San Joaquin
16 system.

17 Mr. Ruiz's question is going to whether or not
18 the export of water from the South Delta results in an
19 accumulation of salt on the San Joaquin River. That's
20 not part of Dr. Chilmakuri's rebuttal testimony.

21 CO-HEARING OFFICER DODUC: Ms. Ansley?

22 MS. ANSLEY: Yes, obviously, I concur with
23 this characterization. I would like to further clarify
24 that what Dr. Chilmakuri has done here is provided an
25 engineering critique of the analysis done by Dr. Burke.

1 So that is the scope of his rebuttal is the actual
2 technique of the analysis done in the salt loading.

3 So I think we had a little bit of these
4 problems yesterday where it was hard to keep the line
5 between the sort of methodological critique and then
6 maybe some broader issues that are at issue in the
7 Part 1 and 2 proceedings.

8 CO-HEARING OFFICER DODUC: Mr. Ruiz.

9 MR. RUIZ: I think it's much simpler than
10 that, and if I've confused it, then I apologize for
11 that.

12 He's testified that he definitely doesn't
13 agree with Mr. Burke's approach. And I've asked him
14 whether he's aware that the primary basis is the less
15 use of the South Delta pumps. He said that's a
16 possibility. Even though we're going to have North
17 Delta Diversions, he's saying it's a possibility they
18 would be used less. And I'm just simply following up
19 on that.

20 MR. MIZELL: So what we're seeing here -- very
21 similar to a series of objections that, of course, we
22 filed in Part 1 -- is that answers to questions that
23 are vaguely associated with testimony and are being
24 allowed because they're helpful, the answers to those
25 questions are now being used as a tool to extensively

1 broaden the scope of permissible cross-examination.

2 I don't believe that's an appropriate use of
3 an answer to a question. If Mr. Ruiz is intending by
4 his question to open the scope of cross, of course, the
5 Department would object as being beyond the scope of
6 Dr. Chilmakuri's testimony.

7 So I'd like to just point out that we have
8 objections to using the answer to one question that is
9 arguably on the edge of relevance to then open the
10 scope of cross-examination to something that's clearly
11 beyond the scope of relevance.

12 CO-HEARING OFFICER DODUC: In any case,
13 Mr. Ruiz, we have gotten several answers to your
14 questions. Is there any further need to delve deeper
15 into this line of questioning?

16 MR. RUIZ: I don't think so. I've kind of
17 forgotten where I last was. My questions were just
18 simply following responses that Dr. Chilmakuri gave
19 that I didn't even anticipate that he would answer them
20 in that way. So I was just following -- simply
21 following them up.

22 When he says it's his understanding that the
23 export facilities in the south would be possibly used
24 less than they currently are, that was worth exploring.

25 CO-HEARING OFFICER DODUC: And I was

1 interested as well, but I think we have gone down that
2 path as far as we're going to right now.

3 MR. RUIZ: I think so. His view is that, in
4 his mind, it's possible.

5 Just a couple of additional questions,
6 Dr. Chilmakuri. You critiqued Mr. Burke's analysis for
7 what you describe as using a single set of equations to
8 arrive at his EC-to-chloride conversion, correct?

9 WITNESS CHILMAKURI: Yes.

10 MR. RUIZ: Mr. Burke actually used four
11 different sets of equations to arrive at that
12 calculation; isn't that correct?

13 WITNESS CHILMAKURI: When I say "single set of
14 equations," he used four equations, one for each
15 different inflow point or outflow point. But it's
16 still one set of equations for all four locations. He
17 did not change those equations for, let's say -- for
18 example, let's get specific.

19 For the -- one of the entry points is on Old
20 River. And he used the same equation for Old River
21 under all 82-year period that he analyzed. That's what
22 I'm trying to say.

23 MR. RUIZ: But don't each of the equations
24 relative to the locations he utilized actually
25 represent the mix of sources of water for the DSM-2

1 model at those locations?

2 WITNESS CHILMAKURI: No. He derived those
3 equations based on historical information.

4 MR. RUIZ: I think we just have a
5 misunderstanding as to his approach, but that's fine.

6 WITNESS CHILMAKURI: Actually, I can point you
7 to where he, in his testimony, he defines how the
8 equations were developed.

9 MR. RUIZ: I just want to clarify. Is it your
10 understanding that he used a single equation or a
11 single set of equations or multiple equations to arrive
12 at his analysis or determination?

13 WITNESS CHILMAKURI: And as I explained, he
14 used four equations for four different inflow/outflow
15 points within -- for the subregion, but those equations
16 were exactly the same for all 82-year period. That's
17 the distinction I'm trying to make is you cannot use
18 those same equations for every flow condition.

19 MR. RUIZ: You indicated in your critique of
20 Mr. Burke's analysis that it would have been better for
21 him to have done a fingerprinting analysis in order to
22 analyze the salt flux or the residual salt in the South
23 Delta between the scenarios and the No Action
24 Alternative, correct?

25 WITNESS CHILMAKURI: Yes.

1 MR. RUIZ: Have you done such a fingerprinting
2 analysis?

3 WITNESS CHILMAKURI: Yes.

4 MR. RUIZ: Where is that fingerprinting
5 analysis found?

6 WITNESS CHILMAKURI: It was submitted in the
7 modeling files. We have discussed that at length
8 before.

9 MR. RUIZ: I'm sorry. It was submitted in the
10 modeling inference -- what did you say?

11 WITNESS CHILMAKURI: Modeling files with the
12 exhibits -- I believe for CWF H3+ it's DWR-1077, and
13 for No Action Alternative, it would be DWR-500.

14 MR. RUIZ: Just so I'm clear, it's your
15 response that the specific fingerprinting analysis
16 relative to Mr. Burke's analysis is found in DWR-1077?

17 WITNESS CHILMAKURI: I'm just saying -- I'm
18 answering your question, Mr. Ruiz, whether DWR did some
19 fingerprinting analysis. And we did the fingerprinting
20 analysis, and those results were submitted as part of
21 the exhibits.

22 MR. RUIZ: Right. And I'm just asking you
23 relative to the South Delta analysis that Mr. Burke
24 did, you've done one, and it's in DWR-1077. That's
25 your testimony?

1 WITNESS CHILMAKURI: I don't have any opinion
2 as to what Mr. Burke needs to use. I'm just saying we
3 did the analysis.

4 CO-HEARING OFFICER DODUC: I saw you,
5 Ms. Ansley, but Dr. Chilmakuri addressed that quite
6 appropriately.

7 MR. RUIZ: Previously in your testimony, I
8 think it was yesterday in response to some
9 cross-examination questions, you indicated that
10 petitioners, or particularly Met, do have some concerns
11 over salinity in the Delta, correct?

12 WITNESS CHILMAKURI: No. I responded to a
13 question Ms. -- from Ms. Taber whether Metropolitan is
14 concerned about salinity conditions in the Delta.
15 That's all. It was one response saying yes, of course
16 we are concerned about salinity conditions in the Delta
17 as other parties are.

18 MR. RUIZ: What locations in the Delta
19 specifically are you concerned about salinity?

20 MR. MIZELL: I'm going to object as being well
21 beyond his rebuttal testimony. Again, the use of an
22 answer to a peripheral question then opening up the
23 scope of his rebuttal to where Metropolitan is
24 concerned about salinity in the Delta, that is not part
25 of the testimony.

1 CO-HEARING OFFICER DODUC: It is if it links
2 back to Mr. Burke's analysis of salinity. But my
3 understanding of Dr. Chilmakuri's answer yesterday was,
4 again, it was a very brief answer of generally Met is
5 concerned about general salinity in the Delta.

6 So there was no specificity there, Mr. Ruiz.

7 MR. RUIZ: I think I have the right just to
8 follow up and ask him relative to the South Delta is
9 that an area where you're concerned or Met is concerned
10 or petitioners in this case, since you're here on
11 behalf of them, is concerned about salinity?

12 CO-HEARING OFFICER DODUC: And how does that
13 relate back to the rebuttal testimony that you are
14 cross-examining him on?

15 MR. RUIZ: Well, Mr. Burke's analysis is
16 related to the South Delta, and I'm just simply asking
17 him about his critique of that analysis. So it was
18 just a follow-up to his testimony from yesterday
19 because it was very vague or very short. I think I
20 have the right to follow up on it. It's simply what
21 I'm doing.

22 CO-HEARING OFFICER DODUC: Do you have
23 anything to add with respect to salinity as it relates
24 to Mr. Burke's analysis that you critiqued?

25 WITNESS CHILMAKURI: No, I don't have

1 anything. I think I offered all of my opinions as to
2 why I believe his analysis is incorrect.

3 MR. RUIZ: I don't have anything further.

4 Thank you.

5 CO-HEARING OFFICER DODUC: Thank you,

6 Mr. Ruiz.

7 Mr. Keeling.

8 Is someone here on behalf of Mr. Woelk? Ah,
9 good.

10 Good morning, Mr. Keeling. Your topics that
11 you will be exploring in your now 15 minutes of
12 cross-examination?

13 MR. KEELING: I hope you will appreciate that
14 I have tried to whittle it down. I'm not going to take
15 you through every paragraph of Dr. --

16 CO-HEARING OFFICER DODUC: Thank you.

17 MR. KEELING: -- Dr. Greenwood's testimony.
18 All my questions are for Dr. Greenwood. There are two
19 topics. One is the scope of his testimony, and the
20 other is microcystis.

21 CROSS-EXAMINATION BY MR. KEELING

22 Mr. Hunt, you might want to put up Mr. -- Dr.
23 Greenwood's testimony, DWR-1221 at Page 2, Lines 1
24 through 8.

25 Good morning, Dr. Greenwood.

1 WITNESS GREENWOOD: Good morning.

2 MR. KEELING: Could you please direct your
3 attention to Page 2 of your testimony. That's DWR-1221
4 at Lines 1 through 8. Take a moment to glance over
5 that. Let me know when you're finished.

6 WITNESS GREENWOOD: Yes, I've looked.

7 MR. KEELING: These lines list -- this
8 constitutes a list of the opinions you set forth in
9 your written testimony; is that correct?

10 WITNESS GREENWOOD: Yeah, these are the broad
11 topics that I address in my rebuttal testimony.

12 MR. KEELING: And looking at this, all of the
13 opinions you express in your testimony focus on the
14 protections to fish and the Bay-Delta ecosystem under
15 the CWF H3+ scenario; is that correct?

16 WITNESS GREENWOOD: Yes.

17 MR. KEELING: Am I correct in my recollection
18 that your written testimony in DWR-1221 does not
19 address any other operational scenarios besides CWF
20 H3+?

21 WITNESS GREENWOOD: There's I think brief
22 mention of -- I think I recall at least one brief
23 mention of another scenario that one of the witnesses
24 had raised for East Bay MUD, for example. That's one I
25 can think of in the context of the range that that

1 witness had discussed for adaptive management.

2 MR. KEELING: All right. Fair enough. But
3 I'm not asking you for a casual reference or reference
4 by some other witness. I'm asking about your opinions,
5 your six opinions.

6 Do you render any opinions in this written
7 testimony about the protective nature of the project
8 under any scenario under -- other than CWF H3+?

9 WITNESS GREENWOOD: I'm not recalling any.

10 MR. KEELING. Dr. Greenwood, are you familiar
11 with the petitioners' boundary approach used in their
12 request to the Board for a permit for WaterFix?

13 WITNESS GREENWOOD: I'm somewhat familiar with
14 it.

15 MR. KEELING: Well, let's take a look at
16 DWR-1008, Mr. Hunt. That's Ms. Buchholz' PowerPoint
17 from DWR's Part 2 case in chief, Slide No. 7.

18 CO-HEARING OFFICER DODUC: And before the
19 objections start, help me understand, Mr. Keeling,
20 where you're going, please.

21 MR. KEELING: As I said when I gave you my
22 topics, I want to understand what the scope of
23 Dr. Greenwood's testimony is and what -- more
24 importantly, what it is not.

25 CO-HEARING OFFICER DODUC: And you asked --

1 the questions that you've asked him to date point out
2 that his opinions are all focused on CWF H3+.

3 MR. KEELING: And I want to put that in
4 perspective to show what it is not.

5 CO-HEARING OFFICER DODUC: It is not. Okay.
6 I'm intrigued. Go ahead.

7 MR. KEELING: I could do it directly with a
8 simple question, but --

9 CO-HEARING OFFICER DODUC: Do it.

10 MR. KEELING: But it wouldn't make any sense
11 to a reader, such as a judge or appellate justice or
12 appellate staff attorney, later.

13 CO-HEARING OFFICER DODUC: Try it, and I'm
14 sure there will be an objection, and you'll be able to
15 explain, and it will get in the record, I'm sure. But
16 try it, Mr. Keeling.

17 MR. KEELING: Isn't it true, Dr. Greenwood,
18 that CWF H3+ denotes a set of proposed operational
19 criteria that falls within the range of alternatives
20 described as initial operating criteria? And if it
21 helps you, you can refer to the Slide 7 from DWR-1008
22 that Mr. Hunt has on the screen.

23 CO-HEARING OFFICER DODUC: Perfect.

24 WITNESS GREENWOOD: Can you repeat it just so
25 I can be accurate in my answer?

1 MR. KEELING: Isn't it true, Dr. Greenwood,
2 that CWF H3+ denotes a set of proposed operational
3 criteria that falls within the range of alternatives
4 described as initial operating criteria?

5 WITNESS GREENWOOD: I believe that's generally
6 an accurate characterization.

7 MR. KEELING: And looking at this graphic,
8 would you agree that the initial operating criteria are
9 bounded on one end by the operational criteria point
10 referred to as A4-H3 [sic] and on the other by the
11 operational criteria point referred to as A4-H4 [sic]?

12 WITNESS GREENWOOD: That's what the slide says
13 or seems to suggest.

14 MR. KEELING: Well, do I correctly understand
15 it that CWF H3+ is in fact a single operational
16 scenario located within the range of criteria referred
17 to as "Initial Operating Criteria"?

18 WITNESS GREENWOOD: Can you repeat that
19 question, please?

20 MR. KEELING: You want the question back?

21 WITNESS GREENWOOD: Yes, please.

22 MR. KEELING: Is it correct that CWF H3+ is in
23 fact a single operational scenario located within the
24 range of operational criteria referred to as "Initial
25 Operating Criteria"?

1 WITNESS GREENWOOD: I don't know if I can -- I
2 don't know if there's anyone else on the panel that
3 could give a better response to it.

4 MR. KEELING: I'm sorry. I can't hear you.

5 WITNESS GREENWOOD: I wouldn't want to
6 mischaracterize.

7 CO-HEARING OFFICER DODUC: Dr. Greenwood, we
8 can't hear you.

9 WITNESS GREENWOOD: Sorry. I was just
10 wondering if someone else on the panel might have a
11 better response. I don't have a succinct response.

12 CO-HEARING OFFICER DODUC: Are you familiar
13 with 4A-H3 and 4A-H4?

14 WITNESS GREENWOOD: Yes, I'm generally
15 familiar with them.

16 CO-HEARING OFFICER DODUC: Generally. And
17 you're not able to answer Mr. Keeling's question?

18 WITNESS GREENWOOD: Which was that the --

19 CO-HEARING OFFICER DODUC: I mean, if you're
20 not able to --

21 WITNESS GREENWOOD: I was suggesting if there
22 was others on the panel that may have a better
23 response.

24 WITNESS CHILMAKURI: Mr. Keeling, could you
25 repeat the question, please.

1 MR. KEELING: Well, I think the illustration
2 says it all. But isn't it true that CWF H3+ is a
3 single operational scenario located within the range of
4 operational criteria referred to as "Initial Operating
5 Criteria"?

6 WITNESS CHILMAKURI: It is a single
7 operational scenario. Also, I would like you to --
8 everyone to see that the depiction is in terms of the
9 Delta outflow requirements. So it's not necessarily
10 saying every single criteria is within that range.

11 MR. KEELING: Dr. Greenwood, in their
12 petition, the petitioners have asked the State Water
13 Board for a permit that would allow WaterFix to operate
14 within a range that extends beyond the initial
15 operating criteria; isn't that correct?

16 WITNESS GREENWOOD: I'm not -- I mean, I'm
17 generally familiar, but I would probably defer to panel
18 members that were more involved in Part 1, I think,
19 where this was more discussed.

20 MR. MIZELL: I'd like to lodge an objection.
21 To the extent that Mr. Keeling can tie this back to
22 rebuttal testimony, I'm happy to explore it as it's a
23 valuable point, but I don't believe that he's made that
24 showing yet.

25 CO-HEARING OFFICER DODUC: Mr. Keeling, I did

1 wonder where you were going with this because, again,
2 Dr. Greenwood's testimony focused on just CWF H3+.

3 MR. KEELING: That's my point, that he --
4 Dr. Greenwood is responding to a bunch of witnesses
5 whose statements --

6 CO-HEARING OFFICER DODUC: And is this
7 something that's going into your closing briefs as an
8 argument?

9 MR. KEELING: No. You asked me to link it up,
10 and I'm doing that.

11 The witnesses whose testimony Dr. Greenwood is
12 attempting to rebut gave testimony about the effects of
13 WaterFix on fish and the ecosystem that went well
14 beyond the initial operating criteria and certainly
15 well beyond CWF H3+. He has responded with six
16 opinions that are limited strictly to CWF H3+.

17 CO-HEARING OFFICER DODUC: Yes.

18 MR. KEELING: It is as if I said something
19 about a range like this and somebody said, "Well,
20 that's not true as to this point on the spectrum."

21 My point is, so what? In other words, his
22 testimony is of de minimis value. That's why I'm
23 asking these questions.

24 Does that link it up satisfactorily?

25 CO-HEARING OFFICER DODUC: Mr. Mizel.

1 MR. MIZELL: Yeah, I would say based upon
2 Mr. Keeling's explanation, this line of questioning is
3 beyond the scope of his rebuttal testimony.

4 To the extent that Mr. Keeling would like to
5 impeach the weight of the evidence, that is something
6 that would be appropriate in his closing brief.

7 CO-HEARING OFFICER DODUC: All right.
8 Anything else to add, Ms. Ansley?

9 MS. ANSLEY: Yes. I would add -- and I think
10 I can hand this over to Mr. Bezerra in a minute. But I
11 would add that, if his concern is the specific rebuttal
12 to specific witnesses that Dr. Greenwood identifies in
13 his testimony, then when he gets to those points in
14 Dr. Greenwood's testimony, he can ask specific
15 questions about the witnesses he's rebutting.

16 To ask upfront sort of overall modeling
17 operational scenarios is beyond the scope of
18 Dr. Greenwood's testimony, who has been asked and
19 answered exactly which scenarios he himself did
20 identify.

21 So I would say that this testimony is now
22 verging into irrelevant and outside the scope when not
23 framed properly in the points that Dr. Greenwood is
24 raising.

25 CO-HEARING OFFICER DODUC: Mr. Bezerra.

1 MR. BEZERRA: Yeah, I'd like to support
2 Mr. Keeling generally in that all he's attempting to do
3 is establish the scope of what the witness's analysis
4 was on rebuttal.

5 CO-HEARING OFFICER DODUC: And he has
6 established it.

7 MR. BEZERRA: And to Mr. Mizell's point that
8 attempting to impeach a witness is a subject for
9 closing briefs, that's simply incorrect.

10 Obviously, impeaching a witness's credibility
11 and the credibility of an analysis is the key function
12 of cross-examination.

13 CO-HEARING OFFICER DODUC: And I understand
14 that cross-examination lays the foundation for that
15 which, again, I believe Mr. Keeling has done.

16 But continue.

17 MS. DES JARDINS: Deirdre Des Jardins. I
18 would like to support Mr. Keeling, and I also note
19 that, to the extent this CWF H3+ modeling is the basis
20 for Mr. Greenwood's -- is it "Mr. Greenwood" or
21 "Dr. Greenwood's" opinion as an expert, then it is
22 highly significant if he does not actually understand
23 the relationship of CWF H3+ to the actual potential
24 range of either initial or longer-term operating
25 criteria. And it is a very legitimate topic for

1 cross-examination.

2 CO-HEARING OFFICER DODUC: Mr. Jackson.

3 MR. JACKSON: In regard to impeachment, it can
4 only happen here because it will not -- Dr. Greenwood
5 will not be present in a trial. So this is the only
6 place to test what the limitations are on his rebuttal
7 to the points made by everyone else. So it has to be
8 done with him here.

9 CO-HEARING OFFICER DODUC: All right. Having
10 heard all that, Mr. Keeling, do you have anything else
11 to add before I rule?

12 MR. KEELING: Well, I appreciate all these
13 excellent minds supporting me, but I think, in a sense,
14 you're right. I've made the point.

15 CO-HEARING OFFICER DODUC: You've made the
16 point.

17 MR. KEELING: I think I can make it -- I can
18 make it conclusively with one more question.

19 CO-HEARING OFFICER DODUC: Actually, what I'm
20 going to do is -- and again, I believe you laid the
21 foundation and you made your point. But I'm going to
22 use this opportunity to remind everyone that the scope
23 of rebuttal testimony defines the appropriate scope for
24 cross-examination, not the scope of the case-in-chief
25 testimony that was rebutted.

1 So let me see if I can say that again. The
2 scope of rebuttal testimony is what determines the
3 scope of cross-examination, not the scope of the
4 case-in-chief testimony that is being rebutted. Let's
5 try to keep that in mind.

6 MR. KEELING: I fully understand and agree
7 with that, which is why my last question on this line
8 with Dr. Greenwood is, going back to DWR-1221,
9 Mr. Hunt, which is the witness's written testimony,
10 Page 2, Lines 1 through 8.

11 So going back to this page, Dr. Greenwood,
12 you've already testified that all of the six opinions
13 you reference here about reasonable protection of fish
14 and the Bay-Delta ecosystem are based on the CWF H3+
15 operational scenario.

16 So isn't it true, then, that your written
17 Part 2 rebuttal testimony expresses no opinion about
18 the effects of operational scenarios other than CWF
19 H3+?

20 WITNESS GREENWOOD: My focus is on CWF H3+.

21 MR. KEELING: Dr. Greenwood, please take a
22 look at Page 28 of your written testimony, which is
23 DWR-1221.

24 CO-HEARING OFFICER DODUC: And I believe
25 you're moving on to your second topic?

1 MR. KEELING: I only have a couple of
2 questions here.

3 CO-HEARING OFFICER DODUC: All right.

4 MR. KEELING: It will be very short.

5 Lines 16 through 21, Mr. Hunt.

6 Dr. Greenwood, I would direct your attention
7 to this very short section entitled "Microcystis," and
8 let me know after you've had a chance to review that.

9 WITNESS GREENWOOD: I have.

10 MR. KEELING: Okay. As I understand it, this
11 is your rebuttal to Dr. Rosenfeld's opinion that the
12 operational effects of CWF H3+ are likely to increase
13 the frequency of harmful algal blooms including
14 microcystis. Am I understanding this correctly?

15 WITNESS GREENWOOD: That's correct.

16 MR. KEELING: And in Lines 19 through 21, you
17 refer to your prior testimony, which in turn referred
18 to the testimony provided by Dr. Bryan in Exhibit
19 DWR-81; is that correct?

20 WITNESS GREENWOOD: Yes, I do.

21 MR. KEELING: In DWR-1221, your Part 2 written
22 rebuttal testimony, do you offer any new evidence to
23 rebut Dr. Rosenfeld on the question of microcystis? By
24 which I mean any evidence not already part of the
25 proceeding before you prepared DWR 1221.

1 WITNESS GREENWOOD: Sorry. Can you repeat
2 that question?

3 MR. KEELING: Do you provide any new evidence
4 to rebut Mr. Rosenfeld's testimony that was not already
5 part of this proceeding before you prepared this
6 exhibit?

7 WITNESS GREENWOOD: I'm referring -- no. I
8 mean, I'm referring again to what I referred to in my
9 previous testimony.

10 MR. KEELING: And you did prepare DWR-1221
11 yourself; is that correct?

12 WITNESS GREENWOOD: I did, yes.

13 MR. KEELING: Did anyone assist you in that?

14 WITNESS GREENWOOD: No, other than minor
15 review for formatting and so on.

16 MR. KEELING: Dr. Greenwood, thank you very
17 much. That's all I have for you.

18 CO-HEARING OFFICER DODUC: Thank you,
19 Mr. Keeling.

20 With that, we'll take our morning break and we
21 will return at 11:15 with cross-examination by -- not
22 Mr. Woelk.

23 (Recess taken)

24 CO-HEARING OFFICER DODUC: It's 11:15. We're
25 back. And before we turn to Mr. Keller for his

1 cross-examination, let's do a time check.

2 I have 45 minutes, Mr. Keller?

3 MR. KELLER: I think I'll be concluding well
4 before that based on some of the questions that have
5 already been asked. But -- so I'd say on the order of
6 20 minutes, if you need an estimate.

7 CO-HEARING OFFICER DODUC: All right. And
8 then Mr. Emrick.

9 MR. EMRICK: I think we're down to about 15
10 minutes.

11 CO-HEARING OFFICER DODUC: All right. Then
12 what I would like to do -- that should then get us to
13 around the noon-ish hour. We'll take our lunch break
14 then. And when we return, we will turn to Mr. Jackson
15 for his cross, and then after Mr. Jackson, Ms. Womack.

16 Sounds good? Hold on. Maybe not.

17 MS. WOMACK: Yeah. I need --

18 MR. EMRICK: Ms. Womack submitted some written
19 questions.

20 MS. WOMACK: As per your directions.

21 MR. EMRICK: And was wondering if that's
22 sufficient or whether she should ask those question now
23 on cross-examination.

24 CO-HEARING OFFICER DODUC: Ms. Womack, we
25 asked you to submit questions for -- actually, let me

1 rephrase that -- submit any additional questions you
2 had for Panel 1 or questions -- I'm sorry -- additional
3 questions for -- well, regarding water rights. I'm
4 trying to remember now.

5 This is back to your request that the entirety
6 of witnesses from Part 1 be recalled so that you may
7 ask them questions about potential impacts on your
8 water rights.

9 Our ruling was that, while we acknowledge you
10 certainly have -- should have the opportunity to ask
11 those questions, we thought that those questions might
12 be asked during your cross-examination of DWR's
13 witnesses. And to the extent that they were not
14 answered as part of your cross-examination of Panel 1,
15 you were to submit those questions by noon today, which
16 I believe you have. We haven't had a chance to read
17 it. And we gave DWR petitioners as well as other
18 parties until Tuesday noon to respond.

19 So at this time, I do not have a response for
20 you. I will say though, that, if you have specific
21 questions for this panel with respect to their rebuttal
22 testimony for Part 2 and if -- I'm not sure if any of
23 them are able to answer water rights-related questions,
24 but you should take the opportunity this afternoon to
25 ask questions of this panel.

1 MS. WOMACK: I'm a little confused because I
2 have a lot of questions regarding flow in the
3 Delta-Mendota intake and a lot of water things that I
4 don't believe are in any of the rebuttals.

5 MR. EMRICK: I think that's part of the
6 problem is that the project has changed so much, so
7 there's new questions.

8 CO-HEARING OFFICER DODUC: Mr. Emrick, I need
9 you to speak into the microphone, please, for the sake
10 of those watching the webcast.

11 MR. EMRICK: Thank you. Matthew Emrick.

12 The project has changed now significantly as
13 to CCLP. Some of the questions that Ms. Womack has
14 could be relevant to this panel but would go probably
15 beyond the scope of their rebuttal.

16 We've been talking about keeping it narrow to
17 the rebuttal, but she would be asking questions perhaps
18 on what the impacts might be to her diversions, what
19 the impacts would be to seepage, what modeling has been
20 done with respect to the new facilities. And those
21 might go beyond what their rebuttal is. So it's kind
22 of tricky.

23 CO-HEARING OFFICER DODUC: It might go beyond
24 their rebuttal, but are they -- are those questions the
25 result of the change that has been proposed in the

1 project and as reflected in the Supplemental EIR?

2 MR. EMRICK: Yes.

3 CO-HEARING OFFICER DODUC: Then that would be
4 within the scope of so-called rebuttal.

5 MR. EMRICK: Thank you.

6 MS. WOMACK: Thank you.

7 CO-HEARING OFFICER DODUC: All right.

8 Mr. Keller.

9 CROSS-EXAMINATION BY MR. KELLER

10 MR. KELLER: Thank you. Curtis Keller for
11 Contra Costa County, Contra Costa County Water Agency,
12 and with Solano County. We're Group 25.

13 My questions will be regarding the Second
14 Revised DWR-1143 and will be primarily for Mr. Reyes.

15 So if we could -- maybe it will help to bring
16 up DWR-1143 just because I will reference it in a few
17 of the questions I'm going to ask, please.

18 If we could start at Page 7 and focus on the
19 portion of the tables -- of the table with respect to
20 Rio Vista minimum flow standard. I guess it's the
21 fourth row from the top.

22 So, Mr. Reyes, can you clarify that the
23 January-through-August minimum flow of 3,000 cfs at
24 Rio Vista is not part of the project? That's what
25 the -- under the "Adopted Project Criteria," it's not

1 listed there. So I just want to clarify that it's not
2 part of the project.

3 WITNESS REYES: That's correct. There is no
4 January-through-August new Rio Vista standard proposed
5 in the project.

6 MR. KELLER: And that is different than the
7 modeling assumption that's reflected in the next column
8 over which does reflect the minimum flow requirement of
9 3,000 cfs, correct?

10 WITNESS REYES: Yes, that's correct.

11 MR. KELLY: So did DWR do any additional
12 modeling of WaterFix without the January-through-August
13 Rio Vista minimum flow standard?

14 WITNESS REYES: I myself looked at a
15 sensitivity analysis that looked at that specific
16 thing, removing the new January-through-August Rio
17 Vista standard that is separate from D1641, and looking
18 at that and comparing that with what was submitted for
19 CWF H3+.

20 And the results that I looked at showed that
21 the difference between the two is -- was very minimal.
22 And for major -- I guess, for major outputs of interest
23 with regard to CalSim, there's less than a 0.05 percent
24 difference between those two model runs that I looked
25 at.

1 MR. KELLER: Mr. Reyes, do you know whether
2 the petitioners' other expert witnesses with respect to
3 fisheries, hydrology, water quality were able to review
4 those models, your sensitivity analysis, et cetera, and
5 base their opinions on that modeling?

6 WITNESS REYES: No, that was not provided --
7 well, yeah. That information or the models were not
8 provided to the other panel members because they're not
9 CalSim modelers.

10 But just looking at the different flows and
11 the different storages and the averages over long term,
12 different year types and over exceedance probabilities,
13 the two are so almost identical that I don't think they
14 would have a different opinion.

15 MR. KELLER: Okay. But they didn't -- and, I
16 mean, the petitioners' fishery, water quality,
17 hydrology experts that have made opinions in these
18 proceedings, they didn't review that modeling and base
19 their opinions on that modeling; is that correct?

20 WITNESS REYES: That's correct. They reviewed
21 and made their opinions on the submitted CWF H3+ model.

22 MR. KELLER: Thank you.

23 Do you know whether the other parties to this
24 hearing have been able to review and analyze that
25 additional modeling that you referenced as part of this

1 hearing?

2 WITNESS REYES: That model was going to be
3 submitted, but it was stricken from -- from -- or my
4 testimony on that very topic was stricken, so it was
5 not provided to the Board.

6 However, I think a couple different parties
7 requested that information of DWR individually, and
8 they were provided that information.

9 MR. KELLER: So just one last question just to
10 wrap up. So acknowledging that several parties
11 requested and received that information, it hasn't been
12 included as part of this proceeding, though?

13 WITNESS REYES: No, it hasn't.

14 MR. KELLER: Thank you.

15 So I'm going to move to a different topic now.

16 WITNESS REYES: I just want to clarify,
17 though.

18 However, there are exhibits that are on the
19 Board website that have that output on there. I think
20 DWR-1292 is the exhibit number.

21 MR. KELLER: Are you referencing the technical
22 memo?

23 WITNESS REYES: Yes.

24 MR. KELLER: And the modeling that you
25 described is included in the technical memorandum?

1 WITNESS REYES: The model results.

2 MR. KELLER: The model results are included in
3 there?

4 WITNESS REYES: (Nods head)

5 MR. KELLER: Okay. Thank you for that
6 clarification.

7 If we could just keep on 1143, please, for
8 this next set of questions, and specifically on Page 4
9 talking about South Delta operations.

10 So I'm going to reference the first bullet
11 point, which says "October-November" under the "CWF
12 Adopted Project Criteria" for October and November
13 South Delta operations "To be determined based on
14 real-time operations and protection of the D1641 San
15 Joaquin River two-week pulse."

16 Mr. Reyes, referring to that bullet point, can
17 you clarify whether or not that includes the negative
18 5,000 cfs limit for OMR in October and November?

19 WITNESS REYES: I think Dr. Chilmakuri would
20 be better to answer this question.

21 MR. KELLER: Okay.

22 WITNESS CHILMAKURI: Could you please restate
23 the question?

24 MR. KELLER: I'm just -- yes. I'm asking
25 whether the bullet point with respect to October and

1 November, whether that includes the negative 5,000 cfs
2 limit on OMR in October and November.

3 WITNESS CHILMAKURI: Are you asking me whether
4 the modeling includes --

5 MR. KELLER: No. I'm sorry. I'm referring to
6 the CWF adopted project criteria. And for October and
7 November, it talks about that the South Delta
8 operations will be determined based on real-time
9 operations and protection of the D1641 San Joaquin
10 River two-week pulse.

11 And I'm asking just for clarification whether
12 that includes the negative 5,000 cfs limit on OMR?

13 WITNESS CHILMAKURI: No.

14 MR. KELLER: Okay. So then the next column
15 over, which lists the modeling assumptions, it says
16 that they are the same as the adopted project criteria.

17 So Mr. Reyes, what, if any, model assumptions
18 are included in the CalSim model that represent the
19 adopted project criteria for October-November?

20 WITNESS CHILMAKURI: I'll answer that question
21 again.

22 The -- for October and November, there is no
23 additional OMR restriction in CWF H3+. As it states
24 there, it is going to be based on real-time operations.
25 And we have testified already that it is difficult to

1 represent real-time operations in CalSim II. So there
2 is no reflection of the real-time operations piece.

3 But -- and also there is no other OMR
4 requirement for October and November.

5 MR. KELLER: I appreciate that. I was just
6 trying to clarify. So thank you very much for that.

7 Can we just scroll down to -- so maybe I
8 should -- I am just looking to clarify. So I
9 appreciate your -- so my questions were going to be
10 regarding Footnote 32, next. And it's a little long
11 and somewhat convoluted.

12 So I just would like some assistance in maybe
13 unpacking what's in there. I think it might have been
14 copied and pasted from another document. So some of
15 the references therein, they refer to the Biological
16 Opinion. And I want to make sure that I'm
17 understanding how we got to the list of adopted project
18 criteria and the CalSim assumptions.

19 So the last part of Footnote 32 says that
20 "Therefore, it was determined no changes to CalSim II
21 modeling assumptions or performance of additional
22 analysis was necessary."

23 Can you just clarify why this footnote is
24 included and why that statement is made here when this
25 document, DWR-1143, was prepared?

1 MR. BERLINER: Objection, compound question.

2 Just break it to two questions. If it's
3 unclear, you asked why the footnote was included. The
4 second question was to explain that last part.

5 MR. KELLER: Okay. Well, I'm more interested
6 in the second. Can you explain what was meant that it
7 was determined that no changes to the CalSim modeling
8 assumptions were necessary?

9 WITNESS CHILMAKURI: So the footnote was in
10 the Revised Biological Assessment. And when I was
11 preparing this table, I just brought that footnote
12 along with it.

13 But I understand the intent of that footnote
14 is -- it's referring to the sensitivity analysis that
15 was included in the document that was called out after
16 Final EIR/EIS. I believe that was SWRCB-108, I think.
17 That's the exhibit number -- where the petitioners
18 conducted a sensitivity analysis to show that the
19 CWF H3+ criteria and compared that to BA H3+ and showed
20 that the incremental differences are -- would not
21 change the conclusions that were already presented.
22 And this footnote is trying to capture that.

23 MR. KELLER: Thank you.

24 Okay. I think I'll move on, then, to my last
25 line of questions. And if we can go to Page 7, the

1 portion of the table with respect to the
2 export-to-inflow ratio, I'm interested in the second
3 bullet under the "Adopted Project Criteria" that starts
4 with "The D1641 export flow [sic] ratio calculation was
5 largely designed to protect fish from South Delta
6 entrainment."

7 Mr. Reyes, what was the basis for the -- or
8 Dr. Chilmakuri, what was the basis for including that
9 statement, specifically "largely designed to protect
10 fish from South Delta entrainment"?

11 WITNESS CHILMAKURI: It was based on the
12 information we've obtained from the -- the 1995
13 Bay-Delta Water Quality Control Plan update process,
14 which is where the export/inflow ratio standard was
15 proposed and adopted during the -- through that
16 process.

17 And in proposing that requirement -- I don't
18 remember the exact documents, but it was in one of the
19 EIRs that was used in the process. And it was
20 described like the -- as stated there, the inflow -- or
21 export-to-inflow ratio calculation was largely designed
22 to protect fish from South Delta entrainment.

23 MR. KELLER: Recognizing that I've heard you
24 say that you don't recall which EIR or document that it
25 was described in this fashion, it isn't in D1641 or

1 some other regulatory document that actually imposes
2 the criteria of the condition?

3 WITNESS CHILMAKURI: Yes, the criteria itself
4 is defined in or described in D1641. And the way the
5 criteria is described is that inflows will be
6 measured -- actually, rather than me guessing where the
7 inflow -- exactly what the criteria is saying, the
8 criteria says what it says.

9 But it does not describe why the criteria was
10 proposed, and that's what I'm trying to get to. That
11 statement was based on -- when we tried to research why
12 that criteria was proposed, that's where we found that
13 the criteria was proposed for entrainment.

14 MR. KELLER: Thank you. That is where I was
15 trying to get. I just want to make sure that I capture
16 and summarize that the criteria is laid out in the
17 regulatory document, but it doesn't specify that it was
18 largely designed to protect fish from the South Delta
19 entrainment. That was something that came -- or,
20 excuse me.

21 The regulatory document D1641 doesn't specify
22 that, correct?

23 WITNESS CHILMAKURI: Sitting here, yeah, I
24 cannot recall whether it said that exact sentence or
25 not.

1 MR. KELLER: Okay. Thank you very much.

2 I think I'm actually done. So I appreciate
3 Mr. Reyes' and Mr. Chilmakuri's time.

4 CO-HEARING OFFICER DODUC: Thank you,
5 Mr. Keller.

6 Mr. Emrick.

7 And as Mr. Emrick is setting up, I don't
8 know -- I can't recall whether I made this announcement
9 or not, but in case, I wanted to remind everyone, on
10 Monday we actually will be convening at the Central
11 Valley Regional Water Board office in Rancho Cordova.
12 So please don't come here if you plan on participating
13 in the WaterFix hearing.

14 MR. EMRICK: Thank you. Matthew Emrick for
15 City of Antioch. My questions are probably going to be
16 primarily for Dr. Chilmakuri.

17 Could we have his testimony, DWR-1217, put up
18 just in case we need to reference it.

19 My topic areas are going to be real quick.
20 I'm going to ask him a little bit about Opinion 2,
21 increase in exports; Opinion 5, salinity standards at
22 Antioch. I'll ask him a little bit about his testimony
23 on Fall X2 and then a little bit about C&H Sugar.

24 EXAMINATION BY MR. EMRICK

25 MR. EMRICK: I think what I wanted to start

1 off with is just to confirm that Mr. Etheridge, when he
2 was doing his cross-exam for East Bay MUD, he confirmed
3 with you, did he not, that it is your understanding
4 that there will be months -- and this has to do with
5 increase in exports -- that there will in fact be
6 months in which exports are greater under CWF H3+ than
7 they will be under the NAA; is that correct?

8 WITNESS CHILMAKURI: No, I don't recall that.
9 Sorry.

10 MR. EMRICK: Well, let me ask you. Is it your
11 understanding that there will be months in which
12 exports of the South Delta pumping facilities, under
13 CWF H3 will be greater than the No Action Alternative?

14 WITNESS CHILMAKURI: Could you -- I didn't
15 catch which scenario you said there.

16 MR. EMRICK: Sure. I think your statement is
17 that exports at the South Delta -- it's Opinion 2.
18 Maybe we can go to Opinion 2, Page 6, I believe.

19 You state, in your opinion, that exports at
20 South Delta State Water and at CVP pumping facilities
21 under CWF H3+ are not expected to be greater than the
22 No Action Alternative.

23 Is it your understanding that the modeling
24 actually shows that there will be months in which
25 exports under H3+ are greater than the No Action

1 Alternative?

2 MR. MIZELL: I'm going to object as vague and
3 ambiguous.

4 Is Mr. Emrick limiting his question to the
5 scope of the rebuttal testimony? It only addresses the
6 months of April and May. It's stated in that
7 paragraph.

8 CO-HEARING OFFICER DODUC: Sustained.

9 MR. EMRICK: Let me ask you, did you rely
10 solely on probability exceedance diagrams of the
11 long-term monthly average South Delta exports to form
12 your opinion?

13 CO-HEARING OFFICER DODUC: I'm sorry. That
14 would be only for April and May, correct?

15 MR. EMRICK: That's what we're limiting it to,
16 yes.

17 WITNESS CHILMAKURI: I relied on the
18 probability of exceedance graphs as shown as Figure 3
19 and Figure 4 in my testimony, but they are not
20 long-term average. I would like to correct that
21 because those are in 82 individual months for each
22 scenario. I'm sorry, 82 individual years, I mean. So
23 it's not an average -- one number. It's 82 individual
24 numbers that we are comparing there.

25 MR. EMRICK: Okay. Did you rely on anything

1 else?

2 WITNESS CHILMAKURI: No. That's it.

3 MR. EMRICK: Can I go to Page 11, Opinion 5.

4 You state that the applicable salinity
5 requirements for City of Antioch M and I use will
6 continue to be met; is that correct?

7 WITNESS CHILMAKURI: Yes.

8 MR. EMRICK: Is that based solely upon D1641
9 standards?

10 WITNESS CHILMAKURI: I was saying D1641 or if
11 any other requirements that would be imposed would be
12 met.

13 MR. EMRICK: So that is -- that would include,
14 then, the thresholds of significance for bromides that
15 are set forth in CWF EIR?

16 WITNESS CHILMAKURI: I don't know whether
17 those thresholds are regulatory requirements or if they
18 were just used for an impact analysis in abundance of
19 caution. As long as they are regulatory requirements,
20 they would be met.

21 MR. EMRICK: Isn't it true that a threshold of
22 250 milligrams per liter chloride results in a bromide
23 level of 890 micrograms per liter?

24 MR. MIZELL: I'm going to object --

25 MR. EMRICK: Let me ask it more simply.

1 Isn't it possible that, if you're meeting a
2 chloride standard of 250 milligrams per liter at an
3 M and I diversion, that you could be exceeding the
4 bromide levels set forth in the EIR?

5 WITNESS CHILMAKURI: Again, I don't know
6 whether they are --

7 CO-HEARING OFFICER DODUC: Hold on for a
8 second. I believe your counsel was going to object.

9 MR. MIZELL: I'm -- yeah, I'll renew my
10 objection with the understanding that maybe Mr. Emrick
11 can tie this to the rebuttal testimony, but I would
12 like that showing of proof.

13 Dr. Chilmakuri does not describe bromides at
14 all. He focuses on EC and chlorides. And to the
15 extent that there are other analyses in the record that
16 go to bromides, it hasn't been shown they're connected
17 to his rebuttal testimony.

18 MR. EMRICK: Well, and that's what I was
19 asking. I asked him if this also included bromides,
20 and he seemed to indicate that it might also include
21 bromides.

22 CO-HEARING OFFICER DODUC: That was my
23 understanding.

24 WITNESS CHILMAKURI: I was generally saying
25 that, if there is a salinity requirement imposed, that

1 the projects would -- that would have to comply, they
2 would comply. That's all I was trying to say.

3 CO-HEARING OFFICER DODUC: So, Mr. Emrick, are
4 you then -- is your offer of proof, then, that the
5 bromide is a salinity requirement?

6 MR. EMRICK: I'm saying that it's used as a
7 threshold of significance in the EIR to show negative
8 impacts or adverse impacts. I'm just asking whether or
9 not this statement he's also relating to the EIR with
10 respect to bromides.

11 WITNESS CHILMAKURI: And I actually clarified
12 that I don't know whether it was a regulatory
13 requirement or just a threshold of significance in an
14 abundance of caution. And if it is a regulatory
15 requirement, it would be. I explained that.

16 CO-HEARING OFFICER DODUC: Are you moving on,
17 or are you delving further? Because if you are going
18 to pursue the line of questioning regarding bromides,
19 then pursuant to Mr. Mizell's objection, I would need
20 you to make the linkage to Dr. Chilmakuri's rebuttal
21 testimony.

22 And the linkage I'm thinking you're trying to
23 make is to salinity requirements?

24 MR. EMRICK: Yes, and I think -- I don't want
25 to misstate the witness's testimony, but I was going to

1 move on because I think he's stated that it's his
2 opinion that applicable salinity requirements for City
3 of Antioch's M and I use will continue to be met.

4 And that would include bromides to the extent
5 that there is a regulatory threshold; is that correct?

6 WITNESS CHILMAKURI: And I would also like to
7 add, on par with the No Action Alternative. So it's
8 not going to be more or less than what No Action
9 Alternative is, that would be met under the No Action
10 Alternative.

11 MR. EMRICK: If we could go to Page 14 of your
12 testimony. I think it's the last line.

13 You have a statement that, "Petitioners
14 believe that the decision about including the Fall X2
15 requirement should be independent of the CWF change
16 petition proceeding and should be informed by best
17 possible science."

18 Can you explain to me what you mean by that
19 statement?

20 WITNESS CHILMAKURI: Sure. In Dr. Paulsen's
21 testimony for City of Antioch, she recommends including
22 Fall X2 as part of the WaterFix change petition to
23 protect against City of Antioch's M and I use.

24 And my argument here is that Fall X2 was
25 imposed on the projects by the U.S. Fish and Wildlife

1 Service in the year 2008 Biological Opinion for Delta
2 smelt. And it is a Delta smelt-related protection
3 action that was based on a scientific understanding
4 that was there in 2008.

5 And if the scientific understanding evolves so
6 at the time when both -- about the Delta smelts and its
7 need of whether or not there is a Fall X2 requirement
8 -- and Fish and Wildlife Services is free to change
9 their requirement, and the projects would operate to
10 whatever the new requirement would be.

11 It may not be Fall X2 requirement that was in
12 2008. And we have proved the -- we have demonstrated
13 repeatedly that, if the Fall X2 requirement will
14 continue forward, WaterFix would not affect City of
15 Antioch's salinity with respect -- when you compare it
16 to No Action Alternative, which included Fall X2.

17 MR. EMRICK: But if Fall X2 goes away somehow
18 or is modified, it's possible, is it not, that it would
19 change the impacts of CWF H3+?

20 WITNESS CHILMAKURI: If Fall X2 goes away,
21 then it would go away in No Action also.

22 MR. EMRICK: Yes, but if Fall X2 goes away, is
23 it your opinion or understanding that the impacts to
24 Antioch's M and I would be greater than presently
25 modeled?

1 CO-HEARING OFFICER DODUC: Hold on.

2 Ms. Ansley.

3 MS. ANSLEY: Asked and answered.

4 Dr. Chilmakuri just said that, if it went
5 away, it would go under the No Action Alternative
6 again. So he has indeed answered Mr. Emrick's question
7 about whether there would be impacts attributable to
8 the
9 CWF H3+.

10 But I'm happy to let Dr. Chilmakuri repeat his
11 answer, but that is the -- it's essentially the same
12 question with slightly different wording.

13 CO-HEARING OFFICER DODUC: Mr. Emrick, were
14 you going for something different?

15 MR. EMRICK: No. I wanted to understand that.
16 But I also wanted to understand if Dr. Chilmakuri has
17 any understanding that -- as to what happens if the
18 project's approved upon this modeling and somehow X2 is
19 eliminated as a requirement.

20 Does he have any understanding of a backup
21 plan to make sure that M and I is protected?

22 CO-HEARING OFFICER DODUC: And -- go ahead,
23 Ms. Ansley. Are you renewing your objection?

24 MS. ANSLEY: I'm not only renewing my
25 objection, I'm now adding that I think that would

1 beyond the scope of what he's doing here. What he's
2 doing here is rebutting Dr. Paulsen's testimony.

3 I understand that he testified that she had
4 recommended keeping Fall X2 as a condition in light of
5 Antioch's perceived impact. But Dr. Chilmakuri has
6 explained already his understanding of the reasoning
7 for Fall X2 and why Fall X2 is imposed on the projects,
8 and that, on Lines, I think, 23 through the end of the
9 page there, he has explained his understanding.

10 CO-HEARING OFFICER DODUC: Understood.
11 Sustained.

12 MR. EMRICK: I'd like to move on to Page 13,
13 Lines 2 through 5 where you talk a little bit about the
14 C&H Sugar. And I think here you state, "As cautioned
15 by Dr. Hutton," who will be testifying next week, "the
16 data presented in Exhibit Antioch-216," which is the
17 CCWD salinity report, "is not appropriate to consider
18 because it appears to be shifted in time" -- "forward
19 in time by half a month, resulting in a biased
20 reporting related to the timing of initial and peak
21 seawater intrusion.

22 My question is, is that based on the chart,
23 the graph that is in Antioch-216, the CW -- the Contra
24 Costa Water District salinity study?

25 WITNESS CHILMAKURI: My statement is simply

1 based on Dr. Hutton's testimony.

2 MR. EMRICK: And nothing else?

3 WITNESS CHILMAKURI: Correct.

4 MR. EMRICK: You did no other independent
5 study?

6 WITNESS CHILMAKURI: No.

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

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

11 With that, we will take an early lunch break
12 and return at 12:50.

13 (Whereupon, the luncheon recess was taken at
14 11:51 a.m.)

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1 AFTERNOON SESSION

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3 (Whereupon, all parties having been
4 duly noted for the record, the
5 proceedings resumed at 12:50 p.m.)

6 CO-HEARING OFFICER DODUC: All right,
7 everyone, it's 12:50. Welcome back. Are there any
8 housekeeping matters you need to address?

9 (No response)

10 CO-HEARING OFFICER DODUC: If not, then we
11 will turn to Mr. Jackson and Mr. Shutes for their
12 cross-examination of this panel, after which we'll get
13 to Ms. Womack. And then we will adjourn for the week,
14 and we will reconvene on Monday at the Central Valley
15 Regional Water Board offices in Rancho Cordova.

16 We will have three remaining
17 cross-examinations to conduct: NRDC, Ms. Des Jardins,
18 and then Ms. Meserve's on behalf of -- I think it was
19 both LAND and her other organizations.

20 Mr. Mizell.

21 MR. MIZELL: Yes, thank you. So based upon
22 the remaining time estimates for Monday morning, my
23 expectation is that we would get to Panel 3 after the
24 lunch break. Should I have my witnesses show up
25 earlier than that?

1 CO-HEARING OFFICER DODUC: I have right now an
2 estimate of two hours from NRDC, two and a half hours
3 for Ms. Des Jardins and two hours for Ms. Meserve --
4 one hour for Ms. Meserve.

5 So, yes -- well, depends on whether or not
6 there is redirect, recross. But it's very likely that
7 we will get to your third panel -- which now also
8 includes the two witnesses we moved from this panel --
9 later in the day.

10 MR. MIZELL: Thank you.

11 CO-HEARING OFFICER DODUC: And should we get
12 there, how long do you estimate needing for direct? I
13 ask only because we may not be able to accommodate all
14 of your direct testimony on Monday, and that way, you
15 might want to think about which witnesses you want to
16 be there Monday afternoon.

17 MR. MIZELL: Direct testimony looks like it's
18 about an hour.

19 CO-HEARING OFFICER DODUC: Oh, okay. We'll
20 see what happens then.

21 All right. With that, Mr. Jackson.

22 MR. JACKSON: Yes, in terms of housekeeping,
23 the way we intend to use our two hours is that
24 Mr. Shutes will use the first hour, and we'll deal with
25 1146, 1143, and other questions which he has of a

1 number of the witnesses. And then I will, when he's
2 finished or -- we've decided he's finished, I will do
3 what I can with what time remains.

4 And my questions will be for Dr. Greenwood
5 extensively and Mr. Wilder. And I think we both have a
6 few questions for Mr. Chilmakuri.

7 CO-HEARING OFFICER DODUC: All right. As you
8 know by now my fondness for efficiency, but even more
9 important than efficiency is effectiveness. And while
10 I do try to keep everyone on the clock and moving as
11 efficiently as possible, it is important that we get
12 clarity where it is necessary and that the record is
13 valuable to all of us in this important matter.

14 So I have been generous with -- well, for
15 example, Mr. Bezerra because his cross-examination did
16 move at a quick pace. It covered a lot of ground, was
17 fruitful, and of course he was the first
18 cross-examiner. So we've got a lot of ground to cover.

19 So Mr. Shutes, Mr. Jackson, as long as your
20 cross-examination is productive, useful, and it is not
21 re-covering old grounds, we will see what we can cover.
22 All right?

23 MR. SHUTES: Very good. Thank you.

24 Chris Shutes for California Sport Fishing
25 Protection Alliance. The topics I'm going to cover,

1 I'm going to start with Dr. Chilmakuri and Exhibit
2 DWR-1143 2nd Revision primarily.

3 And then I have questions for Ms. Parker and
4 Ms. White. And I will let them divide up who answers
5 appropriately, whether it's a modeling or operation
6 question. The questions I have for them go primarily
7 to how Ms. Parker or others modeled CVP Shasta
8 operations and how the Bureau of Reclamation implements
9 the CVP's operation of Shasta Reservoir.

10 They also go, in the section for Ms. White and
11 Ms. Parker, to the Bureau of Reclamation's obligations
12 and how BR, Bureau of Reclamation, models and
13 implements those.

14 CROSS-EXAMINATION BY MR. SHUTES

15 MR. SHUTES: Good afternoon, Dr. Chilmakuri.

16 Could we please pull up DWR-1143 2nd Revision
17 to Page 33. And I'd like to look specifically at
18 Footnote 28. And it is a little hard to read in this
19 format, but we'll do our best.

20 Dr. Chilmakuri, in this footnote on Page 3, it
21 states that Sacramento River flow will be measured but
22 that bypass flow will be quantified.

23 Can you please define "quantified" and tell us
24 how that's different than measured?

25 WITNESS CHILMAKURI: It is -- right now, I

1 don't know whether there would be a new gauge that
2 would be downstream of the intakes.

3 But either way, even if we don't have a new
4 monitoring gauge downstream, what this means is that
5 the flow -- the bypass flow would be quantified by
6 either, if there is a gauge, by measuring, or if not,
7 then it would be based on the flow upstream minus the
8 diversion. That's what it means.

9 MR. SHUTES: I see. So it might be a sort of
10 mass-balanced calculation?

11 WITNESS CHILMAKURI: Correct.

12 MR. SHUTES: And in that instance, the flow
13 would be measured at Freeport and then the diversion
14 would be subtracted?

15 WITNESS CHILMAKURI: Correct. That's what I
16 understand.

17 MR. SHUTES: Thank you.

18 Could we please turn to Page 4, Footnote 29.

19 So looking at Footnote 29, Dr. Chilmakuri, it
20 says, "The criteria" -- and this is referring to the
21 South Delta operations.

22 It says, "The criteria will be achieved by
23 operating within an initial range of real-time
24 operational criteria from January through March and in
25 June. The initial range, including operations, will be

1 determined through future discussions."

2 Do you see that?

3 WITNESS CHILMAKURI: Yes.

4 MR. SHUTES: So, Dr. Chilmakuri, what are the
5 boundaries of that range?

6 WITNESS CHILMAKURI: As indicated in this
7 footnote, it would be minus 1250 to minus 5,000 cfs.

8 MR. SHUTES: I see. And who will have the
9 discussions that set that range?

10 WITNESS CHILMAKURI: As I understand, the
11 footnote is saying that the -- the range is subject to
12 Adaptive Management program, so whoever will be part of
13 the Adaptive Management program initially would be
14 involved, I would assume.

15 (Reporter interruption)

16 MR. SHUTES: So I have a related question for
17 Dr. Greenwood.

18 In your rebuttal testimony on Page 24,
19 Lines 18 through 19, you stated -- and we can bring
20 that up if you'd like. But you stated it was incorrect
21 for Mr. Cannon to say South Delta export rules will not
22 change. Is that true? Do you recall that?

23 WITNESS GREENWOOD: Yes, I wrote that.

24 MR. SHUTES: But is it clear to you exactly
25 how they will change?

1 WITNESS GREENWOOD: I think with -- I mean,
2 there are -- what we looked at, I think, is generally
3 similar to what's happening now, at least the range of
4 minus 1250 to minus 5,000. But I think there are --
5 that only speaks to some of the months, so there are
6 some differences.

7 Perhaps Dr. Chilmakuri can expand on it.
8 There are differences within that period.

9 MR. JACKSON: Mr. Greenwood, is your
10 microphone on?

11 WITNESS GREENWOOD: I think so, yeah.

12 CO-HEARING OFFICER MARCUS: You have to get
13 right up on it.

14 MR. SHUTES: So did you wish to expand,
15 Dr. Chilmakuri?

16 WITNESS CHILMAKURI: Yes. Do you mind
17 restating the question one more time?

18 MR. SHUTES: Well, the question really was how
19 clear is it exactly what the change will be or what the
20 rules will actually be?

21 WITNESS CHILMAKURI: As stated in the Part 1
22 of DWR-1143 Revision 2, as we sit here today, the
23 criteria is that there would be additional OMR
24 requirements in January, February, March, April, May,
25 and June. So those are all in addition to what we have

1 in the No Action Alternative.

2 MR. SHUTES: I see. And, however, we don't
3 know exactly what the values will be in any given
4 month; is that correct, as we sit here today?

5 WITNESS CHILMAKURI: Well, the values are
6 stated in the table there, and we do have values.

7 MR. SHUTES: But they're stated as a range,
8 correct?

9 WITNESS CHILMAKURI: The way I read the
10 criteria and at least in the Part 1 of the table there,
11 those are actually what -- the monthly average value.

12 MR. SHUTES: Monthly average value.

13 WITNESS CHILMAKURI: Right.

14 MR. SHUTES: All right. Thank you. So moving
15 on to Footnote 29, Dr. Chilmakuri, it says that -- this
16 is also on Page 4.

17 It says that the three-day averaging period
18 may be modified. That's the averaging period for OMR;
19 is that correct? It's further down in the same
20 footnote, actually. "Further, the three-day averaging
21 period may be modified through future discussion." Do
22 you see that?

23 WITNESS CHILMAKURI: Just give me a minute;
24 let me refer that.

25 MR. SHUTES: It's kind of in the center of the

1 third line.

2 WITNESS CHILMAKURI: Yes.

3 MR. SHUTES: Okay. So who may modify that
4 averaging period?

5 WITNESS CHILMAKURI: Again, it's subject to
6 Adaptive Management program and the agencies involved
7 in the decision making for Adaptive Management would be
8 modifying that.

9 MR. SHUTES: I see. And is the intent here
10 that it would be modified on an annual basis or on a
11 long-term basis?

12 WITNESS CHILMAKURI: I don't know the exact
13 intent, but I believe that speaks to operationally what
14 would be the more relevant averaging period.

15 For example, under current operations, I
16 believe the Old and Middle River flow restrictions are
17 on a 14-day average. So there may be decisions as to
18 whether three-day average is needed or something else
19 is sufficient. I'm assuming that's what this footnote
20 is saying.

21 MR. SHUTES: Thank you. Turning now to Page 6
22 and Footnote 38.

23 Dr. Chilmakuri, in this footnote, I believe it
24 says that if longfin smelt abundance can be maintained
25 in the absence of spring outflow, then outflow

1 requirements could revert to D1641; is that how you
2 read it?

3 WITNESS CHILMAKURI: As long as it is
4 consistent with the -- implemented consistent with the
5 Adaptive Management Program in coordination with Fish
6 and Wildlife Service and NMFS.

7 MR. SHUTES: So would you agree that the
8 March-through-May outflow requirement for operation of
9 the CVP and SWP with California WaterFix hinges on
10 whether a collaborative science research program, on
11 what that decides and whether CDFW agrees that longfin
12 smelt abundance can be maintained without that outflow?

13 WITNESS CHILMAKURI: I'm not sure if I would
14 characterize it that way. It's just saying that, in
15 the future, if the science suggests that the evidence
16 can be met without the spring outflow requirement, that
17 would be -- there could be a fall back to 1641 -- and
18 if CDF concurs with that.

19 MR. SHUTES: I see. And do you know what
20 "abundance" means in this footnote?

21 WITNESS CHILMAKURI: I don't know for sure,
22 again, but based on the analysis conducted for the 2081
23 application -- and Dr. Greenwood could chime in more --
24 I believe it was looking at the Fall Midwater Trawl
25 Index.

1 MR. SHUTES: And what would the baseline for
2 that maintenance of abundance be?

3 WITNESS CHILMAKURI: Whatever the abundance
4 that we have today, I guess. I'm not sure -- again,
5 I'm not the person probably to answer that question.

6 MR. SHUTES: I understand. And I understand
7 that this is a table made up of a bunch of different
8 things. And what I guess I'm pointing out is that it's
9 not really clear from the table what the rule is. And
10 so I'd like to note that.

11 Dr. Chilmakuri, this footnote doesn't say
12 anything about explicit protections from Mokelumne
13 River salmon or San Joaquin River salmon, does it?

14 WITNESS CHILMAKURI: No, not this footnote.
15 This is with respect to longfin smelt.

16 MR. JACKSON: And the section of the table
17 that it footnotes also refers to longfin smelt; isn't
18 that correct?

19 WITNESS CHILMAKURI: Yes.

20 MR. SHUTES: So could we pull up
21 Dr. Chilmakuri's testimony and look at Page 8, the
22 graphs that he produced in response to East Bay MUD
23 please.

24 So Dr. Chilmakuri, looking at these graphs,
25 isn't a lot of the potential for South Delta export

1 dependant on the May -- April and May outflow that's
2 required in this Footnote 38 and the table referring to
3 it that it refers to that we were just discussing?

4 WITNESS CHILMAKURI: It is dependant on the
5 requirement. But it is also dependant on whatever the
6 regulatory requirements there may be in April and May.

7 MR. SHUTES: I see. So in your evaluation, if
8 the outflow requirement for longfin smelt were to
9 change based on a determination about longfin smelt,
10 then these two -- the lines in the two graphs shown
11 here might get closer together; is that correct?

12 WITNESS CHILMAKURI: Which --

13 MR. MIZELL: Objection, calls for speculation
14 and an incomplete hypothetical.

15 CO-HEARING OFFICER DODUC: Are you able to
16 answer? Are you able to speculate?

17 WITNESS CHILMAKURI: I -- I do need more
18 information. And I -- as I said, it all depends on
19 what other regulatory requirements are controlling in
20 those months

21 MR. SHUTES: Okay. Let me start and ask it
22 this way. In these graphs here, is it -- in your
23 opinion, does the outflow requirement have an effect on
24 the location of these graphs in the -- of the lines
25 that are plotted on these graphs showing South Delta

1 operation and export operations under the No Action
2 Alternative and under the California WaterFix H3+, does
3 the outflow requirement that's modeled as part of
4 California H3+ have an effect in terms of reducing
5 exports in April and May in the model run for H3+?

6 WITNESS CHILMAKURI: I'm sorry. It was
7 difficult to follow the question. Do you mind
8 restating it?

9 MR. SHUTES: Sure. I'll try to state it more
10 simply.

11 Does the outflow requirement in April and May
12 in the modeling of California H3+ reduce South Delta
13 exports?

14 WITNESS CHILMAKURI: It would reduce the total
15 Delta exports. I wouldn't be able to definitely say
16 that it would reduce just the South Delta exports.

17 MR. SHUTES: I guess I need a little
18 clarification on that.

19 Would it then be the case that, if the outflow
20 requirements were to change, there might be more North
21 Delta exports? Is that what you're saying? You can't
22 decide whether there would be a -- it's unclear whether
23 additional exports would come from the North Delta or
24 South Delta diversions?

25 MR. MIZELL: Objection, misstates the evidence

1 and the witness's testimony. The previous answer went
2 to decreases in exports. Mr. Shutes is now implying an
3 increase in exports that's not supported by the answer

4 MR. SHUTES: All right. I'll move on.

5 Dr. Chilmakuri --

6 CO-HEARING OFFICER DODUC: I'm sorry. Before
7 you move on, Mr. Shutes, just so I understand, your
8 line of questioning was to determine whether or not
9 changes in the Delta outflow requirements --

10 MR. SHUTES: Correct.

11 CO-HEARING OFFICER DODUC: -- as modeled in --
12 well, as modeled or as reflected in 1143 --

13 MR. SHUTES: Correct.

14 CO-HEARING OFFICER DODUC: -- how that might
15 change these graphs for exports in April and May?

16 MR. SHUTES: Right.

17 CO-HEARING OFFICER DODUC: And the answer was?

18 WITNESS CHILMAKURI: First of all, you just
19 clarified the question a little differently. But even
20 in the clarification, you didn't say how the outflows
21 would be changed from what were assumed.

22 And my answer was in general -- assuming they
23 are going to increase or decrease, then the total Delta
24 exports from both North and South combined would
25 change. And I can't definitely say that it would

1 affect just the South Delta exports.

2 CO-HEARING OFFICER DODUC: Thank you. I just
3 needed to understand that.

4 MR. SHUTES: That's actually very helpful.
5 Thank you.

6 So is it possible that, if, in the extreme
7 case as stated here in Footnote 38, Delta -- South
8 Delta -- I'm -- that Delta outflow requirements were to
9 be changed from what's in the table here on Page 6 to
10 revert to D1641, that the South Delta exports going
11 forward could be in some cases greater than they are
12 today or the same as they are today?

13 MR. BERLINER: Objection regarding the
14 mischaracterization of Footnote 38. The question
15 characterized it as "If in the extreme case as stated
16 near Footnote 38." I don't see anything in Footnote 38
17 referring to extreme case anything.

18 CO-HEARING OFFICER DODUC: I will delete the
19 "extreme case" part. The rest of his question, stands.

20 And I assume, Mr. Shutes in your question that
21 all other factors being held the same?

22 MR. SHUTES: Correct.

23 CO-HEARING OFFICER DODUC: Okay.

24 WITNESS CHILMAKURI: If all else remains the
25 same, as shown in this table here, I would still expect

1 the exports at South Delta intakes under CWF H3+ to be
2 less than or similar to the No Action Alternative.

3 MR. SHUTES: Less than or similar to. I see.
4 Okay. I mean, what this goes -- well, let me just
5 leave it at that. Thank you.

6 Dr. Chilmakuri, can we look at Page 8, please,
7 in the section labeled "Post-Pulse Operations." It's
8 there toward the bottom.

9 So it states that Level 1 operations last
10 until 15 total days of bypass flows over 20,000 cfs
11 have occurred; is that correct? Is that how you read
12 it?

13 WITNESS CHILMAKURI: Correct.

14 MR. SHUTES: Then the requirement would go to
15 Level 2 post-pulse operations, correct?

16 WITNESS CHILMAKURI: Yes.

17 MR. SHUTES: And Level 2 would last until 30
18 total days of bypass flows above 20,000 cfs have
19 occurred correct?

20 WITNESS CHILMAKURI: Yes.

21 MR. SHUTES: So my question, first question
22 is, is the 30 total days additive to the -- 30 total
23 days at Level 2, is that additive to or is it inclusive
24 of the 15 days of Level 1 operations?

25 WITNESS CHILMAKURI: Inclusive.

1 MR. SHUTES: Thank you. So it's 15 days at
2 Level 1 and 15 days at Level 2. Is that a different
3 way of stating it?

4 WITNESS CHILMAKURI: Yes.

5 CO-HEARING OFFICER DODUC: Thank you.

6 MS. ANSLEY: I don't believe I've seen these
7 numbers specified previously. Could you or someone
8 with DWR please tell us where -- how you determined
9 what these numbers would be and whether they're subject
10 to revision?

11 WITNESS CHILMAKURI: Which numbers?

12 MR. SHUTES: 15 total days of bypass flows for
13 Level 1 and 30 total days or 15 additional days of
14 bypass flows for Level 2. I don't think I've seen
15 those numbers before.

16 WITNESS CHILMAKURI: They were -- I mean,
17 right from the start they were in there. I can give
18 you references if you'd like, starting from the
19 Draft EIR/EIS through Final Revised BA. It was in
20 there

21 MR. SHUTES: Okay. Then I mis-recalled. My
22 recollection had been that that was to be specified at
23 a later time. Thank you.

24 Last question regarding this. Are the numbers
25 on Pages 11 -- 9 through 11 of DWR 2nd Revision also

1 subject to revision by Adaptive Management or other
2 mechanisms?

3 WITNESS CHILMAKURI: That's my understanding.

4 MR. SHUTES: And, again, this would be by
5 whoever is doing the adaptive managing?

6 WITNESS CHILMAKURI: Correct.

7 MR. SHUTES: Thank you. That concludes my
8 questions for Dr. Chilmakuri.

9 Good afternoon, Ms. Parker and Ms. White. I'm
10 going to let you two decide who the appropriate person
11 is to answer each of the questions. Some of them have
12 to do with operations more than modeling and vice
13 versa.

14 Ms. Parker, on Page 1 of your testimony --

15 And we can pull that up, please. It's DOI-43.

16 You state that ". . .flexibility is the key to
17 achieving multiple purposes of the CVP, including its
18 regulatory obligations."

19 And I believe that's down in the third
20 paragraph. There we are. The lines are not numbered,
21 so it's a little harder to follow.

22 Do you recall that statement? It's in the --

23 WITNESS PARKER: Yes.

24 MR. SHUTES: -- fifth line. Okay.

25 The flexibility you discuss in your rebuttal

1 testimony is largely flexibility to choose releases
2 from the three different reservoirs North of Delta to
3 meet project purposes and obligations; is that correct?

4 WITNESS PARKER: Yes.

5 MR. SHUTES: But there are some obligations of
6 the CVP that the CVP can only meet from one particular
7 reservoir, correct?

8 WITNESS PARKER: Correct.

9 MR. SHUTES: And in some cases, that involves
10 physical limitations, and in others it involves water
11 rights limitations, correct?

12 WITNESS PARKER: Correct.

13 MR. SHUTES: So for modeling purposes, you
14 look at combined North of Delta storage to evaluate
15 project impacts of Delta operations. But there may be
16 impacts from various storage releases that are more
17 geographically specific; is that correct?

18 WITNESS PARKER: Could you say that one more
19 time?

20 MR. SHUTES: Yes. For modeling purposes, you
21 look at combined North of Delta storage to evaluate
22 project impacts of Delta operations, correct?

23 I'll break it up.

24 WITNESS PARKER: Correct.

25 MR. SHUTES: But there may be other impacts

1 from varying storage releases that are more
2 geographically specific than simply North of Delta in
3 general, correct?

4 WITNESS PARKER: There are operations in the
5 model which are limited by virtue of their geography to
6 where they can pull water from.

7 MR. SHUTES: Correct. Thank you.

8 And briefly, Dr. Chilmakuri, the same would
9 apply to State Water Project? For example, your only
10 source of stored water to meet lower Feather River flow
11 or temperature requirements is Oroville Reservoir or
12 reservoirs upstream of Oroville, correct?

13 WITNESS CHILMAKURI: And can you restate the
14 question, the original question? I'm sorry.

15 MR. SHUTES: Your only source of stored water
16 to meet lower Feather River flow or temperature
17 requirements is Oroville Reservoir or reservoirs
18 upstream of Oroville; is that correct?

19 WITNESS REYES: There's Thermalito that's
20 downstream of that, which is also a source.

21 MR. SHUTES: Very well. As well as
22 Thermalito. Addition noted.

23 So back to Ms. Parker.

24 Ms. Parker, is it fair to say that the CalSim
25 modeling of CWH -- CWF H3+ that you and/or your DWR

1 colleagues did for this proceeding is your or DWR's
2 representation of how the Bureau and DWR would operate
3 the integrated CVP and SWP if California WaterFix were
4 in place?

5 WITNESS PARKER: CalSim is not an operations
6 model. CalSim is a water supply reliability model, and
7 it is able to characterize the ability of the projects
8 to meet their regulatory and contractual obligations.

9 One of the main points of my testimony is that
10 the model doesn't always characterize the specific
11 operational decisions that would be made in real life.

12 It instead looks at -- given the current
13 criteria in the model or given the current operational
14 guidelines in CalSim, which are not a specific direct
15 representation of what CBO does every day, the CVP
16 facilities do meet Reclamation's regulatory and
17 contractual obligations but not necessarily in exactly
18 the same manner as they would be -- as they would in
19 real life.

20 MR. SHUTES: Thank you. And you just made my
21 next question irrelevant. So we'll move on.

22 Near the bottom of Page 1 on your testimony,
23 Ms. Parker, you use the term "obligations."

24 Do you see that?

25 WITNESS PARKER: Yes.

1 MR. SHUTES: These include storage and
2 contract obligations and regulatory obligations,
3 correct?

4 MS. AUFDEMBERGE: Objection, vague.

5 WITNESS PARKER: So I think my direct phrase
6 includes contract obligations and the regulatory
7 obligations. Those are the two occurrences of the word
8 "obligations" in that paragraph, I think.

9 MR. SHUTES: Okay.

10 WITNESS PARKER: So that would be both of
11 them.

12 MR. SHUTES: Ms. Parker or Ms. White, is it
13 fair to say that some CVP obligations are
14 nondiscretionary but there are some discretionary
15 aspects to CVP obligations?

16 MS. AUFDEMBERGE: Objection, calls for a legal
17 conclusion, and we're getting way outside the bounds,
18 again, of the rebuttal testimony.

19 MR. SHUTES: Ms. Parker testified as to how
20 she would go about meeting CVP obligations. She chose
21 some -- and she went about meeting those obligations
22 through her modeling. I'm simply exploring how she
23 goes about meeting them. I think it's directly
24 relevant to what she stated and what she addressed in
25 her testimony.

1 MS. AUFDEMBERGE: The only modeling she's done
2 is she's added climate change hydrology to
3 Walter Bourez' model as well as the modified fish --
4 the flows -- it's escaping me right now -- the Modified
5 FMS for the American River.

6 All the other modeling was -- was
7 cross-examined in Part 1 on these very issues.

8 CO-HEARING OFFICER DODUC: Mr. Shutes, are you
9 trying to understand how Ms. Parker analyzed her --
10 well, the fulfillment of various obligations and how
11 that takes into account the requirements in 1143?

12 MR. SHUTES: No, this really doesn't go to
13 1143. It's more directly related to Ms. Parker's
14 testimony.

15 CO-HEARING OFFICER DODUC: Okay.

16 MR. SHUTES: And she modeled -- or she took
17 modeling -- some of it was existing from the No Action
18 Alternative -- and she compared what happens when the
19 Flow Management Standard or any -- was implied. Also
20 -- was applied.

21 Also she looked at what happens when certain
22 carryover storage requirements were applied. She
23 looked at impacts to storage, assuming that all of the
24 obligations would be met in the same way. But there
25 are different possible ways or different reasonable

1 ways to look at how the Bureau of Reclamation might
2 meet carryover storage requirements that don't
3 necessarily involve pulling water out of storage from a
4 different reservoir. I'm trying to get to that.

5 CO-HEARING OFFICER DODUC: Yes, but I also
6 understand Ms. Aufdemberge's objection in that,
7 Ms. Parker, did you make any changes in your
8 assumptions regarding those obligations when you did
9 this analysis for your rebuttal testimony?

10 WITNESS PARKER: So CalSim does not have
11 discretion to pick and choose among Reclamation's
12 regulatory and contractual obligations. CalSim
13 attempts to meet all regulations and all senior water
14 rights or what are sometimes referred to as
15 nondiscretionary demands.

16 So that's what we talk about when we say that,
17 in extremely dry conditions, CalSim doesn't stop trying
18 to meet all regulatory and contractual obligations.
19 And in so doing, it can pull reservoirs down to
20 unrealistic operational levels.

21 So does that answer your question?

22 MR. SHUTES: That is one potential issue that
23 might be answered.

24 But what we're going to really now more is
25 that you said that requiring carryover storage

1 requirements would have redirected impacts which you
2 identified as -- primarily as differences in carryover
3 storage in other reservoirs --

4 MS. PARKER: Yes.

5 MR. SHUTES: -- but also water supply
6 deliveries. And you also said that certain operations
7 were infeasible or ineffective. And so --

8 CO-HEARING OFFICER DODUC: Didn't say that.

9 MR. SHUTES: I would like to talk about, if
10 not the modeling, then the operational measures that
11 the CVP might undertake in order to adjust to the
12 specific carryover storage requirements that Ms. Parker
13 has said are infeasible.

14 MR. BERLINER: I have an objection, and the
15 objection is the Board Chair -- or the Officer asked
16 the witness a question. The witness's response was
17 directed to the question that Mr. Shutes had asked.

18 My understanding of the question to the
19 witness was whether or not there had been changes in
20 the model because of the inquiry from -- with the
21 new -- the material -- the information that
22 Walter Bourez had provided and whether there were any
23 fundamental changes that Ms. Parker had made in the
24 modeling which, frankly, to me would be a "yes" or "no"
25 answer.

1 And the response was quite different, really
2 to a different question. And now we're going back to
3 the question that Mr. Shutes had asked that then led to
4 the Hearing Officer's question to the witness.

5 So we've still not gotten an answer, as far as
6 I can tell, about changes to the modeling, and yet
7 we're moving on.

8 And I think the answer to that question is key
9 to the objection because, if there weren't changes --
10 well, I'll stop there.

11 CO-HEARING OFFICER DODUC: I think that's
12 where I was going when I asked you that question,
13 Ms. Parker, was that -- because that stemmed from
14 Ms. Aufdemberge's objection.

15 Again, and this is -- Mr. Shutes, this is
16 because, obviously, the modeling and the analysis are
17 what they are, and they're so complicated. And we went
18 over a lot of this in previous parts, that the
19 cross-examination for this stage needs to be focused on
20 whatever new additional analysis that was conducted for
21 the rebuttal testimony.

22 So I believe Ms. Aufdemberge's objection was
23 that the line of inquiry you were following,
24 Mr. Shutes, about assumptions about obligations, that
25 those assumptions were not changed for your rebuttal

1 testimony. They remained the same.

2 WITNESS PARKER: The assumptions in CalSim
3 about meeting regulatory or senior water right
4 obligations are exactly the same in all of the modeling
5 done for CWF H3+, the No Action Alternative.

6 And just to be clear, the other analysis we're
7 talking about here is studies that were done for
8 American River Water Association by Jeff Weaver, not by
9 Walter Bourez.

10 But all of the assumptions in those models, as
11 far as the obligation that the CVP has to meet
12 regulatory or contract obligations, is the same.
13 There's no relaxation. There's no -- whatever the
14 other term was that you specified.

15 CO-HEARING OFFICER DODUC: So based on that, I
16 will sustain Ms. Aufdemberge's objection regarding
17 further questioning into the assumptions that did not
18 change for the purposes of rebuttal testimony.

19 MR. SHUTES: Okay.

20 CO-HEARING OFFICER DODUC: But, Mr. Shutes, I
21 understood before Mr. Berliner jumped in that you
22 actually were moving into a different line of inquiry
23 which I actually was very intrigued by and that you
24 were starting to ask, I think, about operational
25 flexibility, regardless of the modeling assumption.

1 So I would encourage you to go back to that.

2 MR. SHUTES: And that was sort of my next
3 question or series of questions. And I think
4 Ms. Parker started down that road when she said that
5 the way things are modeled and the way things operate
6 in real life are not always the same.

7 So, Ms. White, you state in your testimony
8 that it's your view that the way Ms. Parker has modeled
9 potential changes that would be required by carryover
10 storage requirements is approximately -- are consistent
11 with your understanding of how the system would respond
12 in daily operations, correct?

13 MS. AUFDEMBERGE: I want to object that that's
14 vague. He keeps talking about the storage carryover
15 that was modeled. The only modeling, again -- and I'm
16 sorry, I did know at one point that was Jeff Weaver's
17 model not Walter Bourez' -- but is in connection with
18 the American River modified FMS.

19 So are we talking about Folsom? Are we
20 talking about Shasta? What storage -- what, precisely,
21 storage carryover are we talking about?

22 MR. SHUTES: Well, in her third paragraph,
23 Ms. White says "Similar impacts" --

24 CO-HEARING OFFICER DODUC: Hold on,
25 Mr. Shutes.

1 Let's pull this up, please, Ms. White's
2 testimony. What page?

3 MR. SHUTES: It's only one page.

4 CO-HEARING OFFICER DODUC: Okay. What
5 paragraph?

6 MS. AUFDEMBERGE: DOI-42.

7 MR. SHUTES: 42, third paragraph.

8 CO-HEARING OFFICER DODUC: Is this Ms. White's
9 testimony?

10 MR. SHUTES: No, it's not.

11 DOI-42, please.

12 CO-HEARING OFFICER DODUC: I think we've now
13 all re-read that sentence.

14 MR. SHUTES: And so in response to
15 Ms. Aufdemberge, I believe that --

16 CO-HEARING OFFICER DODUC: Never mind her.
17 Just ask your question.

18 MR. SHUTES: Okay. Ms. White, is it possible
19 that, in actually operating to meet carryover storage
20 requirements such as those that have been proposed by
21 protestants, you might reduce deliveries to CVP
22 contractors?

23 WITNESS WHITE: I'm sorry. Can you repeat the
24 first part? I want to make sure I'm answering
25 correctly.

1 MR. SHUTES: Is it possible that, if carryover
2 storage requirements were imposed on CVP reservoirs
3 such as those proposed by protestants, that the Bureau
4 of Reclamation would meet some of those carryover
5 storage requirements by reducing deliveries to
6 contractors?

7 MS. AUFDEMBERGE: Objection. Again, that's
8 vague as "contractors" could include senior water right
9 holders. They could include --

10 MR. SHUTES: We can break it down if you like.
11 How about to CVP non-settlement contractors
12 South of Delta?

13 WITNESS WHITE: As with many operational
14 questions, it would depend. It would depend on where
15 we start from and how much water is sitting in San Luis
16 and what our allocation is based off of.

17 MR. SHUTES: So is that a "yes," it's
18 possible?

19 MS. AUFDEMBERGE: Objection, asked and
20 answered.

21 MR. JACKSON: It was never answered.

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

23 Ms. White, your answer, again, was that --

24 WITNESS WHITE: It depends.

25 CO-HEARING OFFICER DODUC: It depends.

1 WITNESS WHITE: It would depend on what our
2 starting conditions were and what we based our
3 allocation on.

4 MR. SHUTES: Okay. That's helpful.

5 And what about for North of Delta
6 non-settlement contractors?

7 MS. AUFDEMBERGE: Objection, incomplete
8 hypothetical.

9 CO-HEARING OFFICER DODUC: It's the same
10 question, just for different types of contractors.

11 MR. SHUTES: Yes.

12 WITNESS WHITE: And that would depend which
13 storage target you're talking about and which those
14 conditions were and what the hydrology was. I might be
15 able to answer it better if I had more detail.

16 MR. SHUTES: Well, we could go back to the
17 storage requirements that Ms. Parker modeled for Shasta
18 Reservoir or that she did a sensitivity analysis of for
19 Shasta Reservoir.

20 MS. AUFDEMBERGE: Objection. She's not
21 entered any modeling for Shasta in the carryover for
22 her rebuttal.

23 MR. SHUTES: Well, I don't know how to
24 characterize, then, her testimony in the table she
25 presented, but --

1 CO-HEARING OFFICER DODUC: Now you're talking
2 about Ms. Parker?

3 MR. SHUTES: Ms. Parker's -- yes, which --
4 because we're just trying to put some definition on
5 something.

6 CO-HEARING OFFICER DODUC: Mm-hmm.

7 MR. SHUTES: So Ms. Parker, on Page 12 of her
8 testimony, has a table that compares petitioners' No
9 Action Alternative and how it would -- it might operate
10 if it meets certain end-of-September carryover storage
11 requirements.

12 Now, Ms. Parker did something. I'm not sure
13 how to characterize exactly what she did to produce
14 this table. I'm talking about in response to a missed
15 target in Column 5 of that table. There are different
16 amounts by which some of those targets are missed.

17 I'm asking Ms. White if one way of adjusting
18 in order to meet a target, should it be required, would
19 be to reduce deliveries to some CVP contractors? And
20 you can say whichever ones.

21 WITNESS WHITE: Thank you for that
22 specificity. It's easier to answer that question.

23 Yes, in some cases reducing CVP water service
24 contract deliveries could be one way, although in some
25 cases with very large reductions that might not be even

1 possible to get to that target.

2 MR. SHUTES: I understand.

3 WITNESS WHITE: Hope that that --

4 MR. SHUTES: Thank you.

5 But the only way to meet that would not
6 necessarily be to pull water out of storage from other
7 reservoirs; is that correct?

8 WITNESS WHITE: Not only way to meet what?
9 I'm sorry.

10 MR. SHUTES: In other words, you could meet
11 some of these storage requirements at Shasta by means
12 other than redirecting impacts to other reservoir
13 storage by pulling water out of those reservoirs?

14 MS. AUFDEMBERGE: I'm going to object. He's
15 inferring that her -- Ms. Parker's testimony is about
16 redirected impacts from Shasta.

17 I believe Ms. Parker's testimony is that just
18 mass balance equation, the hydrology doesn't work for
19 the carryover storage targets and the minimum releases
20 included in the Shasta RPA, the Amended Shasta RPA,
21 Draft Amended.

22 CO-HEARING OFFICER DODUC: Ms. Aufdemberge, my
23 understanding is that Mr. Shutes is now asking
24 Ms. White about the operational flexibility involved
25 that they might exercise in order to address this

1 storage target that is missed.

2 MR. SHUTES: Correct.

3 CO-HEARING OFFICER DODUC: So he is not asking
4 Ms. Parker about her analysis, yet it is about the
5 redirected impacts. He's asking about other avenues
6 that might be pursued, given the flexibility you are
7 seeking, that may address those redirected impacts or
8 in lieu of those redirected impacts. That's my
9 understanding.

10 Right, Mr. Shutes?

11 MR. SHUTES: Correct.

12 MS. AUFDEMBERGE: But that's not the
13 testimony. The redirected impacts has to do with using
14 the differences to show an impact to Folsom storage.

15 CO-HEARING OFFICER DODUC: Yes, and she's
16 arguing for flexibility.

17 MS. AUFDEMBERGE: Right. But that is not the
18 argument on the Shasta RPA. It's a mass balance
19 infeasibility hydrologically. It's not based on
20 redirected impacts.

21 CO-HEARING OFFICER DODUC: So are you arguing,
22 then -- Ms. Parker, are you saying that the flexibility
23 to which you refer in your testimony is only
24 flexibility to operate those reservoirs? I thought it
25 was much more encompassing than that.

1 WITNESS PARKER: Yeah, it's more encompassing
2 than that. If you'll give me an opportunity to unpack
3 that a little bit.

4 When I talk about operational flexibility and
5 the idea of trying -- of the best way to look at the
6 impact of the WaterFix is on overall CVP North of Delta
7 storage, that is really meant to address the multiple
8 concerns about Folsom storage being drawn down, in the
9 words of multiple protestants.

10 So that's -- that's one subject related to the
11 others, but that is one topic.

12 The specific -- so the questions that you're
13 asking, Mr. Shutes, about the Shasta September -- about
14 meeting the Shasta September carryover targets proposed
15 by National Marine Fisheries, that's a different topic.

16 MR. SHUTES: It is.

17 WITNESS PARKER: I did not talk about
18 redirected impacts of that other than -- I mean, if you
19 want to -- it's not redirected to storage.

20 In my testimony, I specifically say that, in
21 order to meet those carryover targets, there would be
22 significant impacts to CVP delivery, but I didn't
23 characterize which deliveries those would be; North of
24 Delta, South of Delta, senior water rights, whatever.
25 It's just an overall impact to delivery. So that's on

1 the September carryover piece of the Shasta RPA.

2 I believe I heard you ask a question about
3 whether or not those impacts would -- could be
4 redirected to Folsom storage.

5 Did I hear that correctly?

6 MR. SHUTES: I didn't specify to any specific
7 reservoir. But I think, you know --

8 WITNESS PARKER: Yes.

9 MR. SHUTES: -- her clarification has answered
10 the question.

11 CO-HEARING OFFICER DODUC: Yes.

12 Thank you, Ms. Parker.

13 MR. SHUTES: And I don't really think that we
14 need to pursue this any more.

15 CO-HEARING OFFICER DODUC: Thank you.

16 MR. SHUTES: I've gotten the clarification
17 that I was looking for in this line of questioning.

18 Ms. Parker, I'm going to cut right down to the
19 end and ask my last question, let Mr. Jackson proceed.

20 You stated in your rebuttal testimony on
21 August 6th that the Bureau of Reclamation -- and I
22 think it's in your testimony as well -- is working with
23 NMFS to develop alternative storage targets for Shasta
24 Reservoir. Do you recall that?

25 WITNESS PARKER: I'm pretty sure I didn't say

1 that we're working with them to establish alternative
2 storage targets. That would be on Page -- 6 of my
3 testimony?

4 Nope. Go up one. Keep going up, Page 4.
5 Keep going. Stop. Stop, please. Further down, the
6 conclusion area. Thank you. I'm sorry. That's not
7 where it is.

8 Could you give me just a moment to find the
9 specific reference in my testimony?

10 MR. SHUTES: I think it's at Page 3.

11 WITNESS PARKER: Yeah. So it's on the -- it's
12 in the middle of Page 2. Thank you for bearing with
13 me.

14 So what I said was that we are not currently
15 operating to the NMFS 2017 Draft Proposed Amendment
16 with the concurrence of National Marine Fisheries.

17 We are continuing to work with National Marine
18 Fisheries and will be doing so through the Reinitiation
19 of Consultation process on long-term operations, but I
20 did not specifically mention on carryover target --
21 storage targets or any storage targets.

22 MR. SHUTES: But one of the things in the
23 Biological Opinion today has to do with carryover
24 storage targets, correct?

25 WITNESS PARKER: That is true.

1 MR. SHUTES: And why is it your opinion that
2 this decision about carryover storage targets should be
3 left to NMFS and the Bureau of Reclamation to
4 determine?

5 WITNESS PARKER: Well, we're reacting to a
6 proposal the National Marine Fisheries had for our
7 operations. So that discussion seems to be between
8 National Marine Fisheries and Reclamation.

9 MR. SHUTES: And is that not something that
10 the Board should also consider in this proceeding?

11 MS. AUFDEMBERGE: Objection, calls for a legal
12 conclusion.

13 MR. SHUTES: It's a practical conclusion
14 question, too.

15 CO-HEARING OFFICER DODUC: Overruled.

16 WITNESS PARKER: I don't know.

17 MR. SHUTES: Okay.

18 WITNESS WHITE: Can I add to that?

19 The Reclamation also operates to 90-5, which
20 is another temperature requirement on the Sacramento
21 River that the Board does have control over. And often
22 the proposals for the two are kind of tied together
23 where we're sharing it with both.

24 So I would say that the Board does have some
25 say in temperature operations from Shasta on the

1 Sacramento River.

2 MR. SHUTES: Thank you.

3 I'll turn it over to Mr. Jackson.

4 MR. JACKSON: I've got one question that just
5 occurred to me for Ms. White.

6 CROSS-EXAMINATION BY MR. JACKSON

7 MR. JACKSON: Is it the position of the
8 Department of the Interior and the Bureau that the
9 Board doesn't have the authority to do orders in regard
10 to the amount of storage in your projects?

11 MS. AUFDEMBERGE: Objection, exceeds the
12 knowledge of this witness and her testimony.

13 CO-HEARING OFFICER DODUC: Ms. White, perhaps
14 you could clarify. That's not what I heard you say,
15 but. . .

16 WITNESS WHITE: That is not at all what I
17 said.

18 What I said was through 90-5 the Board does
19 have a part in determining appropriate temperature
20 operations on Sacramento River and relating operations
21 at Shasta.

22 MR. JACKSON: Thank you.

23 Could I call up Dr. Greenwood's DWR-1221.

24 The next series of questions will be directed
25 toward that document, Page 3, Lines 6 and 8.

1 Dr. Greenwood, you indicated here that, in
2 response to protestant testimony, that you add here
3 that operational criteria for the North Delta Diversion
4 requires at least 5,000 cfs downstream bypass flow to
5 remain in the river following diversions; is that
6 correct?

7 WITNESS GREENWOOD: Yes, that's what it says.

8 MR. JACKSON: Does this mean that DWR is
9 proposing that the North Delta Diversion bypass flow
10 criteria will be instantaneous criteria?

11 WITNESS GREENWOOD: Those are -- it says
12 "remaining in the river downstream after diversions."
13 So I think that's what that's referring to, yes.

14 MR. JACKSON: So there will be a -- some kind
15 of method to measure that downstream diversion?

16 WITNESS GREENWOOD: Yes, I think there will
17 have to be.

18 Do you have any more to add on that?

19 WITNESS CHILMAKURI: Again, they probably have
20 to be. As I said, I don't know -- I don't have a
21 certain knowledge that there would be a gauge built at
22 this time.

23 MR. JACKSON: How and where would DWR measure
24 the instantaneous bypass flow and, therefore, the
25 sweeping flow bypass requirements at the North Delta

1 Diversion?

2 WITNESS CHILMAKURI: Actually, I would like to
3 clarify something.

4 You suggest that -- I don't know that the
5 bypass flow requirement is actually an instantaneous
6 requirement for sure. As far as I understand, the
7 bypass flow of the -- the Level 1, Level 2, Level 3
8 values that are specified in those -- in the DWR-1143
9 Revision 2 are actually going to be some sort of a
10 running average requirement.

11 What Dr. Greenwood's talking about, the
12 absolute minimum value, and that's different than the
13 overall bypass flow requirements.

14 MR. JACKSON: Doesn't the minimum require some
15 form of measurement?

16 WITNESS CHILMAKURI: Yes.

17 MR. JACKSON: And will that be reported to the
18 Board and to the public?

19 WITNESS CHILMAKURI: Again, I -- I cannot
20 speculate what -- what will happen about whether it
21 will be reported or not. So there would be some sort
22 of a compliance. The -- the regulatory agencies would
23 need to somehow assess that there was compliance with
24 the requirements. So some sort of reporting will
25 happen. I just don't know whether -- what format and

1 in which forum that would occur.

2 MR. JACKSON: To your knowledge, have you seen
3 anything that indicates to you that that's been
4 considered?

5 MR. MIZELL: Objection, asked and answered.

6 CO-HEARING OFFICER DODUC: That's a different
7 question.

8 Dr. Chilmakuri?

9 WITNESS CHILMAKURI: The only thing I can add
10 is the permits require that the Department report -- I
11 mean, show that we are complying with those rules, so
12 they have to show it somehow.

13 MR. JACKSON: And you don't, as you sit here
14 today, know how that would happen?

15 MR. BERLINER: Objection, asked and answered.
16 The witness already stated he didn't know.

17 CO-HEARING OFFICER DODUC: Sustained.

18 MR. JACKSON: Will DWR increase instantaneous
19 diversions from the North Delta Diversion on the
20 outgoing tide to make up for any diversions it cannot
21 make within the same day because of the low sweeping
22 velocity or bypass flow on the incoming tide?

23 And this question is for Dr. Greenwood, but if
24 someone else wants to answer it, that's fine.

25 WITNESS GREENWOOD: Can you repeat it so I

1 just make sure I get the answer?

2 MR. JACKSON: Sure. Will DWR increase
3 instantaneous diversions from the North Delta Diversion
4 on the outgoing tide to make up for any diversions it
5 cannot make within the same day because of the low
6 sweeping velocity or bypass flow on the incoming tide?

7 WITNESS GREENWOOD: I think it would -- you
8 know, it would -- it would be dependant on meeting the
9 protective criteria that are established. So, for
10 example, sweeping velocity and things, I think within
11 that context and any other constraints, maybe. It's a
12 possibility.

13 Do you have anything to add?

14 WITNESS CHILMAKURI: I agree. And it all
15 depends on what other requirements there are on the
16 system. If there is a salinity requirement that the
17 Department is trying to meet, that would be the
18 priority rather than increasing the diversions.

19 But as long as all the requirements are met,
20 including the sweeping velocity and the approach
21 velocity, which are instantaneous, I would say yes,
22 they could increase.

23 MR. JACKSON: And do you have any idea how
24 that would be reported to the Board?

25 MR. MIZELL: Objection, asked and answered.

1 CO-HEARING OFFICER DODUC: That's a different
2 one, but I --

3 Dr. Chilmakuri, has your answer changed?

4 WITNESS CHILMAKURI: No. Again, the
5 Department and the Bureau, they are required to show
6 that they are in compliance with permit, and they would
7 have to show. I don't know the forum or the format
8 that would occur.

9 MR. JACKSON: Okay. Will DWR vary the use of
10 individual -- the three individual intakes of the North
11 Delta Diversion in order to optimize diversions within
12 the constraints of the bypass criteria, whatever they
13 may turn out to be?

14 MR. BERLINER: Objection. This is beyond the
15 scope. We've -- I'll just leave it at that.

16 CO-HEARING OFFICER DODUC: Mr. Jackson?

17 MR. JACKSON: The answer -- I'm still working
18 on Page 3, Lines 6 to 8 and trying to understand the
19 claim that the 5,000 cfs downstream bypass flow would
20 always mean that the sweeping velocity would have to be
21 in a downstream direction, or they wouldn't -- whether
22 that means they wouldn't divert, whether they would
23 average, what they would do, and how they would do it.
24 This is directly out of his testimony.

25 CO-HEARING OFFICER DODUC: And, Mr. Berliner,

1 my understanding was that this is in response to, well,
2 Mr. Shutes' testimony, I guess, about DWR's diversion
3 of water. So I see the connection.

4 Why do you believe it's outside the scope?

5 MR. BERLINER: Because the question went to if
6 there are three different diversions, might DWR vary
7 between the three points of diversion. And Mr. Shutes
8 did not raise that in his testimony, nor was it raised
9 in the answer or in this response to Mr. Shutes'
10 testimony. It simply refers to the North Delta
11 Diversion period, not which point within the North
12 Delta Diversion. That's my objection.

13 The question was extremely narrow as to, "Gee,
14 are you going use No. 1, No. 2 or No. 3?" You've had
15 no testimony at all in this proceeding about that.

16 CO-HEARING OFFICER DODUC: Mr. Jackson, was it
17 your intent to parse between those three points of
18 diversions?

19 MR. JACKSON: I just want to know whether or
20 not they're going to aggregate them or whether they're
21 going to look at the impacts at each one of them.

22 CO-HEARING OFFICER DODUC: That's a fair
23 question. Are you able to answer that?

24 WITNESS CHILMAKURI: Yes, the bypass flow
25 requirements will be downstream of all three intakes,

1 and the sweeping velocity requirements and approach
2 velocity requirements will be at the individual
3 intakes, which are instantaneous.

4 MR. JACKSON: Thank you, sir.

5 Dr. Greenwood, is it your testimony that an
6 instantaneous bypass flow of 5,000 cfs would meet the
7 0.4-foot-per-second sweeping velocity 12 inches in
8 front of the screens at all points of the North Delta
9 Diversion screens at all times?

10 WITNESS GREENWOOD: That's not my testimony.
11 I'm merely referencing the 5,000 cfs in relation to
12 providing perspective on that flow being -- on the
13 direction, which is what I'm originally responding to.

14 As you see there further up on that page,
15 Lines, I guess, 3 to 5 where there was questions
16 regarding could 0.4-foot-per-second sweeping velocity
17 be in an upstream direction or a downstream direction,
18 I'm just elaborating on that point.

19 I'm not -- I'm not specifically testifying
20 what 5,000 cfs equates to. I'm merely bringing it up
21 to apply perspective that that's downstream direction,
22 so 0.4 or whatever the sweeping velocity is downstream.

23 MR. JACKSON: Are you -- are you disputing
24 that it's 0.4?

25 WITNESS GREENWOOD: I'm not disputing that

1 it's 0.4. I'm just -- I'm trying to get to the point
2 of it being in a downstream direction. That was the
3 main point I'm trying to address there.

4 MR. JACKSON: Let's move on to Page 4, Lines 2
5 to 6. This is -- actually, I didn't -- I did not
6 explain to the Hearing Officer what my topics were.
7 I'm moving to my second topic, which is pulse flow
8 protection.

9 CO-HEARING OFFICER DODUC: Okay. And then
10 what other topics do you have?

11 MR. JACKSON: Smelt tidal surfing, entrainment
12 protection, predation at the screens, monitoring,
13 mitigation, other native fish species, other fish
14 species whether they're native or not, South Delta
15 Diversion effects from the North -- the addition of the
16 North Delta Diversion, food web effects, and outflow
17 effects. And I'll try to do that within the 54
18 minutes.

19 CO-HEARING OFFICER DODUC: All right. And I
20 would like to give the court reporter a break at --
21 would 2:15-ish be okay?

22 All right -- around there, so if you could
23 find a logical time to break.

24 MR. JACKSON: I will.

25 On Page 4 at Lines 2 to 6, you indicated that

1 Mr. Cannon in Exhibit CSPA-204 -- I mean, you can read
2 it. You indicate that we "did not recognize that CWF
3 H3+ is required to protect all pulses of winter-run and
4 spring-run Chinook salmon," correct?

5 WITNESS GREENWOOD: That's what's written
6 there.

7 MR. JACKSON: Are you referring to fish or
8 flow pulses?

9 WITNESS GREENWOOD: Pulses as -- as stated, I
10 guess, in the description of pulse protection.

11 MR. JACKSON: So could juvenile salmon be
12 present in the vicinity of the intakes between flow
13 pulses?

14 WITNESS GREENWOOD: They could.

15 MR. JACKSON: How would their presence be
16 determined?

17 MR. MIZELL: I'm going to object as being
18 beyond the scope of rebuttal testimony. The statement
19 that is being rebutted by Mr. Cannon as quoted on
20 Lines 2 to 4, Mr. Cannon actually refers to other,
21 later winter flow pulses and whether or not CWF H3+ was
22 protective of those later pulses. Dr. Greenwood then
23 goes on to explain that we protect all pulses.

24 Mr. Jackson's question is now discussing
25 non-pulse-based fish presence, and that doesn't go to

1 the scope of either the testimony being rebutted or the
2 rebuttal testimony provided by Dr. Greenwood.

3 MR. JACKSON: This is rebuttal testimony, and
4 Dr. Greenwood attempted to rebut statements made by our
5 witnesses. And the question here is are we protecting
6 flow pulses or are we protecting fish pulses? When
7 fish are present, is there protection? And how do we
8 know?

9 CO-HEARING OFFICER DODUC: Dr. Greenwood, are
10 you --

11 WITNESS GREENWOOD: Well, I think the pulse
12 protection is triggered by fish presence in monitoring.
13 So there's -- you know, there's that element of pulse
14 protection not being necessarily a flow thing, although
15 the flow and the fish presence are related often.

16 CO-HEARING OFFICER DODUC: So in your
17 testimony, when you say "all pulses," you are referring
18 to fish pulse?

19 WITNESS GREENWOOD: As I mentioned, the pulses
20 as -- as defined, I guess, for example, in the ITP
21 where they have a description of what constitutes a
22 pulse. So that's -- I think what I was rebutting there
23 seemed to be referring to something that was just
24 talking about the first winter pulse, which at one time
25 was something that had been considered.

1 But where we are now is that it's sometimes
2 called "unlimited pulse protection." So there's
3 multiple pulses potentially, based on the definition.

4 So I'm just -- I'm trying to get to that. And
5 as we mentioned, it's -- there are fish-based triggers
6 for that which are, I think, subject through the work
7 of the North Delta Diversion technical team, for
8 example, that those will be assessed. And depending,
9 you know, on the findings of the assessment, those
10 could be refined. So that's what I'm trying to get at
11 there is just this -- the main point I think was that
12 my impression from reading the testimony of Mr. Cannon
13 was that there was a big emphasis on this first winter
14 pulse being protected.

15 What I'm saying is that it has additional
16 pulse projection. That's what I'm trying to get to.

17 MR. JACKSON: Isn't it true, Dr. Greenwood,
18 that Mr. Cannon said that the first winter pulse flow
19 is commendable to help winter-run salmon pass through
20 the Delta but would not protect fry, parr, and smolt
21 spring- and fall-run salmon, or subsequent winter-run
22 immigration in later winter pulse flows?

23 Isn't it true that the pulse protection will
24 not necessarily protect the fry, the parr, and the
25 smolt of the spring- and fall-run salmon?

1 WITNESS GREENWOOD: Well, the pulse protection
2 has that focused on the -- focused on those listed
3 fish. Pulse protection and the flows and so on that go
4 with it is just one thing in the considerations. So
5 there's also bypass flow criteria.

6 We have -- you know, this is speaking broadly,
7 now, to my more general points as far as some of the
8 other measures, mitigation, and so on. So, you know,
9 my -- my -- you know, this is getting a little bit more
10 to my overall conclusion in other parts.

11 But as Mr. Jackson said, this is what
12 Mr. Cannon said here as far as some of these other
13 runs, for example, or life stages. And so we're saying
14 that within this -- what I'm saying generally -- and
15 it's not in this section, as I mentioned -- is within
16 this overall framework of all these considerations:
17 pulse protection, bypass flows, other things -- that
18 it's my consideration that there's reasonable
19 protection consistent with the NMFS Biological Opinion.
20 So it's broader, I think, than just pulse protection
21 flows.

22 MR. JACKSON: So if -- if fish are present at
23 the diversions in periods outside of the pulse flows,
24 which I guess are triggered by something up in Knight's
25 Landing in terms of monitoring, is there any protection

1 for these life stages?

2 WITNESS GREENWOOD: Just to clarify about
3 Knight's Landing. Knight's Landing is mentioned as an
4 initial location.

5 There may be other locations that are -- I
6 think it's required that the North Delta Diversion
7 technical team consider whether other monitoring
8 locations would be needed in order to be able to
9 establish, for example, pulse protection flows.

10 I mean, regarding protection, reasonable
11 protection, pulse protection flows is not the only
12 thing. We have the screen criteria, bypass -- sorry,
13 not bypass -- well, bypass flows as well, but approach
14 velocity, sweeping velocity, these considerations as
15 well. So the screens are designed -- the screen's to
16 be designed, you know, to be protective of fish.

17 MR. JACKSON: And that has not taken place, as
18 you sit here today?

19 WITNESS GREENWOOD: Sorry. What has not taken
20 place?

21 MR. JACKSON: We don't have a plan for fry,
22 parr, and smolt at the hypothesized screens yet; is
23 that fair to say?

24 WITNESS GREENWOOD: I don't know what you mean
25 by "plan for."

1 MR. JACKSON: Do you monitor the presence in
2 front of the screens?

3 WITNESS GREENWOOD: Well, the -- the emphasis
4 is on monitoring of the listed fish,
5 winter-run/spring-run fish, which may be different life
6 stages of the -- I mean, different juvenile stages of
7 those fish. There are requirements to study things
8 such as entrainment, such as impingement and so on.
9 The specifics of those things haven't yet been
10 established.

11 MR. JACKSON: Thank you.

12 On Page 4/20 through Page 5/3 at Line 3, you
13 talk about Mr. Cannon's concern regarding the potential
14 for the bypass flows to affect Delta smelt.

15 Do you disagree that the Delta smelt spawning
16 migration is dependant on tidal surfing?

17 WITNESS GREENWOOD: I understand that tidal
18 surfing is a supported mechanism for Delta smelt to
19 move upstream.

20 MR. JACKSON: Do you agree that reductions in
21 Delta inflow at the North Delta Diversion will affect
22 the distribution of spawning of the Delta smelt?

23 WITNESS GREENWOOD: I don't know that.

24 MR. JACKSON: One way or the other?

25 WITNESS GREENWOOD: What I would say is -- and

1 what this gets to is that there was a concern from
2 Mr. Cannon that reductions in Delta inflow at the NDD
3 will affect the distribution of spawning and possibly
4 increase the smelt run up the main channel for
5 Sacramento River into the intakes.

6 I rebut that by saying that we specifically
7 had an analysis addressing the concern that there could
8 be adult Delta smelt further upstream and moving up
9 towards the NDD. Our analysis did not suggest that
10 that would be -- that that would be the case based on
11 the tidal surfing mechanism.

12 MR. JACKSON: Is your disagreement with
13 Mr. Cannon based solely on DSM-2 modeling?

14 WITNESS GREENWOOD: That's -- that's the basis
15 that I have in my testimony.

16 MR. JACKSON: Do you have any -- have you had
17 any experience over time in the Delta in regard to, for
18 instance, the POD crash in Delta smelt?

19 WITNESS GREENWOOD: I don't know what you mean
20 by "have you had any experience in the Delta regarding
21 the POD crash."

22 MR. JACKSON: Did you work on the POD team?

23 WITNESS GREENWOOD: I did not.

24 MR. JACKSON: Do you dispute that the Delta
25 smelt are known to have been found upstream of the

1 location for the proposed North Delta Diversion?

2 WITNESS GREENWOOD: I did not.

3 MR. JACKSON: Wouldn't a decrease in flood
4 velocities increase the potential for upstream movement
5 of Delta smelt?

6 WITNESS GREENWOOD: Not according to the
7 modeling that we have that's a representation of North
8 Delta diversions.

9 MR. JACKSON: And that's the same modeling you
10 talked about, the DSM-2 particle tracking model?

11 MR. GREENWOOD: That is, yes.

12 MR. JACKSON: Isn't it true that some of the
13 very few remaining concentrations of Delta smelt in the
14 last five years have been detected in the Cache Slough
15 area?

16 MR. MIZELL: Objection, goes beyond the scope
17 of his rebuttal testimony.

18 MR. JACKSON: I don't believe it is. He says
19 there's not a problem that the velocities would -- that
20 the taking of the water would -- could not potentially
21 have effect on migrating Delta smelt going above the
22 diversions.

23 CO-HEARING OFFICER DODUC: And he referenced
24 Exhibit DWR-1142 as the basis for that conclusion.
25 Therefore, your question should be directly related to

1 DWR-1142.

2 MR. JACKSON: Assuming the DSM-2 particle
3 tracking modeling, which I did mention by name, which
4 is 1142, is the only evidence available.

5 CO-HEARING OFFICER DODUC: It's the only
6 evidence he --

7 Dr. Greenwood, my understanding from your
8 testimony is that it's the evidence you relied upon in
9 rebutting this particular testimony from Mr. Cannon.

10 WITNESS GREENWOOD: It is.

11 MR. JACKSON: And then I asked him isn't it
12 true that some of the very few remaining concentrations
13 of Delta smelt in the last five years have been
14 detected in Cache Slough?

15 CO-HEARING OFFICER DODUC: And how does that
16 relate to DWR-1142 upon which he reached the conclusion
17 that is on the screen right now? I'm just trying to --

18 MR. JACKSON: Because Cache Slough comes into
19 the Sacramento River very close to the diversions.

20 WITNESS CHILMAKURI: Actually, it comes into
21 the river roughly 30 miles downstream of the
22 diversions.

23 MR. JACKSON: And that's where the diversions
24 have been. They've been -- I mean, Cache Slough is
25 where the smelt are that remain.

1 CO-HEARING OFFICER DODUC: So, Mr. Jackson,
2 are you asking this question to test the validity,
3 veracity of DWR-1142?

4 MR. JACKSON: I'm not necessarily trying to
5 attack the 1142. I'm trying to point out that there's
6 a lot more than 1142 available for him to come to a
7 conclusion from, and I want to know whether he used any
8 of it. And then I want to know whether he knows
9 whether the -- where the Delta smelt have been in the
10 last five years so that you can compare.

11 CO-HEARING OFFICER DODUC: Dr. Greenwood, did
12 you rely on any other information other than DWR-1142
13 to reach the conclusion that you have here?

14 WITNESS GREENWOOD: I focused it on the
15 modeling that I discussed.

16 CO-HEARING OFFICER DODUC: So your answer to
17 the question, Mr. Jackson, is that he did not look at
18 anything else.

19 MR. JACKSON: Thank you.

20 CO-HEARING OFFICER DODUC: And, Mr. Jackson, I
21 do need to give the court reporter a break.

22 Is now a good time?

23 MR. JACKSON: Sure. Well, I have one more
24 question in regard to smelt.

25 CO-HEARING OFFICER DODUC: Okay. Let's finish

1 that up.

2 MR. JACKSON: Excuse me. Smelt tidal surfing.

3 So, Dr. Greenwood, with a flow of 25,000 at
4 Freeport, can tidal flows become negative downstream of
5 the confluence of Georgiana Slough and the Sacramento
6 River?

7 MR. MIZELL: Objection, incomplete
8 hypothetical.

9 CO-HEARING OFFICER DODUC: What additional
10 information would you need, Dr. Greenwood?

11 WITNESS GREENWOOD: I would probably have to
12 look at flow relationships between -- was it bypass
13 flow or Freeport flow? The question is -- or was it
14 specified what the -- was it bypass flow? I can't
15 remember exactly what the question was.

16 But regardless, I would need to look at
17 relationships between flow -- river flow and whatever
18 the metric is as the outcome, the percentage of -- I
19 don't know what the -- if it's just the potential for
20 reverse flow. I couldn't say off the top of my head, I
21 guess.

22 MR. JACKSON: Do you know whether or not it is
23 possible that tidal flow -- that flows in Georgiana and
24 Steamboat Slough would become negative on flood tides?

25 WITNESS GREENWOOD: I know that -- I generally

1 know that Georgiana Slough is one location that -- at
2 least the upper portion of it is very rarely negative.

3 But I don't -- I don't really recall
4 specifics. I mean, it's broad. Those channels are
5 quite long. So I can't really speak specifically to
6 the whole channel or if there's a particular part of
7 the channel or --

8 CO-HEARING OFFICER DODUC: You cannot answer?

9 WITNESS GREENWOOD: I can't.

10 MR. JACKSON: This is a good time to take a
11 break.

12 CO-HEARING OFFICER DODUC: All right. We will
13 return at 2:35.

14 (Recess taken.)

15 CO-HEARING OFFICER DODUC: All right. It's
16 2:35. We're back in session.

17 Mr. Jackson, please continue.

18 MR. JACKSON: On Page 6, Lines -- of DWR-1221,
19 Lines 25 and 27, Dr. Greenwood, in that testimony, you
20 state that larval smelt can be detected.

21 Is it feasible, in your opinion, for larval
22 smelt to be detected real-time all day, every day at
23 the location of the North Delta Diversion?

24 WITNESS GREENWOOD: I -- it would be, I think,
25 a big effort to do so.

1 MR. JACKSON: Would real-time detection
2 capability for larval smelt be sufficiently accurate to
3 require cessation of diversion if larval smelt were
4 found to be present at the North Delta Diversion?

5 WITNESS GREENWOOD: Can you repeat the
6 question?

7 MR. JACKSON: Sure. Would real-time detection
8 capability for larval smelt be sufficiently accurate to
9 require cessation of diversion if larval smelt were
10 present at the North Delta Diversion?

11 WITNESS GREENWOOD: I'm not sure of the
12 relevance, really, of the question, given that
13 real-time cessation of diversion in relation to smelt
14 entrainment is not -- this isn't the topic that I'm
15 responding to in this section here.

16 Mr. Shutes had indicated that larval smelt are
17 too small to detect. I am rebutting that; larval smelt
18 are not too small to be detected, and they are required
19 to be detected.

20 MR. JACKSON: So if the determination was made
21 that, because of the low levels of smelt, we were going
22 to protect larval smelt at the North Delta Diversion,
23 would this real-time detection capability that you talk
24 about --

25 WITNESS GREENWOOD: I don't think I talk about

1 a real-time detection capability.

2 MR. JACKSON: All right.

3 WITNESS GREENWOOD: You brought it up in your
4 question.

5 MR. JACKSON: Do you know what frequency of
6 monitoring for larval smelt near the North Delta
7 Diversion and at the mouth of Georgiana Slough CWF
8 commits to?

9 WITNESS GREENWOOD: I don't know where the
10 reference to Georgiana Slough is coming from. Where is
11 it mentioned that there's sampling at Georgiana Slough
12 for smelt?

13 MR. JACKSON: The CWF -- I'll unpack it and do
14 it twice. One is what frequency of monitoring for
15 larval smelt near the North Delta Diversion is
16 committed to under CWF?

17 WITNESS GREENWOOD: I don't believe that
18 there's specificity on that. That's something that
19 will be developed.

20 MR. JACKSON: To be developed?

21 WITNESS GREENWOOD: Yeah, that's part of
22 development of monitoring plan and so on.

23 MR. JACKSON: And you're aware that there is a
24 proposal to do a non-fish barrier at Georgiana Slough?

25 MR. MIZELL: I'm going to object. We've laid

1 no foundation that we are now discussing something in
2 Dr. Greenwood's rebuttal testimony.

3 CO-HEARING OFFICER DODUC: And Dr. Greenwood
4 has said he does not mention Georgiana Slough in his
5 testimony. So, Mr. Jackson.

6 MR. JACKSON: I'll move on.

7 This is Page 10, Lines 1 through 9 where they
8 mention Georgiana Slough barrier -- where he mentions
9 it. But I'll skip that question and go on.

10 It's your opinion that -- you cite in your
11 previous testimony and this rebuttal testimony it is
12 your opinion that the various proposed and required
13 measures are reasonably protective of juvenile
14 salmonids. And you -- you cite that -- that in Exhibit
15 SWRCB-106 that the CWF H3+ and the issuance of the ITP
16 as the basis for your opinion; is that correct?

17 WITNESS GREENWOOD: That's not the only basis,
18 but that's something that I say is -- I consider to be
19 consistent with my overall opinion.

20 MR. JACKSON: Does the NMFS BO for WaterFix or
21 the Cal Department of Fish and Wildlife ITP make
22 conclusions about the proposed operation of CWF H3 and
23 whether it would affect the viability of the salmon
24 populations?

25 WITNESS GREENWOOD: CWF H3+, you mean?

1 MR. JACKSON: Yes.

2 WITNESS GREENWOOD: As far I know, they do,
3 yes.

4 MR. JACKSON: You're not aware that those
5 documents leave the question of operation open in terms
6 of viability?

7 MR. MIZELL: Objection, asked and answered.

8 CO-HEARING OFFICER DODUC: I heard a ding.
9 Dr. Greenwood?

10 MS. AUFDEMBERGE: That was me. Sorry.

11 WITNESS GREENWOOD: Wasn't me.

12 Can you repeat the question?

13 I mean, the operational scenario that's
14 focused on is CWF H3+, but beyond that, there's the
15 overall framework for consideration of Adaptive
16 Management and these other elements. So that's what's
17 part of that, part of those considerations.

18 MR. JACKSON: And it's your understanding that
19 the proposed operation is not subject to reassessment
20 before the operation begins?

21 MR. MIZELL: Objection, misstates the
22 witness's testimony.

23 CO-HEARING OFFICER DODUC: Sustained.

24 MR. JACKSON: Moving on to Page 11 -- or
25 Page 12, Lines 25 to 30 [sic].

1 Dr. Greenwood, on the bottom of Page 11 and
2 the top of Page 12, you describe pre-construction
3 studies to reduce uncertainty about the effectiveness
4 of the fish screen protection, do you not?

5 WITNESS GREENWOOD: Yes, I mention
6 pre-construction studies near the bottom of Page 11.

7 MR. JACKSON: And you also on Page 12,
8 Lines 20-25, say that effectiveness monitoring must
9 show a survival level for all causes, including
10 predation, of at least 95 percent of the pre-project
11 level in the -- in the North Delta Diversion reach for
12 winter-run and spring-run salmon, correct?

13 WITNESS GREENWOOD: That's Biological
14 Criterion 1 from the ITP, correct.

15 MR. JACKSON: Against what baseline will DWR
16 measure that effectiveness?

17 WITNESS GREENWOOD: I believe it's simply
18 referred to in the ITP as pre-project.

19 MR. JACKSON: So we don't have a baseline
20 described yet, correct?

21 WITNESS GREENWOOD: It's -- I don't believe
22 that it's described yet. It would be part of the
23 studies that are required under the ITP. There may
24 be -- I believe there may be some studies that have
25 been done, may contribute to that, depending on the

1 similarity of them.

2 So I think -- but it is required that there is
3 a pre-project baseline for that to be compared to.

4 MR. JACKSON: And to your knowledge, there is
5 not one available today?

6 WITNESS GREENWOOD: I haven't seen a specific
7 one. As I mentioned, it's required under the pre- --
8 whichever pre-construction study to be established.

9 MR. JACKSON: Do we yet know where this
10 baseline survival will be measured?

11 WITNESS GREENWOOD: For Biological Criterion
12 1, it's -- I believe it's specified in the ITP.
13 This -- the actual definition of it and how it relates
14 to the location of the NDD is -- I don't recall the
15 specifics, but I think there are distances upstream and
16 downstream of the intakes that are given. I just don't
17 recall them offhand.

18 MR. JACKSON: Do you know whether or not there
19 are similar numeric effectiveness criteria for
20 non-listed species like fall-run salmon?

21 WITNESS GREENWOOD: There aren't any -- there
22 aren't any that I'm aware of that are in the -- that
23 are mentioned in the ITP, I don't think.

24 MR. JACKSON: Do you know what the extent of
25 allowed changes in the North Delta Diversion operation

1 if predation at the North Delta Diversion exceeds the
2 threshold of acceptable levels for winter-run and
3 spring-run Chinook?

4 WITNESS GREENWOOD: Can you repeat the
5 question, please.

6 MR. JACKSON: Sure. Do you know what the
7 extent of changes in North Delta Diversion operation
8 will be if predation at the diversions exceeds the
9 levels of acceptable -- the threshold of acceptable
10 levels for winter-run and spring-run Chinook?

11 WITNESS GREENWOOD: I don't know that.

12 MR. JACKSON: On Page 12, Lines 18 to 20, you
13 indicate that predatory fish relocation will be
14 considered as part of Adaptive Management following
15 pre- and post-construction studies of predatory fish
16 density, habitat, and relocation.

17 Do you see that?

18 WITNESS GREENWOOD: I see it.

19 MR. JACKSON: Do you know how the predators
20 would be captured?

21 MR. BERLINER: Objection, beyond the scope.

22 MR. JACKSON: He's talking about predatory
23 fish density, habitat, and relocation methods.

24 CO-HEARING OFFICER DODUC: Overruled.

25 WITNESS GREENWOOD: I don't know how that

1 would be -- I don't know -- if that was indeed what was
2 pursued, I don't know what methods would be used. I
3 think, actually, there is a pre- -- pre-construction
4 study, I don't remember which number it is, that is
5 actually relating to potential capture methods if --
6 you know, to inform if there was that necessity for
7 capture, relocation and so on.

8 But sitting here, I don't know what methods
9 might be employed.

10 MR. JACKSON: Do you have an opinion about
11 whether -- about the potential effectiveness of such an
12 effort?

13 MR. BERLINER: Objection, beyond the scope.

14 And Mr. Jackson had indicated that "methods" was
15 discussed. There is no discussion of methods.

16 CO-HEARING OFFICER DODUC: Methods was
17 mentioned.

18 MR. BERLINER: In -- with all due respect, not
19 in the section he's citing to as the basis for his
20 prior question. So following up now on further
21 discussion of methods is beyond the scope.

22 CO-HEARING OFFICER DODUC: And was methods
23 discussed in DWR-1012, Dr. Greenwood, which you're
24 referencing?

25 WITNESS GREENWOOD: I would have to just

1 quickly look. I don't have specific -- I don't have
2 reference to specific methods other than -- I'm noting
3 there that under pre-construction Study 6 -- just to
4 clarify where I'm looking, I'm looking at Exhibit
5 DWR-1012, my previous testimony, Page 19, Lines --
6 around about Line 16 to 19.

7 The predatory reduction methods
8 pre-construction study that I mentioned includes
9 evaluation of predator reduction techniques implemented
10 at similar facilities to determine whether those
11 techniques can minimize potential predation impacts at
12 the NDD.

13 That doesn't specify any given method. Again,
14 it's just speaking general to that study, requiring to
15 investigate or look at the effectiveness of different
16 methods, I guess, that would be used elsewhere.

17 MR. JACKSON: And that would all take place in
18 the future?

19 WITNESS GREENWOOD: That's required to take
20 place pre-construction.

21 MR. JACKSON: And if in fact it was found that
22 the operation of the North Delta Diversion affected
23 predator capture, what would happen if capture proved
24 ineffective?

25 MR. MIZELL: Objection as to vague and

1 ambiguous as to "affected."

2 CO-HEARING OFFICER DODUC: Sustained.

3 Mr. Jackson, clarify, please.

4 MR. JACKSON: Sure. If it turned out that,
5 after they do these studies in the future, that the
6 North Delta Diversion didn't allow predator capture,
7 would we shut down the diversion?

8 MR. BERLINER: Objection, calls for
9 speculation and goes beyond the scope of this
10 testimony.

11 MR. JACKSON: Well, they're asking for a
12 permit now, and I think we're entitled to determine
13 what we would not know before the permit is issued, and
14 what would be a problem later to try to sort out.

15 CO-HEARING OFFICER DODUC: Which is why you
16 have been exploring this line of questioning, I
17 understand. And how does this relate to his rebuttal
18 testimony specifically?

19 MR. JACKSON: Well, because at Line 12/18 --
20 or Page 12, Lines 18 to 20, he talks about predatory
21 fish relocation will also be considered as part of
22 Adaptive Management studies of predatory fish density,
23 habitat, and relocation methods.

24 I'm trying to determine whether or not that's
25 information we should know before we approve a permit.

1 CO-HEARING OFFICER DODUC: That's argument
2 that you may make in your closing brief. His testimony
3 is that it will be considered as part of Adaptive
4 Management. And if you're asking him whether it's
5 something that he thinks we should know now -- is that
6 your question?

7 MR. JACKSON: He's using it to rebut testimony
8 about predators.

9 CO-HEARING OFFICER DODUC: Yes.

10 MR. JACKSON: As if we knew something from his
11 testimony. So actually, I guess what I'm trying to do
12 is to show that his testimony isn't important on this
13 issue.

14 CO-HEARING OFFICER DODUC: And so that goes to
15 weight, which you can argue in your closing brief.

16 MR. JACKSON: If I get an answer, I can argue
17 it in the closing brief.

18 CO-HEARING OFFICER DODUC: And the answer that
19 you are seeking is not already reflected in the
20 testimony?

21 MR. JACKSON: He just cites pre- and
22 post-construction studies about this, and that's the
23 end of it.

24 CO-HEARING OFFICER DODUC: Yes.

25 MR. JACKSON: As if that rebutted it.

1 CO-HEARING OFFICER DODUC: And that's all he
2 cited, and you may argue that it's insufficient in your
3 closing briefs.

4 MR. JACKSON: Thank you.

5 WITNESS GREENWOOD: May I add something on
6 that briefly?

7 CO-HEARING OFFICER DODUC: You're at risk
8 here, but go ahead.

9 MR. JACKSON: There is actually not a question
10 in front of him, and I'm -- he's chewing up my time
11 here.

12 CO-HEARING OFFICER DODUC: All right.

13 MR. JACKSON: And you want me to move.

14 CO-HEARING OFFICER DODUC: I do.

15 MR. JACKSON: Thank you. Page 15, Lines 20 to
16 24, this is in regard to monitoring.

17 Dr. Greenwood, you state on Page 15, Lines 20
18 to 24, that screw trap monitoring will ascertain when
19 pulses of fish are occurring.

20 Will the California WaterFix require
21 additional monitoring at the location of the North
22 Delta Diversion?

23 WITNESS GREENWOOD: Can you state your
24 question again precisely as to what you said that I
25 wrote, please?

1 MR. JACKSON: Mr. Shutes opined that pulse
2 protection of fish depends on detection which he
3 considered to be unreliable, given as an example
4 smolt-sized salmon swimming out of rotary screw traps.

5 Your response is that screw trap monitoring
6 will ascertain when pulses of fish are occurring.

7 My question is is there going to be additional
8 monitoring at or near the location of the North Delta
9 Diversion?

10 WITNESS GREENWOOD: It's required that the
11 North Delta Diversion technical team consider whether
12 additional monitoring may be required. That could be
13 near the North Delta Diversion. Sitting here, I don't
14 know where those additional locations are, but it's
15 acknowledged that there may need to be additional
16 locations. So that's what I know.

17 MR. JACKSON: So from your review of the
18 information that's supplied by DWR, have you been able
19 to determine how DWR is going to monitor entrainment
20 and impingement at the screens?

21 WITNESS GREENWOOD: Those details aren't
22 specified. Those are things to be developed towards --
23 those will be developed towards operations, the
24 monitoring plan and so on, as I mentioned earlier.

25 MR. JACKSON: So let's move to Page 17,

1 Lines 16 to 23. This is the non-physical barrier at
2 Georgiana Slough that is proposed.

3 Dr. Greenwood, isn't it true that the
4 non-physical barrier at the head of Old -- head of
5 Georgiana Slough is based on experimental and pretty
6 much unproven technology?

7 WITNESS GREENWOOD: I'm not sure where that
8 characterization is coming from. Here I clearly cite
9 two studies that had illustrated effectiveness of the
10 barrier deployed at the very location that it's
11 proposed.

12 So those, to me, seem to indicate that that
13 technology can be quite effective. A reduction of 50
14 to 67 percent in relative terms for the fish that were
15 tested seems quite effective to me.

16 MR. JACKSON: And that is measured from today
17 instead of a species that has declined by 95 percent
18 since 1960?

19 MR. MIZELL: Objection --

20 MR. JACKSON: In other words, what's the
21 baseline for determining effectiveness?

22 WITNESS GREENWOOD: The effectiveness is on
23 versus off. So this is a non-physical barrier that was
24 a bubble curtain with sound within the bubble curtain,
25 strobe lights projected onto the bubble curtain. It

1 was tested by turning it on, turning it off, examining
2 the percentage of fish going into Georgiana Slough with
3 it on and with it off.

4 So the comparison is for the fish that were
5 tested, which is, as stated there, acoustically tagged
6 late fall-run Chinook salmon and steelhead juveniles
7 that were looked at.

8 MR. JACKSON: Well, if the technology is
9 reliable and effective, why haven't petitioners in this
10 project installed and implemented the technology
11 already, six years after the experiments?

12 MR. MIZELL: Objection, goes beyond the scope
13 of rebuttal.

14 CO-HEARING OFFICER DODUC: Sustained.

15 MR. JACKSON. Page 18, Lines 18 to 21. These
16 are questions about Mr. Cannon's opining that sturgeon
17 and Pacific lamprey would be affected by the North
18 Delta Diversion.

19 Dr. Greenwood, where do most of the white
20 sturgeon in the Sacramento-San Joaquin River system
21 spawn?

22 WITNESS GREENWOOD: My understanding is that
23 they are mostly in the Sacramento River.

24 MR. JACKSON: And so all of their life stages
25 have to pass in front of the screens?

1 WITNESS GREENWOOD: I don't think all of their
2 life stages have to pass in front of the screens, no.

3 MR. JACKSON: Which ones would?

4 MR. MIZELL: I'm actually going to object to
5 questions about lamprey and sturgeon spawning
6 locations. That's not within Dr. Greenwood's
7 testimony, as Dr. Greenwood's testimony specifies other
8 native Delta fish species, "other" indicating that he's
9 talking about fish species other than Pacific lamprey
10 and sturgeon.

11 CO-HEARING OFFICER DODUC: Mr. Jackson?

12 MR. JACKSON: Yes. I'm trying to make a point
13 that Mr. Cannon's opinion includes the facts that white
14 sturgeon spawn in the Sacramento River upstream of the
15 proposed location of the North Delta Diversion.

16 MR. MIZELL: And that's not disputed by
17 Dr. Greenwood's testimony.

18 CO-HEARING OFFICER DODUC: Mr. --

19 MR. JACKSON: He disputed in rebuttal the
20 testimony of our expert.

21 CO-HEARING OFFICER DODUC: A very specific
22 portion of that testimony.

23 MR. JACKSON: And so I'm not allowed to
24 inquire --

25 CO-HEARING OFFICER DODUC: Point me --

1 MR. JACKSON: -- about what he knows?

2 CO-HEARING OFFICER DODUC: Point me to his
3 testimony where he specifically reviewed it, rebutted
4 that assertion by your expert.

5 MR. JACKSON: Line 22: "Mr. Cannon also
6 opined that a number of other --"

7 CO-HEARING OFFICER DODUC: Hold on. Hold on.
8 What page? Let me get there.

9 MR. JACKSON: Yeah, it's up right now. It's
10 Line 22.

11 CO-HEARING OFFICER DODUC: Okay. So that's
12 what Mr. Cannon opined. And then let's follow through.

13 So what is Dr. Greenwood's position? If we
14 scroll down -- which is why I was on the other page --
15 that's his finding. Okay? And then, go on.

16 MR. JACKSON: So I'm attempting to ask him
17 about his finding that there is no potential
18 environmental impact.

19 MR. MIZELL: If I might direct the Hearing
20 Officer back up to Line 22 where we started. That was
21 the statement that I referenced in my objection;
22 "Mr. Cannon also opined that a number of other native
23 Delta fish species. . ." The only thing talking about
24 sturgeon and Pacific lamprey is the paragraph directly
25 above that.

1 CO-HEARING OFFICER DODUC: Ah, so you're
2 saying that these opinions by Dr. Greenwood that follow
3 do not reference the Pacific lamprey?

4 MR. BERLINER: No, the opinion commented on on
5 Line 22 by Mr. Cannon draws a distinction between white
6 sturgeon and Pacific lamprey and other native Delta
7 fish species.

8 And the question -- or the opinion go to that
9 paragraph starting on Line 22 concerning the other
10 native Delta fish species, in other words, other than
11 white sturgeon and Pacific lamprey.

12 CO-HEARING OFFICER DODUC: Yes, that's what I
13 thought I said. All right.

14 So, Mr. Jackson.

15 MR. JACKSON: I was attempting to start with
16 sturgeon. As it goes on, the opinion on other native
17 fish species includes Pacific lamprey, includes the
18 Sacramento splittail, includes --

19 CO-HEARING OFFICER DODUC: So your question to
20 Dr. Greenwood, which now I've lost track of, is in
21 reference to what particular species?

22 MR. JACKSON: It has to do with the native
23 species, fish species, that need to pass by these
24 screens.

25 CO-HEARING OFFICER DODUC: And that would be

1 other native Delta fish species besides white sturgeon
2 and Pacific lamprey?

3 MR. JACKSON: And splittail -- were the three
4 example my witness used.

5 CO-HEARING OFFICER DODUC: Okay. So then now
6 your specific question to Dr. Greenwood is what?

7 MR. JACKSON: It was fairly simple.

8 Do you know whether or not surveys have found
9 larval sturgeon in the North Delta channel of the
10 Sacramento River? Probably followed by the same thing
11 with lamprey and the same thing with splittail.

12 CO-HEARING OFFICER DODUC: So answer the
13 question with respect to splittail.

14 WITNESS GREENWOOD: Have -- just so I can
15 clarify the question. Have surveys found larval
16 splittail in the reach where the North Delta Diversions
17 are? Is that an adequate paraphrasing of it?

18 MR. JACKSON: Yeah, I'll take that.

19 WITNESS GREENWOOD: They have.

20 MR. JACKSON: Is it a substantial portion of
21 the -- of the reproducing splittail?

22 WITNESS GREENWOOD: I don't know if it's a
23 substantial portion of reproducing splittail, but I can
24 add to this.

25 As you see in the testimony, upper part of

1 Page 19, the rationale -- and I think you mentioned
2 earlier, "no impact." I've heard the phrase "no
3 impact." I'm not saying there's no impact. There is
4 the potential for effect, potential for entrainment,
5 for example.

6 But considering factors such as the bulk of
7 reproduction, as I understand it, for splittail, being
8 in floodplains and particularly the Yolo Bypass, that's
9 a consideration for thinking about what the impact is
10 of the North Delta Diversions which wouldn't be used as
11 much in drier years where, for example, Yolo Bypass
12 wouldn't be available.

13 So it's not saying there's no impact. It's
14 consideration of these various factors.

15 MR. JACKSON: Are you aware that the
16 splittail, that a large portion of them spawn in the
17 Sutter Bypass?

18 WITNESS GREENWOOD: I'm aware that they spawn
19 in the Sutter Bypass.

20 MR. JACKSON: And that they also spawn in the
21 floodplains of the Feather and the American Rivers?

22 WITNESS GREENWOOD: Generally I believe that
23 they spawn in upstream areas such as inundated
24 floodplains.

25 MR. JACKSON: As they move downstream,

1 wouldn't splittail that spawn in those locations pass
2 the North Delta Diversions at sizes that would make
3 them vulnerable to entrainment?

4 WITNESS GREENWOOD: I think as they rear, the
5 early rearing, some of them may be coming off of
6 smaller sizes, but I think many of them are large
7 enough where they wouldn't be subject to entrainment.

8 MR. JACKSON: Have the surveys also found
9 larval sturgeon in the Sacramento River near the area
10 of the North Delta Diversion?

11 WITNESS GREENWOOD: I believe so, yes.

12 MR. JACKSON: Would these screens protect
13 95 percent of the larva of these species?

14 WITNESS GREENWOOD: I don't know what specific
15 sizes that you're referring to as far as larvae. I
16 mean, it comes down to what percent are, you know --
17 what might be passing.

18 And as I understand it, there's substantial
19 portions that are well upstream, and they're no longer
20 small by the time they're getting to the North Delta
21 Diversions. So it's not, as I understand it, all
22 larvae -- not all larvae are passing the North Delta
23 Diversions.

24 MR. JACKSON: But anything -- anything smaller
25 than 20 millimeters would not be protected by the

1 present design of the screen, correct?

2 WITNESS GREENWOOD: I don't recall that
3 specific number for sturgeon.

4 MR. JACKSON: Okay. I'm going to -- I have
5 three subjects, and I will try to do it in ten
6 questions.

7 CO-HEARING OFFICER DODUC: We'll give you ten
8 minutes.

9 MR. JACKSON: And my question part will be
10 short.

11 Calling your attention to Page 25, Lines 1 to
12 3, you indicate that entrainment losses in recent years
13 have been considerably limited as a result of more
14 restrictive operating criteria for the U.S. Fish and
15 Wildlife Service and NMFS; is that true?

16 WITNESS GREENWOOD: That's what's written
17 there, yes.

18 MR. JACKSON: Dr. Greenwood, did you consider
19 the possibility that the low salvage numbers since 2008
20 related to the population crashes of Delta smelt and
21 other pelagic organisms?

22 WITNESS GREENWOOD: The Delta smelt -- the
23 salvage or entrainment loss presumably does reflect the
24 abundance of the species to some extent.

25 The allowable take is scaled to the index of

1 population size for Delta smelt, and those scaled
2 values have been low, so the take hasn't been exceeded.
3 So what I'm trying to say is it takes into account the
4 population sizes.

5 Does that help?

6 MR. JACKSON: Would you expect that, if the
7 population began to rebuild, that the salvage would go
8 up?

9 WITNESS GREENWOOD: It may do. Again, it's --
10 the allowable take is scaled to what's believed to be
11 an index of the population abundance, so it may well
12 increase as far as the absolute number of fish if the
13 population increased.

14 MR. JACKSON: Page 25, Lines 7-11, 7 through
15 11. Here you're talking about real-time operations
16 group such as the smelt working group, correct?

17 WITNESS GREENWOOD: Yes.

18 MR. JACKSON: And you mentioned that real-time
19 operation groups would continue under the CWF.

20 Do you know whether or not the recommendations
21 of the existing real-time ops groups have always been
22 implemented by the managers?

23 WITNESS GREENWOOD: I don't know if they've
24 always been followed by the managers. I do know that
25 the limits for incidental take have not been exceeded.

1 MR. JACKSON: Going to food web question --

2 I'm trying to stay within the ten minutes.

3 Page 25, Line 14, you say that in your opinion
4 CWF H3 will reasonably protect food web productivity in
5 the Bay-Delta.

6 Do you see that?

7 WITNESS GREENWOOD: Sorry. Can you tell me
8 the lines again, please.

9 MR. JACKSON: Page 25, Line 14.

10 WITNESS GREENWOOD: Yes, I see it.

11 MR. JACKSON: Could reduced Delta inflows from
12 the North Delta Diversion affect Delta food web
13 productivity, particularly in the low-salinity zone, if
14 the North Delta Diversion is built?

15 WITNESS GREENWOOD: Could it affect it? It
16 could affect. I think it could affect it, but we've
17 analyzed that, as I indicate here in my testimony. And
18 so I don't think that that effect is large
19 considering -- at least in the context of what I'm
20 talking about here, which is entrainment,
21 phytoplankton, considering the potential for
22 entrainment, for example, at the NDD but then less
23 entrainment in the South Delta and in contribution from
24 San Joaquin River as well as just in situ productivity
25 within the Delta itself.

1 So there could be an effect, but it has to be
2 within the context of the overall things that could
3 occur, as I state here.

4 MR. JACKSON: Wouldn't the loss of Sacramento
5 River nutrients, plankton, and sediment potentially
6 reduce Bay-Delta productivity?

7 MR. MIZELL: Objection, assumes facts not in
8 evidence.

9 MR. JACKSON: I'm asking an expert witness who
10 said that -- who gave an opinion in his rebuttal
11 testimony that CWF H3+ will reasonably protect food web
12 productivity. I'm trying to figure out why he came to
13 that conclusion.

14 MR. MIZELL: If Mr. Jackson would phrase it in
15 a hypothetical, my objection would be taken care of.

16 CO-HEARING OFFICER DODUC: All right.
17 Hypothetically.

18 MR. JACKSON: Hypothetically, if there is a
19 loss of Sacramento River nutrients from the diversion,
20 the plankton from the diversion and sediment from the
21 diversion, wouldn't that tend to reduce Bay-Delta
22 productivity?

23 WITNESS GREENWOOD: Well, I mean, it's kind of
24 stated there what the opinion is on that. But it's
25 basically looking at the -- it acknowledges that there

1 can be entrainment of productivity at the North Delta
2 Diversions but that, considering that, then there's
3 less South Delta pumping.

4 And this is -- this is presented in our BA as
5 well as the Fish and Wildlife Service Biological
6 Opinion, that the factors such as less South Delta
7 pumping could offset or more than offset North Delta
8 effects.

9 So it's not just North Delta Diversions that's
10 the consideration. It's other things like South Delta
11 Diversion changes that's forming the basis for the
12 opinion.

13 MR. JACKSON: Can you point to anything in the
14 petition or the voluminous information on the
15 California WaterFix that commit Tracy CVP diversions to
16 decrease if the CWF is approved?

17 CO-HEARING OFFICER DODUC: I believe that is
18 definitely outside the scope of his rebuttal testimony.

19 MR. JACKSON: He just said in answering the
20 question about -- about --

21 CO-HEARING OFFICER DODUC: A hypothetical
22 situation.

23 MR. JACKSON: Sure. Would you like me to say
24 it as a hypothetical?

25 CO-HEARING OFFICER DODUC: Yes. He answered a

1 question about a hypothetical situation. Then you just
2 went back to asking him about a requirement for the
3 proposed project as a result of that hypothetical
4 situation.

5 MR. JACKSON: Would Tracy CVP diversions
6 decrease if we started North Delta Diversions?

7 MR. BERLINER: Objection, asked and answered
8 earlier today from Ms. Parker, I believe.

9 CO-HEARING OFFICER DODUC: Ms. Parker, would
10 you remind me what your answer is?

11 WITNESS PARKER: I believe it was
12 Dr. Chilmakuri who discussed both CVP and SWP
13 diversions in the South Delta.

14 WITNESS CHILMAKURI: My answer was that the
15 exports -- I'm trying to remember exact words. But in
16 general, though, exports would not be greater than No
17 Action Alternative. That's at the South Delta intakes
18 from --

19 CO-HEARING OFFICER DODUC: All right. Thank
20 you.

21 MR. JACKSON: And would the Bureau and DWR
22 have any objection to that being made a permit
23 condition?

24 CO-HEARING OFFICER DODUC: And this has been
25 objected to many times. I assume you're going to

1 object again?

2 MR. BERLINER: Yes.

3 CO-HEARING OFFICER DODUC: Sustained.

4 And, Mr. Jackson --

5 MR. JACKSON: Yes.

6 CO-HEARING OFFICER DODUC: Are you now done?

7 MR. JACKSON: Outflow?

8 CO-HEARING OFFICER DODUC: I am curious,

9 Mr. Jackson, if you could -- actually, let me rephrase
10 this.

11 I'm directing you to ask your questions --
12 hopefully, it's only a few -- without going through the
13 process of having the witness already identify what is
14 actually already in his testimony.

15 We've gone through several questions where you
16 pull up a document, you point to a sentence, you ask
17 him, "Is this what you said?" and he answered, "Yes,
18 that's what's on the testimony."

19 So your question on outflow, what is it? What
20 is the point you're trying to get to? And can we just
21 ask it directly?

22 MR. JACKSON: Yes.

23 Dr. Greenwood, in your opinion, are existing
24 requirements for Delta outflow X2 and the location of
25 the low-salinity zone protective of Delta smelt?

1 CO-HEARING OFFICER DODUC: Did he offer an
2 opinion on the existing or on the CWF H3+ scenario?

3 MR. JACKSON: Actually, that was why I was
4 reading some of these, to answer that question, and I'm
5 sorry if I did it too much.

6 CO-HEARING OFFICER DODUC: All right. So,
7 Dr. Greenwood, are you able to answer the question?

8 WITNESS GREENWOOD: I think I would need more
9 context as far as what it's specifically referring to
10 from my rebuttal testimony.

11 CO-HEARING OFFICER DODUC: All right. Let's
12 point out where in his testimony -- without asking him
13 to reaffirm it, where are you looking at?

14 MR. JACKSON: Where he says, "I do not
15 consider the various Delta outflow water right change
16 petition conditions proposed by Dr. Rosenfeld" and then
17 later Mr. Cannon, "to be necessary," essentially. It's
18 the whole thing between Lines 15 and 22 on Page 29.

19 So in order to determine why he would say
20 that, I need to know whether or not he has an opinion
21 about whether or not -- existing requirements, which is
22 what CWF is being compared to.

23 CO-HEARING OFFICER DODUC: My understanding,
24 at least his testimony, is that -- I'm looking at Page
25 2, which is where he summarizes everything -- is that

1 he believes CH -- I'm sorry -- CWF H3+ will reasonably
2 protect, blah, blah, blah, blah, blah.

3 So based on that, I believe --
4 Dr. Greenwood -- was why he said these additional
5 protections are not necessary. So now you're asking
6 him not about CWF H3+ but about existing requirements?

7 MR. JACKSON: Well, because -- I am. I may
8 not get it by you, but the purpose of the question is
9 that everything in this is a comparison between CWF and
10 existing requirements. And if he -- and --

11 CO-HEARING OFFICER DODUC: I understand that,
12 Mr. Jackson. That was the gist of his case-in-chief
13 testimony. And, again, I remind you that his entire
14 case-in-chief testimony is not open for cross during
15 rebuttal. Cross during rebuttal is limited to the
16 scope of the rebuttal testimony, and in his rebuttal
17 testimony, I don't believe he goes over existing
18 conditions; he focuses on CWF H3+ conditions.

19 So I'm trying to understand where within the
20 scope of rebuttal testimony is there a reference to
21 existing requirements to which you are asking him.

22 MR. JACKSON: Again, he relies for his
23 opinions on -- and I do agree that he relied in his
24 direct testimony on the same set of facts.

25 CO-HEARING OFFICER DODUC: Rationale, yes.

1 MR. JACKSON: He has reestablished his
2 opinion, and I'm asking him whether or not that opinion
3 considers whether or not the existing protections may
4 be inadequate and therefore --

5 CO-HEARING OFFICER DODUC: And he answered
6 that question during case in chief, but I won't answer
7 for him.

8 Go ahead. Answer it, Dr. Greenwood.

9 WITNESS GREENWOOD: Our point of comparison is
10 to the existing standards for reasonable protection
11 plus any additional factors, such as the Biological
12 Opinions. So that's the basis for the comparison.

13 MR. JACKSON: So you have no opinion other
14 than whether or not it's comparable to the existing
15 situation?

16 MR. MIZELL: I'd like to object. It unduly
17 broadens the discussion of what Dr. Greenwood just
18 said. His rebuttal testimony may not set forth an
19 opinion, and that's what's defining the scope here.

20 To have Mr. Jackson try and say that
21 Dr. Greenwood can't opine upon -- through his
22 professional experience, on existing conditions I think
23 unduly diminishes Dr. Greenwood's ability to assess
24 biology.

25 But for the scope of rebuttal purposes, if

1 Mr. Jackson wants to rephrase his question to say, "In
2 your rebuttal testimony, you express no opinion," then
3 that would alleviate my objection.

4 CO-HEARING OFFICER DODUC: All right. We'll
5 caveat Mr. Jackson's question within your rebuttal
6 testimony.

7 Does Mr. Jackson need to repeat the question
8 now?

9 MR. JACKSON: I'm at a loss.

10 CO-HEARING OFFICER DODUC: Okay. Repeat your
11 question again.

12 MR. JACKSON: Dr. Greenwood, in disputing the
13 testimony of Dr. Rosenfeld and Mr. Cannon about -- on
14 Page 29, Lines 15 to 22, do you take into account that
15 existing protections for Delta outflow X2 and the
16 location of the low-salinity zone may not be protective
17 of Delta smelt?

18 WITNESS GREENWOOD: What I say in my testimony
19 is that -- what it recognizes is that there are other
20 processes going on that are addressing issues such as
21 Delta outflow. And so it's -- it's acknowledging, on
22 Lines 11, 12, 13, uncertainty in rearing habitat, as I
23 had in my previous -- for Delta smelt, as I had in my
24 previous testimony.

25 So I don't know if that gets to it.

1 CO-HEARING OFFICER DODUC: I don't think --

2 WITNESS GREENWOOD: I lost my way a little
3 bit.

4 CO-HEARING OFFICER DODUC: I don't think
5 you're going to get much more helpful information,
6 Mr. Jackson. I understand where you're going, and you
7 can certainly argue in your closing brief that
8 Dr. Greenwood's analysis did not take into account
9 those factors.

10 MR. JACKSON: But I need to establish that
11 with a question to get the response I just got.

12 CO-HEARING OFFICER DODUC: Actually, he
13 repeatedly said that in his case in chief. But go
14 ahead.

15 MR. JACKSON: Last question.

16 Dr. Greenwood, is it a major thrust of your
17 testimony that other processes, including other
18 proceedings in Adaptive Management and other documents,
19 will create appropriate Delta flow criteria so it is
20 not necessary for the State Water Board to set Delta
21 flow criteria in permit terms?

22 WITNESS GREENWOOD: First part of that was is
23 it a major thrust? Is that what the question was, is
24 that a major thrust?

25 MR. JACKSON: Is it a major thrust of your

1 testimony that other processes, including other
2 proceedings in Adaptive Management and other documents,
3 will create appropriate Delta flow criteria so it is
4 not necessary to follow the recommendations of
5 Mr. Cannon and Dr. Rosenfeld to ask the State Board to
6 set Delta water flow criteria in the permit terms?

7 WITNESS GREENWOOD: I think it acknowledges
8 that there are those other processes that are
9 addressing some of these issues that were raised.

10 CO-HEARING OFFICER DODUC: Does that conclude
11 your answer to Mr. Jackson's question?

12 WITNESS GREENWOOD: It does.

13 CO-HEARING OFFICER DODUC: And you believe
14 those other processes are sufficient so that the
15 recommendations of Dr. Rosenfeld, Mr. Cannon and others
16 are not necessary?

17 WITNESS GREENWOOD: Within the context of
18 California WaterFix.

19 MR. JACKSON: Thank you.

20 CO-HEARING OFFICER DODUC: Mm-hmm. Let us
21 take a short break while Ms. Womack gets set up for her
22 cross-examination. We will return at 3:40.

23 (Recess taken)

24 CO-HEARING OFFICER DODUC: All right. Before
25 we turn to Ms. Womack and Mr. Emrick, I do need to do

1 potentially two housekeeping matters.

2 First, I have a ruling on the Save the
3 California Delta Alliance motion requesting that we
4 compel DWR to meet and confer with -- I think it was
5 Tower Park Resorts. DWR filed an opposition, and
6 Mr. Brodsky filed a reply.

7 After reviewing everything, we are denying the
8 motion. We will not direct a meeting to discuss
9 possible revisions to petitioners' CEQA document.

10 It would be inappropriate for us to insinuate
11 ourselves into the petitioners' role as the agencies
12 responsible for receiving and responding to public
13 comments on the Draft CEQA supplement. That process is
14 distinct from the purpose of this hearing, which is for
15 the parties to put on their own evidence regarding the
16 impacts of the WaterFix project, including but not
17 limited to impacts to recreation.

18 That being said, for the sake of efficiency,
19 we strongly encourage petitioners to be proactive in
20 reaching out to the Terminus community as soon as
21 possible rather than waiting to see whether they
22 receive written comments from them.

23 We also decline to require a meeting to
24 discuss a proposed permit condition. As we have stated
25 before, parties are welcome to propose conditions for

1 our consideration, and we encourage parties who
2 disagree to meet outside of this hearing and come up
3 with mutually acceptable conditions to propose. As a
4 general rule, however, we do not think it's appropriate
5 at this time to require those meetings.

6 The other housekeeping matter is really just a
7 heads-up for now. Hold on a second, please.

8 Second item is again -- or, heads-up. I don't
9 know yet that it will have an impact on us, but next
10 State Water Resources Control Board meeting is
11 scheduled for Tuesday, August 21st; Wednesday,
12 August 22nd; and, if necessary, Thursday, August 23rd.

13 August 23rd is a WaterFix hearing day. We do
14 not know at this time whether we won't need that day to
15 continue our Board meeting. We will probably not know
16 until the afternoon or perhaps even evening of
17 Wednesday, August 22nd. So this is a heads-up to stay
18 tuned.

19 All right. With that, we will now turn to
20 Ms. Womack, who I see is being assisted by Mr. Emrick.

21 Just a reminder, Ms. Womack, you are currently
22 conducting cross-examination of petitioners' Panel 2
23 witnesses. You have all the rights and privileges of
24 any party conducting cross-examination of these
25 witnesses. You may ask questions of them that are

1 within the scope of their rebuttal testimonies, as well
2 as within the scope of DWR-1143 2nd Revision, as well
3 as within the scope of the Supplemental EIR/EIS
4 document that was released.

5 However, it is possible that they may not be
6 able to address all your questions with respect to the
7 supplement, especially the ones contained -- the ones
8 specific to your water rights, which is why we asked
9 you to submit those questions in writing. And we will
10 review those questions.

11 But for now, again, I focus you, with
12 Mr. Emrick's able assistance, to specific questions to
13 this -- these witnesses regarding their rebuttal
14 testimony regarding DWR-1143 or regarding the EIR
15 Supplement as germane to their background and their
16 expertise.

17 MS. WOMACK: Okay. I keep telling you it is
18 not the rebuttal to their testimony. I will be solely
19 looking at -- I believe solely looking at DWR-1304 and
20 1305 having to do with the flow of water in the new
21 project that affects our diversion. So I'm not sure
22 this is --

23 CO-HEARING OFFICER DODUC: Okay. So you are
24 focused on the supplement and how that might impact
25 you?

1 MS. WOMACK: Yes.

2 CO-HEARING OFFICER DODUC: All right.

3 CROSS-EXAMINATION BY MS. WOMACK

4 MS. WOMACK: Okay. So, Mr. Hunt, could you
5 please put up DWR-1305, 54, pdf 54. I believe it's a
6 map of the area.

7 And while he does that, I wanted to note
8 that I -- the Delta-Mendota Canal I refer to as the
9 DMC. It's a DMC intake on our water license. It's
10 being called Jones Channel now. So when I say "the
11 DMC," I'm talking about where my diversion is. Again,
12 I just wanted to note that.

13 And also when I talked about modeling or --
14 modeling or studies or maybe it's kind of
15 investigations. So, right.

16 In 1955, the Bureau -- just to get the
17 background, the Bureau took a floodgate that became
18 Tracy Fish Facility and put our pump at their --

19 CO-HEARING OFFICER DODUC: No, I'm sorry,
20 Ms. --

21 MS. WOMACK: I'm trying.

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

24 I -- yes, I did glance through what you
25 submitted, and yes, you submitted a lot of background

1 information. And I would caution you, though, that
2 again, in your role as cross-examiner, you are not
3 entitled to provide testimony, so. . .

4 MS. WOMACK: I'm just trying to put placement,
5 that's all. I -- where our -- where our pump is, I
6 have it's L50- -- DMC-L53.

7 CO-HEARING OFFICER DODUC: So, okay. Now we
8 have the map up here. Where is your pump?

9 MS. WOMACK: My pump is -- do you see the
10 triangle, the upper part of the triangle and where the
11 control structure come together at my property?

12 CO-HEARING OFFICER DODUC: I wish I had my
13 little red dot laser that I play with my cats. I would
14 give it to you right now.

15 MS. WOMACK: Do you see -- where that triangle
16 is at the top, where that is there? Now, that's --
17 that is where -- right there is our diversion.

18 CO-HEARING OFFICER DODUC: Okay. And what is
19 the question you want to ask of these witnesses?

20 MS. WOMACK: Okay. Well, okay. So here we go
21 with the questions.

22 Is there modeling as to how this -- the
23 control structure, which is changed -- is increased the
24 14.8 acres, will work in relation to my diversion and
25 the DMC intake?

1 MR. MIZELL: Can we be clear? When Ms. Womack
2 indicated on the screen where her diversion point
3 was --

4 Are you indicating, Ms. Womack, that your
5 diversion point is exactly where the diversion -- where
6 the check structure is proposed to go?

7 MS. WOMACK: Yes, it is.

8 MR. MIZELL: Thank you.

9 MS. WOMACK: And it's in the middle of the DMC
10 as placed by the engineers in 1955. Not a great
11 placement by the 1955 people.

12 CO-HEARING OFFICER DODUC: All right. Who can
13 answer the question?

14 WITNESS CHILMAKURI: Mr. Hunt, can you zoom
15 out, please.

16 It appears that the control structure is on --
17 within the DMC intake channel. And so our modeling
18 does not address the changes in those -- in that
19 channel.

20 MS. WOMACK: Are there any studies?

21 WITNESS CHILMAKURI: I'm not aware of
22 anything.

23 MS. WOMACK. All right. That's okay. Thank
24 you. Okay.

25 Next let's move on to --

1 So, Mr. Hunt, I may come back to this from
2 time to time because it shows the overall structure.

3 I'd like to move to DWR-1304, Chapter 5-6.
4 5.1.6.2 is the operations, isolated North Delta
5 operation. Okay, great. Let's see. Okay.

6 On the second line where it starts "Only,"
7 right in the middle. "Only BTF is used in this
8 scenario in the Clifton Court Forebay intake, and the
9 Tracy Fish Facility gates will be [sic] closed." This
10 is what I'm quoting.

11 So does -- first of all -- well, so does the
12 Tracy Fish Facility have a gate, is my first question.

13 CO-HEARING OFFICER DODUC: Let's stop there.

14 WITNESS CHILMAKURI: I cannot answer. I don't
15 know.

16 MS. WOMACK: Okay.

17 WITNESS VALLES: I can answer.

18 Yes, there will be a gate. If we go back to
19 that previous map.

20 MS. WOMACK: Okay. Where will the gate be?

21 WITNESS VALLES: Byron Track, the BTF which is
22 kind of odd-shaped --

23 CO-HEARING OFFICER DODUC: May he borrow your
24 red pointer?

25 MS. WOMACK: Yes. Awfully handy.

1 WITNESS VALLES: There will be a gate
2 structure right there [indicating].

3 CO-HEARING OFFICER DODUC: Microphone, please.

4 WITNESS VALLES: There will be a gate
5 structure right there [indicating]. And there will be
6 another control structure right there [indicating] on
7 that -- that diverts water in either direction.

8 MR. MIZELL: And, Mr. Valles, can you please
9 narrate or describe exactly where you're pointing the
10 pointer so that the record is complete.

11 WITNESS VALLES: There's a channel between the
12 Banks Canal and the Jones Canal that's fed by a tunnel
13 system and a shaft that will have some control gates
14 inside of the -- at this -- the vertex of this -- these
15 channels.

16 MR. MIZELL: And is that channel highlighted
17 in yellow or outlined in yellow on the Exhibit
18 DWR-1305?

19 WITNESS VALLES: Yes, that's correct.

20 CO-HEARING OFFICER DODUC: And just for the
21 transcript's sake, as Mr. Valles was describing and
22 pointing, Mr. Hunt was also moving the mouse cursor.
23 So, hopefully, the recording, the video recording will
24 also reflect that as well.

25 MS. WOMACK: Okay. But that is not the Tracy

1 Fish Facility. The Tracy Fish Facility is right here
2 [indicating].

3 I do not know of a gate at the Tracy Fish
4 Facility, but I could be wrong. And this is what this
5 states, the Facility gates will -- the Tracy Fish
6 Facility gates will be closed.

7 WITNESS VALLES: It's my understanding that
8 the -- there will be no change to the Tracy Fish
9 Facility. It will be controlled by the control
10 structure that you pointed out.

11 MS. WOMACK: So the gate that you're talking
12 about, that isn't at the Tracy Fish Facility; it's at
13 the control structure?

14 WITNESS VALLES: That's correct.

15 MS. WOMACK: Okay. Let's see.

16 Is this where I would ask about the -- what
17 the control structure looks like, or would I ask that
18 later with somebody in Panel 1? Because --

19 CO-HEARING OFFICER DODUC: Ask to see if
20 anyone can answer.

21 MS. WOMACK: Yeah.

22 So how -- what will that structure look like
23 in relation to my -- I mean, how will that work in
24 relation to my diversion?

25 MR. MIZELL: Can we clarify by "that

1 structure," you're referring to --

2 MS. WOMACK: The control structure on the DMC.

3 MR. MIZELL: -- the structure on the DMC?

4 MS. WOMACK: Yes. I'm so sorry.

5 CO-HEARING OFFICER DODUC: One at a time,
6 please, for the court reporter.

7 MS. WOMACK. Okay. So will -- how will the
8 control structure gate on the DMC work in relationship
9 to my diversion?

10 WITNESS VALLES: That will be determined in
11 the future with the operations. I don't have an answer
12 for you.

13 MS. WOMACK: Thank you.

14 Are there -- so are there any -- is there any
15 modeling with the control structure with my diversion?

16 MR. MIZELL: Objection, asked and answered.

17 MS. WOMACK: I asked that already? I'm sorry.
18 Okay. I'm moving on. That's right. I'm at
19 operations. Okay.

20 So how will -- you may not be able to answer
21 this. How will CCLP access its senior water rights,
22 which are year-round, if the gates are closed and
23 there's no pull from the Jones pumping?

24 MR. MIZELL: It appears that that question
25 will have to be referred to a written response on

1 Tuesday.

2 CO-HEARING OFFICER DODUC: All right.

3 MS. WOMACK: My next one, how will the water
4 draw into the DMC intake if the control structure gate
5 is closed and the Tracy Fish Facility racks are plugged
6 with debris such as when there is water hyacinth?

7 CO-HEARING OFFICER DODUC: That sounds to be
8 another question that cannot be answered today.

9 MS. WOMACK: Okay.

10 CO-HEARING OFFICER DODUC: Ms. Womack, these
11 witnesses are modelers, biologists, and --

12 WITNESS VALLES: I'm an engineer.

13 CO-HEARING OFFICER DODUC: Oh, you're an
14 engineer.

15 WITNESS VALLES: Yes.

16 CO-HEARING OFFICER DODUC: All right.

17 MS. WOMACK: I agree. I mean, I don't know
18 when I ask these questions, but they directly affect my
19 water right. So I don't want to waste anyone's time.

20 Where is this -- well, I think I've asked
21 this. Where is this modeled, how the isolated North
22 Delta operation will affect my diversion in the DMC
23 intake? Is it modeled anywhere?

24 MR. MIZELL: I believe we've already asked and
25 answered the modeling question with regard to the DMC.

1 MS. WOMACK: Could I move on, then, to --
2 sorry.

3 MR. EMRICK: I was just going to ask a
4 clarifying question.

5 So there's no -- the model right now does not
6 address the control structure in the DMC, and there's
7 not a specific model that analyzes the impacts of that
8 control structure on water rights, CCLP's diversion in
9 the canal; is that correct? I'm just trying to
10 clarify.

11 WITNESS CHILMAKURI: I understand. The
12 modeling I was referring to is the DSM-2 model, and it
13 does include a -- include the intake channel in general
14 but not the specificity we need to analyze Ms. Womack's
15 diversion.

16 MR. EMRICK: Thank you.

17 MS. WOMACK: Mr. Hunt, could I have 1304,
18 Chapter 5-6, 5.1.6.3. So the -- this has to do with
19 the throttling.

20 Oh, boy. What did I do? This is 5-6,
21 5.1.6.3. Okay. I'm sorry.

22 Throttling, where is the throttling? Oy.

23 Could you go down another paragraph.

24 I apologize. Okay. I can't find where this
25 is. I have a quote about the open channels that feed

1 the Banks.

2 Oh, thank you. Okay.

3 So on this, "Simultaneous Operation," "In
4 order to add this operational capability to the
5 conveyance system, control structures will need to be
6 capable of throttling flow from all three sources: the
7 open channels that feed Banks and Jones. . .downstream
8 of the Skinner Fish Facility and downstream of the
9 Tracy Fish Facility must maintain a lower WSE from all
10 three sources to maintain flow of all the throttling
11 gates at each source."

12 So what I want to know is how will this affect
13 my -- my pumping, my water levels? I depend on tides
14 now. Will this change my water -- how I get my water?

15 WITNESS CHILMAKURI: Again, the modeling I'm
16 describing does not take that into account or cannot be
17 used to analyze that.

18 MS. WOMACK: Where will I find this
19 information as a farmer, whether or not the flow is
20 high or low? It costs me money. And I -- I need --
21 this is huge for me, the water levels. And it looks
22 like they're going to be throttling for their reasons,
23 not for my reasons.

24 Will there be some sort of throttle -- I don't
25 know -- throttling schedule? But that's ridiculous. I

1 mean, you know, that's -- this -- will there be a
2 schedule for throttling?

3 (No response)

4 MS. WOMACK: Okay. I'll move on.

5 Will there be studies to show the impacts on
6 my diversion, the costs that it will cost me when the
7 water levels fall? Will there be something in the
8 permit terms if I experience crop failure because a
9 pump burns out and I can't get my water? So what -- so
10 there isn't modeling?

11 MR. EMRICK: Well, let them answer.

12 MS. WOMACK: I'm sorry. Okay. I'm sorry.

13 Do you have an answer?

14 WITNESS CHILMAKURI: I'm sorry. No.

15 MS. WOMACK: Okay. And there's no modeling on
16 the throttling? Okay.

17 WITNESS CHILMAKURI: I say that I don't have
18 an answer.

19 MS. WOMACK: Yeah, I understand. I appreciate
20 you answering because it's kind of one-sided here.

21 Okay. The next would be the implications of
22 the WaterFix BTO on the current and SWP CVP operations.
23 And this is DWR-1304, 5 -- Chapter 5-14, 5.5. And
24 these are bullet points.

25 CO-HEARING OFFICER DODUC: Do you have the

1 page number?

2 MS. WOMACK: Yes. It was 5 -- Chapter 5-14 on
3 1304. This is 6. It should be right here. Yes.

4 Okay. So starting on the second bullet, it
5 says, "Utilizing" -- so -- "a common conveyance system
6 serving BTF would be connected to both Banks and
7 Jones. . ."

8 Is -- what common connection? Is that the
9 channel?

10 WITNESS VALLES: That's the connecting
11 channel.

12 MS. WOMACK: Thank you.

13 WITNESS VALLES: That's a connecting channel.

14 MS. WOMACK: Okay. And then that's going to
15 use the south tunnel outlet structure?

16 WITNESS VALLES: That's correct.

17 MS. WOMACK: Okay. Where is this in the
18 approved plan?

19 WITNESS VALLES: Do you want me to point it
20 out on the map that you previously --

21 MS. WOMACK: That's not the approved plan;
22 that's the proposed plan.

23 So this -- we've -- I've been told there's
24 very -- there's no changes. And this, to me, is a big
25 change. I'm sorry. I'm doing the same -- sorry.

1 So is it in the approved plan?

2 WITNESS VALLES: There is a connecting channel
3 between Banks and Jones, but not the tunnel outlet
4 structure. I think the -- if I remember correctly, the
5 approved plan, there's a channel that comes off of
6 Clifton Court. That's been eliminated.

7 MS. WOMACK: Yes. In your professional
8 opinion, are the channel -- the channels the same?

9 WITNESS VALLES: They carry the same flow, but
10 that's all. That's the only difference.

11 MS. WOMACK: Are they operated the same?

12 WITNESS VALLES: They will be operated
13 somewhat similar.

14 MS. WOMACK: Okay. I'll get to operations on
15 that when I get there.

16 So is there modeling to show how this channel
17 affects CCLP's diversion in the DMC intake?

18 WITNESS VALLES: Not that I'm aware of.

19 MS. WOMACK: Okay. Thank you.

20 So the next one would be Bullet No. 4 that
21 starts, "Removing tidal influence on water levels
22 upstream of both export pumping plants when diverting
23 from the Byron Tract Forebay."

24 So do you have modeling how removing the tidal
25 waters is going to affect my diversion? Because that's

1 how I get my water.

2 MR. BERLINER: But that's been asked and
3 answered.

4 CO-HEARING OFFICER DODUC: Ms. Womack, when
5 you use the term "modeling," are you instead trying to
6 inquire whether any analysis has been done?

7 MS. WOMACK: As I said in the beginning, I say
8 "modeling," but I mean any sort of study, analysis,
9 anything that can say how it's going to affect me,
10 because this is going to affect -- I'm sorry, though.

11 CO-HEARING OFFICER DODUC: So that's not been
12 asked and answered.

13 MR. MIZELL: I believe Mr. Womack actually
14 asked a question of John Bednarski when he was on the
15 witness panel for Panel 1 as to what studies have been
16 done with the control check structure proposed for the
17 DMC, and Mr. Bednarski testified at some length about
18 how additional engineering studies were going to be
19 conducted in the future. So that's the reference when
20 I object as asked and answered.

21 MS. WOMACK: I'm sorry. I was allowed to ask
22 one thing about the control structure, and it was that
23 Mr. Bednarski very -- it wasn't on my property. And I
24 wasn't able to show the -- the next question was
25 showing the diversion. I did not -- Mr. --

1 CO-HEARING OFFICER DODUC: All right,
2 Ms. Womack. Let's not argue with Mr. Mizell and waste
3 your time.

4 MS. WOMACK: Well, but he's misstating --

5 CO-HEARING OFFICER DODUC: Go on to your next
6 question.

7 MS. WOMACK: Okay. So the next is receiving
8 water from the BTF is -- oh, I'm sorry. It's the next
9 -- oops. Receiving water. There it is, the No. 5,
10 "Receiving water from the BTF will require a greater
11 level of daily operational coordination between DWR and
12 Reclamation."

13 Was this in the approved plan, this
14 operations?

15 WITNESS VALLES: I'll respond to the best of
16 my ability. There's always been these control
17 structures, so there would definitely have to be some
18 coordination between those control structures to be
19 able to deliver the appropriate amount of water to each
20 one of the different pumping plants.

21 MS. WOMACK: To this level, this level of
22 coordination. I will be getting further into that.
23 Okay. Thank you.

24 Do I do that later about permit terms? Okay.

25 Okay. Let's see.

1 So there's also -- on the last one, "Common
2 scheduling of the individual pumps' operations at Banks
3 and Jones will be needed to manage the WSE and volumes
4 in the BTF and CCF and the associated conveyance
5 facilities," is this in the approved plan?

6 WITNESS VALLES: Yes.

7 MS. WOMACK: Okay. Why is the CCF, Clifton
8 Court, included if it's not part of the WaterFix with
9 this?

10 WITNESS VALLES: Because water deliveries have
11 to come out of Clifton Court to -- from the South Delta
12 and coordinated with the water that's coming from the
13 North Delta which goes into the Byron Tract Facility.

14 MS. WOMACK: To be part of the WaterFix,
15 uh-huh.

16 Will the DWR commit to permit terms to protect
17 our diversions and water rights? Will that be
18 something?

19 MR. MIZELL: I'll object to it as far as that
20 question is posed to the witnesses here. Witnesses are
21 not being provided to commit to terms and conditions.

22 MS. WOMACK: I apologize.

23 Well, would there be a chance for it? where
24 would I have that chance to ask about those
25 opportunities, Mr. Mizell?

1 CO-HEARING OFFICER DODUC: I'm sorry. What
2 you are asking?

3 MS. WOMACK: Permit terms for damages by the
4 water flow if something -- I would like to know where I
5 would ask that. Is that something I'd ask now?

6 MR. EMRICK: I think what you're trying to
7 talk about generally is mitigation.

8 MS. WOMACK: Yeah, I'm looking for mitigation
9 from this. Is there --

10 MR. MIZELL: And I believe the Hearing
11 Officers have indicated many times that you can propose
12 terms and conditions at any time.

13 MS. WOMACK: Okay.

14 CO-HEARING OFFICER DODUC: Ms. Womack, my
15 understanding -- and I'm sure others will help me,
16 Mr. Emrick in particular. But the supplemental
17 environmental document is out for public comments, and
18 as part of that process, you can submit comments and
19 suggestions and requests for mitigation and ask
20 specific questions about how DWR or petitioner will
21 mitigate for these impacts.

22 MS. WOMACK: Thank you.

23 CO-HEARING OFFICER DODUC: So while there is
24 opportunity here as part of our process, there is a
25 much broader, more, I guess, comprehensive process that

1 is being undertaken as part of the CEQA process for the
2 WaterFix project itself.

3 MS. WOMACK: Okay. Thank you.

4 The next question comes from DWR-1304, Chapter
5 5-6, 5.1.6.3, and this has to do with the potential
6 dual operation with the WaterFix BTO. And it says,
7 "Under the dual source operation scenario, control
8 gates will control flow out of the BTF, the CCF, and
9 the Old River to meet target deliveries at both Banks
10 and Jones. The control scheme will require flow
11 meters, WSE transmitters, and a sophisticated SCADA
12 systems control."

13 Could you explain the SCADA systems control
14 and how it relates to the California WaterFix
15 operations?

16 WITNESS VALLES: It's basically a supervisory
17 control data acquisition system. It's a way of
18 collecting information at each one of the various
19 control structures, and they'll be tied to a computer
20 system that will operate the gates to appropriate
21 levels to get the appropriate flow to each one of
22 the -- from each one of the different channels -- or to
23 the channels from the various sources such as the BTF
24 or the Clifton Court system.

25 MS. WOMACK: So what I'm hearing is that a

1 computer will be adjusting gates and all that. And
2 I -- how will I know whether the gates are up or down
3 in my -- in my -- in the DMC intake? That will change.

4 WITNESS VALLES: That's all internal to DWR
5 and how they operate the system.

6 MS. WOMACK: Okay. And the CCF is part of
7 this system, but it's not part of the California
8 WaterFix; is that correct?

9 WITNESS VALLES: We're no longer doing
10 anything inside of Clifton Court.

11 MS. WOMACK: But you are having the CCF be
12 part of the SCADA system, S-C-A-D-A?

13 WITNESS VALLES: It will need to be, yes.

14 MS. WOMACK. Okay. Where is there a model of
15 the sophisticated system? So for the impact for our
16 water rights and diversions, where has it been modeled
17 or analyzed how these automatic systems will affect our
18 diversion?

19 WITNESS VALLES: One of the things that you
20 have to be aware of at this point is that we're only at
21 10 percent design. In the next phase of design, we'll
22 actually model the system in great detail. And all the
23 -- it will work with our operations staff to determine
24 where are the appropriate levels and what's the math
25 behind the gate openings and such.

1 MS. WOMACK: Will do you studies then to show
2 how you will affect my diversion?

3 WITNESS VALLES: We'll likely do groundwater
4 studies at that point.

5 MS. WOMACK: Groundwater. I have -- you mean
6 in the ground? I have a -- I get it out of the canal.

7 WITNESS VALLES: Oh, yes, we can deal with
8 that. We can study that.

9 MS. WOMACK: Will Clifton Court LP be involved
10 in those studies?

11 WITNESS VALLES: I can't tell you that at this
12 point.

13 MS. WOMACK: Okay. What happens -- what's the
14 -- what happens when a sophisticated system like this
15 fails?

16 WITNESS VALLES: We'll build in redundancy in
17 the system. And, you know, we're counting on it not
18 failing.

19 MS. WOMACK: As an illustration, the Clifton
20 Court Forebay radial gates have been stuck open for
21 years at a time. I just am a little worried about
22 sophisticated systems 50 years down the road. I guess
23 I'm asking what sort of backup will you have?

24 CO-HEARING OFFICER DODUC: Ms. Ansley.

25 MS. ANSLEY: Asked and answered. He said

1 there'd be redundant SCADA systems, redundancies
2 employed in the SCADA system.

3 Also I object now that it's calling for
4 speculation about a future event for which he's already
5 answered the engineering aspect.

6 CO-HEARING OFFICER DODUC: Sustained.

7 MS. WOMACK: So then we're back here.

8 South tunnel questions. Were the south
9 tunnels part of the approved project?

10 WITNESS VALLES: No.

11 MS. WOMACK: Where is the operations
12 information for the south tunnels, how they will
13 operate?

14 WITNESS VALLES: I didn't write this portion
15 of the CER, so I can't answer that question.

16 MS. WOMACK: Is there someone that could?

17 WITNESS VALLES: I think Mr. Bednarski
18 addressed the south tunnels.

19 MS. WOMACK: So I could ask him. Okay.

20 Where are the -- well, studies and modeling,
21 again, that show how CCLP's diversion and the DMC
22 intake will be affected by the south tunnels and the
23 outlet structure channel?

24 WITNESS VALLES: What was the question?

25 MS. WOMACK: Where are the studies or -- are

1 there any studies and modeling that show how the CCLP
2 diversion in the DMC intake will be affected by the
3 south tunnels and the outlet structure in the channel?

4 WITNESS VALLES: That modeling has not been
5 done, or those studies have not been done.

6 MS. WOMACK: When will that happen?

7 WITNESS VALLES: Because we were not aware
8 that you had a pump coming out of a channel. We will
9 study that.

10 MS. WOMACK: It was on your map.

11 WITNESS VALLES: The control structure is, but
12 we didn't know that you had pumping out of the channel.

13 MS. WOMACK: It was in -- there was a map that
14 showed all of the diversions, and it was on that.

15 CO-HEARING OFFICER DODUC: Ms. Ansley.

16 MS. ANSLEY: I'm going to object as
17 argumentative and adding testimony to the record.

18 If she has a question that he can, indeed
19 answer -- Mr. Valles can answer, that's fine.
20 Obviously, you know, we're limited here. This is not
21 the construction panel anymore. So to the best of his
22 ability, but that is now being argumentative.

23 MS. WOMACK: Could I have -- let's see. Gosh.
24 oh, I know. DWR-1305, pdf 84, please. Let's see.

25 So, Mr. Valles -- am I saying the right --

1 what is this?

2 WITNESS VALLES: It looks like a concept for
3 the South Delta outlet structure that's coming out of
4 Byron Tract.

5 MS. WOMACK: Uh-huh. And it's the little
6 channel that was going to be between the Clifton Court
7 and the DMC? There was going to be a little channel.

8 Could we go back to the map, Mr. Hunt?

9 As to -- so let's see. So the -- this sits --
10 that huge structure sits here [indicating]. I believe
11 before there was some -- a little channel between the
12 Clifton Court Forebay and the DMC. Now we have this
13 huge structure shown in yellow on the map where it
14 says -- one of those says the "South Tunnel Outlet
15 Structure."

16 So I asked was it in the approved plan. Was
17 it in the approved plan?

18 WITNESS VALLES: That's a new structure.

19 MS. WOMACK: It's a new structure. Okay.

20 Can we go back to that structure? I just like
21 the way it looks. Well, look at that. It's, like,
22 wow, those are cars.

23 Where is the modeling of how the south tunnel
24 outlet structure and channel will work in conjunction
25 with the existing DMC intake and Jones Pumping Plant?

1 I know -- I've read a little operations, but is there
2 modeling of how that will work?

3 MR. MIZELL: Objection, vague and ambiguous.
4 The scope of the question is quite broad and could be
5 narrowed to be more specific, but modeling as to how it
6 might operate, does that include system-wide and, if
7 so, the modelers may wish to answer. But if it's
8 simply related to the localized effects within the DMC
9 channel itself, I believe that's been asked and
10 answered.

11 MS. WOMACK: The south -- I want to know how
12 the south tunnel outlet structure works.

13 MR. MIZELL: Objection, no question pending.

14 CO-HEARING OFFICER DODUC: Let me make sure I
15 understand, Ms. Womack. What are you asking?

16 MS. WOMACK: I'd like to know how this works.
17 It's huge. It's not a little something. When I read
18 there was a tiny bit of operations, it said something's
19 going to close, something's going to open. It's going
20 to be this, that. It's very, very complex. I would
21 like to know how it works or where I could find out
22 information on how it works.

23 CO-HEARING OFFICER DODUC: That's a better
24 question. Can anyone answer?

25 WITNESS VALLES: I did not design this

1 structure. I could speculate only about how it works.

2 CO-HEARING OFFICER DODUC: Where might she go
3 to get definitive information on it rather than your
4 speculation? Although I'm sure it's will be fine
5 speculations.

6 WITNESS VALLES: It should be in the CER,
7 Conceptual Engineering Report.

8 MS. WOMACK: This is what I'm in, the CER.
9 You know, what I will have to -- let's see. CER. The
10 overall operations of systems components -- oh, I'm
11 sorry. So the south tunnel outlet structure, DWR-1304,
12 Chapter 5, Page 8 -- 5-8, 5.3.2 is the overall
13 operation of the system components for the BTF or O or
14 whatever. That would help us.

15 So here is your overall operations. At the
16 bottom, it says, "The BTF outlet conveyance system
17 comprises south tunnels, open channels to State Water
18 Project and Central Valley Project export facilities,
19 and control structures."

20 That was all I could find about the
21 operations.

22 WITNESS VALLES: That will be done in the next
23 phase.

24 MS. WOMACK: There is -- is there a mention of
25 the south tunnel outlet structure?

1 WITNESS VALLES: Right now I think that last
2 bullet would generally cover it.

3 MS. WOMACK: I see the south tunnels, the open
4 channels to State Water Project and Central Valley
5 Project export facilities.

6 WITNESS VALLES: That's the description.

7 MS. WOMACK: That's the description. Okay.

8 What is the cost for this control structure?
9 Oh, this is probably not the right place. This is all
10 on flow. Where will I find out the cost for this
11 structure?

12 MR. MIZELL: Objection, relevance.

13 MS. WOMACK: Okay. Where would I ask
14 questions about the cost for this? Would that be with
15 Mr. Bednarski?

16 CO-HEARING OFFICER DODUC: And the relevance
17 of that line of questioning to our hearing?

18 MS. WOMACK: It's going to cost 17 billion.
19 That control structure looks like it costs a lot of
20 money. I mean, I nickel and dime things. But anyway,
21 I'm just curious. Okay. Yes.

22 The next one is who will operate this
23 structure, the south tunnel outlet structure? Will it
24 be DWR or the Bureau?

25 MR. MIZELL: Hang on.

1 Chair Doduc, if I might just interrupt for one
2 second.

3 May I get a ruling on the relevance objection?
4 That happens to be, verbatim, a question within her
5 written questions as well, and if it's --

6 CO-HEARING OFFICER DODUC: I'm sorry. What?

7 MR. MIZELL: The question, is this part of the
8 17 billion total cost and how much will it cost, those
9 questions are within her written questionnaire. And if
10 we can take care of a relevance objection today, that
11 would maybe save us some time in the future.

12 CO-HEARING OFFICER DODUC: And, Ms. Womack,
13 what is your purpose in asking that question as it
14 relates to a key hearing issue that is before us?

15 MS. WOMACK: Which is water flows and
16 operations, right? That's a huge operating structure
17 that has -- I've been told -- we've been told that
18 DWR -- they don't -- they have no operation changes and
19 they have --

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

21 MS. WOMACK: It's financing.

22 CO-HEARING OFFICER DODUC: This is the cost
23 issue.

24 MS. WOMACK: Oh, cost issue. Well, if they
25 cost -- they have \$17 billion and they're adding in

1 this huge, very complicated control structure -- not
2 control structure; south tunnel outlet structure, where
3 is that money -- I mean, that's going to cost a lot
4 more.

5 CO-HEARING OFFICER DODUC: And, Mr. Mizell,
6 you are objecting to the question on what basis?

7 MR. MIZELL: Basis is relevance. I don't
8 believe anywhere in the key hearing issues is the issue
9 of cost to the -- to the petitioners of the California
10 WaterFix.

11 CO-HEARING OFFICER DODUC: And you don't
12 believe it's connected to the issue of the public
13 interest?

14 MR. MIZELL: I believe that the petitioners,
15 to the extent that they can secure financing and that
16 the project participants are willing to fund that, it's
17 a decision for those local agencies, local and regional
18 agencies to make.

19 CO-HEARING OFFICER DODUC: Ms. Meserve, do you
20 have something to add?

21 MS. MESERVE: Yes. Just as you noted,
22 economics of this project are within the public
23 interest. We have heard testimony and information
24 regarding economics of the project.

25 Now that there are changes being proposed, it

1 appears that it would be relevant to understand how
2 that fits into the previous cost estimates. And that
3 would be consistent with the economics we looked at
4 throughout this Part 2 of the hearing process.

5 CO-HEARING OFFICER DODUC: All right. We'll
6 take into consideration, and we'll respond after we
7 receive petitioners' as well as anyone else's input by
8 Tuesday noon.

9 MR. MIZELL: Thank you. And I apologize for
10 the diversion there.

11 MS. WOMACK: I think that's it for now for me
12 with flow questions regarding my diversion, but I --
13 I'm very concerned. Thank you.

14 CO-HEARING OFFICER DODUC: All right.
15 Mr. Mizell -- and I guess you may respond to this by
16 deferring to Tuesday noon as well, but I don't know if
17 you've had a chance to take a look at what Ms. Womack
18 submitted and whether or not at this time you have any
19 proposal with respect to addressing her questions on
20 operations.

21 I think we -- we were all here for
22 Ms. Womack's cross-examination of Panel 1 and
23 Mr. Bednarski, and arguably she did have opportunity
24 then to ask him questions relating to the potential
25 operational impacts on her water rights. And I believe

1 through some of her statements today, she is expecting
2 to be able to ask those questions of Mr. Bednarski and
3 other operational witnesses.

4 At this time do you have a proposal as to how
5 she might and in what manner receive questions --
6 receive answers to those questions? Would it be done
7 through your CEQA process? Would it be done through
8 your written response? How do you suggest she receives
9 that information?

10 MR. MIZELL: Yes, this strikes me as very
11 similar to the point in Part 1 where Mr. Porgans was
12 ill and requested to submit questions in writing. And
13 to the extent that the questions were not
14 objectionable, we would provide a written response from
15 our witnesses to the questions as drafted.

16 I can't tell you with certainty right now the
17 extent of any objections we might have. The only one
18 that jumps out at me was the cost issue.

19 But I will endeavor, as has been your
20 encouraging words in the past, to answer these
21 questions as efficiently as possible and with an --
22 with an interest to providing you, the Hearing
23 Officers, with the information sought.

24 So we will do our -- we will do our best to
25 attempt to answer them in writing by Tuesday, and it

1 will maybe contain limited objections where we feel it
2 necessary. If an answer is deemed to be complex, we
3 might indicate that we need a bit more time to answer
4 it and, if so, we will attempt to give you an estimate
5 of length of time in order to gather that information.

6 CO-HEARING OFFICER DODUC: All right. We look
7 forward to seeing that Tuesday at noon.

8 All right. With that, if there are no other
9 housekeeping matters, have a good weekend, everyone,
10 and we will see you Monday in Rancho Cordova.

11 (Whereupon, the proceedings recessed
12 at 4:30)

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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 (Pages 1 through 108)
6 were reported by me, a disinterested person, and
7 thereafter transcribed under my direction into
8 typewriting and which typewriting is a true and correct
9 transcription of said proceedings.

10 I further certify that I am not of counsel or
11 attorney for either or any of the parties in the
12 foregoing proceeding and caption named, nor in any way
13 interested in the outcome of the cause named in said
14 caption.

15 Dated the 15th day of September, 2018.

16

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18 DEBORAH FUQUA

19 CSR NO. 12948

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