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BEFORE THE
CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

CALIFORNIA WATERFIX WATER)
RIGHT CHANGE PETITION)
HEARING)

Staff note: Strikeouts made
pursuant to May 21, 2018
Ruling Letter

JOE SERNA, JR. BUILDING
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
SIERRA HEARING ROOM
1001 I STREET
SECOND FLOOR
SACRAMENTO CALIFORNIA
PART 2

Wednesday, March 14, 2018
9:30 A.M.

VOLUME 15
Pages 1 - 135

Reported By: Deborah Fuqua, CSR No. 1248

Computerized Transcription by ProCAT

1 APPEARANCES:
2 CALIFORNIA WATER RESOURCES BOARD
3 Division of Water Rights
4 Board Members Present
5 Tam Doduc, Co-Hearing Officer:
6 Felicia Marcus, Chair and Co-Hearing Officer:
7 Dorene D'Adamo, Board Member
8 Staff Present
9 Andrew Deeringer, Staff Attorney
10 Conny Mitterhofer, Senior Water Resources Control Engr.
11 Jean McCue, Staff
12
13 For California Department of Water Resources
14 Catherine Cavanaugh, Senior Attorney
15 Duane Morris, LLP
16 By: Jolie-Anne Ansley, Attorney at Law
17
18 U.S. Department of the Interior, Bureau of Reclamation,
19 and Fish and Wildlife Service
20 Amy Aufdemberge, Assistant Regional Solicitor
21
22
23 State Water Contractors
24 Adam Kear
25 Becky Sheehan
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I N D E X

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Opening Remarks 1
by Co-Hearing Officer Doduc

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PANEL 1 WITNESSES CALLED BY GROUPS 7, 19, 20, 21, 24

David Robinson, Fraser Shilling, Ph.D., David Stirling,
Sara Hemly, Daniel Wilson

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- no direct examination this session -

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CROSS-EXAMINATION BY: PAGE

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PANEL 2 WITNESSES CALLED BY GROUPS 7, 19, 20, 21, 24

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1 Wednesday, March 14, 2018 9:30 a.m.

2 PROCEEDINGS

3 ---000---

4 CO-HEARING OFFICER DODUC: Welcome back
5 everyone. I am Tam Doduc. Welcome back to the Water
6 Rights Change Petition Hearing for the California
7 WaterFix project. To my right is Board Member DeeDee
8 D'Adamo. I expect we'll be joined sometime today by
9 Board Chair and Co-Hearing Officer Felicia Marcus.

10 To my left is Conny Mitterhofer. And I
11 believe Jean -- there you are. We're being assisted
12 today by Ms. Gaylon. And welcome to the Sierra Room.

13 Since we are in a new location, sort of,
14 please take a moment and identify the exit closest to
15 you. In the event of an emergency, an alarm will
16 sound. We will evacuate using the stairs, not the
17 elevators, down to the first floor. If you're not able
18 to use the stairs, flag some of the security people.

19 It occurred to me that, on my floor, they wear
20 orange fluorescent-colored clothing. I don't know what
21 color they wear on this floor, but they will be wearing
22 bright vests and hats. So flag down one of them, and
23 they will direct you to a protective area. Don't flag
24 me down because I'm not sure where one is.

25 Second announcement is that, as always, this

1 is being webcasted and recorded. So please speak into
2 the microphone, and begin by stating your name and
3 affiliation.

4 Our court reporter Debbie today is with us.
5 And please make arrangements with her directly if you
6 wish to have copies of the transcript sooner than when
7 we will make available, which will be at the end of
8 Part 2.

9 And as always, most importantly -- and I know
10 Mr. Herrick has already taken care of his -- please
11 take a moment and put all of your noise-making devices
12 on silent, vibrate, do not disturb. In addition to my
13 benefit, it's also in respect to all of the witnesses
14 appearing here today, as well as the attorneys who are
15 here.

16 All right. Housekeeping matter. First of
17 all, a note of thanks to the staff who were able to get
18 AV working in this room so we didn't have to go to the
19 gigantic Byron Sher auditorium.

20 Any other housekeeping matters?

21 Mr. Keeling.

22 MR. KEELING: Yes, thank you. Tom Keeling for
23 the San Joaquin County protestants. The Hearing
24 Officers generously accommodated my request a few weeks
25 back to have Supervisor Miller give her policy

1 statement on one of the county panels, which is fine.
2 But I noticed that the revised schedule that came out
3 yesterday had assumed that we had meant the panel that
4 went yesterday. Now that we have --

5 CO-HEARING OFFICER DODUC: We have it.

6 MR. KEELING: Okay. So we plan on doing that
7 at the panel -- the transportation panel. And if she
8 is in an emergency session, we'll do it with the one
9 with Mr. Del Piero later. I hope that's okay.

10 CO-HEARING OFFICER DODUC: That's okay.

11 MR. KEELING: Thank you.

12 CO-HEARING OFFICER DODUC: You waived your
13 opening statement yesterday. Is that --

14 MR. KEELING: Yes, that's fine.

15 CO-HEARING OFFICER DODUC: Okay.

16 Ms. Des Jardins.

17 MS. DES JARDINS. Yes. Nikki Suard of Snug
18 Harbor Resorts was watching the testimony yesterday,
19 and she had some questions about impacts on
20 recreational businesses and hers in particular, but she
21 wasn't able to make it.

22 She did send an e-mail requesting that I ask
23 questions. If that's granted, it would be about 15
24 minutes.

25 CO-HEARING OFFICER DODUC: We did receive that

1 e-mail. And since she is No. 41, she'll come after
2 you. So after you conduct your cross, you may do so
3 for her as well.

4 Mr. Ferguson.

5 MR. FERGUSON: Good morning, Aaron Ferguson,
6 County of Sacramento. I'm going to try to pick up
7 where I left off at the very end of the day yesterday.

8 CO-HEARING OFFICER DODUC: Now that you have
9 the latest version?

10 MR. FERGUSON: Yes, I do have the latest
11 version. And even still, I wanted to present a
12 request. In what is now the fifth group that includes
13 the County, there's a panel with Supervisor Nottoli and
14 many other witnesses. And then there's a Yolo County
15 panel with three Yolo County landowners.

16 I'm having some challenges with the Nottoli
17 panel in terms of potentially being on Friday. Yolo
18 County has agreed to switch the order there and go
19 ahead of the County of Sacramento panel, if that's
20 agreeable. It's within that group still, if that works
21 for you. And DWR and the Water Contractors had no
22 issue with that, so.

23 CO-HEARING OFFICER DODUC: All right. And
24 should we finish with the third panel, the Yolo panel,
25 early on Friday, your witnesses would still not be

1 available?

2 MR. FERGUSON: I'll get as many of them here
3 as I can, yeah. And we'll do what we can. But
4 hopefully it pushes over into Monday.

5 CO-HEARING OFFICER DODUC: Or you can try to
6 make arrangements with EB MUD.

7 MR. FERGUSON: I could try. Yeah.

8 CO-HEARING OFFICER DODUC: I guess it's the
9 same slate as well.

10 MR. FERGUSON: Yeah. I was trying not to
11 complicate things too much.

12 CO-HEARING OFFICER DODUC: Okay. All right.
13 We will, for now, switch the second and third panels
14 for the group that is in the fifth order of
15 presentation.

16 MR. FERGUSON: Okay. I very much appreciate
17 it.

18 But this second item is -- oh, I was just made
19 aware yesterday on the transportation panel that
20 Mr. Keeling mentioned, the County of Sacramento has a
21 witness, Mr. Moghissi. He has a family medical issue
22 which makes it so that he's not going to be in the
23 office from this Friday to the following Friday. He's
24 going to be available again on March 26th. I'm
25 proposing to potentially move him down as a solo

1 witness, say, right before CSPA, which is about the
2 12th group.

3 I've conferred with all the parties in between
4 there. I think I've -- I've heard from all but one
5 party, perhaps, that they're okay with that. I'm just
6 trying to push him out to at least the 26th or later.

7 CO-HEARING OFFICER DODUC: Who are you talking
8 about?

9 MR. FERGUSON: Reza Moghissi. He's in the
10 fifth group, first panel. So I'm proposing he appear
11 as a solo witness later in the order of presentation.

12 CO-HEARING OFFICER DODUC: No objections?

13 (No response)

14 MR. FERGUSON: And I'll submit a letter today.
15 Thank you very much.

16 CO-HEARING OFFICER DODUC: All right.

17 Mr. Jackson.

18 MR. JACKSON: Yes, the -- I thought I ought to
19 bring this up as soon as I could. I have a witness for
20 CSPA and that group in the final panel. I have two
21 witnesses actually. One is Marc Del Piero, and the
22 other is Ed Whitelaw. Mr. Whitelaw is in --

23 CO-HEARING OFFICER DODUC: Sorry. Don't you
24 have Felix Smith, too?

25 MR. JACKSON: I, do but Felix lives here

1 locally, and it's not a problem.

2 Mr. Whitelaw has broken five bones, three
3 ribs, he's going to need a complete hip replacement
4 from a fall that took place as he was coming out of a
5 courthouse in a different state. And both -- so I'm
6 having a little trouble with the scheduling.

7 I asked Ms. Womack if she would be willing to
8 exchange my fifth panel -- fourth panel with her. And
9 I have not had a chance yet to talk to DWR or anyone
10 else who might object.

11 CO-HEARING OFFICER DODUC: Let's perhaps --

12 MR. JACKSON: He cannot travel at this point.

13 CO-HEARING OFFICER DODUC: Perhaps we can
14 simplify this. We made the same arrangement to
15 accommodate Dr. Rosenfeld from the NRDC group who had
16 also a significant health issue, and we just moved him
17 to the end of the order.

18 If you won't object to us moving
19 Dr. Ed Whitelaw now to the end of the order of
20 presentation after Dr. Rosenfeld.

21 MS. ANSLEY: And just to clarify, we're
22 talking about just Dr. Whitelaw? Just so I make clear
23 notes.

24 MR. JACKSON: The second thing is we've been
25 notified that Marc Del Piero is going in for a cervical

1 fusion on the 9th and his doctor says --

2 CO-HEARING OFFICER DODUC: There's a reason
3 I'm not a medical doctor. All these terms.

4 MR. JACKSON: It's also that we're pretty old
5 out here.

6 CO-HEARING OFFICER DODUC: So Mr. Jackson --

7 MR. JACKSON: So I would like to move that
8 whole panel, if I could, to either Ms. Womack's
9 position or the same position as Dr. Rosenfeld.

10 CO-HEARING OFFICE DODUC: I will propose that
11 we move this entire third panel for Group 31, appearing
12 by now in order 12, to the end of the order to testify
13 after Dr. Rosenfeld.

14 MR. JACKSON: Thank you.

15 MS. ANSLEY: So you're talking about -- that
16 would be the fourth panel of CSPA.

17 CO-HEARING OFFICER DODUC: Yes, the fourth
18 panel.

19 MS. ANSLEY: So Del Piero, Whitelaw, and Felix
20 Smith would be moved to roughly around Rosenfeld at the
21 end.

22 CO-HEARING OFFICER DODUC: At the end. Right
23 now, isn't Rosenfeld the last one? Or have we made
24 more changes? Yes, Rosenfeld is the last one. So now
25 those three will be after Rosenfeld.

1 MS. ANSLEY: And I understand that the parties
2 will move their evidence into the record at the end of
3 their cases in chief.

4 So you will move your evidence into the record
5 at the --

6 MR. JACKSON: Yes.

7 MS. ANSLEY: -- conclusion of the fourth
8 panel.

9 Okay. I'm just making sure that I take clear
10 notes. I think that that's fine for that fourth panel.

11 CO-HEARING OFFICER DODUC: All right.

12 MR. JACKSON: I really want to thank DWR for
13 that and the Bureau.

14 And thank you.

15 CO-HEARING OFFICER DODUC: Thank you. My best
16 to Dr. Whitelaw but especially to Marc Del Piero, who
17 was a State Water Board member as well.

18 All right. Any other housekeeping matters?

19 (No response)

20 CO-HEARING OFFICER DODUC: All right. Oh, I
21 was asked to announce, not that you need to have more
22 energy, but there are donut holes in the back, if you
23 feel like you need a sugar rush. And also, if you have
24 not received a copy, the latest -- which has now been
25 changed again -- order of presentation for Part 2

1 copies are in the back.

2 All right. With that, we will now turn to
3 Mr. Jackson for his cross-examination -- oh,
4 Ms. Meserve.

5 MS. MESERVE: Good morning. Osha Meserve for
6 LAND, et al.

7 Before Mr. Jackson begins, there was a
8 question regarding a figure yesterday and whether it
9 was in or out of evidence that I think would be best to
10 resolve now. If there's detailed discussion about it,
11 obviously we could probably just revert to written
12 briefing rather than take up more time. But I think I
13 can clarify at least one of the figures based on my
14 review.

15 CO-HEARING OFFICER DODUC: Are you talking
16 about LAND-3?

17 MS. MESERVE: Yes, I am. As was mentioned
18 yesterday, LAND-3 which is cited in many of the Part 1
19 testimonies submitted by LAND as well as the Part 2
20 testimonies, there was a ruling denying reconsideration
21 of bringing that figure, along with a couple of others,
22 on March 21st.

23 In that same ruling the Chair -- the Hearing
24 Officers suggested that this could be the subject of
25 rebuttal testimony. So indeed on March 23rd, I did

1 submit rebuttal testimony of Mr. Eric Ringleberg, under
2 whom -- the figures were prepared under his direction
3 at DSJ Associates.

4 Then on March -- I'm sorry, May 19th of 2017,
5 Mr. Ringleberg brought forth that testimony. There
6 were no questions for Mr. Ringleberg. And on that same
7 day, that evidence was moved into -- those figures were
8 moved into evidence.

9 And in particular that's May 19th, Page 73 of
10 the transcript.

11 CO-HEARING OFFICER DODUC: Very good.

12 MS. MESERVE: So with respect to LAND-3, I
13 believe that is resolved.

14 Now, with respect to LAND-1 --

15 CO-HEARING OFFICER DODUC: Thank you for
16 looking into that. So many exhibits.

17 MS. MESERVE: Yes, it took a little while, but
18 I did track it down because I knew that that was
19 already done.

20 Now, LAND-3 is a more close-up version.

21 CO-HEARING OFFICER DODUC: LAND-3, we just
22 talked 3, right?

23 MS. MESERVE: Yes.

24 CO-HEARING OFFICER DODUC: Okay. We're still
25 on 3?

1 MS. MESERVE: I am transitioning to LAND-1.

2 CO-HEARING OFFICER DODUC: I had too much
3 sugar this morning.

4 MS. MESERVE: I only had one donut hole so
5 far.

6 So LAND-3 is a close-up into the intake area
7 and refuge. LAND-120, which is cited in several of the
8 Part 2 witnesses' testimony, is a zoom-out view of --
9 using the very same GIS data by BSK Associates prepared
10 in February of 2016. And that can be seen by zooming
11 into the legend on the map.

12 So if there are objections to LAND-120 based
13 on reliability or anything else, I guess that would
14 still be open. But I guess I question why it would be
15 necessary to bring Mr. Ringleberg in again to describe
16 the same process of using DWR's own GIS data to create
17 a map that, to my knowledge, throughout all these
18 proceedings there has never been one question or
19 allegation regarding inaccuracy. And it is also marked
20 as to scale except where not -- you know, it's up to
21 professional standards in terms of map making.

22 So we could go into that with LAND-120. I
23 would suggest that it should not be necessary, since
24 it's part of the same set of maps prepared by the same
25 firm using the same methods described in LAND-80, which

1 is the rebuttal testimony of Mr. Ringleberg.

2 CO-HEARING OFFICER DODUC: Ms. Ansley.

3 MS. ANSLEY: I think that my only -- my only
4 comments at this time are that I'm happy to check about
5 LAND-3, and that's fine. I'm sure the Board's
6 attorneys will check too. In terms of LAND-20 --

7 CO-HEARING OFFICER DODUC: 120.

8 MS. ANSLEY: LAND-120. Sorry. I do object to
9 testimony provided by Ms. Meserve as to the foundation
10 and contents of LAND-120 when she -- if and when I
11 bring an objection to LAND-20, [sic] I expect that she
12 will, you know, answer the objection. And then if she
13 has to put on rebuttal testimony because her witnesses
14 here can't authenticate the document, that's fine.
15 That's proper procedure and the normal course.

16 I do object to her here, herself, presenting
17 evidence as to the contents of LAND-120, which was our
18 problem in the Part 1. So we can resolve that in the
19 normal course of evidentiary objections.

20 CO-HEARING OFFICER DODUC: As of now, you have
21 not made objection with respect to LAND-120.

22 MS. ANSLEY: Well, LAND -- well, her witnesses
23 are still on the panel. I have asked her witnesses
24 questions regarding LAND-120. And I may make an
25 objection to the admission into evidence of LAND-120.

1 CO-HEARING OFFICER DODUC: But as of this
2 moment, there is no objection?

3 MS. ANSLEY: I can make that objection now. I
4 just thought you didn't want them.

5 CO-HEARING OFFICER DODUC: No, no. I just
6 want to make sure, before we get into another back and
7 forth on the exhibits.

8 MS. ANSLEY: I'm saying I'm happy to leave
9 that for the normal course.

10 CO-HEARING OFFICER DODUC: All right.

11 MR. DEERINGER: If I understood Ms. Ansley
12 correctly, the time you're objecting to is it's
13 introduced on cross?

14 MS. ANSLEY: That's right.

15 MS. DES JARDINS: I wanted to read from
16 Government Code 11513, which governs --

17 CO-HEARING OFFICER DODUC: Ms. Des Jardins,
18 what is this in relation to?

19 MS. DES JARDINS: In relation to what she just
20 said.

21 CO-HEARING OFFICER DODUC: Who just said?

22 MS. DES JARDINS: Ms. Ansley.

23 CO-HEARING OFFICER DODUC: We are not
24 discussing that right now. She's not making any
25 objection right now. She will, if she chooses, make an

1 objection when these exhibits are moved into the
2 record. There is no further discussion on an objection
3 that has not been made.

4 MS. DES JARDINS: I just generally --

5 CO-HEARING OFFICER DODUC: No.

6 MS. DES JARDINS: -- want to lodge an
7 objection to objections based on lack of foundation --

8 CO-HEARING OFFICER DODUC: She has not --

9 MS. DES JARDINS: -- based on Evidence Code
10 Section --

11 CO-HEARING OFFICER DODUC: She has not made an
12 objection. Please sit down.

13 MS. DES JARDINS: Thank you.

14 CO-HEARING OFFICER DODUC: Please pay closer
15 attention to proceedings as they reveal themselves and
16 make your objections at the appropriate time, please.
17 That goes for everybody.

18 All right. I think we're finally ready to
19 turn to Mr. Jackson, who has reminded me several times
20 he is aging during this hearing process. So let's not
21 keep him waiting any further.

22 MR. JACKSON: I could be in the hospital.

23 The two areas that I wanted to talk about --

24 CO-HEARING OFFICER DODUC: Mr. Jackson, use
25 your microphone.

1 MR. JACKSON: Excuse me. The two areas that I
2 wanted to talk to Dr. Shilling about would be his
3 testimony at LAND-135, if that could be put up.

4 And the other will be a document,
5 CSPA No. 26, which is the Delta Reform Act code
6 sections.

7 Could you go to Page 2, Lines 12 to 20.

8 DAVID ROBINSON, FRASER SHILLING, Ph.D.,
9 DAVID STIRLING, SARA HEMLY, DANIEL WILSON
10 called as Panel 1 witnesses by
11 Protestant Groups 7, 19, 20, 21,
12 and 24 having been previously duly
13 sworn, was examined and testified
14 further as hereinafter set forth:

15 CROSS-EXAMINATION BY MR. JACKSON

16 MR. JACKSON: Dr. Shilling, you indicated
17 Lines 12-20 sum up your background on water quality and
18 quantity conditions in the roadways -- in waterways,
19 social uses of fisheries in the Delta and throughout
20 California, and the impacts of transportation
21 infrastructure on fish and wildlife; is that correct?

22 WITNESS SHILLING: Yes, that's correct.

23 MR. JACKSON: Is that sort of a summary of the
24 issues that you looked at in your overall testimony?

25 WITNESS SHILLING: I think I extended a little

1 beyond this because I talked about two processes
2 really. The state scale one is thinking about
3 sustainability, which is in the statute and policy.
4 The other is regional water management, which is in
5 statute and policy and funding mechanisms. So those
6 were also part of it.

7 And then transportation infrastructure has
8 been my primary field of study, but really any
9 construction impacts and linear features that humans
10 create on the landscape are all related to that and are
11 part of the same area, from the same papers. We look
12 at those things together.

13 CO-HEARING OFFICER DODUC: Hold on,
14 Mr. Jackson. Let me ask Dr. Shilling to move the
15 microphone closer.

16 WITNESS SHILLING: Yes.

17 CO-HEARING OFFICER DODUC: We can hear you
18 just fine -- well, maybe not Mr. Herrick because he was
19 nodding his head -- but for the webcasting.

20 WITNESS SHILLING: Okay. Is this better?

21 CO-HEARING OFFICER DODUC: Yes.

22 WITNESS SHILLING: Okay.

23 MR. JACKSON: In looking at the areas in which
24 you've worked in California, is it fair to say that
25 they are areas that are either part of the Central

1 Valley watershed that leads into the Delta, the Delta,
2 or areas in which water is used from the Delta? I do
3 know that Los Angeles and San Gabriel Rivers don't run
4 to the Delta, but they're in areas in which water is
5 used. Is it fair to say that?

6 WITNESS SHILLING: Yes, it's fair to say that.

7 MR. JACKSON: And how many years have you been
8 doing Central Valley-related work in the areas that you
9 are testifying?

10 WITNESS SHILLING: Well, starting in '98 and
11 fairly continuously since then in different parts of
12 the Central Valley, sometimes as part of a statewide
13 assessment and sometimes part of the Central Valley
14 itself such as the Sacramento River.

15 MR. JACKSON: Did you in -- in doing this --
16 your work over those years in the Central Valley
17 watershed, did you have occasion to spend time in the
18 Delta?

19 WITNESS SHILLING: Yes.

20 MR. JACKSON: How much time?

21 WITNESS SHILLING: Well, recreationally, the
22 odd misspent weekend at the sugar mill, Old Sugar Mill.
23 I've done field work along the Sacramento River through
24 the Delta, some roadways, the lower Delta into the
25 Suisun Marsh, both work and recreation. It's hard to

1 say. It's been it -- it's not an everyday thing but
2 certainly every year thing since -- over the last 20
3 years.

4 MR. JACKSON: And it's not so far from your
5 home in Winters?

6 WITNESS SHILLING: Oh, no. My home used to be
7 in Davis until last year, so. And I can't hear those
8 pile driver strikes yet, so if that's...

9 MR. JACKSON: In your work, did you -- did you
10 attempt to determine impacts of projects on
11 environmental conditions?

12 WITNESS SHILLING: That's generally true of
13 most of my research is studying human impacts and/or
14 activities on natural conditions yes.

15 MR. JACKSON: Did you also look at whole
16 ecosystems for cumulative impacts?

17 WITNESS SHILLING: Yes.

18 MR. JACKSON: And is there a difference
19 between direct impacts and cumulative impacts in a
20 watershed the size of the San Francisco-San Joaquin
21 Delta watershed?

22 WITNESS SHILLING: Yeah, definitely.
23 There's -- most projects are studied from a
24 single-impact point of view, although there is law to
25 require a cumulative-impacts point of view. And most

1 hydrologists, ecologists, and environmental scientists
2 think of these as systems that have many moving parts
3 that operate together. And so in the real world, it's
4 an accumulation of processes and attributes of a
5 system. And so single projects or very large projects
6 can have multiple effects, some of which are
7 independent of each other and some of which have a
8 synergistic effect, and you can have an even worse
9 outcome than if you were to add up the individual
10 impacts of those.

11 MR. JACKSON: Did you do both, for this
12 process in this testimony, an analysis of direct and
13 cumulative impacts?

14 WITNESS SHILLING: I looked at the individual
15 impacts and considered those in the context of the
16 literature and then also thought about the accumulation
17 of all of the impacts, whether or not they're
18 mitigated, and that informed, for example, the
19 sustainability part of the testimony and the regional
20 planning part of the testimony. So, yes.

21 MR. JACKSON: Next, could we go to Page 4,
22 Line 17, in LAND-135.

23 Now, some impacts have human impacts as well
24 as species impacts, do they not?

25 WITNESS SHILLING: Yeah, if you mean non-human

1 species, yes.

2 MR. JACKSON: So the -- calling your attention
3 to the environmental impacts at Line 16 that are
4 potentially present -- direct mortality for amphibians,
5 reptiles, mammals, and birds -- would you explain for
6 me what kind of direct impacts you would expect from a
7 project of this size in that location?

8 WITNESS SHILLING: Sure. So one is that, as
9 you increase the amount of traffic or the extent of
10 roadways or the use of existing roadways in an area
11 where you have wildlife, which is most of or all of the
12 Delta, there's a predictable increase in the mortality
13 of wildlife nearby because they're trying to cross the
14 road.

15 So the colloquial term is "road kill." And
16 there's a -- for some of these groups, there's a direct
17 relationship between increasing traffic and increasing
18 mortality. For some of them, they'll avoid roads, and
19 that's the noise impact that I discussed. For others,
20 they'll just cross the road regardless because they
21 don't see it as a threat.

22 And so for -- it varies by these groups, but
23 I'm not sure there's any amphibian that's sensitive to
24 roads as a source of mortality. There are some
25 reptiles that respond to roads and avoid them. There's

1 some mammals that avoid roads, but others that just try
2 to cross. So it varies quite a bit, but the direct
3 mortality effect is partially from roads and traffic.

4 MR. JACKSON: Could you bring up -- I'm sorry.
5 I can't see your name. I don't mean to be rude.

6 CO-HEARING OFFICER DODUC: Ms. Gaylon.

7 MR. JACKSON: Ms. Gaylon, could you bring up
8 CSPA No. 26, please.

9 And I'm looking for Section 85022, which is
10 near the front, and (c)(1).

11 Are you familiar with this section of the
12 Delta Reform Act?

13 WITNESS SHILLING: Well, I'm familiar with the
14 Delta Reform Act and this language generally speaking,
15 yes.

16 MR. JACKSON: So given your experience living
17 near the Delta and working in the Delta in your areas
18 of expertise, does 85022 (c)(1), do you agree with the
19 statement by the legislature about the Delta?

20 WITNESS SHILLING: Yes.

21 MR. JACKSON: What is your view of why the
22 Delta is distinct and valuable?

23 WITNESS SHILLING: Well, most large estuaries
24 are fairly readily identified as a distinct and
25 separate place from their watershed and from the

1 coastline that they feed to, and it has its own set of
2 unique processes and attributes that are not true of
3 anywhere else around it. So it's unique in a
4 geographic sense, in a biological-ecological sense.
5 It's going to have unique -- and it does have unique
6 wildlife and plants and wildlife-plant interactions,
7 and nutrient processes.

8 So the unique part of it from a natural point
9 of view, because of its size and it's position and the
10 size of its watershed, it's got a special ecological
11 place. And it's unique in the literal sense in that
12 there's not anything else like it.

13 So culturally, I'm aware that people think of
14 it as a place that it has an enduring meaning in
15 California history and culture, and apparently a lot
16 of -- from the witnesses here, has that kind of
17 meaning. But also politically it's had a long history
18 of both, of course, agreements and discord and
19 disagreement, and it's probably unique in that sense,
20 too, and why the legislature would -- would create the
21 Delta Reform Act, which has driven a lot of the
22 protection of the Delta but also the various funding
23 mechanisms that have identified the Delta for specific
24 as amounts of funding and because we're taking so much
25 out of it, is the problem, out of something that's

1 irreplaceable and therefore threatening that uniqueness
2 that you brought up.

3 MR. JACKSON: Is -- I'll go a little out of
4 order because of your response.

5 Do you agree with that ---with No. (3),
6 (c)(3), which is that it is necessary to protect and
7 enhance the ecosystem of the Delta and prevent its
8 further deterioration and destruction?

9 WITNESS SHILLING: In order to do the first
10 part, that we should do that? I agree we should do
11 that, but the statement there is to promote public
12 safety, health, and welfare and protect public and
13 private property, wildlife, and fisheries we would do
14 what you just said.

15 And, yes, I agree that in order -- if we hold
16 those things as values, then we have to do the latter,
17 we have to protect and enhance the ecosystem because we
18 won't get the public benefits, whatever people derive
19 from the Delta as an intact system, if we disentangle
20 it, if we deteriorate it and destroy it.

21 MR. JACKSON: Could you scroll up just a
22 little bit because I'm having trouble seeing over
23 Andrew, and I don't want to misquote it.

24 No, it's fine.

25 The -- just a little more so I can see 4

1 and 5. Okay.

2 Do you agree that, in 85022(c)(4), in the
3 legislature's findings in the Delta Reform Act, that it
4 makes sense from a planning purpose that -- that we
5 look at planning in the Delta in a coordinated fashion
6 for both species and people?

7 WITNESS SHILLING: Yes.

8 MR. JACKSON: Have you had experience doing
9 that in anything of this size before?

10 WITNESS SHILLING: When you say "anything of
11 this size," what do you mean?

12 MR. JACKSON: The -- any ecological system an
13 any estuary that has this amount of species, area,
14 importance?

15 WITNESS SHILLING: Do you mean is there
16 something analogous elsewhere in the world, or have I
17 had experience with --

18 MR. JACKSON: Is there anything analogous that
19 you know of on the west coast of the Americas, for
20 instance?

21 WITNESS SHILLING: No, not on the west coast.
22 Throughout the world, I think there's a couple of
23 examples.

24 MR. JACKSON: And what would they be?

25 WITNESS SHILLING: The Chesapeake Bay

1 coordinated planning, multi-state, many jurisdictions,
2 related originally to a US EPA requirement to reduce
3 nutrient load into the Chesapeake Bay because it was
4 having destructive effects.

5 That's somewhat similar or quite similar.
6 It's got a lot of differences, but in terms of having a
7 requirement for a lot of coordination, a lot of
8 consideration of means and interests of different
9 jurisdictions, and then having coordinated actions that
10 result in a benefit to that bay.

11 MR. JACKSON: In the Chesapeake Bay situation
12 did -- to your knowledge, was there an infrastructure
13 project proposed of this size?

14 WITNESS SHILLING: There was not a single
15 infrastructure project proposed of this size, no.

16 CO-HEARING OFFICER DODUC: Ms. Ansley --
17 Hold on.

18 MS. ANSLEY: I want to object, lack of
19 foundation. He hasn't establish that he actually
20 worked in the Chesapeake or that he analyzed impacts.
21 I guess he's asking generally if he's aware of a
22 project in that occurred in the vicinity of the
23 Chesapeake Bay.

24 CO-HEARING OFFICER DODUC: What is your
25 familiarity with the Chesapeake Bay project?

1 WITNESS SHILLING: Well, as part of the
2 involvement in CEPA and everything pre CALFED and since
3 then, that was one of our big models. There's been a
4 couple of big models in understanding how very large
5 watershed and coastal estuary systems should be planned
6 for from an impacts-and-solutions point of view.

7 As we got into the drought, then southern
8 Australia -- when I "we," I mean there's multiple
9 agencies and academics have been involved, obviously,
10 in the Delta in the last 20 years. And that -- so
11 there's a couple of global models for how we should do
12 a better job. And Chesapeake Bay was one of those.
13 And it has come up consistently as a good model -- or a
14 model for some parts of coordinated planning.

15 CO-HEARING OFFICER DODUC: So you didn't work
16 on the project, but you're familiar with it?

17 WITNESS SHILLING: Yes, yes.

18 MR. JACKSON: All right. To stay within my
19 promise, I'll go to No. 2 at the top.

20 Would you read that? And then I have a couple
21 of questions about it. You don't need to read it out
22 loud. I think everybody can see it.

23 WITNESS SHILLING: Okay.

24 MR. JACKSON: The legislative finding in
25 85022(c)(2) talks about the permanent protection of the

1 Delta, and it talks about natural and scenic resources.

2 So are scenic resources human resources?

3 WITNESS SHILLING: Yeah, you can characterize
4 them that way.

5 MS. ANSLEY: Objection, calls for a legal
6 conclusion. I guess he can ask his opinion of what the
7 legislature meant by "scenic resources," but I question
8 the relevance of him interpreting that.

9 CO-HEARING OFFICE DODUC: Ms. Ansley, my
10 understanding being Mr. Jackson was asking Dr. Shilling
11 for his understanding.

12 MR. JACKSON: Yes.

13 CO-HEARING OFFICER DODUC: Overruled.

14 WITNESS SHILLING: So reading it from a
15 colloquial or environmental policy point of view,
16 "scenic resources" sounds like something that -- people
17 appreciating a view or aspects of a built or natural
18 environment in an aesthetic way.

19 MR. JACKSON: What is your understanding of
20 the word "paramount" in 85002(c)(2) [sic]?

21 WITNESS SHILLING: The primary, the leading
22 concern.

23 MR. JACKSON: In your review of the
24 information that you put into your testimony, in
25 LAND-135, did you see when you reviewed this

1 environmental documents to prepare for this case, did
2 you see any way in which the proposed Cal WaterFix
3 would indicate that it's -- that the natural and scenic
4 resources are paramount?

5 WITNESS SHILLING: No.

6 MR. JACKSON: Thank you, sir. No further
7 questions.

8 CO-HEARING OFFICER DODUC: Thank you,
9 Mr. Jackson.

10 As Ms. Des Jardins comes up and gets ready for
11 cross-examination, could someone please go in the
12 hallway and ask Ms. Sheehan to come in real fast?

13 And as that is going on, since I see
14 Mr. Gohring and perhaps other members of the
15 Water Forum panel here, just a heads up that I don't
16 think we'll get to you today. In fact, I'm fairly sure
17 we won't get you today. You are, of course, more than
18 welcome to stay, but I didn't want you to -- yes, have
19 a donut hole or two, since you're not appearing.

20 MR. GOHRING: I'm just getting the gestalt of
21 the process.

22 CO-HEARING OFFICER DODUC: And Ms. Gaylon,
23 Ms. Des Jardins has 35 minutes to conduct her
24 cross-examination. And then she is also, after that,
25 will be conducting cross-examination on behalf of

1 Ms. Suard for 15 minutes. And I guess I will wait
2 until Ms. Sheehan comes in. The reason I'm asking for
3 Ms. Sheehan -- and perhaps when she does come in you
4 can talk to her about it -- Ms. Morris has indicated
5 when I first asked for cross-examination of this panel,
6 that she might have ten minutes, depending on DWR's
7 cross-examination. And I forgot to circle back to the
8 State Water Contractors.

9 MS. ANSLEY: I will text -- Stef is listening
10 right now. She will probably be texting me right now.

11 CO-HEARING OFFICER DODUC: All right. Thank
12 you.

13 MS. DES JARDINS: Ms. Doduc, also I wanted to
14 ask, my bird expert was obviously very interested in
15 the testimony about impacts on birds. And so it may go
16 longer than 35 minutes, but I'll try and keep it as
17 efficient as possible. Thank you.

18 CO-HEARING OFFICER DODUC: I'm confused. Are
19 you asking questions --

20 MS. DES JARDINS: I only asked for 45 minutes
21 to begin with, and if I had a little bit more, I'd like
22 a chance to ask the questions I think --

23 CO-HEARING OFFICER DODUC: But you're not
24 proposing to bring your bird expert up today.

25 MS. DES JARDINS: No. He was -- no, I'm not.

1 CO-HEARING OFFICER DODUC: Ms. Ansley.

2 MS. ANSLEY: I just want to say that

3 Ms. Morris does not want her ten minutes of cross.

4 CO-HEARING OFFICER DODUC: Thank you. We will
5 cross that off my to-do list.

6 All right, Ms. Des Jardins.

7 CROSS-EXAMINATION BY MS. DES JARDINS

8 MS. DES JARDINS: Okay. My name is Deirdre
9 Des Jardins, and I'm a principal at California Water
10 Research. And I've got questions for Dr. Shilling on
11 impacts of construction noise on birds and then
12 questions for Mr. Robinson around traffic impacts.

13 So Mr. Shilling, I'd I like to bring up your
14 testimony -- or is it Dr. Shilling? I'm sorry.
15 LAND-135, Page 3, and Line 19.

16 And it states the noise level considered as a
17 threshold for birds and wildlife in the Final EIR/EIS
18 is 60 decibels, which is well above the threshold of
19 50 decibels in the literature and in a review carried
20 out for Caltrans on the effects --

21 CO-HEARING OFFICER DODUC: I'm sorry. I'm not
22 seeing that. Where are you?

23 Okay. You were on a different page. And
24 Ms. Des Jardins, let me request that you point
25 Dr. Shilling to the line numbers that you would like

1 him to read, give him some time to read it if
2 necessary, and then ask your question. There's no need
3 to reread this.

4 MS. DES JARDINS: -- reread. Just the
5 question.

6 Dr. Shilling, so there's -- I wanted to ask
7 you about the threshold of 50 decibels in the
8 literature, about impacts on -- construction noise on
9 bird communication that you referenced here.

10 So that -- that's -- a significantly lower
11 threshold, correct?

12 WITNESS SHILLING: Yes.

13 MS. DES JARDINS: And this study, this review
14 by Caltrans indicates it impacts bird communication.

15 WITNESS SHILLING: Yes.

16 MS. DES JARDINS: So is that communication as
17 would be used for mating?

18 WITNESS SHILLING: Yes, it's used for mating
19 and other kinds of communication between individual
20 birds.

21 MS. DES JARDINS: If bird communication is
22 disrupted, how would it affect the bird populations?

23 WITNESS SHILLING: It depends on the type of
24 disruption. If there's louder sound or a sound that
25 interferes with birds' ability to hear each other,

1 they -- one of the primary impacts that's been studied
2 is not being able to find a mate. So the obvious
3 outcome of that is that you have a lower reproductive
4 rate and a decline in populations.

5 MS. DES JARDINS: So I'd also like to go to
6 Line 25 on that page. You discuss that the method used
7 by DWR for calculating noise propagation, that you
8 found it inadequate and it did not correspond to even
9 basic modeling approaches in GIS.

10 So what was the basis for that?

11 WITNESS SHILLING: There's two bases for that.
12 Obviously to -- or maybe not obviously but to
13 understand how far away from a construction event or
14 traffic that you have an affect on, in this case,
15 wildlife. And if you have a certain level of loudness,
16 let's say, you need to know what the initial sound
17 level was. And I don't think that that was done
18 properly.

19 And then the other, the maps that are shown in
20 Chapter 23 -- sorry, Chapter 23 of the FEIR the noise
21 contours, they seem to respect a single and fairly
22 simplistic condition. And as you change climate
23 conditions and over complex landscapes, you don't have
24 simple noise contours, and especially if you enter a
25 built setting, you can get noise reflection. And so

1 you'd have different attributes that aren't reflected
2 in their representation of noise impacts.

3 MS. DES JARDINS: Let's go pull up those maps.
4 I'd like to go to Exhibit SWRCB-102, the Final EIR/EIS,
5 and pull up Section 23.A, which is the noise contour
6 maps. And I'd like to grab my distance glasses for
7 just a second.

8 So I'd like to scroll down to the next page
9 please. So these are the maps that you were
10 discussing?

11 WITNESS SHILLING: Yes.

12 MS. DES JARDINS: And so what -- like, there's
13 an area around Clarksburg. What about that? Do you
14 think if it was done properly, do you think that it --
15 the areas affected would be expanded or, you know --

16 WITNESS SHILLING: Well, first I would suggest
17 using a different map because this is Alternative 1A.

18 MS. DES JARDINS: Oh, let's scroll down to
19 Alternative 4A. Yes.

20 So let's look at this. This is Alternative 4.
21 So what about the noise contours do you think isn't
22 correct? And what would be the impacts that you might
23 expect?

24 MS. MESERVE: Compound. If you could just ask
25 one question.

1 MS. DES JARDINS: Apologies.

2 MS. MESERVE: I'm sorry.

3 CO-HEARING OFFICE DODUC: So, Ms. Ansley, was
4 that the same objection?

5 MS. ANSLEY: I share the compound objection.
6 My other objection is asked and answered. He actually
7 already explained what he found wrong about the
8 contours and the propagation. He said that it, in his
9 opinion, that --

10 CO-HEARING OFFICER DODUC: Hold on,
11 Ms. Ansley. Let's not let you testify.

12 I'm sustaining the first objection with
13 respect to compound. I'm overruling the second
14 objection. Actually, given the way Dr. Shilling's
15 testimony went yesterday, I actually do appreciate
16 revisiting this.

17 So Ms. Des Jardins, break your question down
18 and ask it again.

19 MS. DES JARDINS: Thank you.

20 So first, what about the calculation of these
21 contours was -- do you think was incorrect?

22 WITNESS SHILLING: The extent of the contours,
23 I think, is too small. Essentially the -- think of
24 them as blobs of sound reaching 60 decibels A-weighted
25 or 50 decibels A-weighted. And I don't think those

1 represent how far those sounds would go because -- and
2 we'll see how this one goes. But if you back calculate
3 what the sound volume would have to be to get those
4 contours, you would find that it was approximately
5 100 dB(A) or decibels A-weighted.

6 And if you go into the literature, including
7 LAND-148, you'll see that the pile driver impacts for
8 construction of the intakes and the cofferdams, et
9 cetera, could have sound levels of 125 dB(A). And the
10 difference between 100 and 125 is manifold. It's not a
11 linear scale; it's a log scale.

12 So I would expect -- and anybody could do this
13 calculation fairly quickly -- that with a higher noise
14 volume, noise level at the intake construction, the
15 noise contours 50 and 60 would go past Clarksburg.
16 Essentially it would envelop Clarksburg and Hood with
17 sound levels that exceed human levels of annoyance and
18 health impacts, which are quite similar to birds,
19 actually.

20 So from a bird impact point of view you would
21 have the same kind of effect, where those circles
22 really should be larger.

23 The second thing that really caught my
24 attention is how regularly shaped those are in a
25 landscape that is not regular. And noise is absorbed

1 and reflected in a very complicated way. But I did a
2 noise model just to the east of that on 99, almost
3 exactly in the same latitude. And it's a very
4 convo- -- we found very convoluted outlines of
5 different noise levels; think of them as contours.

6 So I would expect a similar finding here if
7 the noise modeling was done adequately well, et cetera.
8 I mean, these aren't -- there are free noise
9 propagation models that could have been used. There
10 are also ones you can pay for, either of which would
11 give you a different outcome.

12 MS. DES JARDINS: Thank you. I'd like to go
13 to FSL-29, Appendix 5.J which you refer to, and
14 Page 18.

15 So you refer to this exhibit. This is a list
16 of species in the area, bird species.

17 WITNESS SHILLING: Can you tell me where I do
18 that?

19 MS. DES JARDINS: You refer to that in a
20 line -- Page 3, Line 25. You say --

21 WITNESS SHILLING: Oh, yeah, okay.

22 MS. DES JARDINS: And you refer to this --
23 this is actually -- and so there's a list of bird
24 species there, including California black rail, clapper
25 rail, et cetera. And so all of these species would

1 potentially be affected if they were in the area?

2 WITNESS SHILLING: Yes, but this is just a
3 partial list of all the birds that live in the Delta.

4 MS. DES JARDINS: Okay. And you think you, I
5 believe, disagree with the area of that of 500 feet as
6 from --

7 WITNESS SHILLING: Yes. We used the map that
8 you just had up. The distance for a 500 dB(A) noise
9 level, average noise level, was about three quarters of
10 a mile from the pile driver location, which is
11 obviously more than 500 feet.

12 And then if you think about the shaft
13 constructions, which are the other areas going down
14 through the Delta, they also have their own different
15 kinds of noise levels.

16 And in -- certainly in the case of the pile
17 driver strikes but generally the approach used of the
18 Leq, which is the averaging of noise, you're going to
19 have noise events that go above that average and that
20 those would extend beyond 500 feet.

21 MS. DES JARDINS: So let's go to Page 19.

22 WITNESS SHILLING: Sorry for that
23 complicated --

24 MS. DES JARDINS: It discussed -- some of
25 these have a footnote. Footnote 4 says -- it discusses

1 habitat use in the immediate vicinity of construction
2 activities is reduced. So do you generally agree with
3 that assessment in the footnote about habitat use in
4 the vicinity being reduced?

5 WITNESS SHILLING: Yes, generally.

6 MS. DES JARDINS: But it might be more than
7 just the immediate vicinity based on your assessment of
8 noise impacts.

9 WITNESS SHILLING: Yes. And it also varies
10 with -- when it says "some species," depending on how
11 close you are, probably all species at some level. And
12 then as you go further and further away and the noise
13 gets less, then it's going to be fewer and fewer
14 species, the most sensitive ones.

15 And it really doesn't address the population
16 level effects which, if you have long-term disturbance,
17 just like people in -- as we heard yesterday, people in
18 Clarksburg may change their choice to live there due to
19 noise; birds are also going to change their choice to
20 live there, their distribution, due to noise.

21 MS. DES JARDINS: I'd like to go to
22 Exhibit SOSC-18 which is the sandhill crane
23 distribution map.

24 And I'd like to go to Figure 5 on Page 7.
25 Scroll down.

1 So this is a distribution of sandhill cranes,
2 Map C, based on this map.

3 CO-HEARING OFFICER DODUC: Hold on.

4 Ms. Ansley?

5 MS. ANSLEY: I object, lacks foundation. She
6 hasn't asked him if he's aware of this study. She
7 hasn't asked him if this represents his understanding
8 of the distribution of sandhill cranes, nor if he's
9 familiar with sandhill cranes before we actually
10 interpret this graph.

11 CO-HEARING OFFICER DODUC: All right. Let's
12 please answer those three questions, Dr. Shilling.

13 WITNESS SHILLING: I have never studied
14 sandhill cranes as separate from all birds as a group.
15 I am not familiar with this study or this map. But I'm
16 familiar with how distribution maps are created.

17 CO-HEARING OFFICER DODUC: All right. Let's
18 proceed on those premises.

19 MS. DES JARDINS: But based on this
20 distribution map, which you understand the concept of
21 distribution maps, would sandhill cranes be affected by
22 the noise impacts?

23 WITNESS SHILLING: Well, do the little
24 geographic interpretation based on the county lines
25 there, and certainly in the bottom Map C with the

1 distribution occurring across the area of construction,
2 the intakes, the shafts, the transmission lines, and
3 the access roads, I would say yes.

4 CO-HEARING OFFICER DODUC: Just based on this
5 chart, not based on your own knowledge of sandhill
6 cranes?

7 WITNESS SHILLING: Yes.

8 MS. DES JARDINS: And I'd like to go to
9 Exhibit SWRCB-108, and this has to do with biological
10 surveys, Page 25 at the bottom.

11 CO-HEARING OFFICER DODUC: Are you familiar
12 with this document, Dr. Shilling?

13 WITNESS SHILLING: Yes, in the way that I'm
14 familiar with the EIR materials in general. It was
15 part of my reading in November to prepare my testimony,
16 so you can start there.

17 MS. DES JARDINS: It's just Page 25 at the
18 bottom. --

19 CO-HEARING OFFICER DODUC: Can we --

20 MS. DES JARDINS: Let's go out a little bit.

21 CO-HEARING OFFICER DODUC: Yes, so
22 Dr. Shilling can see what this table is and all of us
23 can see.

24 MS. DES JARDINS: Yes, scroll it out, scroll
25 it out.

1 This has to do with surveys. And it indicates
2 that the surveys may be conducted either concurrent
3 with or prior to construction.

4 If surveys for birds were done concurrent with
5 construction, would that affect -- would the noise
6 issues you're identifying potentially affect the
7 surveys?

8 WITNESS SHILLING: Yes. And you would want to
9 do it prior to and concurrent, not "or."

10 MS. DES JARDINS: You would want to do the
11 surveys prior to construction?

12 WITNESS SHILLING: And concurrent, so that
13 you --

14 MS. DES JARDINS: Prior and concurrent?

15 WITNESS SHILLING: Not "or." It says "or"
16 which suggests one can choose concurrent, which
17 wouldn't tell you how things have changed because you
18 wouldn't know what you had before.

19 MS. DES JARDINS: And I'd like to go back to
20 your testimony on Page -- Exhibit LAND-135, Page 5, at
21 Line 10 about noise abatement measures. And you
22 observed noise abatement measures are typically only
23 partially effective?

24 WITNESS SHILLING: Yes.

25 MS. DES JARDINS. And you said it's due in

1 part to poor connections between known impacts and
2 legal requirements?

3 WITNESS SHILLING: Yes.

4 MS. DES JARDINS: So I wanted to ask you about
5 the noise abatement plan. I'd like to go to
6 Exhibit SWRCB-102, Appendix 3B, which is the mitigation
7 measures. And Page 41. Looking for -- is this Page
8 41?

9 CO-HEARING OFFICER DODUC: Do you mean the
10 pdf?

11 MS. DES JARDINS: Yeah, yeah. Next page.
12 There's a discussion -- yeah, at Line 25.

13 So it discusses a noise abatement plan is
14 reducing severity of impacts. Are you aware -- do you
15 know if that noise abatement plan has been defined yet?

16 WITNESS SHILLING: I haven't seen it defined,
17 but it sets a couple of standards here, which may or
18 may not work. And it's -- it informs the -- some of
19 the mitigations that occur on 2320. And so it goes
20 back to: Was the predictive modeling of noise impacts
21 done correctly? What's the standard for understanding
22 impacts to people? And then is the monitoring done
23 correctly? Those are all ways to inform, then what do
24 you do about it.

25 The abatement -- as I said in my testimony,

1 it's difficult to fully abate noise impacts, especially
2 high sound levels that you would expect with a pile
3 driver.

4 And if the approach that they're using in the
5 EIR is to use average noise levels in a situation where
6 you have these big spikes in noise, then you may pull
7 average noise level down while still having that very
8 characteristic pile driver strike sound occurring,
9 however often it's going to occur for those 30 million
10 times that it's going to occur.

11 So it doesn't suggest to me that this has been
12 effectively addressed. And certainly the mitigation
13 approach suggested on 2320 doesn't suggest that they
14 fully fleshed that out.

15 MS. DES JARDINS: I wanted to ask you at
16 Line 33, it talks about, where residents complain of
17 excessive nighttime noise levels, noise abatement plan
18 would call for noise level monitoring reduction to a
19 level of 50 dB(A) interior or 5 dB(A) above ambient
20 noise, whichever is greater.

21 Would your observation about average noise
22 levels versus spikes be applicable to nighttime noise
23 level?

24 WITNESS SHILLING: Well, in this case, using
25 the max, although the L indicates --

1 MS. DES JARDINS: Oh, Lmax.

2 WITNESS SHILLING: -- indicates they're using
3 maximum noise levels versus average.

4 MS. DES JARDINS: Okay. Okay.

5 WITNESS SHILLING: But the parenthetical
6 statement there "70 dB(A) exterior," if they're only
7 measuring exterior, the interior noise level actually
8 depends on the construction of the house, the number of
9 panes of window glass you have, the direction that
10 bedrooms or rooms are facing that people are exposed to
11 noise levels. So that's a very high level of
12 attenuation from 70 outside to 50 inside.

13 And so if they're only measuring outside and
14 they assume that the inside is reduced to a certain
15 level without actually measuring it, then this would
16 not be adequate monitoring. If they measured inside in
17 the places that people were learning, living, et
18 cetera, then that would be closer to adequate
19 monitoring.

20 MS. DES JARDINS: And for birds that
21 were sleeping, would 70 -- what would
22 70 dB(A) exterior max --

23 WITNESS SHILLING: Well, they wouldn't be
24 sleeping, so -- but it -- you know, again, how far out
25 that goes as to what size area would be affected,

1 whether it would go into the wildlife refuge or
2 riparian areas where birds are present, and definitely
3 the timing. The fact that it's continuous, day and
4 night, would probably displace any birds that were
5 exposed to the noise above a certain threshold that
6 they were sensitive to.

7 MS. DES JARDINS: And the threshold would
8 depend on the species?

9 WITNESS SHILLING: Yes, but almost all of
10 them, when you get to close to 60 dB(A), you start to
11 push them out. Not all, obviously, there are birds
12 that live in cities but for most of the species we're
13 concerned about, most of the native species in the
14 Delta.

15 MS. DES JARDINS: So is that be 60 dB(A) max,
16 or 60 dB(A) average?

17 WITNESS SHILLING: That's max, but it was max
18 once a day is different from, you know, once every
19 minute or so. So it's also the frequency that you get
20 that kind of sound.

21 MS. DES JARDINS: Thank you. So my next
22 questions are -- I have a few for -- on traffic.

23 And I'd like to go to Page 104, since we're on
24 the development after. And it's the last paragraph, I
25 believe.

1 MS. MESERVE: Are you talking about the
2 Final EIR or the development after the EIR.

3 MS. DES JARDINS: It's SWRC- -- development
4 after EIR. Am I still on the -- oh, no. I'm on
5 Appendix 3B. That's why I'm not seeing it.

6 Let's go to exhibit SWRCB-102, Appendix 3B.
7 Oh, we are on Appendix 3B. Let's go to Page 31 of this
8 document, apologies, which does discuss -- go to the
9 previous page. It was under "Barge" -- yeah.

10 So this relates to -- there's standard DWR
11 contract specifications and traffic plans.

12 Mr. Robinson, are you aware of these contract
13 specifications?

14 WITNESS ROBINSON: I'm sorry, but I didn't
15 follow. Which page?

16 MS. DES JARDINS: Yeah, there's -- it refers
17 to traffic plans required by DWR contract
18 specifications.

19 CO-HEARING OFFICER DODUC: Do you have a line
20 number?

21 MS. DES JARDINS: Let's go down -- on Line 11
22 to 12. Let's go to Footnote 12, please.

23 CO-HEARING OFFICER DODUC: Let's hold on.

24 Mr. Robertson, do you see Lines 11 through 12?

25 WITNESS ROBINSON: Yes.

1 MS. DES JARDINS: Let's scroll back out.

2 On the -- the footnote on the bottom discusses
3 contractors -- at the very bottom of the footnote, it
4 says, "Contractors must develop" --

5 CO-HEARING OFFICER DODUC: Instead of reading
6 it, let's allow Mr. Robinson to read the footnote, and
7 then when he's indicated he's done, you may ask your
8 question.

9 WITNESS ROBINSON: Yeah, read it.

10 MS. DES JARDINS: Okay. So, Mr. Robinson, the
11 contract for the tunnels has not been signed yet,
12 correct, or are you aware of any contract for the
13 tunnels?

14 WITNESS ROBINSON: No.

15 MS. DES JARDINS: Are you aware of any traffic
16 plan?

17 CO-HEARING OFFICER DODUC: Hold on, hold on.

18 MS. ANSLEY: Objection, I'm not sure what he's
19 answering "no" to, whether the contract has been signed
20 yet or whether he was aware of the contract.

21 CO-HEARING OFFICER DODUC: Mr. Robinson.

22 WITNESS ROBINSON: I'm not aware of it being
23 signed.

24 MS. DES JARDINS: Are you aware of --

25 CO-HEARING OFFICER DODUC: Hold on. Stop.

1 So you are familiar and aware of the contracts
2 being discussed?

3 WITNESS ROBINSON: No.

4 CO-HEARING OFFICER DODUC: So you're not
5 familiar, you're not aware of these contracts, and you
6 don't know whether or not they are signed?

7 WITNESS ROBINSON: That's correct, yes.

8 CO-HEARING OFFICER DODUC: Are you able to
9 answer any questions regarding these contracts to which
10 you have no knowledge of?

11 WITNESS ROBINSON: Well, I guess that would
12 depend on the question.

13 CO-HEARING OFFICER DODUC: Okay.

14 MS. DES JARDINS: Has anybody discussed a
15 traffic plan with you?

16 WITNESS ROBINSON: No, either than internally,
17 among ourselves.

18 MS. DES JARDINS: Has DWR provided or
19 discussed any kind of traffic plan for ameliorating
20 traffic impacts on the project?

21 WITNESS ROBINSON: Not with the Walnut Grove
22 Fire Department.

23 MS. DES JARDINS: And I'd I like to go to
24 Page 39, Best Management Plan 12.

25 CO-HEARING OFFICER DODUC: Let's allow

1 Mr. Robinson to read it, and then you may ask your
2 question.

3 MS. DES JARDINS: Sorry. Best Management Plan
4 15 as well.

5 WITNESS ROBINSON: I read it.

6 MS. DES JARDINS: So Mr. Robinson, this
7 discusses potentially restricting all material hauling
8 to off-peak traffic congestion hours and minimizing, to
9 the extent possible, uses of public roadways.

10 CO-HEARING OFFICER DODUC: You are reading.
11 Ask Mr. Robinson your question.

12 MS. DES JARDINS: Would this -- would this
13 reduce -- if this best management plan was actually
14 followed, would this reduce impacts that you're
15 concerned about?

16 CO-HEARING OFFICER DODUC: Ms. Ansley.

17 MS. ANSLEY: Objection, "Best Management
18 Practice." There is not a best management plan, so
19 that mischaracterize the statement in the document.

20 MS. DES JARDINS: If this best management
21 practice was followed, would this reduce traffic
22 impacts that you're concerned about?

23 WITNESS ROBINSON: Well, I'm unsure actually
24 because I'm assuming they'd be working at nighttime,
25 and if it got dark, bad weather, fog. And also, these

1 days, a lot of produce is moved to market at night to
2 keep the temperature cool. So we have a lot of other
3 trucks on the road at nighttime, too. And with a lot
4 of -- with more grapes growing, there's a lot more
5 tractors moving up and down the road at night to do
6 their applications. So I really couldn't say for sure.

7 MS. DES JARDINS: Okay. That's -- actually, I
8 would like to go to Exhibit -- are you familiar with
9 the Final EIR/EIS?

10 WITNESS ROBINSON: Not well.

11 MS. DES JARDINS: Well, something I'd like --
12 could we go to Exhibit SWRCB-108? And I'd like to go
13 to Page 104, the last paragraph. If you could read it,
14 please.

15 Have you --

16 CO-HEARING OFFICER DODUC: Do you need to
17 scroll up?

18 MS. MESERVE: Could we scroll up a little bit?

19 MS. DES JARDINS: So this says that mitigation
20 necessary --

21 CO-HEARING OFFICER DODUC: Instead of reading,
22 again, your question?

23 MS. DES JARDINS: So with respect to
24 mitigation of traffic impacts requiring cooperation of
25 third parties, could that include local parties?

1 WITNESS ROBINSON: That's something that I
2 can't answer. I don't know what they're referring to,
3 actually.

4 MS. DES JARDINS: So as far as mitigation of
5 transportation impacts on road capacity being --
6 requiring cooperation of third parties, you don't know
7 who the third parties are?

8 WITNESS ROBINSON: No.

9 MS. DES JARDINS: And have you -- are you
10 aware of any discussion about -- with your agency or
11 with the counties about trying to get that cooperation?

12 WITNESS ROBINSON: I'm aware of no contact
13 between us and the county or anybody regarding traffic
14 mitigation.

15 MS. DES JARDINS: Okay. Thank you. That
16 concludes my questions.

17 CO-HEARING OFFICER DODUC: Thank you. Let's
18 put 15 minutes on for Ms. Des Jardins to pick up
19 cross-examination on behalf of Ms. Suard.

20 MS. DES JARDINS: I do have -- one of these is
21 labeled "SHR."

22 CO-HEARING OFFICER DODUC: And we will take
23 our morning break after that.

24 CROSS-EXAMINATION BY MS. DES JARDINS

25 MS. DES JARDINS: So I'd I like to go back to

1 Dr. Shilling's testimony, Exhibit LAND-135, page 13.

2 If we can scroll out a little, please. Actually, I'm
3 not sure I can find it.

4 You said noise annoyance can occur at lower --
5 at lower traffic levels?

6 WITNESS SHILLING: Noise annoyance for people?

7 CO-HEARING OFFICER DODUC: There has not been
8 a question.

9 MS. ANSLEY: I would prefer the witness wait
10 until a question is asked.

11 MS. DES JARDINS: Let's go to -- I'm sorry.
12 It's Page 4 at Line 13. It's --

13 CO-HEARING OFFICER DODUC: Are you directing
14 Dr. Shilling to Lines 10 to 13? What specific --

15 MS. DES JARDINS: We're at LAND-135, correct?
16 And is this -- I'm sorry. His testimony, Page 4 at
17 Line 13. There we go.

18 And you just -- you referred to noise
19 annoyance in this section. And you said it's been
20 found to occur as low as 40 decibels?

21 WITNESS SHILLING: Yes.

22 MS. DES JARDINS: Would noise annoyance
23 potentially impact recreational businesses?

24 WITNESS SHILLING: Depends on what they are,
25 yes. But for outdoor and quiet indoor, yes.

1 MS. DES JARDINS: For like campgrounds,
2 marinas --

3 WITNESS SHILLING: Depending on noise levels,
4 yes.

5 MS. DES JARDINS: -- wineries?

6 I'd like to bring up SHR-262. This is
7 Ms. Suard's exhibit. Let's go down to the next page.
8 And Ms. Suard -- there's currently some construction on
9 Grand Island.

10 CO-HEARING OFFICER DODUC: Are you aware,
11 Dr. Shilling of the island in question and what
12 construction activities may be occurring?

13 WITNESS SHILLING: I'm aware of it being in
14 the middle of the project area and the tunnel shaft and
15 transmission line, construction in that area.

16 MS. DES JARDINS: Let's just say with respect
17 with Ms. Suard's business, which is label in yellow as
18 "Snug Harbor." Ms. Suard is concerned about traffic
19 noise potentially traveling down and impacting her
20 business, which is a campground and a marina.

21 MS. ANSLEY: Is there a question?

22 MS. DES JARDINS: Yes. Is it possible that
23 you would get annoyance noise levels?

24 MS. ANSLEY: Objection, calls for speculation.
25 He hasn't testified that he's done any studies of noise

1 for the project going on on Grand Island and that he
2 would know the levels of noise that that construction
3 project is taking or the mitigation measures it might
4 be using. So I think the whole things calls for
5 speculation.

6 MS. DES JARDINS: I --

7 CO-HEARING OFFICER DODUC: Stop, stop.

8 Dr. Fraser [sic], to what extent are you
9 familiar enough with Snug Harbor and nearby islands to
10 answer Ms. Des Jardins' questions with respect to
11 potential noise impacts?

12 WITNESS SHILLING: In fairness, I'm not
13 familiar enough to offer an opinion.

14 MS. DES JARDINS: Okay. Well, I would like
15 then go to Chapter 23, the Final EIR, on --
16 Exhibit SWRCB-102, please, and Chapter 23, Page 15.

17 CO-HEARING OFFICER DODUC: Are there any
18 specific line numbers you wish Dr. Shilling to focus
19 on?

20 MS. DES JARDINS: Yes, starting on line 26,
21 please.

22 This discusses potentially constructing a
23 temporary sound wall. Do you think -- what -- do you
24 think that might be effective or --

25 WITNESS SHILLING: It depends how it's

1 constructed, but typically sound walls are concrete or
2 similar material structures, and they will reverberate
3 and actually transmit sound and allow sound to
4 propagate over them because of the nature of sound
5 waves. So it depends on the height and the material.

6 A sound berm, earthen berm, is really the only
7 effective way to dampen noise from machinery and
8 construction, et cetera.

9 MS. DES JARDINS: Okay. Thank you. And I'd
10 like to go to Section 23.2.3, at Line 18 regarding
11 local standards.

12 And it states that there were -- were
13 considered in development of thresholds, but they're
14 only informational. So --

15 CO-HEARING OFFICER DODUC: Hold on, hold on.
16 There's an objection to that last statement you threw
17 in there.

18 MS. ANSLEY: Yeah, objection, misstates what
19 the document says. The document speaks for itself.
20 The witness, of course, can read that statement on
21 Line 18 and 19.

22 CO-HEARING OFFICER DODUC: Sustained.

23 Just ask your question, Ms. Des Jardins.

24 MS. DES JARDINS: Okay. Local -- so there are
25 local noise standards --

1 CO-HEARING OFFICER DODUC: Hold on.

2 MS. DES JARDINS: -- in this area, correct?

3 CO-HEARING OFFICER DODUC: Yes. Make that a
4 question.

5 WITNESS SHILLING: Yes.

6 MS. DES JARDINS: Does the Final EIR indicate
7 that the local noise standards will be followed?

8 WITNESS SHILLING: No.

9 MS. DES JARDINS: Does it indicate that they
10 were considered for informational purposes?

11 WITNESS SHILLING: Yes.

12 MS. DES JARDINS: Thank you. That's all of my
13 questions for Snug Harbor.

14 CO-HEARING OFFICER DODUC: Ms. Ansley.

15 MS. ANSLEY: Yes. I was going to say
16 objection, it's vague and ambiguous as to whether she's
17 talking about the document as a whole or whether she's
18 asking for the witness's testimony as to that sentence.
19 So if she can clarify his understanding.

20 CO-HEARING OFFICER DODUC: I believe she was
21 asking for his opinion, and he offered it. It's
22 overruled.

23 Move on.

24 MS. DES JARDINS: That's the end of my
25 questions for Snug Harbor. Thank you very much.

1 CO-HEARING OFFICER DODUC: Okay. We are done.

2 We are going to take a break. And then we
3 when return, I believe, Ms. Osha, you have redirect.

4 MS. MESERVE: Yes, just a couple of questions.

5 CO-HEARING OFFICER DODUC: All right. We will
6 return at 11:15.

7 (Recess taken)

8 CO-HEARING OFFICER DODUC: Welcome back,
9 everyone.

10 Ms. Meserve, please begin your redirect.

11 REDIRECT EXAMINATION BY MS. MESERVE

12 MS. MESERVE: Thank you. I just have a couple
13 of questions for Mr. Stirling and for Mr. Robinson.
14 And starting with Mr. Stirling.

15 In your testimony, you refer to the figure of
16 LAND-120; is that correct?

17 WITNESS STIRLING: Yes.

18 MS. MESERVE: And that's on Pages 4, 6, and 9
19 of your testimony; is that right?

20 WITNESS STIRLING: I'm sorry. Can you --

21 MS. MESERVE: Oh. Is that on Pages 4, 6, and
22 9 of your testimony?

23 WITNESS STIRLING: Yes.

24 MS. MESERVE: And if we could maybe go ahead
25 and look at LAND-120, Ms. Gaylon.

1 Is the purpose of referring to this figure to
2 show the general layout of the project?

3 WITNESS STIRLING: Yes.

4 MS. MESERVE: And are you generally familiar
5 with the geographic area of the Delta from living
6 there?

7 WITNESS STIRLING: Yes, I am. I've lived
8 there for 31 years.

9 MS. MESERVE: And in your PowerPoint, you had
10 reference to another exhibit. If we could look at
11 DWR-1 Corrected Errata, Page 7.

12 WITNESS STIRLING: What line?

13 MS. MESERVE: Here it is on the screen.

14 And this figure also shows an overview of the
15 whole project, doesn't it, Mr. Stirling?

16 WITNESS STIRLING: Yes, it does.

17 MS. MESERVE: And from your living in the
18 Delta and studying this project, are you aware of any
19 major differences between LAND-120 and the figure shown
20 here from DWR-1 Corrected Errata?

21 CO-HEARING OFFICER DODUC: Hold on,
22 Mr. Stirling.

23 MS. ANSLEY: Objection, vague and ambiguous.
24 Are you aware of any differences in the layout of the
25 project? Is that the question? As opposed to just

1 generally between two figures?

2 MS. MESERVE: The question is generally,
3 between the two figures, is he aware of major
4 differences between the two.

5 MS. ANSLEY: I would object that that is vague
6 and ambiguous. If he has LAND-120 in front of him as
7 well, one shows impacts and one shows the layout of the
8 project.

9 CO-HEARING OFFICER DODUC: Let's let him
10 answer.

11 Mr. Stirling.

12 WITNESS STIRLING: Yes, I'm familiar with both
13 of these maps or diagrams, if you will. And I have
14 studied it for a long time, certainly since November
15 when I -- when we submitted the written testimony.

16 And it appears to me that the two are very
17 similar in the way they're laid out, except 120 is more
18 vivid and shows more than -- than the one on the --
19 that is depicted there. And that is why I chose to go
20 with that one.

21 CO-HEARING OFFICER DODUC: Okay, thank you.

22 MS. MESERVE: No further questions.

23 And then I just have a couple of questions for
24 Mr. Robinson. If we could put up your testimony,
25 Mr. Robinson, LAND-188, and look at the table on Pages

1 4 and 5.

2 And this table, do you recognize this table
3 from your testimony?

4 WITNESS ROBINSON: Yes, I do.

5 MS. MESERVE: And when you were working on
6 your testimony --

7 If we could look at another exhibit as well
8 which is from the Final EIR, SWRCB-102, Table 19-25.
9 It's going to be in the Transportation chapter.

10 CO-HEARING OFFICER DODUC: Do you have a page
11 number?

12 MS. MESERVE: It's pdf 209.

13 Do you recall studying this table from the
14 EIR, Mr. Robinson, when you were working on your
15 testimony last fall?

16 WITNESS ROBINSON: Yes, I do.

17 MS. MESERVE: And do you recall looking
18 through this table and looking for specific road
19 segments that you were concerned about?

20 WITNESS ROBINSON: Yes, I remember this.

21 MS. MESERVE: And this table includes maybe
22 hundreds of road segments, but you picked just a few of
23 them; is that correct?

24 WITNESS ROBINSON: Yes, the ones that I felt
25 directly impacted the Walnut Grove Fire Department.

1 MS. MESERVE: And then are those the segments
2 that were on the table in Pages 4 and 5 of your
3 testimony?

4 WITNESS ROBINSON: That's correct, yes.

5 MS. MESERVE: And then if we could look please
6 at LAND-123, And zoom out a little bit.

7 Now, do you recognize this figure,
8 Mr. Robinson?

9 WITNESS ROBINSON: Yes, I do.

10 MS. MESERVE: And are you familiar with the
11 road segments with the arrows on them?

12 WITNESS ROBINSON: Yes, I am.

13 MS. MESERVE: And why are you familiar with
14 those segments?

15 WITNESS ROBINSON: Because those are the
16 segments that would have a direct impact on emergency
17 services from the Walnut Grove Fire Department.

18 MS. MESERVE: And are those the same segments
19 that are listed in your testimony on Pages 4 and 5?

20 WITNESS ROBINSON: I believe so, yes.

21 MS. MESERVE: And one last question. This
22 is -- I need to see, please, the Final EIR, Chapter 19,
23 Page 11 -- Page 19-11.

24 And you were asked about the level of service
25 referenced in your testimony for State Route 160, which

1 is 1740 vehicles per hour.

2 And why did you think this level of service
3 was unrealistic?

4 WITNESS ROBINSON: Well, that's approximately
5 a car every three seconds in the area where we live and
6 respond to. It would be hard to get that many cars
7 going along the same way without any interruptions, any
8 stop signs, change of directions, all traffic moving
9 the same speed.

10 That's -- in fact, that number is close to the
11 number that's on Interstate 5 in Walnut Grove, once
12 you're on Twin Cities Road, then Franklin --

13 (Reporter interruption)

14 WITNESS ROBINSON: Yeah, that's on
15 Interstate 5 on the chart, that's between, I think,
16 Hood, Franklin, and Twin Cities, which Walnut Grove
17 responds to.

18 So that's I-5 traffic on a narrow two-lane
19 road. It also has stop signs, curves, approaching and
20 exiting bridges. We have driveways and roads that T
21 into these roads, and people have to pull out onto that
22 traffic. So it's just a theoretical, unrealistic
23 number.

24 MS. MESERVE: Do you think that number takes
25 into account the actual condition that the road is in

1 now?

2 WITNESS ROBINSON: Definitely not.

3 MS. MESERVE: That's all.

4 CO-HEARING OFFICER DODUC: Thank you,

5 Ms. Meserve.

6 Any recross?

7 MS. ANSLEY: Yes.

8 CO-HEARING OFFICER DODUC: Any other recross?

9 (No response)

10 CO-HEARING OFFICER DODUC: All right,

11 Ms. Ansley.

12 RE-CROSS-EXAMINATION BY MS. ANSLEY

13 MS. ANSLEY: Hi. My name is Jolie-Ann Ansley

14 from the Department of Water Resources again. My

15 questions are for Mr. Robinson.

16 Could we pull back up his testimony, which I

17 believe is LAND-188. Thank you.

18 This is LAND-188 Errata, correct?

19 CO-HEARING OFFICER DODUC: Yes.

20 MS. ANSLEY: Thank you. Mr. Robinson,

21 yesterday, you told me that you did not prepare this

22 chart; is that correct?

23 WITNESS ROBINSON: That's correct, I went over

24 the map and the volume of traffic on this other

25 graphics from the EIR and then went over with some --

1 with another individual and put these -- put the roads
2 of concern on this.

3 MS. ANSLEY: Who was that individual?

4 WITNESS ROBINSON: Nick Swenson.

5 MS. ANSLEY: Who is Mr. Swenson? An attorney?

6 WITNESS ROBINSON: He works for OSHA. I'm not
7 sure if he's an attorney or not.

8 MS. ANSLEY: Do you now recall that that's the
9 person who put this chart in your testimony?

10 WITNESS ROBINSON: Correct.

11 MS. ANSLEY: Did you write your testimony,
12 Mr. Robinson?

13 WITNESS ROBINSON: Most of it.

14 MS. ANSLEY: Okay. No further questions.

15 CO-HEARING OFFICER DODUC: Thank you very
16 much. Thank you for taking time out of your lives to
17 participate in these hearings and giving your
18 experience and expertise.

19 WITNESS STIRLING: Thank you. It's been a
20 pleasure.

21 CO-HEARING OFFICER DODUC: I believe he meant
22 that.

23 Now we'll ask for Panel 2 to come up, please.

24 CO-HEARING OFFICER DODUC: All right. I
25 shouldn't have asked them to leave because I was going

1 to ask now for estimates on cross-examination.

2 Let's before we begin, estimate of time for
3 direct, please.

4 MR. RUIZ: For Mr. Burke, the estimate is 20
5 minutes.

6 CO-HEARING OFFICER DODUC: And for
7 Mr. Neudeck?

8 MR. KEELING: For Mr. Neudeck, I estimate 15
9 or 20 minutes.

10 CO-HEARING OFFICER DODUC: That would take us
11 to a little bit past the noon hour.

12 Cross-examination? You had estimated an hour
13 I believe, Ms. Ansley?

14 MS. ANSLEY: It may be shorter, but to be
15 conservative for your estimates, I'd like to say at
16 least an hour.

17 CO-HEARING OFFICER DODUC: And Mr. Stroshane?
18 The always efficient and well prepared Mr. Stroshane.

19 MR. STROSHANE: Probably about five minutes.

20 MS. ANSLEY: I see that we're missing a bunch
21 of people though.

22 CO-HEARING OFFICER DODUC: Well, we will see
23 how far we get. If at all possible, we will try to
24 complete today so that we don't have to come back
25 tomorrow. But a lot of that will depend on how much

1 cross and any potential redirect and recross there
2 might be.

3 MS. DES JARDINS: This is for this panel?

4 Yes? I have an hour.

5 CO-HEARING OFFICER DODUC: We are not going to
6 be done with you today, if that is indeed the case.

7 All right.

8 MS. ANSLEY: Excuse me, I'm sorry.

9 Ms. Sheehan reminded me we'd also like to reserve a
10 half an hour for State Water Contractors, who are
11 listening.

12 CO-HEARING OFFICER DODUC: We are not going to
13 finish with you today. All right. With that, if you
14 could both please stand.

15 Oh, Mr. Jackson.

16 MR. JACKSON: I'd just like to reserve about
17 30 minutes.

18 CO-HEARING OFFICER DODUC: Mr. Stroshane,
19 since you only have five minutes, we will begin
20 cross-examination with you.

21 MR. STROSHANE: Very well.

22 CO-HEARING OFFICER DODUC: Is that -- okay.

23 (Panel witnesses sworn)

24 CHRISTOPHER NEUDECK and TOM BURKE

25 called as Panel 2 witnesses by

1 Protestant Groups 7, 19, 20, 21,
2 and 24 having been previously duly
3 sworn, was examined and testified
4 further as hereinafter set forth:

5 DIRECT EXAMINATION BY MR. RUIZ

6 MR. RUIZ: Good morning, Mr. Burke.

7 WITNESS BURKE: Good morning.

8 MR. RUIZ: Is SDWA-291 a true and correct copy
9 of your written testimony?

10 WITNESS BURKE: Yes, it is.

11 MR. RUIZ: And is SDWA-292 a true and correct
12 copy of your PowerPoint presentation?

13 WITNESS BURKE: Yes, it is.

14 MR. RUIZ: Before we begin, did you have a
15 couple of minor changes that you wanted to point out in
16 your written testimony that you just noticed?

17 WITNESS BURKE: As I was going through the
18 testimony yesterday, I realized what had been posted to
19 the Board actually didn't match what we had in our
20 review.

21 It's just a few small changes, but for the
22 testimony on Page 2, the reference I'd made to a
23 biological resource that referenced the effect of
24 salinity on aquatic species in the Delta, that
25 references was changed. It's now Hazelbaum reference

1 that talks about Delta smelt and the effects of
2 turbidity and salinity on that species.

3 CO-HEARING OFFICER DODUC: Hold on.

4 MS. ANSLEY, did you need a clarification?

5 MS. ANSLEY: Yeah, I think I would need a full
6 cite. All that was there -- are we talking about
7 Page 2, Lines 24 to 25? Is that what we're looking --
8 the blank?

9 CO-HEARING OFFICER DODUC: Could we pull that
10 up, please.

11 MS. ANSLEY: Thank you.

12 MR. RUIZ: I think can I clarify.

13 MS. ANSLEY: SDWA-291.

14 MR. RUIZ: It's Page 2, Line 24.

15 MS. ANSLEY: It's Line 4?

16 MR. RUIZ: Line 24 on Page 2.

17 CO-HEARING OFFICER DODUC: Okay.

18 MR. RUIZ: There is a placeholder for some
19 testimony -- not testimony but it references a resource
20 from a previous process or hearing that didn't get
21 removed. But Mr. Burke is now indicating that that
22 resource, that exhibit is not something that he -- he
23 struck that or would strike that through an errata with
24 reference to that resource.

25 So the Hazelbaum is not even something that is

1 submitted at this time so any references to that
2 exhibit in the testimony would be stricken, and we've
3 submitted an errata to remove that.

4 MS. ANSLEY: So my understanding is that the
5 parenthetical starting in the middle of Line 24, which
6 does not end -- maybe at the period -- that that
7 citation is what you are omitting?

8 MR. RUIZ: Yes.

9 CO-HEARING OFFICER DODUC: And the deletion of
10 that citation does not change the testimony that we
11 see?

12 WITNESS BURKE: It does not change the
13 testimony before it or after.

14 MS. ANSLEY: I actually -- I actually have a
15 motion to strike, but I would be happy to bring that
16 during my cross based on this references in this
17 paragraph. So I can leave it to the Hearing Officers
18 when they would like to entertain that, but --

19 CO-HEARING OFFICER DODUC: Let's wait until
20 your cross.

21 MS. ANSLEY: Okay. Motion to strike his
22 testimony entirely.

23 CO-HEARING OFFICER DODUC: Let's wait until I
24 hear his testimony. All right?

25 MS. SHEEHAN: I just want to clarify --

1 CO-HEARING OFFICER DODUC: Go ahead.

2 MS. SHEEHAN: Becky Sheehan for State Water
3 Contractors. I'm a little confused because you said
4 "we're striking it," but then he made some reference to
5 some other study. And I want to make sure there is no
6 other study that you're striking.

7 MR. RUIZ: No, there is not another study that
8 is going to be referenced.

9 MS. SHEEHAN: So we're just striking it and
10 nothing else, correct?

11 MR. RUIZ: Correct.

12 MS. SHEEHAN: Okay.

13 CO-HEARING OFFICER DODUC: Are there any other
14 corrections?

15 WITNESS BURKE: Yes, on Page 17, Table 3.

16 CO-HEARING OFFICER DODUC: Let's get to
17 Page 17.

18 WITNESS BURKE: There's a "Mean Annual" row at
19 the bottom of the table.

20 And that row for "Mean Annual" mistakenly was
21 an average of the column, and it should have been a sum
22 of the column.

23 CO-HEARING OFFICER DODUC: I'm sorry, what?

24 WITNESS BURKE: On Table 3 of the testimony.

25 CO-HEARING OFFICER DODUC: Mm-hmm.

1 WITNESS BURKE: We have the salinity budget
2 for different inflow and outflow points of South Delta.
3 At the bottom of that table, there's a row called "Mean
4 Annual."

5 CO-HEARING OFFICER DODUC: Yes?

6 WITNESS BURKE: And the numbers in that row
7 mistakenly were using an average function for tallying
8 the column for each of the different sources. And that
9 should have been the sum of those columns, not the
10 average of that column.

11 CO-HEARING OFFICER DODUC: So did you get
12 that? It should be a total rather than an average.

13 WITNESS BURKE: That's correct. So it would
14 be treated the same way as Table 4, which is being
15 compared to --

16 CO-HEARING OFFICER DODUC: And are you
17 prepared to submit your errata now, or shall we read
18 what those totals are into the record?

19 WITNESS BURKE: I believe the errata has been
20 submitted; is that correct?

21 MR. RUIZ: No, there's no errata submitted, as
22 we discussed. You can read the totals into the record.

23 CO-HEARING OFFICER DODUC: Let's read the
24 totals into the record, Mr. Burke.

25 WITNESS BURKE: Okay.

1 CO-HEARING OFFICER DODUC: So we'll start with
2 the "Chloride" column.

3 WITNESS BURKE: The chloride for the San
4 Joaquin River at Vernalis, the mean annual is at
5 194,000 --

6 (Sotto voce between Mr. Herrick and
7 Witness Burke)

8 CO-HEARING OFFICER DODUC: Are we still
9 confused about something?

10 WITNESS BURKE: No. I believe I have the
11 correct number.

12 So the chloride column of the San Joaquin
13 River at Vernalis should be 194,642.

14 For the San Joaquin River at Burns Cut, the
15 number should be 79,738.

16 For the chloride under "Middle River," the
17 total should be negative 100,339.

18 For the chloride value for Old River, the
19 value should be negative 225,860.

20 For the value for chloride under "Exports,"
21 the number should be 485,049.

22 For the Contra Costa Water District diversion,
23 the value for chloride should be 4,747.

24 And for the "Total Chloride," the last column
25 of the table, the value should be negative 48,693.

1 CO-HEARING OFFICER DODUC: Which is actually
2 correct.

3 WITNESS BURKE: Yeah, that one was done
4 correctly.

5 CO-HEARING OFFICER DODUC: Any other
6 corrections?

7 WITNESS BURKE: On the PowerPoint
8 presentation, that same table received that same
9 change.

10 CO-HEARING OFFICER DODUC: Okay.

11 MR. RUIZ: What slide is that, Mr. Burke?

12 WITNESS BURKE: Slide 7.

13 MR. RUIZ: And with that, Mr. Burke, are you
14 now prepared to summarize your testimony?

15 WITNESS BURKE: Yes, I am.

16 MR. RUIZ: Please proceed.

17 WITNESS BURKE: I'd first like to go through
18 the opinions that I've developed.

19 The first is that the operation --

20 MR. RUIZ: Mr. Burke, where are those opinions
21 found? Are those in your testimony?

22 WITNESS BURKE: Yes, they're in my testimony,
23 on Page 3 of the testimony. And I'm not going to read
24 the whole thing. I'm just summarizing what's in the
25 testimony for the opinions.

1 The first opinion is the operation of the
2 WaterFix H3+ scenario will result in an increase in
3 amount of salt that's brought into the South Delta.

4 The second opinion is that a review of the
5 testimony and exhibits by other parties in this matter
6 indicate that an increase in salinity can adversely
7 affect the fisheries and other biological resources of
8 the Delta.

9 And the third opinion is a review of the
10 petitioner's exhibits that have been submitted in this
11 matter showed that they failed to take into account
12 this increase in salinity.

13 And now I'd like to go ahead and bring up my
14 PowerPoint presentation.

15 Exhibit 292.

16 CO-HEARING OFFICER DODUC: Are we unable to
17 open it? It looks like -- if it helps, it's on my
18 laptop.

19 CO-HEARING OFFICER MARCUS: Really?

20 CO-HEARING OFFICER DODUC: Yes, I can see it.

21 CO-HEARING OFFICER MARCUS: There it is.

22 CO-HEARING OFFICER DODUC: There it is.

23 WITNESS BURKE: If we can't pull that up, I
24 can kind of make reference to the pages of the
25 testimony that reflect what --

1 CO-HEARING OFFICER DODUC: I will share with
2 the Co-Hearing Officer my laptop so that we may enjoy
3 the visual of your PowerPoint.

4 MR. HERRICK: Do you need a hard copy?

5 WITNESS BURKE: I believe I have it on a thumb
6 drive, if that would be helpful.

7 CO-HEARING OFFICER DODUC: It would have to be
8 a format other than that format.

9 WITNESS BURKE: I don't know if I can get that
10 format or not. I'll check.

11 CO-HEARING OFFICER DODUC: Let's stop. Let's
12 stop and see if we can find a version that would work.

13 I'm thinking while we are trying to address
14 that little difficulty, perhaps Mr. Neudeck might
15 provide his direct.

16 MR. KEELING: We could do that.

17 CO-HEARING OFFICER DODUC: Let's do that while
18 we try to fix this.

19 WITNESS NEUDECK: That would be fine, but I'm
20 still going to need to have exhibits brought up. Is
21 that going to be feasible during the course of the
22 computer glitch?

23 CO-HEARING OFFICER DODUC: Your PowerPoint is
24 actually a pdf, so we should be able to do it.

25 Ms. Gaylon is busy. Mr. Burke's PowerPoint

1 was actually in PowerPoint format, but Mr. Neudeck's is
2 in a pdf format.

3 We're having trouble with PowerPoint.

4 Are you able to pull up the PowerPoint? So
5 please pull up Mr. Neudeck's PowerPoint, which is, I
6 believe, SJC-35.

7 Does that sound right?

8 WITNESS NEUDECK: Yes.

9 CO-HEARING OFFICER DODUC: And it is a pdf so
10 it should open.

11 MR. KEELING: So we're okay with that?

12 CO-HEARING OFFICER DODUC: Yes, and I believe
13 we are trying to download the PowerPoint so we will
14 have that for Mr. Burke.

15 DIRECT EXAMINATION BY MR. KEELING

16 MR. KEELING: Good morning, Mr. Neudeck. As
17 you know, I'm Tom Keeling, counsel for the San Joaquin
18 County protestants.

19 Take a look, if you will, at Exhibit SJC-291,
20 and confirm if you can that that is a true and correct
21 copy of your written testimony.

22 WITNESS NEUDECK: 291 is my resume; 292 is my
23 testimony.

24 MR. KEELING: Got it.

25 WITNESS NEUDECK: Just a slight correction on

1 the number.

2 MR. KEELING: And --

3 MS. ANSLEY: I apologize for interrupting, but
4 I believe 291 is the written testimony. I think
5 Mr. Keeling was correct. So for purposes of the
6 record --

7 WITNESS NEUDECK: I apologize. That's the
8 number system I have. So it may have been --

9 MR. KEELING: So SJC-291 is a true and correct
10 copy of your testimony?

11 WITNESS NEUDECK: Correct.

12 MR. KEELING: And Exhibit SJC-292 is a
13 attachment of your qualifications?

14 WITNESS NEUDECK: Yes, and I apologize for the
15 confusion.

16 MR. KEELING: Mr. Neudeck, can you summarize
17 your testimony?

18 WITNESS NEUDECK: Yes, I can.

19 Good morning. As indicated, my name is
20 Chris Neudeck. I'm a principal with the engineering
21 firm Kjeldsen Sinnock & Neudeck. We're headquartered
22 in Stockton with offices in West Sacramento.

23 I'm a registered civil engineer for 35 years
24 experience, and notably, the district engineer for over
25 22 reclamation districts.

1 If we could pull up SJC-292, this is a picture
2 of the Delta. The highlighted areas are the
3 reclamation districts that KSN, which is the initials
4 for Kjeldsen Sinnock & Neudeck, represent. There's 30
5 reclamation districts throughout the Delta region that
6 my firm represents; 22 of those, I serve as the
7 district's engineer.

8 We also represent over half a dozen outside
9 the Delta region, mostly in the northern basin of the
10 state.

11 Some of the responsibilities of being a
12 district engineer for these reclamation districts
13 includes attendance of board meetings, development of
14 operation and maintenance plans for both levees and
15 drainage systems, for preparation of the subvention
16 applications and claims, which is a State grant and
17 reimbursement program, preparation of all plans and
18 specs and estimates for all their improvement programs,
19 conductance of land surveys, response to flood
20 emergencies, development of long-range goals,
21 development of General Plan review guidelines and
22 encroachment control.

23 We review all third party encroachments such
24 as pipelines, utilities, features that would be
25 encroaching upon either the drainage or levee features

1 of the reclamation district. And we also include
2 review and preparation of engineers reports and
3 financial-related matters associated with the
4 Proposition 218 and development of the assessment roles
5 to finance the operations within the reclamation
6 district.

7 My testimony today relies upon two documents,
8 a 2016 WaterFix EIR/EIS and a 2012 Delta Protection
9 Commission Economic Stability Plan.

10 My testimony is going to --

11 MR. KEELING: Do you mean the Economic
12 Sustainability Plan?

13 WITNESS NEUDECK: Correct. Thank you for the
14 correction. "Economic Sustainability Plan" is correct.

15 My testimony today is going to focus on the
16 effects that the WaterFix project has on the
17 reclamation district works, which "the reclamation
18 district works" in this statement is the levees and
19 drainage systems within the islands in the Delta.

20 It's notable to understand that Delta levees
21 and drainage is a very complex arena, takes years of
22 experience. Issues such as soil types, shallow
23 groundwater, peat foundations, subsided lands, and
24 seepage are all some of the complex design challenges
25 that we face in designing projects and implementing

1 improvements to those regions throughout the Delta.

2 Undertaking the WaterFix project will have a
3 significant impact on the reclamation districts'
4 ability to perform what's otherwise routine operation
5 and maintenance and maintain a current level of flood
6 protection throughout the Delta. This project has been
7 denoted to be a 13- to 14-year project with an estimate
8 of tens of thousands of truck trips throughout the
9 region.

10 I'm going to focus predominately on the truck
11 trips associated with the levee roads. This is an
12 oversight, I believe, in the documentation associated
13 with the transportation impacts on the number of truck
14 trips.

15 We routinely experience substantial levee
16 subsidence and settlement when we put heavy trucks on
17 our levee roads. This feature has not been considered
18 when looking at the impacts. Most of the impacts have
19 been the truck trips themselves and impacts to surface
20 features but not the subsurface features below the
21 pavement or the gravel. So I'm suggesting that's an
22 oversight.

23 Settlement consolidation is an important
24 element when you're talking about freeboard and talking
25 about levee elevation when it comes to flood. This

1 oversight's a critical impact in order for the
2 reclamation districts to continue to provide protection
3 and, as far as that goes, the economic stability of the
4 RDs in the Delta.

5 Most of the reclamation districts in the rural
6 nature only maintain one foot of freeboard. So if we
7 lose six inches to a foot, we're right down to the
8 hundred-year water service elevation.

9 How often do we see the hundred-year water
10 service elevation? It's not once every hundred years.
11 We saw, in some areas of the Delta last year, in the
12 2017 flood event in the West Delta, we did reach the
13 hundred-year flood. So if we were to consolidate and
14 settle these levees as much as a foot, we could have
15 some serious impacts of flood.

16 There's areas also in the Delta that also have
17 to give consideration to large wind and wave setup due
18 to large bodies of water adjacent to the levees. That
19 would be further impact.

20 If I could have Exhibit SJC-295 brought up.

21 This is actually an exhibit -- YouTube exhibit
22 that showed the barge off-loading facilities adjacent
23 to a levee system. And the purpose of this picture is
24 to show the depiction of what a barge off-loading
25 facility looks like. It's a large dock feature along

1 an existing channel.

2 This construction will result in partial
3 channel closures. And Alternative 4 includes seven of
4 these off-loading facilities. Not all seven will have
5 impacts but several will. The impacts of these
6 facilities could become critical during emergency
7 operations, mainly because we move a lot more marine
8 equipment in the Delta during high water -- high flow
9 conditions and flood conditions because the damage
10 associated with those events requires larger equipment
11 and larger material sources.

12 If I could pull up Exhibit 296.

13 This is a picture of a typical -- well, I'm
14 going to strike the word "typical" because it's not
15 typical in the sense that this is a break closure. We
16 don't like to see these very often. But this is a 2004
17 Upper Jones Tract levee failure that they were closing.
18 This is Dutra Construction. And they had two crane
19 barges and two material barges.

20 But it's a very typical setup where you have a
21 crane barge, which is the enabling equipment, moving
22 the material from the adjoining material barge. The
23 width of this setup is anywhere from 80 to 110 feet.

24 If you put that next to an off-loading
25 facility, you'll see that the impacts could be

1 substantial navigating up and down the stream in the
2 Delta, streams and the sloughs in the Delta.

3 Not only will these temporary off-loading
4 facilities potentially impact or block marine access,
5 they may also have an impact associated with flood
6 flows. As the flood flows develop and water comes up
7 onto these, there will be likely eddies that occur on
8 either upstream or downstream entities. There's a
9 potential for erosion of our levees that hasn't been
10 addressed associated with these new projections within
11 the live channel.

12 If I could have Exhibit 298 pulled up.

13 This is not representative of a condition
14 where we have a structure in the channel, but this
15 gives you condition of an eroded bank. This is an
16 extensive eroded bank. You can see the levee top and
17 so forth. But if you had a situation develop where you
18 had high flows adjacent to an obstruction in the
19 channel, you could get eddies that form downstream and
20 upstream that create that kind of erosion.

21 Moving on. Levee strength is --

22 CO-HEARING OFFICER DODUC: Hold on, please.

23 WITNESS NEUDECK: Certainly.

24 MS. ANSLEY: I am following along. I have a
25 similar objection to Ms. Meserve yesterday. I would

1 object to any additional explanation or detail
2 embellishing the conclusions and testimony in his
3 direct testimony. I don't believe he provided
4 explanations of eddies and hydrodynamics of the
5 channel. I'm looking where he's talking about 298 on
6 Page 7, Lines 16 to 19.

7 So at this point, I don't think it's too far
8 afield from the direct testimony. I'm only actually
9 putting it in as a caution that I do object to
10 testimony that strays too far from the direct
11 testimony.

12 CO-HEARING OFFICER DODUC: So noted.

13 Did you understand, Mr. --

14 WITNESS NEUDECK: I understand. Would you
15 like me to respond to that?

16 CO-HEARING OFFICER DODUC: Nope.

17 WITNESS NEUDECK: Okay.

18 CO-HEARING OFFICER DODUC: She is just giving
19 us all a warning.

20 WITNESS NEUDECK: Okay. That's fine.

21 CO-HEARING OFFICER DODUC: Especially you

22 WITNESS NEUDECK: And I understand. I sat
23 through yesterday's hearing, so I'm pretty familiar
24 with the line of objection.

25 CO-HEARING OFFICER DODUC: And --

1 WITNESS NEUDECK: I'm trying to stick as close
2 as I can to my testimony.

3 CO-HEARING OFFICER DODUC: Perfect. Thank
4 you.

5 WITNESS NEUDECK: So I'll do my best.

6 In addition to the comments made to this point
7 so far, levee strength and stability is a constant
8 concern within the reclamation districts around the
9 Sacramento and San Joaquin Delta.

10 (Reporter interruption)

11 WITNESS NEUDECK: I previously mentioned the
12 subsidence and consolidation, and I just recently
13 mentioned the erosion risks.

14 In addition to that, there's a number of other
15 elements that we're concerned with. They include
16 seepage both under and through the levee, critical
17 failure surfaces, seismic risk, regional climate
18 change, and sea level rise.

19 Seepage through a levee is a concern of ours,
20 and it's becoming much more substantial in its
21 overarching consideration with regards to how we
22 address strength and stability. This is where water
23 passes through a hydraulically conductive layer --
24 sand, for instance -- and exposes itself on the back
25 slope of the levee or the toe of the levee. This can

1 lead to internal erosion and ultimately levee failure.

2 If we could pull up Exhibits 304, 305, and
3 306. And I'll swap through one at a time rather
4 quickly. This is not going to take long.

5 304 demonstrates that -- this is related to
6 seepage out of the channel. If we go to 305, these
7 are -- 305 and 306 are both pictures of an adjoining
8 flood channel and then the adjoining seepage. And the
9 lower picture, you'll see that there is actually boils
10 created with sandbags placed around them.

11 If we go to 306, this is another one. Here, I
12 actually have an urban setting where the water is
13 actually passing out into the streets of the
14 neighboring urban area.

15 In addition to concern about seepage, this is
16 the general static stability of our levees, static
17 stability versus dynamic stability. Dynamic is earth
18 movement associated with earthquake; static is just
19 generally as the levees stand there, how do they
20 maintain and stand up to the forces -- hydraulic forces
21 associated with the water next to them.

22 Ways by which we repair and maintain and
23 improve are to flatten the levees' landslide slopes,
24 widen the toe berms, add batter toe berms, et cetera,
25 whereas seismic activity currently is not really truly

1 being addressed within the Sacramento-San Joaquin Delta
2 rural levees. This has not been a high priority. We
3 have not seen in the history of the Delta region any
4 substantial impacts associated with any seismic events
5 yet, and it's not as a high priority. Yet, when we do
6 the work to maintain static stability, such as
7 widening, flattening, and adding toe berms, we are in
8 effect addressing some of the seismic concerns.

9 In addition, we have the issue related to
10 climate change and sea level rise. This will cause the
11 districts to remain vigilant and continually raising
12 their levees to provide the adequate flood protection.

13 Obviously the subsidence and settlement due to
14 truck traffic will impact the settlement as well.

15 If I could pull up Exhibit 307.

16 This is just a picture, and this will lead
17 into my discussion here beyond this of all the seismic
18 event here in the last -- I think it's 20 years, or
19 maybe it's longer than that. I forget the actual
20 reference. But the reference is substantial in the
21 nature of the number of the magnitude of the seismic
22 events in the region because you see a majority that's
23 on the Coastal Range, very limited to the western
24 fringe of the Delta, but it is rising.

25 CO-HEARING OFFICER DODUC: Hold on.

1 MS. ANSLEY: I'm sorry. This is cited in the
2 testimony at Page 10, Lines 13 to 14. I acknowledge
3 that this is an exhibit.

4 The exhibit supports a statement that
5 districts are aware of the seismic risks. I did hear
6 the witness say that. But now the witness is
7 expounding on the different types of seismic risks and
8 the location of events. And I believe that is beyond
9 the scope of his direct.

10 CO-HEARING OFFICER DODUC: Hold on. I'm on
11 Page 10.

12 MS. ANSLEY: I'm sorry. Go to Line -- roughly
13 the lines aren't fully matched up, but it's Lines 13/14
14 where he is citing SJC-307. It's bolded.

15 CO-HEARING OFFICER DODUC: All right. And
16 your objection is?

17 MS. ANSLEY: My objection is that he began
18 well enough saying, you know, districts are aware of
19 the seismic risks, which is what it says in the direct
20 testimony, and he puts up the exhibit.

21 But now he's expounding on the seismic risk
22 itself by explaining data shown in this graph and what
23 it means to, I suppose, the reclamation district that
24 he represents. So now he is adding testimony about
25 location and magnitude. I have to go look at the rough

1 transcript, the realtime transcript. But now he is
2 adding detail about that seismic risk that is not in
3 his direct testimony.

4 CO-HEARING OFFICER DODUC: But he is
5 referencing the chart, and apparently you've had time
6 to look at the chart and the graphic. And if he's just
7 explaining what's on the graphic, I'm confused about
8 your objection.

9 MS. ANSLEY: I believe he was going into
10 testimony about the -- I believe he was going into
11 testimony about particular locations on this map that
12 were of interest; he was being more technical.

13 I'm happy, since I don't have the real-time
14 scrolling at this moment, to let him proceed, but I do
15 have an objection as to what he was just saying as to
16 the contents of this map, and I believe he's going to
17 add more.

18 CO-HEARING OFFICER DODUC: We will proceed
19 like we did for Dr. Shilling yesterday in terms of
20 keeping track of your objections.

21 Mr. Neudeck.

22 WITNESS NEUDECK: Continue?

23 CO-HEARING OFFICER DODUC: Continue, but
24 again, be cautious.

25 WITNESS NEUDECK: That's fine. I can conclude

1 on the elements associated with this earthquake map for
2 the time being.

3 Additionally through my experience in
4 operating and maintaining the levee systems, in the
5 35 years of this career I've had, I've seen over six
6 major high-water flood events.

7 It's, in my opinion, imperative that the
8 WaterFix consider the potential impacts of the levee
9 risks associated with the entire alignment of the
10 tunnel system throughout the neighboring districts and
11 the tunnel route. Delta levees are part of an overall
12 integrated system and must be maintained as a system.

13 Risks in addition to those mentioned, that I
14 previously mentioned in my testimony, include seepage
15 from flooded islands. This is a new concept that
16 wasn't raised earlier.

17 If I could have Exhibits 308, 309, and 310
18 raised. This is what -- what occurs when we have a
19 flooded island in the Delta is we get interconnected
20 seepage from one island to another island that
21 actually --

22 MR. KEELING: Let's wait until they have the
23 exhibit up.

24 WITNESS NEUDECK: Okay. Thank you.

25 So speaking to the actual exhibit, what occurs

1 during a flooded island in the Delta is these
2 interconnected channels and interconnected lenses
3 actually communicate water from a flooded island over
4 to a dry island. This has the potential for adding
5 instability to the adjoining levee system with regards
6 the seepage that's occurring.

7 If we turn to Exhibits 309 and 310, I have --

8 CO-HEARING OFFICER DODUC: Noise annoyance.

9 WITNESS NEUDECK: I'm sorry, I apologize.

10 CO-HEARING OFFICER DODUC: It wasn't you.

11 WITNESS NEUDECK: I was looking at my notes.

12 CO-HEARING OFFICER DODUC: It was

13 Mr. Stroshane, I believe.

14 ~~WITNESS NEUDECK: Okay. These are just some~~
15 ~~quick pictures to show seepage from the Jones Tract~~
16 ~~flood event, the most recent major flood in the Delta~~
17 ~~You can see in the foreground, both Lower and Upper~~
18 ~~Jones that are under about 15 to 20 feet of water, and~~
19 ~~how that seepage propagates over to the west, in this~~
20 ~~case, Woodward Island. This is seepage that occurred~~
21 ~~within a weeks' time of the original flood event~~
22 ~~occurring.~~

23 ~~If you turn to 310, the same could occur.~~

24 CO-HEARING OFFICER DODUC: Hold on.

25 Ms. Ansley?

1 MS. ANSLEY: Again, for the record, I'm
2 lodging an objection that he's going beyond the scope
3 of his direct in providing testimony about the event on
4 Jones Island.

5 Yes, I did see the pictures that he had just
6 flashed up, but the depth, the implications, that is
7 not in his direct testimony.

8 CO-HEARING OFFICER DODUC: So noted.

9 MS. ANSLEY: So this is all a standing motion
10 to strike.

11 CO-HEARING OFFICER DODUC: Understood.

12 Mr. Neudeck, please continue. I have a
13 question. Is there a reason you are not using your
14 PowerPoint? All of this is on your PowerPoint.

15 WITNESS NEUDECK: Yeah, I apologize for form
16 and format. I was trying to summarize and only pulled
17 off, you know, a number -- I didn't pull off all of my
18 exhibits. I was told to reduce it to 15 minutes, so.

19 CO-HEARING OFFICER DODUC: I was only asking
20 because Ms. Gaylon was trying to open all these
21 documents, and they're all on your PowerPoint.

22 WITNESS NEUDECK: Okay. This next one is,
23 again, in the foreground. This is Lower Jones in the
24 foreground, and McDonald Island. You can see where
25 there are seepages occurred in the system of trenching.

1 They're trying do to obviate that and correct that.

2 MR. HERRICK: On 310.

3 WITNESS NEUDECK: On 310, thank you. Okay.

4 As I indicated, the seismic impacts and the seismic
5 risk as it relates to rural Delta levees is not a
6 priority and is generally not considered in our work
7 plans at this point. But yet it's still is a real risk
8 in this region, and we understand it to remain a risk.
9 We just don't have the current funding by which to
10 expense that onto our improvements. Yet a seismic
11 event of substantial nature could have an impact to the
12 tunnel system.

13 If we could pull up Exhibit 311. This is a
14 quick depiction of the head conditions at the
15 Sacramento River at Clarksburg and the head conditions
16 at the Clifton Court Forebay. So these are
17 approximately 39 miles or 40 miles apart from one
18 another.

19 And as we all recognize, this is a gravity-fed
20 pipeline that has head in it, in other words, gravity
21 head to push the water to the south. If we had a
22 substantial enough seismic event and the proposed
23 tunnel were to rupture and the ground above it were to
24 rupture, that water could escape and could actually
25 flood the ground above it.

1 In addition to the impacts associated with the
2 testimony to date, there's additional impacts affected
3 by potential increase in Delta salinity and loss of
4 farmland. This is in reference to the Delta Protection
5 Commission's Economic Sustainability Plan.

6 If this reduction, as stated within the 2012
7 Economic Stability Plan [sic] were to be as substantial
8 as stated -- which was 20- to \$80 million per year for
9 the potential increase in salinity and 10- to
10 \$15 million associated with crop losses and the
11 potential for losses of farmland with regards to
12 construction of the facilities -- that results in a
13 30- to \$95 million loss to land owners within the
14 Delta.

15 Being a representative responsible for raising
16 funds to do the levee work within the Delta, this would
17 have a substantial impact on the assessment ability of
18 the reclamation districts to continue to operate and
19 maintain their levee systems.

20 As a matter of history, I've been involved in
21 numerous pipeline crossings throughout the
22 Sacramento-San Joaquin Delta. I have experience in
23 jacking bore, directional bore, earth pressure
24 balancing -- and these are all tunneling methods.

25 We've had -- routinely been able to solve

1 these problems, but we've had some pretty critical
2 near-failure conditions throughout this. And I'm doing
3 that to demonstrate the challenges that one has in
4 doing tunneling.

5 The first one was on the Shima Tract. We had
6 a 50 -- this is not 50-foot; this is a 50-inch, so
7 something less than six-foot-diameter bore crossing
8 Mosher Slough. Mosher Slough, the pipeline intersected
9 the channel bottom and nearly -- and flooded out the
10 bore pit.

11 Byron Tract, this is for Los Vaqueros. This
12 is a 72-inch diameter bore. The bore pit machine
13 settled as soon as it left the bore -- the jacking pit
14 or the boring pit and started to -- the trajectory was
15 to the bottom of Old River. They had a nine-month
16 event to back that machine up and solidify the ground
17 which it was crossing at the early stages.

18 The reason I raise this is to demonstrated
19 boring in the soft non-homogeneous soil, which is
20 what's underneath the Delta, is very challenging, which
21 places the Delta systems and the WaterFix at
22 substantial risk.

23 In summary, I think this project must consider
24 the ongoing conditions in the Delta levees and the
25 long-term maintenance and operations of these levee

1 systems and how this project will affect those systems.

2 Thank you.

3 CO-HEARING OFFICER DODUC: Thank you very
4 much.

5 Ms. Gaylon, have we worked out the situation
6 with respect to Mr. Burke's PowerPoint?

7 Excellent. Let's pull that up. Let's put 20
8 minutes back on the clock.

9 And Mr. Burke, with apologies for the
10 technical difficulties --

11 WITNESS BURKE: No problem. I turned it into
12 a pdf.

13 Good afternoon. My name is Tom Burke. I'm a
14 principal with the firm Hydrologic Systems. I've got
15 37 years of experience with water resources projects
16 across the country. I've got a master's degree in
17 civil engineering with a specialty in water resources
18 engineering, and I'm a registered, licensed
19 professional engineer in California.

20 I've got 12 years of modeling experience on
21 different water resource projects in Delta, and for the
22 past three years, I've been working exclusively or
23 extensively with the DSM-2 model to evaluate
24 hydrodynamic conditions in the Delta and water quality
25 characteristics that accompany water flow to the

1 system.

2 Next slide, please.

3 The WaterFix project primarily consists -- or
4 main element of the WaterFix project consists of the
5 two twin tunnels taking water off of the Sacramento
6 River and converting it --

7 CO-HEARING OFFICER DODUC: If you could get
8 closer or move the microphone closer to you.

9 WITNESS BURKE: -- and diverting it down to
10 Clifton Court Forebay. Now, this type of diversion,
11 because the Delta consists of a network of
12 interconnected canals, will change the hydrodynamic
13 conditions of all the systems because they respond as a
14 system together.

15 So what we wanted to do was determine, based
16 on this new diversion that's occurring and the new
17 equilibrium that would be set up or quasi equilibrium
18 between the channels, how does that change the flow
19 patterns within South Delta, and how does that change
20 the delivery of salt that accompanies that flow into
21 South Delta.

22 So we developed a water budget -- not a water
23 budget but actually a salt loading budget for the South
24 Delta. The salt loading budget allows us to look at
25 the different sources that are bringing salt into the

1 South Delta and the different sources that are taking
2 salt out.

3 We didn't evaluate the dynamics of what's
4 happening with the salt within the Delta -- within the
5 South Delta area that we're defining for our budget,
6 but we evaluated a net inflow of salt and a net outflow
7 of salt for the No Action Alternative as well as
8 preferred alternative for the WaterFix project.

9 Next slide, please.

10 This map above shows a general delineation of
11 the South Delta area that we're evaluating for this
12 salt budget. As you can see from this area, there are
13 basically seven different inflow and outflow points.

14 We've got the San Joaquin River at Vernalis
15 down at the lower right-hand corner of the map, it's
16 north and south on this map. We've got the San Joaquin
17 River leaving the South Delta area on the upper
18 right-hand side of the map near Burns Cut. We've got
19 that Old River and Middle River discharges leaving the
20 South Delta as well as an export of the Contra Costa
21 Water District.

22 Down on the left-hand side of the project, we
23 also see the sixth and the seventh components of the
24 budget, which are the State Water Project exports and
25 the Central Valley exports.

1 For the water budget, we used the DSM-2 model
2 that was run through an 82-year period of time. We
3 actually didn't use the 42-year period for our
4 analysis. We excluded the first year of the model run
5 because it takes about a year for the model to actually
6 get up to a quasi equilibrium condition with the
7 natural dynamics of the Delta.

8 So over that 81-year period, we looked at the
9 daily salt inflow and outflow from the South Delta area
10 and then averaged that over into monthly values to
11 evaluate how that salt is change or accumulating or
12 leaving the system over a period of time.

13 The DSM-2 model is not going to provide an
14 actual salt estimate that we can get, but it's great --
15 as been described by Dr. Nader-Tehrani earlier, it's a
16 perfect environment for evaluating changes between two
17 different scenarios.

18 So what we did is we evaluated the salt budget
19 that we got for the No Action Alternative to the same
20 conditions for the preferred alternative.

21 Next slide, please.

22 The nature of the DSM-2 model provides a
23 salinity estimate in terms of electrical conductivity
24 in microsiemens per centimeter. What we wanted to do
25 in order to determine what the salt budget is is to

1 convert that electrical conductivity, which consists of
2 many different ions of salts that are in the water into
3 just a chloride concentration in milligrams per liter.

4 And you do that by taking an actual measured
5 data that's been collected at each of our discharge and
6 inflow points and creating a relationship between the
7 electrical conductivity and the chloride concentrations
8 from these laboratory analyses that were conducted on
9 numerous samples over the last 20 years.

10 And what we have up here is a plot of the
11 relationship between the electrical conductivity and
12 dissolved chloride in milligrams per liter. We've got
13 electrical conductivity on the X axis and dissolved
14 chloride on the Y axis. And this relationship is for
15 the San Joaquin River near Vernalis, taking data that
16 was collected between 1951 and 2015.

17 This particular relationship has an R squared,
18 which is a coefficient of determination of 0.96. And
19 their squared is basically an indication of the quality
20 of fit of the relationship to the data that's used to
21 develop that relationship.

22 So based on all of the data points you see,
23 that dashed line shows the relationship that we used
24 use in our analysis for converting electrical
25 conductivity to dissolved chloride at that particular

1 location.

2 Next slide, please.

3 This is another sample. I'm just throwing
4 three plots up there to show the typical samples of
5 what we had for converting electrical conductivity to
6 dissolved chloride. This is the plots from Middle
7 River at Borden Bridge showing the relationship, again,
8 between the electrical conductivity on the X axis and
9 dissolved chloride on the Y axis. For this particular
10 relationship we had R squared of 0.94.

11 Both this 0.94 on this location and the 0.96
12 that we got for the San Joaquin River at Vernalis
13 location are quite a good fit.

14 Next slide, please.

15 This last sample figure is for the Sacramento
16 River at Sacramento. Again, we had electrical
17 conductivity on the X axis and dissolved chloride on
18 the Y axis. And for this particular relationship, we
19 had a coefficient determination of R squared of 0.84.

20 We took this relationship to infer all the
21 electrical conductivity on a daily basis from the DSM-2
22 model into chloride mass on a daily basis for each of
23 these seven different locations of inflow and outflow
24 to the Delta. We summed those up over those monthly
25 periods to come up with a total salt mass in metric

1 tons, and we summarized that by month, mean monthly
2 period, mean month, over that 81-year period that we
3 evaluated the data for.

4 Next slide, please.

5 Could you actually skip this slide and the
6 next slide. We'll come back to those. It would be
7 better to start off with the explanation and then go to
8 the details.

9 What we have here are the different months
10 that we evaluated the salt budget for. And the two
11 columns to the left of that are chloride concentration
12 or chloride total in metric tons. The first column
13 should have a title of "No Action Alternative," that's
14 the NAA total, and the next column is for the Preferred
15 Alternative and its total. And here you can't compare
16 the actual tons, but what we're doing here is using
17 DSM2-QUAL in comparative analysis to look at the
18 difference that we see.

19 So for that example, that first line, for the
20 mean January period over that 81-year period of record,
21 we're getting a reduction in the amount of chloride
22 that's leaving the South Delta. So we're getting an
23 accumulation of basically 4,400 metric tons on average
24 for a January period. If you look down through the
25 different months, you'll see for February, we're at

1 2 million salt within the South Delta, at about
2 2,600 metric tons.

3 Now, some months will be larger and some
4 months will be lower, again, because this is just an
5 average over that period. But we created that average
6 for each of the different months and then looked at the
7 mean annual average at the bottom of the column.

8 If you total all those up, you'll see that, on
9 an annual average, you're accumulating basically
10 30,000 metric tons in the South Delta based on the
11 inability of the Preferred Alternative to remove
12 chloride fast enough or as fast as the No Action
13 Alternative.

14 And the primary driving force we found behind
15 this had a lot to do with a reduction in exports. As
16 the South Delta builds up salt salinity within the
17 water column, the exports that we're seeing now, the
18 No Action Alternative will remove a lot of that salt
19 from the South Delta.

20 As you remove those exports, you're no longer
21 reducing that salt that's within South Delta channels,
22 and that salt's going to be building up.

23 We can go backwards now, two slides.

24 I'll briefly go over some of the details
25 without confusing people too much. This is a breakdown

1 of each of the different seven sources that we
2 evaluated salt inflow or outflow from the South Delta.
3 This is a mass balance. So basically you have --

4 MR. HERRICK: Let me interrupt to make sure
5 you designate which slide we're talking about. Back up
6 to the one we identified in the front.

7 WITNESS BURKE: I believe this is Slide 9.

8 CO-HEARING OFFICER DODUC: Are you sure? It's
9 on Page 7.

10 WITNESS BURKE: I guess it's Slide 7 then.
11 I'm sorry.

12 MR. RUIZ: Is the slide on the screen the one
13 you want? The one on the screen the correct one at
14 this point in time?

15 WITNESS BURKE: That's correct. This is the
16 breakdown by source for the mean monthly average salt
17 budget for the No Action Alternative.

18 And since we're looking at a budget, we need
19 to subtract the outflows from South Delta from the
20 inflows. So basically, the inflow to the South Delta
21 is primarily the San Joaquin River at Vernalis. So
22 that's the inflow to the South Delta.

23 We then subtract all of the other columns that
24 we see there from that San Joaquin River-Vernalis
25 inflow. That would be the San Joaquin River at

1 Burns Cut as it's leaving the South Delta. We've got
2 the Middle and Old River, which would be leaving the
3 South Delta, and exports and the Contra Costa Water
4 District diversions, which are all within the
5 South Delta.

6 Now, it comes to a point in nomenclature of
7 sign convention with this analysis. If a number is
8 positive, that means the water is moving in the
9 downstream direction towards the Bay. If the number is
10 negative, it's moving in the upstream direction.

11 So, for example, Middle River looks confusing
12 because it's an outflow from the South Delta, but yet
13 it has a negative value on many months. That negative
14 value means it's actually contributing salt to the
15 South Delta because you've got a lot of reverse flows
16 that are occurring, and you've got tidal action flow
17 that's coming into the South Delta.

18 And so if you look through each of these
19 columns -- and this is where we needed to make that
20 correction -- the mean annual value at the bottom of
21 that column is the average of those months, and it
22 should have been the sum of those months. So that
23 would be the number that I provided earlier for you
24 these particular locations.

25 And so if you look at each of these sources

1 and you look at the mean annual for all of these
2 months, the net annual reduction or -- of salt coming
3 from the South Delta is about 48,000.

4 Now, this is not an actual value because we
5 are not taking into account the internal dynamics of
6 what's happening with the salt -- with irrigation,
7 seepage, drainage, all those features. What we're just
8 looking at is what's coming in versus what's going out.

9 What happens to it once it's in the South
10 Delta is another factor altogether. But what happens
11 inside the South Delta is the same for the No Action
12 Alternative as it is for the Preferred Alternative. So
13 those conditions are identical. So both salt budgets
14 can be compared on an even basis because there is --
15 all the different quantities are being accounted for
16 correctly.

17 So go to the next slide, please.

18 This is the breakdown for all the different
19 components for the Preferred Alternative. Again, on
20 the bottom row is the mean annual which is the sum of
21 all those. This was done correctly. And as you move
22 across the table all the way to the lower right-hand
23 column, you'll see that there's a negative 18,000
24 metric tons that are being removed from the Delta.

25 Now what you've got -- it's not actually

1 appropriate to say it's being removed from the Delta.
2 That's not correct. What it is is it's the residual in
3 the salt budget from the inflow to the outflow. So the
4 residual for the Preferred Alternative is 18,000; the
5 residual for the No Action Alternative is 45,000 [sic].

6 Next slide, please.

7 And the difference between those two numbers
8 is what we have here in this previous table that we
9 looked at down in the lower right-hand corner. And
10 it's 48,000 and 18,000. I just wanted to double-check
11 that number.

12 If you go to the next slide, please. This is
13 a plot, a monthly plot showing the difference in the
14 water salt budgets between the Preferred Alternative
15 and the No Action Alternative, looking at the change in
16 the residual. So this is what's the difference between
17 the Preferred Alternative budget and the No Action
18 Alternative budget on a monthly basis. This plot here
19 is just what's been plotted up from the previous table.
20 So it's just a graphical representation of that summary
21 table that we just looked at.

22 And as you can see, in some months on average,
23 you're getting almost a 7,000-ton increase in salt as a
24 difference between the Preferred Alternative versus the
25 No Action Alternative. So this would be an

1 accumulation on average for that particular month due
2 to the WaterFix project.

3 Next slide, please.

4 So in summary, my analysis of the hydrodynamic
5 and water quality data contained within petitioners'
6 model -- all of this analysis used the petitioners'
7 model that was submitted and on the website. We didn't
8 change anything; we didn't add anything to it. We just
9 used petitioners' own data to sum up this data for the
10 South Delta area -- it's my opinion that there will be
11 a significant increase in salt loading to the South
12 Delta, basically accumulating around 30,000 metric tons
13 of salt on average within the South Delta that will
14 then be incorporated into the salinity of the water
15 column.

16 And we showed that in the data that was
17 presented in Part 1 of this hearing how the salinity
18 levels will increase in South Delta, and then will also
19 increase the salinity that may be used for agricultural
20 or municipal uses in Delta.

21 Thank you.

22 CO-HEARING OFFICER DODUC: Thank you,
23 Mr. Burke.

24 MR. RUIZ: I just have a couple -- two
25 clarifying questions for him, for clarity.

1 Mr. Burke, you mentioned numerous times the
2 "Preferred Alternative." Can you confirm what you were
3 referring to when you said "Preferred Alternative."

4 WITNESS BURKE: When we were developing this
5 budget, the Preferred Alternative was that the PA, the
6 Preferred Alternative -- how we've been looking at the
7 California WaterFix H3+ alternative to see if it
8 differs significantly from the PA. And we haven't
9 completed that analysis, but our initial indications
10 are that it doesn't change significantly from what we
11 see here in the PA, Preferred Alternative, analysis.

12 CO-HEARING OFFICER DODUC: Ms. Ansley.

13 MS. ANSLEY: I'm going to object at this time
14 that that testimony is beyond the scope of his direct,
15 that he has provided an opinion now as to CW- -- I
16 understand that in his testimony it's the BA H3+. He's
17 now providing an opinion based on an analysis that I
18 understand may be draft that's not submitted here on
19 CWF H3+, and I think that specific part is beyond the
20 scope of his direct.

21 CO-HEARING OFFICER DODUC: Well, Mr. Ruiz, any
22 response?

23 MR. RUIZ: My concern was just for him to
24 clarify what this particular analysis was based upon.

25 CO-HEARING OFFICER DODUC: And so he did, and

1 we'll strike the latter part of his answer based on
2 Ms. Ansley's objection.

3 MR. RUIZ: Last clarifying question,
4 Mr. Burke, the underlying premise of your analysis, the
5 reason that you did the salt loading analysis is based
6 on your understanding that potentially salt loading in
7 the South Delta could have an impact on resources or
8 habitat, correct?

9 WITNESS BURKE: Yes, I've looked at different
10 exhibits that were submitted and listened to testimony
11 from other parties. And in the Biological Assessment
12 of the project, it talks about salinity having an
13 influence on increased mortality of fisheries within
14 the Delta. And increased salinities can also -- can
15 create additional stress on fisheries resources and
16 lower their probability of survivability.

17 CO-HEARING OFFICER DODUC: Ms. Ansley.

18 MS. ANSLEY: Again, I'm going to move to
19 strike. He is asking clarifying questions, but it's
20 testimony beyond the scope of his direct testimony.
21 Going back to the page on which he struck the reference
22 on Page 3, he's now asking him basically to provide
23 testimony on what other parties he was referring to --
24 he's -- basically, he's not clarifying anything in the
25 direct. He's actually asking for more details.

1 CO-HEARING OFFICER DODUC: Mr. Ruiz?

2 MR. RUIZ: I didn't ask for more detail, but
3 it's actually Page 2. I just asked him what his
4 premise was based on his understanding that salt
5 loading, increased salt load in the South Delta could
6 have an impact on aquatic resources. That was my
7 question.

8 CO-HEARING OFFICER DODUC: And your answer?

9 WITNESS BURKE: And my answer is yes.

10 MR. RUIZ: And that -- last question.

11 That's not based on your review of any
12 particular document or material, including the one that
13 was referenced in your testimony with regard to the
14 previous Bay-Delta process, correct?

15 WITNESS BURKE: That's correct. It's based on
16 numerous pieces of information I've looked at and my
17 experience in the past working on different water
18 resource projects in the Delta.

19 MR. RUIZ: And you're not rendering opinion as
20 a fisheries biologist or any -- regarding any specific
21 impact on fisheries?

22 WITNESS BURKE: No I'm not.

23 MR. RUIZ: Okay. Thank you.

24 CO-HEARING OFFICER DODUC: Did the
25 clarification help?

1 MS. ANSLEY: I'm okay with that. And when we
2 get to it, I have a couple suggestions for
3 cross-examination and my motion to strike.

4 CO-HEARING OFFICER DODUC: All right.

5 Thank you. Does that conclude your direct?

6 MR. RUIZ: Yes.

7 CO-HEARING OFFICER DODUC: Thank you.

8 All right. Mr. Stroshane, let's let you ask
9 your five minutes of questions first.

10 And as Mr. Stroshane is coming up,
11 Chair Marcus has been called to testify before the
12 legislature. But she will catch up on video, and I'm
13 sure she will enjoy that very much.

14 MS. ANSLEY: Can I ask a point of
15 clarification? Is our hard stop at 1:00 or 1:30? I'm
16 sorry. I just forget.

17 CO-HEARING OFFICER DODUC: You know, let's
18 revisit after Mr. Stroshane completes his
19 cross-examination.

20 Ms. Womack.

21 MS. WOMACK: While he's setting up, I'd like
22 to be added on. Thank you.

23 CO-HEARING OFFICER DODUC: How much time?

24 MS. WOMACK: I guess 45 minutes.

25 CO-HEARING OFFICER DODUC: Okay.

1 CROSS-EXAMINATION BY MR. STROSHANE

2 MR. STROSHANE: Before I start, I want to
3 thank the Hearing Officer, Ms. Doduc -- oh, is this on?
4 I'll speak closer. Is that better? Okay.

5 I want to thank Hearing Officer Doduc for the
6 accommodation.

7 CO-HEARING OFFICER DODUC: Actually,
8 Mr. Stroshane, I'd like to encourage everyone to be as
9 efficient as you.

10 MR. STROSHANE: My questions are all for
11 Mr. Dudeck -- Neudeck, excuse me. I was thinking of
12 the jazz pianist.

13 Mr. Neudeck, is it your testimony there are
14 several types of risks --

15 CO-HEARING OFFICER DODUC: Closer to the
16 microphone, please.

17 MR. STROSHANE: Oh, I'm sorry.

18 Mr. Neudeck, is it your testimony that there
19 are several different types of risks to Delta levees
20 during the construction period of the petition project?

21 WITNESS NEUDECK: Yes, those risks exist
22 throughout the year and certainly will exist throughout
23 the construction of this proposed facility.

24 MR. STROSHANE: Okay. In your professional
25 role and judgment at the chief engineer for many Delta

1 reclamation districts, are there risks to Delta levees,
2 either physical or other types of risks, that concern
3 you during the operational period of the petition
4 project?

5 WITNESS NEUDECK: From my testimony, the
6 operational aspect risk that I mentioned was the
7 potential for a tunnel rupture, which would lead to
8 some concern from a downstream -- from an upstream to a
9 downstream condition. In other words, at the very low
10 end.

11 Operationally, the only other element would be
12 associated with the economic sustainability study,
13 where they mentioned the potential reduction in
14 revenue-generating capability of the reclamation
15 districts, therefore less ability for the RDs to
16 perform routine maintenance and operation and
17 improvement projects in the future.

18 MR. STROSHANE: What is the source of that
19 potential or sources of that potential reduction in
20 revenue-generating capability?

21 WITNESS NEUDECK: That element is -- my
22 opinion, if we were to have that substantial of an
23 impact, the 30- to \$95 million impact in the Delta --
24 these reclamation districts operate on budgets less
25 than a half million a year. So -- and there's only

1 about 60 reclamation districts within the Delta region.
2 So the math works out pretty quickly that you're not
3 going to have enough money left to finance these
4 because generally the revenue-generating capability
5 comes from the farming aspect of the reclamation
6 districts. And if he don't have that able to farm and
7 generate revenue, they don't have the ability to pay
8 the land owner assessments.

9 MR. STROSHANE: Are there other sources of
10 revenue to be assessed the reclamation districts?

11 WITNESS NEUDECK: There is, and there is from
12 the standpoint that the State of California has
13 currently a program to reimburse the Delta reclamation
14 districts for levee maintenance and operation as well
15 as improvements. That's under consideration for
16 continuation this year. It sunsets this July, but
17 that's a program where we give reimbursement revenue,
18 up to 75 percent reimbursement revenue, on money spent
19 to encourage the ongoing operation and maintenance of
20 the system.

21 MR. STROSHANE: You mentioned the 75 percent
22 level. Is it fair to characterize this as a
23 significant source of revenue to reclamation districts
24 in the Delta?

25 WITNESS NEUDECK: It's not -- it's a

1 reimbursement program. So it's not really a source of
2 revenue. So you spend the first dollar and hope that
3 the program is not over-subscribed. And then you get
4 up to 75 percent 18 months thereafter.

5 So it's a reimbursement program. I don't know
6 that I would characterize it actually as a source of
7 revenue as rather a reimbursement of expenses. But it
8 can end up being substantial depending on the level of
9 the work the district does.

10 MR. STROSHANE: Thank you for clarifying that.

11 WITNESS NEUDECK: You're welcome.

12 MR. STROSHANE: Is continuation of the DWR
13 levees subvention program -- pardon me.

14 Is continuation of the DWR levee subvention
15 program a priority for you and your district clients
16 for continuation -- or --

17 WITNESS NEUDECK: Yes, absolutely. I sit on a
18 number of organizations that help lobby to continue.
19 We work with the Department to try and encourage them.
20 We work with the Governor's cabinet to encourage them.
21 The program has been one of the most successful
22 programs the State has ever managed with the outcomes
23 being what they are.

24 We prevented flood events here in this last
25 series of high waters in 2017, nothing like we've done

1 in the past. So it's been ear-marked as one of the
2 most successful programs they've ever conducted. And
3 we'd like to see it continue.

4 It's not a very expensive program. The levee
5 subventions program is 12- to 15 million a year. I
6 reference it as budget dust. I've been criticized for
7 calling it budget dust, but I consider that to be a
8 small number when you look at the number of
9 improvements that are made premised off of that
10 reimbursement program.

11 MR. STROSHANE: That's actually a new phrase I
12 haven't learned yet, "budget dust."

13 WITNESS NEUDECK: I was criticized by an
14 ex officio for saying that.

15 MR. STROSHANE: In your experience with Delta
16 reclamation districts, have there been any proposals
17 from State or other agencies that would reduce levee
18 subventions to the districts and which have caused you
19 concern?

20 WITNESS NEUDECK: Currently, right now, the
21 only State entity that is troubled with the
22 continuation of the program appears to be the Delta
23 Stewardship Council. And they have some recommended
24 changes, not all of which we're familiar with. We know
25 some of those. And that's the only State agency that's

1 out spoken on its continuation.

2 We've presented before the State legislature
3 the past two legislative years -- last year, 2016-17,
4 it was vetoed by the Governor at the 11th hour --
5 excuse me. That was 2016. 2017, it was put in the
6 suspense file.

7 We're not exactly certain what entity is
8 causing it not to allow the continuation, but there is
9 some issues and elements that, you know, the
10 stewardship Council would like to see to improve the
11 program. Yet they do support the continued 75 percent
12 cost share.

13 MR. STROSHANE: If the maintenance subventions
14 that you've been describing here for Delta levees were
15 reduced and levee deterioration and/or failure ensued,
16 in your professional opinion in your role with the
17 reclamation districts and taking into account water
18 quality and supply, would DWR and the Bureau lose
19 incentive to continue diverting freshwater at the
20 South Delta diversions if they could rely on
21 North Delta intakes of the California WaterFix to
22 replace them?

23 WITNESS NEUDECK: My professional opinion, not
24 testified to, but absolutely. Absent water quality --
25 absent the leveed systems, the water quality at the

1 southern diversions will be nonexistent. We'll have a
2 salinity problem there. And therefore, reliance on the
3 northern diversion would become much more substantial.

4 So maintaining the levees in their current
5 configuration, maintaining the channels in the manner
6 with which the water moves in the Delta is imperative
7 to maintaining the water quality of the southern
8 diversions. Absent that, absent that continuation, we
9 will likely end up moving towards a northern diversion
10 unto itself because we will not have the quality at the
11 southern diversions.

12 MR. STROSHANE: Thank you. I have no further
13 questions.

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

16 All right, Ms. Ansley. Let's bring you up. I
17 am going to suggest that we here your objection/motion,
18 whatever, with respect to Mr. Burke I'm sure we'll hear
19 also from Mr. Herrick and Mr. Ruiz on that matter. And
20 I'm going to suggest that we do not start your cross
21 until tomorrow because otherwise we'll be breaking it
22 in a half, unless you have a shorter cross for Mr.
23 Neudeck that we could complete within the next 10, 15
24 minutes.

25 MS. ANSLEY: I do have a shorter cross for

1 Mr. Neudeck. I think I could look at the clock, once
2 we stop the motion to strike business, and then I could
3 give you -- it might be very close. I'm just hesitant.

4 CO-HEARING OFFICER DODUC: All right. Let's
5 go ahead and hear your motion.

6 MS. ANSLEY: Pardon me. For clarification,
7 motion requires me to ask a couple quick question of
8 Mr. Burke, like, three questions, and then I'd bring my
9 motion to strike.

10 CO-HEARING OFFICER DODUC: All right. Let's
11 do that.

12 CROSS-EXAMINATION BY MS. ANSLEY

13 MS. ANSLEY: Good morning, Mr. Burke.

14 WITNESS BURKE: Good morning.

15 MS. ANSLEY: If you recall, my name is
16 Jolie-Ann Ansley. I represent the Department of Water
17 Resources.

18 So let's look at Page 2 of your testimony,
19 SDWA-291. And we are going to --

20 CO-HEARING OFFICER DODUC: Hold on,
21 Ms. Ansley.

22 MS. ANSLEY: Scroll to Page 2. Right there.

23 So in your testimony, you state that the
24 reason that you're preparing this analysis is for other
25 parties' use; is that correct?

1 WITNESS BURKE: I didn't say I was preparing
2 this analysis for other parties' use. I was saying I
3 was preparing the analysis based on indications I've
4 seen from other parties' testimony and exhibits that
5 salinity can be an issue.

6 MS. ANSLEY: Do any witnesses for the
7 South Delta Water Agency, et al. group rely on your
8 testimony to draw conclusions regarding biological
9 impacts?

10 WITNESS BURKE: I would have to refer that to
11 my lawyer to determine how they used the analysis that
12 I provided them.

13 MS. ANSLEY: Are you aware of anyone at all in
14 Part 2 using your analysis to draw biological impacts?

15 WITNESS BURKE: No, I'm not.

16 MS. ANSLEY: So you are not able here today to
17 demonstrate the relevance of your testimony to Part 2
18 hearing issues in this proceeding?

19 MR. RUIZ: Objection, objection. That mis- --

20 CO-HEARING OFFICER DODUC: Hold on.

21 MR. RUIZ: Objection. That misstates his
22 testimony, lacks foundation, argumentative.

23 CO-HEARING OFFICER DODUC: Ms. Ansley, ask
24 your question again.

25 MS. ANSLEY: So you don't know the relevance

1 of your testimony to any other protestant's testimony
2 regarding biological impacts on the WaterFix?

3 CO-HEARING OFFICER DODUC: Hold on, hold on.

4 Mr. Burke, in your opinion what is the
5 relevance, relevancy of your testimony to the key
6 hearing issues before us in Part 2?

7 WITNESS BURKE: I believe the relevancy of the
8 analysis and the testimony I've provided is based on my
9 understanding of the sensitivity of aquatic species and
10 fisheries to salinity increases or salinity changes
11 within the Delta. That's why I wanted to determine
12 whether or not those salinity changes in the Delta were
13 significant and what those values were, were they
14 increasing from the WaterFix project or decreasing from
15 the WaterFix project, how are those salinity values
16 changing.

17 I'll leave that up to a biologist or fisheries
18 expert to determine whether that's a significant value
19 or not.

20 CO-HEARING OFFICER DODUC: Because you
21 yourself cannot make that determination?

22 WITNESS BURKE: That's correct.

23 MS. ANSLEY: And I --

24 CO-HEARING OFFICER DODUC: Are you aware of
25 any other parties in Part 2 who will be relying on your

1 analysis to make that fishery impact connection?

2 WITNESS BURKE: I haven't had any
3 communication with other parties in Part 2 to determine
4 whether or not they're going to use my analysis in
5 their presentation or evaluation.

6 CO-HEARING OFFICER DODUC: Thank you.

7 Hang on. Let me turn back to Ms. Ansley.

8 MS. ANSLEY: All right. And so my motion to
9 strike is this: Mr. Burke has provided hydrologic
10 testimony regarding purported salt loading impact, but
11 there is no connection to a biological impact in the
12 South Delta presented by any other witness in. This is
13 testimony untethered from the issues at Part 2, which
14 would be, I'm assuming, unreasonable effects on fish
15 and wildlife.

16 So this is testimony that is going into the
17 record but has no demonstrated relevance to any other
18 parties or his own party, more importantly, but does
19 not have any biological relevance because this witness
20 is not competent to make that connection and, we have
21 checked, no one relies on this testimony.

22 So it's basically -- it doesn't have
23 demonstrated relevance, and it's basically just adding
24 into the record information that is not at this time
25 being used.

1 CO-HEARING OFFICER DODUC: And you don't
2 believe the issue of salinity loading is of public
3 interest?

4 MS. ANSLEY: I'm sorry. This witness does not
5 cite that as a basis. This is the South Delta, and I
6 am not aware of anyone using this testimony to make a
7 public interest argument as well.

8 As far as I know, no witness relies on
9 Mr. Burke's testimony in making a point relative to
10 Part 2 hearing issues, specifically as well to, what he
11 is admitting here, a biological impact.

12 So it is untethered from anyone else's
13 connecting testimony.

14 CO-HEARING OFFICER DODUC: Mr. Herrick.

15 MR. HERRICK: Well, that's not the standard.
16 We're here on a petition for a change in point of
17 diversion, and it's up to petitioners to set forth
18 certain things and show no jury and go through analysis
19 of impacts to public trust.

20 Mr. Burke's testimony deals with a change, a
21 potential change or an estimated change resulting from
22 the project. At the end of this proceeding, if nobody
23 else references or talks about this issue, then perhaps
24 in argument somebody might say, "Well, then you should
25 ignore that." But it is testimony that deals with

1 potential impacts and impacts that were not examined by
2 the petitioners.

3 They may put on a rebuttal case; they may do
4 something. But the testimony here is submitted to show
5 that here is an impact -- deemed significant by the
6 person who did the analysis -- that may affect public
7 trust and fishery, which are public trust, uses.

8 So there's no basis for saying it has to be
9 stricken. The relevancy determination by petitioners
10 is irrelevant to whether or not it's information that
11 might be useful to the hearing officers. There's no
12 basis to say, "I don't like it," or, "They should have
13 shown something else." That's not an objection.

14 CO-HEARING OFFICER DODUC: I will come back to
15 you, Ms. Ansley.

16 Mr. Ruiz.

17 MR. RUIZ: No, I would just emphasize that, at
18 a minimum, it's relevant to public -- public
19 information, public trust, public -- those issues at a
20 bare-bones minimum. I mean, we've had a whole panel of
21 testimony yesterday or the day before from the
22 Westlands Group that doesn't even allege an injury.

23 So at a minimum, it's a public information --
24 it meet that at the bare-bones minimum. And if parties
25 later want to argue about the weight of it, that's

1 fine. But as far as striking it, that's just baseless.

2 CO-HEARING OFFICER DODUC: Ms. Meserve.

3 MS. MESERVE: I would just add that, Part 2,
4 the hearing issues are quite broad, as you've
5 indicated, and include the public interest. So the
6 testimony that Mr. Burke has provided may also be
7 relevant to other public interest considerations that
8 are at issue in Part 2, such as impacts to agriculture,
9 the economy, tourism, so -- in addition to fishery.

10 So I think it's as Mr. Herrick described, it's
11 up to others to use or not use the testimony. But as
12 far as being relevant to Part 2 issues, it's well
13 within the scope of what's defined as Part 2. And it's
14 not necessary for Mr. Burke to define how exactly it's
15 going to connect up to other hearing issues, in my
16 opinion.

17 CO-HEARING OFFICER DODUC: Ms. Des Jardins.

18 MS. DES JARDINS: I wanted to add that the
19 arguments cited by Mr. Herrick and Mr. Ruiz and
20 Ms. Meserve have precedent in *Calhoun v. Bailar*, Ninth
21 Circuit (1985) 626 F.2d 145. And this is the precedent
22 for considering admissibility of evidence in
23 administrative hearings at the end.

24 In that case, there was hearsay evidence that
25 could be corroborated during the course of the hearing.

1 And I argue that this is a perfect example whereby this
2 may be relevant to -- very relevant to key issues
3 considered. Yes, correct, there isn't current
4 biological testimony. But clearly salinity is relevant
5 to fisheries. And for that reason, I would urge that
6 it not be stricken. Thank you.

7 CO-HEARING OFFICER DODUC: Mr. Jackson.

8 MR. JACKSON: We will be using Mr. Burke's
9 testimony if it's admitted in both Bill Jennings'
10 testimony, in regard to what the different operation
11 will be between the existing situation which brings
12 water into the Delta and from the Sacramento River to
13 control salinity in South Delta.

14 And that's a public interest issue for
15 everyone in the South Delta. It's a fisheries issue in
16 regard to the fact that, if the South Delta becomes a
17 place that has more salt and selenium coming from the
18 San Joaquin because of the lack of water coming across,
19 the fisheries habitat is going to be reduced
20 extensively.

21 And I think the -- the witnesses for CSPA who
22 are going to be using the information in their public
23 trust complaint -- or their public trust argument and
24 their unreasonable effect on fish and wildlife argument
25 and their public interest argument were encouraged at

1 the start to try to consolidate as much of the
2 information between parties who were protestants as
3 possible.

4 This gentleman is a recognized expert in this
5 area. He's providing information which will be used on
6 rebuttal. And it will be -- I cannot remember
7 everything that was said by my clients in my case in
8 chief, but the issue of whether or not the change in
9 point of diversion from north -- from south to north is
10 going to affect public trust assets, given the scope of
11 this project, seems to me that we will use all of the
12 evidence we can get that is within this -- the
13 framework of this hearing in order to prove our case
14 under the actual change in point of diversion case law.

15 And so I would suggest that you wait until the
16 end of the process and see how this is used.

17 CO-HEARING OFFICER DODUC: You cited
18 Mr. Jennings --

19 MR. JACKSON: Yes.

20 CO-HEARING OFFICER DODUC: -- for example.

21 To your recollection, did Mr. Jennings refer
22 to Mr. Burke's analysis in the direct testimony that he
23 submitted?

24 MR. JACKSON: Our problem with that is that
25 the -- unlike Part 1, we all had to submit testimony at

1 the same time. So no person, probably on either side,
2 has been able to use other people's testimony because
3 the November 30th date of simultaneous testimony made
4 it impossible to use other's people's testimony. It
5 wasn't yet created.

6 CO-HEARING OFFICER DODUC: If I remember
7 correctly, in Part 1 the only people that submitted
8 testimony earlier were petitioners.

9 MR. JACKSON: Yes. And we did use the
10 petitioners' testimony.

11 CO-HEARING OFFICER DODUC: Your answer to my
12 question then, Mr. Jackson, is that, to your
13 recollection Mr. Jennings, for example, did not cite to
14 Mr. Burke's testimony?

15 MR. JACKSON: I think both Mr. Jennings and
16 Dr. Fred Lee cited to testimony over the last 35 years
17 that Mr. Burke had done. We did not have the advantage
18 of seeing his work for this particular presentation
19 because of the filing deadline.

20 CO-HEARING OFFICER DODUC: Thank you.

21 Ms. Womack.

22 MS. WOMACK: Suzanne Womack, Clifton Court. I
23 am in the South Delta. I -- my -- we get our water
24 from the river.

25 Dr. Burke I appreciate your testimony

1 because -- and I will use it where I can. I need to
2 study it more because I can't afford that. I can't
3 drink saltwater, nor can the people that live in
4 Clifton Court. Thank you.

5 CO-HEARING OFFICER DODUC: Thank you,
6 Ms. Womack. Ms. Ansley? And then I believe
7 Mr. Derringer might have a question, too.

8 MR. KEELING: I do have one.

9 CO-HEARING OFFICER DODUC: Oh, Mr. Keeling.

10 MR. KEELING: Beyond the obvious -- which is
11 salinity loading is clearly an impact on the public
12 interest, and we all know that after two years -- this
13 hearing has been a mosaic of testimonies from literally
14 hundreds of witnesses, percipient and expert.

15 There has not, to my knowledge, in any written
16 ruling or any ruling from the bench, been a ruling to
17 the effect an individual witness must, upon threat of
18 having his or her testimony stricken, be able to link
19 up that testimony with that of other witnesses. If at
20 the end -- and Mr. Herrick alluded to this -- if at the
21 end of the day, nobody's linked up salinity loading in
22 the Delta to a cognizable jury, either of interest or
23 species, then Mr. Burke's testimony would be exactly
24 what the tunnels will be, if they were ever built, a
25 stranded asset.

1 CO-HEARING OFFICER DODUC: Strike that,
2 Mr. Keeling.

3 All right. Ms. Ansley, your response.

4 MS. ANSLEY: Yes. I've he been trying to keep
5 track of the various points. I would say first to
6 Mr. Keeling that we are not saying that there is rule
7 that other parties must use testimony provided by
8 different parties.

9 What we are saying is that, under
10 Government Code 11513, there must be demonstrated
11 relevance to a hearing issue. It is not proper to take
12 testimony and submit it for the hypothetical or
13 potential possibility that someone may find it useful
14 at some point in the proceedings.

15 What we're looking for here is demonstrated
16 relevance of this testimony to an issue before the
17 Hearing Officers. And what I'm hearing are attorneys
18 giving you public trust resources that may be
19 implicated or giving you biological resources that may
20 be implicated. But what I'm saying is that this very
21 technical testimony, which has a specific result for
22 the South Delta, no one uses that testimony to link it
23 to the public trust impact, whatever that may be,
24 whatever these attorneys have testified to, or to the
25 biological impact that this witness, who is not a

1 biologist, thinks it might be useful.

2 So I do think it is improper to admit
3 testimony on the off chance it might be used at some
4 point in this proceeding. I think that is the parties'
5 duty to demonstrate the relevance of their testimony
6 and to link it up to the hearing issues for the Hearing
7 Officers.

8 CO-HEARING OFFICER DODUC: Mr. Deeringer, you
9 had some questions?

10 MR. DEERINGER: You asked the question.

11 CO-HEARING OFFICER DODUC: I'm a good
12 attorney.

13 Mr. Herrick.

14 MR. HERRICK: If I may, I will just say in
15 conclusion that we keep talking about things that don't
16 matter, that aren't the rules, it's not the thing.

17 The Hearing Officers heard testimony just now
18 that the project will result in increased loading based
19 on this analysis. Whether that's true or not, that's
20 up to other people to decide.

21 If the Hearing Officers don't think more salt
22 in the South Delta is somehow related to any hearing
23 issue in this part, that's up to them. I think it's
24 clear that it is, and when I get to the end of this
25 process, the briefing that we produce will certainly

1 argue that increased salt in area -- as the problems we
2 went over in Part 1 -- not only impacts legal users,
3 which goes back to our 1 part, but also applies to the
4 issues you're examining in this part.

5 Those issues are public trust issues. And
6 whether anybody thinks that's a lame argument or a
7 strong argument or a disjointed argument is irrelevant.
8 The increase in salt is relevant to this proceeding.

9 CO-HEARING OFFICER DODUC: All right. Thank
10 you. We will take that under advisement. We will
11 issue our ruling when we reconvene tomorrow.

12 Ms. Ansley, I will ask you to continue your
13 cross-examination tomorrow. We will -- where will we
14 be tomorrow?

15 MR. HERRICK: I don't know.

16 CO-HEARING OFFICER DODUC: We're back in
17 Coastal? Thank you. We're back in Coastal at 9:30 in
18 the morning.

19 Not yet? Ms. Meserve.

20 MS. MESERVE: Just, I would like -- I'd missed
21 the other opportunity. I want to reserve 20 minutes
22 for questions for this panel, please, for Group 19.

23 CO-HEARING OFFICER DODUC: Group 19, that's
24 all. Thank you.

25 (The proceedings recessed at 12:59 p.m.)

1 STATE OF CALIFORNIA)
) ss.
2 COUNTY OF MARIN)

3 I, DEBORAH FUQUA, a Certified Shorthand
4 Reporter of the State of California, do hereby certify
5 that the foregoing proceedings were reported by me, a
6 disinterested person, and thereafter transcribed under
7 my direction into typewriting and which typewriting is
8 a true and correct transcription of said proceedings.

9 I further certify that I am not of counsel or
10 attorney for either or any of the parties in the
11 foregoing proceeding and caption named, nor in any way
12 interested in the outcome of the cause named in said
13 caption.

14 Dated the 29th day of March, 2017.

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DEBORAH FUQUA
CSR NO. 12948