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BEFORE THE
CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

CALIFORNIA WATERFIX WATER)
RIGHT CHANGE PETITION)
HEARING)

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

Thursday, November 10, 2016
9:00 A.M.

PART 1B

VOLUME 28

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Reported by: Megan Alvarez, RPR, CSR No. 12470
Certified Shorthand Reporter

1 APPEARANCES

2 CALIFORNIA WATER RESOURCES BOARD

3 Division of Water Rights

4 Board Members Present:

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

8 Staff Present:

9 Diane Riddle, Environmental Program Manager
10 Dana Heinrich, Senior Staff Attorney

11 PART I

12 For Petitioners:

13 California Department of Water Resources:

14 James (Tripp) Mizell, Esq.
15 Thomas M. Berliner, Esq.
16 Jolie-Anne S. Ansley, Esq.

17 INTERESTED PARTIES:

18 State Water Contractors:

19 Stefanie Morris, Esq.

20 California Water Research:

21 Deirdre Des Jardins, Esq.

22 San Luis & Delta-Mendota Water Authority:

23 Rebecca R. Akroyd, Esq.

24

25

1 INTERESTED PARTIES (Continued):

2 For Brett G. Baker, Local Agencies of the North Delta,
3 Bogle Vineyards/Delta Watershed Landowner Coalition,
4 Diablo Vineyards and Brad Lange/Delta Watershed
5 Landowner Coalition, Stillwater Orchards/Delta Watershed
6 Landowner Coalition, Islands, Inc., SAVE OUR SANDHILL
7 CRANES and Friends of Stone Lakes National Wildlife
8 Refuge, City of Antioch:

9 Osha Meserve, Esq.

10 County of San Joaquin, San Joaquin County Flood Control
11 and Water Conservation District, and Mokelumne River
12 Water and Power Authority:

13 Thomas H. Keeling, Esq.

14 Central Delta Water Agency, South Delta Water Agency
15 (Delta Agencies), Lafayette Ranch, Heritage Lands Inc.,
16 Mark Bachetti Farms and Rudy Mussi Investments L.P.:

17 John Herrick, Esq.

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1 NOVEMBER 10, 2016 - THURSDAY 9:00 A.M.

2 P R O C E E D I N G S

3 --o0o--

4 CO-HEARING OFFICER DODUC: Good morning,
5 everyone. It is 9:00 o'clock. Welcome back to the
6 California WaterFix Water Right Change Petition Hearing.

7 I am Tam Doduc. To my right are Board Chair
8 Felicia Marcus and Board Member DeeDee D'Adamo. To my
9 left of our staff, Dana Heinrich, Diane Riddle, and
10 Kyle Ochenduszko.

11 We also have Jean McCue and Mr. Long assisting
12 us today.

13 I guess we should take these announcements
14 much more seriously now. First of all, please locate
15 the exit closest to you. In the event of an emergency,
16 an alarm will sound and we will evacuate this room. We
17 will take the stairs down to the first floor, exit the
18 building, and meet up in the park to wait for the
19 all-clear signal. If you're not able to use the stairs,
20 please flag one of us down and you will be directed to a
21 protected area.

22 Secondly, as always, this hearing is being
23 recorded and Webcasted. So please always, when you're
24 called upon to speak, speak into the microphone and
25 begin by stating your name and affiliation.

1 Our court reporter is back with us today from
2 the sunny state of Hawaii all rested, relaxed, and ready
3 to go. We will have the transcript available after the
4 conclusion of Part I-B. If you wish to have it sooner,
5 please make your arrangements directly with her.

6 Finally, and most importantly, please take a
7 moment right now and put all your noisemaking devices on
8 silent, vibrate, do not disturb. Even if you think they
9 are, please check.

10 Before we begin, are there any housekeeping
11 items that we need to address? We have a short week
12 today. We're just meeting today and then reconvening
13 next Thursday and Friday, actually in the coastal
14 hearing room. Okay.

15 So for today, we'll begin with the City of
16 Stockton. I see Ms. Taber and -- oh, Mr. Simmons. And
17 then we'll follow-up by Ms. Meserve, with Ms. Meserve's
18 Panel 2. If we have time, Panel 3. If not, we will
19 begin with her Panel 3 next week.

20 And with that, let me go ahead and turn to
21 Mr. Simmons.

22 Let me go ahead and administer the oath for
23 your witness, and then you may begin with a
24 policy/opening statement, if you would so like.

25 Please rise and raise your right hand.

1 ROBERT GRANBERG,
2 called as a witness by the Respondent - City of
3 Stockton, having been first duly sworn, was
4 examined and testified as follows:

5 CO-HEARING OFFICER DODUC: Thank you.

6 You may be seated.

7 And, Mr. Simmons, you may begin.

8 --o0o--

9 OPENING STATEMENT

10 MR. SIMMONS: Thank you. And good morning,
11 Chair Doduc, and board members, and staff.

12 I'm Paul Simmons, representing City of
13 Stockton. And we thank the board and the other involved
14 parties for accommodating us and allowing us to go at
15 this time in the schedule. I know that's a complicated
16 endeavor to keep it rolling.

17 City of Stockton submitted a written opening
18 statement as part of its case in chief on August 31st,
19 and I'll summarize that briefly. And then Mr. Granberg
20 will be testifying.

21 Stockton is a municipality 300,000 people. It
22 has a very obvious relationship with the
23 Sacramento-San Joaquin Delta. It's in the Delta. It
24 diverts water from Delta and uses water in the Delta.
25 Stockton is a legal user of water. It diverts from the

1 San Joaquin River for municipal and industrial use under
2 Permit 21176, issued by this board on Application
3 30531A.

4 Some context for the city's case, and
5 certainly this is not a hearing we understand on
6 anything other than the change petition. But we can't
7 help but note -- and, again, this is context for the
8 case -- that roughly eight and a half years ago in its
9 scoping comments on the EIR/EIS for BDCP then, Stockton
10 made a fairly obvious point that the environmental
11 analysis and disclosures should include disclosure of
12 impacts to water quality at the city's drinking water
13 intake, a fairly straightforward proposition.

14 The draft EIR/EIS did not acknowledge the
15 existence of the city's drinking water supply at that
16 source. And when the city commented to that effect on
17 the draft EIR, the recirculated draft EIR also did not
18 address that issue at all.

19 The city in its protest raises the same issue.
20 We are concerned with potential effects on quantity and
21 especially quality at our drinking water supply for this
22 major municipality.

23 The petitioners, in their case in chief, also
24 do not address this question: What is the -- what is
25 the change in water quality that will be experienced by

1 the City of Stockton?

2 Now, whether this is just an oversight or
3 there was a problem with not enough time or whatever
4 doesn't really matter. But what does matter is that the
5 petitioners cannot meet their burden to show no injury
6 to a legal user of water by ignoring a legal user of
7 water.

8 Stockton's evidence will show the importance
9 of its Delta water supply source, including how the
10 development of that supply has alleviated adverse
11 groundwater conditions in the region. And it will also
12 address concerns about the potential consequences of any
13 adverse changes in water quality associated with its
14 water supply.

15 The city's witness is Robert Granberg, who's
16 the assistant director of municipal utilities for
17 Stockton. Mr. Granberg's testimony will document and
18 attest to the city's rights and interest in water from
19 the San Joaquin River and provide foundational evidence
20 regarding the potential injury to the city's rights as a
21 legal user of water from the WaterFix project.

22 --o0o--

23 DIRECT EXAMINATION

24 MR. SIMMONS: Now, Mr. Granberg, can you just
25 state and spell your name for the record.

1 WITNESS GRANBERG: Robert Granberg,
2 G-R-A-N-B-E-R-G.

3 MR. SIMMONS: And you've taken the oath and
4 you understand your testimony is under oath?

5 WITNESS GRANBERG: Yes.

6 MR. SIMMONS: I'd like to turn your attention
7 to Exhibit STKN-010, which is titled "Testimony of
8 Robert Granberg." Are you familiar with that document?

9 WITNESS GRANBERG: Yes.

10 MR. SIMMONS: Did you prepare and sign that
11 document?

12 WITNESS GRANBERG: Yes.

13 MR. SIMMONS: And are there any changes that
14 should be made in that document?

15 WITNESS GRANBERG: Yes, there is.

16 MR. SIMMONS: Can you describe the change?

17 WITNESS GRANBERG: There's a reference to
18 Exhibit STKN-014, and that should be Exhibit STKN-022.

19 MR. SIMMONS: You're referring to page 8,
20 line 8, of the testimony. Instead of referring to
21 STKN-014, that should be -022?

22 WITNESS GRANBERG: That is correct.

23 MR. SIMMONS: All right.

24 And, Madam Chair, just for the record, there
25 was paper submitted by the city earlier to make that

1 correction.

2 Mr. Granberg, with that correction, is
3 Exhibit STKN-010 your testimony?

4 WITNESS GRANBERG: Yes, it is.

5 MR. SIMMONS: Can you summarize your
6 testimony, please?

7 WITNESS GRANBERG: My pleasure. Good morning.

8 As Mr. Simmons indicated, I am the assistant
9 director of municipal utilities for the City of
10 Stockton. I provide overall leadership for the
11 department, particularly the divisions of engineering
12 services, wastewater treatment, and department
13 maintenance.

14 Prior to this position, I served as deputy
15 director of water resources planning. In that capacity,
16 I managed all aspects of water supply planning, water
17 treatment, and water distribution to our service area.

18 We provide potable water treatment
19 distribution for M&I purposes to more than half of the
20 Stockton metropolitan area, which equates to about
21 180,000 residents and businesses. Our primary source of
22 water supply is from the Delta.

23 Historically, up until about the late '70s, a
24 hundred percent of the potable water supply to the city
25 of Stockton came from the groundwater basin. But due to

1 concerns about overdraft and saline intrusion, in 1996,
2 the city applied for a water right for surface water
3 from the San Joaquin River for M&I supply.

4 That application was brought forth to this
5 board, and in 2006 was bifurcated and Permit 21176 was
6 issued for authority for the City of Stockton to divert
7 up to 33,600 acre feet per year from the
8 San Joaquin River for use in the Stockton metropolitan
9 area.

10 The balance of that application remains on
11 file with the State Board, and we maintain an annual fee
12 for that application to remain in place.

13 Today, the primary source, as I stated, is
14 provided -- is surface water supplied by city from the
15 Delta under that water right that I previously
16 mentioned. We have an intake on the San Joaquin River,
17 and it's located at the southwest tip of Empire Tract.

18 The city has diverted and beneficially used
19 water under our water rights permit since 2012. To
20 date, the maximum monthly diversion has been
21 approximately 1684 acre feet, and our highest diversion
22 in calendar year has been approximately 9,268 acre feet.

23 The city's ability to divert water for
24 drinking water supply is limited by a biological opinion
25 that constrains our diversions in the spring months in

1 order to protect fish. We also hold a water purchase
2 contract with the Woodbridge Irrigation District to make
3 up that supply curtailment from the Delta.

4 We also receive treated surface water from the
5 Stockton East Water District that wholesales treated
6 water to the metropolitan area.

7 We also supplement a small portion of our
8 supply from our remaining groundwater wells.

9 Since the late '70s, Stockton has spent
10 hundreds of millions of dollars developing new sources
11 of supply that have resulted in overall improvement in
12 groundwater levels under the Stockton metropolitan area
13 footprint. Maintaining the security and quality of our
14 surface water supply is crucial to our continued
15 groundwater recovery program.

16 The WaterFix draft environmental documents
17 demonstrate negative changes in Delta water quality for
18 a number of parameters that are of concern for a
19 municipal water supplier. Some of the key constituents
20 of concern to Stockton include electrical conductivity,
21 chloride, and bromide.

22 The draft environmental documents also
23 identify the proposed water right changes will result in
24 increased residence time for water in the Delta. This
25 will increase the production of microcystis which can be

1 a highly toxic sign of bacteria, which has a direct and
2 indirect adverse effect on municipal water treatment and
3 supply. It requires additional drinking water treatment
4 and can create a public health risk.

5 We don't know exactly how these changes from
6 the proposed project will affect Stockton's water supply
7 because that information was not included in the EIR or
8 in the change petition or in the petitioner's case in
9 chief.

10 However, based on my knowledge of drinking
11 water treatment plant and wastewater treatment plants
12 operations, it is my opinion that even seemingly small
13 increases in the mass or concentration of various
14 undesirable constituents such as bromides, chloride,
15 electrical conductivity, or microcystis can have an
16 adverse impact on facility operations that could result
17 in reduction in the amount or quality of water that we
18 deliver to our customers, force additional treatment, or
19 both.

20 Drinking water treatment and wastewater
21 treatment plant operators must respond promptly to daily
22 changes in conditions in the river. Substantial changes
23 from day to day in the quality of diverted water or
24 influent can have an adverse consequence on the use and
25 discharge of this water.

1 Alteration of the Delta flow that results in
2 water quality degradation of the city's drinking water
3 intake or point of treated wastewater discharge can
4 negatively impact the city's drinking water system and
5 supply and also the city's ability to comply with its
6 wastewater discharge permit.

7 The city's water right permit has a condition
8 relating to compliance with Water Code Section 1485
9 which specifically limits the amount of water that
10 Stockton may divert under that permit to the amount of
11 wastewater discharged from our regional wastewater
12 control facility which is located about 10 miles
13 upstream on the San Joaquin River.

14 Thus, increases in salinity or other water
15 quality constituents in our source water that lead to
16 increases in our effluent salinity levels may
17 necessitate more vigorous and costly wastewater
18 treatment.

19 On the other hand, diverting effluent away
20 from our San Joaquin River discharge would have a
21 negative impact by limiting our ability to divert that
22 water to supply our drinking water supply plant.

23 Any degradation of water quality or loss of
24 surface water supplies at our drinking water plant that
25 might occur as a result of the WaterFix project also

1 creates a risk of injury to the city as a user of
2 groundwater.

3 Groundwater remains a crucial part of the
4 city's water portfolio; but as I stated, a major purpose
5 of the Delta water supply project was to protect our
6 groundwater from increasing overdraft.

7 Also, our groundwater supply is higher in
8 total dissolved solids, or TDS. If the city has to rely
9 more on groundwater due to water quality changes from
10 the WaterFix water right petition, I would expect
11 groundwater levels to decline in TDS levels in our
12 drinking water supply. And, subsequently, our
13 wastewater discharge would also increase.

14 The city was subjected to considerable
15 scrutiny in obtaining our water rights. We were
16 required to make extensive and significant investments
17 in water quality modeling and mitigation, the cost of
18 which was borne entirely by the businesses and residents
19 of the city.

20 When we applied for our service water right,
21 we had resolved every protest issue, including the
22 protest filed by the Department of Water Resources and
23 Reclamation, before we could move forward.

24 The city is simply asking the State Board to
25 require that petitioners resolve our protest concerns

1 and impose conditions on the water rights change
2 petition that will protect the city's water supply and
3 wastewater treatment if the petition is to be approved.

4 That concludes my testimony.

5 CO-HEARING OFFICER DODUC: Thank you,
6 Mr. Granberg.

7 MR. SIMMONS: May I follow up with one
8 clarifying question?

9 CO-HEARING OFFICER DODUC: Sure.

10 MR. SIMMONS: Mr. Granberg, during your
11 testimony, you referred to the geographic relationship
12 between the wastewater treatment plant and the drinking
13 water intake. Can you just clarify what that is in
14 terms of what's upstream and what's downstream?

15 WITNESS GRANBERG: Our wastewater treatment
16 plant is located in the city of Stockton near the
17 downtown area. And we divert our water supply from the
18 San Joaquin River approximately 10 miles downstream --
19 on the San Joaquin River. I'm sorry.

20 MR. SIMMONS: 10 miles to the north?

21 WITNESS GRANBERG: 10 miles to the north, yes.

22 MR. SIMMONS: Okay. Thank you.

23 CO-HEARING OFFICER DODUC: Are you done,
24 Mr. Simmons?

25 MR. SIMMONS: Yes. Thank you. Could we just

1 have a second? As luck would have it, the witness is a
2 bit under the weather this morning.

3 CO-HEARING OFFICER DODUC: All right. Let me
4 do a quick check.

5 How many parties wish to cross-examine
6 Mr. Granberg?

7 I see four. All right. Then we will go ahead
8 and begin with the Department of Water Resources.

9 And I'll just remind Ms. Ansley as she is
10 coming up and Mr. Mizell that we have your written
11 objections to some of the exhibits and testimony --
12 Mr. Granberg's testimony, in writing. Those are still
13 under consideration. There's no need to repeat them at
14 this time.

15 Please begin with a time estimate and the
16 topic areas you will be discussing.

17 MS. ANSLEY: Thank you very much.

18 Jolie-Anne Ansley for the Department of Water
19 Resources. We actually only have about three questions.
20 I think it will take five to ten minutes at most.

21 CO-HEARING OFFICER DODUC: All right. In that
22 case, go ahead and proceed.

23 MR. HERRICK: Thanks.

24

25

1 --o0o--

2 CROSS-EXAMINATION

3 MS. ANSLEY: Good morning, Mr. Granberg.

4 WITNESS GRANBERG: Good morning.

5 MS. ANSLEY: In your testimony, you don't
6 present any analysis by the City of Stockton on the
7 impacts of the California WaterFix on water quality, do
8 you?

9 WITNESS GRANBERG: It's in my testimony.
10 All -- it's raising a lot of questions and concerns
11 about water quality at our intake that were not
12 addressed.

13 MS. ANSLEY: But the City of Stockton did not
14 perform any independent analysis?

15 WITNESS GRANBERG: That is correct, as far as
16 my testimony is concerned.

17 MS. ANSLEY: And you are the sole witness for
18 the City of Stockton, correct?

19 WITNESS GRANBERG: That is correct.

20 MS. ANSLEY: And your testimony raises a
21 number of the water quality concerns, I understand, one
22 of which is bromide; is that correct?

23 WITNESS GRANBERG: That is correct.

24 MS. ANSLEY: And are you familiar with the
25 recirculated draft EIR?

1 WITNESS GRANBERG: Yes, I am. Some portions,
2 not the entire document.

3 MS. ANSLEY: Sure. And are you aware that
4 under -- excuse me for a second. Find my place.

5 Are you aware that under the Alternative 4A
6 that long-term average bromide concentrations at
7 Buckley Cove are expected to be relatively small, on the
8 order of less than 1 percent?

9 MR. SIMMONS: Madam Chair, I object to the
10 question. Lack of foundation.

11 CO-HEARING OFFICER DODUC: Sure.

12 MR. SIMMONS: Number one, the witness doesn't
13 have the document in front of him and hasn't memorized
14 it.

15 And number two, there's an implied assumption
16 that Buckley Cove is representative of water quality at
17 the Stockton drinking water intake, and there's no
18 foundation for that.

19 CO-HEARING OFFICER DODUC: Ms. Ansley?

20 MS. ANSLEY: Sure. I'm not actually assuming
21 anything. I'm happy to let him answer as he will. He
22 does raise bromide concerns. He cites the comments to
23 the RD EIR in his testimony, so if I need to ask more
24 questions, I'm happy to if the witness feels like he
25 needs further clarification.

1 CO-HEARING OFFICER DODUC: All right.

2 Mr. Granberg, please answer.

3 WITNESS GRANBERG: Yes, I am aware that the
4 RD EIR or EIS did provide information on bromide levels
5 at Buckley Cove; but, again, that's not representative
6 of our intake and the focus of our comments on that
7 document.

8 MS. ANSLEY: And are you familiar with the
9 location of Buckley Cove?

10 WITNESS GRANBERG: Yes, I am.

11 MS. ANSLEY: And that is on the order of 9 to
12 10 miles from the intake of city of Stockton?

13 WITNESS GRANBERG: Approximately, yes.

14 MS. ANSLEY: You also raise concerns regarding
15 microcystis in your testimony; is that correct?

16 WITNESS GRANBERG: That is correct.

17 MS. ANSLEY: And are you familiar with the
18 conclusion in the RD EIR, the recirculated draft EIR,
19 regarding microcystis are not expected to have a
20 significant impact under the proposed alternatives
21 relative to the no-action alternative?

22 WITNESS GRANBERG: Not at this point.

23 MS. ANSLEY: That's all the questions I have.

24 CO-HEARING OFFICER DODUC: Thank you.

25 MS. ANSLEY: Thank you.

1 CO-HEARING OFFICER DODUC: I believe
2 Ms. Akroyd is next, from San Luis & Delta Mendota, and
3 by the hand count that I saw earlier, Mr. Herrick will
4 be next, followed by Mr. Keeling. I'm going by your
5 group order.

6 And while Ms. Akroyd is setting up,
7 Ms. Meserve, is your second panel ready to go?

8 MS. MESERVE: I'm missing a couple of people.

9 CO-HEARING OFFICER DODUC: If necessary, we'll
10 take a short break. Thank you.

11 Ms. Akroyd?

12 MS. AKROYD: Good morning. Rebecca Akroyd for
13 the San Luis and Delta Water Authority. I'm going with
14 your initial questions approximately five minutes,
15 similar line of questions to DWR regarding asserted
16 injury from changes.

17 --o0o--

18 CROSS-EXAMINATION

19 MS. AKROYD: Good morning.

20 WITNESS GRANBERG: Good morning.

21 MS. AKROYD: Now, Ms. Ansley briefly asked you
22 regarding your testimony on microcystis. You haven't --
23 the City of Stockton hasn't done any independent
24 modeling regarding the effect of any changes on -- of
25 residence time on microcystis, has it?

1 WITNESS GRANBERG: Not for my testimony, no.

2 MS. AKROYD: And your testimony also includes
3 statements regarding the effect of increased
4 temperatures on out go production, but the City of
5 Stockton hasn't performed any independent modeling on
6 the effect of any potential changes in water temperature
7 from WaterFix?

8 WITNESS GRANBERG: Not for my testimony, no.

9 CO-HEARING OFFICER DODUC: Thank you,
10 Ms. Akroyd.

11 Mr. Herrick?

12 --o0o--

13 CROSS-EXAMINATION

14 MR. HERRICK: John Herrick for South Delta
15 Water Agency. I just have like two or three questions
16 as everybody else on a few of the specifics of the
17 potential impact.

18 Mr. Granberg, to your knowledge, have the
19 petitioners provided any information regarding the
20 impacts on water quality from the California WaterFix at
21 the location of Stockton's intake?

22 WITNESS GRANBERG: No, they have not.

23 MR. HERRICK: Have they presented any
24 information with regards to any areas within a mile of
25 the intake?

1 WITNESS GRANBERG: No, they have not.

2 MR. HERRICK: Same question with regard to
3 your discharge point for the City of Stockton's
4 wastewater treatment plant: Have they provided any
5 information in the area of the discharge regarding water
6 quality impacts of the California WaterFix?

7 WITNESS GRANBERG: Not at our wastewater
8 discharge point, no.

9 MR. HERRICK: Have they provided any
10 information, to your knowledge, within a mile of your
11 discharge point?

12 WITNESS GRANBERG: No, they have not.

13 MR. HERRICK: Mr. Granberg, if there are water
14 quality impacts, could that affect the costs of the City
15 of Stockton in the treatment of their water at their
16 intake or at the plant that takes the water from the
17 intake?

18 WITNESS GRANBERG: Potentially, yes.

19 MR. HERRICK: And without the information of
20 the impacts of the California WaterFix on water quality
21 at or around your intake, are you able to calculate any
22 impacts that result from additional treatment?

23 WITNESS GRANBERG: No, I would not.

24 MR. HERRICK: And I believe you were trying to
25 make the point -- I'm not sure if it was clear -- that

1 if the water quality at your discharge becomes worse,
2 say, for EC due to a change in the source water quality,
3 that may affect the ability and the amount you can
4 discharge into the river; is that correct?

5 WITNESS GRANBERG: That is correct.

6 MR. HERRICK: And if it affects the amount you
7 discharge, then that affects the amount you can divert
8 because you're diverting an amount equal to your
9 discharge, generally speaking?

10 WITNESS GRANBERG: That is correct.

11 MR. HERRICK: Thank you. I have no further
12 questions.

13 CO-HEARING OFFICER DODUC: Thank you,
14 Mr. Herrick.

15 Anyone else after Mr. Keeling? Okay. Not
16 seeing any.

17 --o0o--

18 CROSS-EXAMINATION

19 MR. KEELING: My name is Tom Keeling, and I
20 represent the San Joaquin County protestants. I have a
21 couple of follow-up questions on Mr. Herrick's
22 cross-examination.

23 He had asked you about contaminants and other
24 materials generally. And I want to go back to your
25 testimony where you mentioned possible impacts to the

1 city's water supply if the WaterFix project, assuming
2 it's approved, were to cause levels of bromide in the
3 city's San Joaquin River water supply to increase.

4 Do you remember that testimony?

5 WITNESS GRANBERG: Yes.

6 MR. KEELING: Is it possible that an increase
7 in bromide levels at Stockton's point of diversion would
8 require the city to switch to a new type of drinking
9 water treatment?

10 WITNESS GRANBERG: Yes, potentially.

11 MR. KEELING: If so, do you know what that
12 different type of treatment would be?

13 WITNESS GRANBERG: Depending upon the levels,
14 we would do the engineering analysis. But one typical
15 method of treatment is granular activated carbon that
16 I'm familiar with.

17 MR. KEELING: Is that the most likely form of
18 treatment you would go to?

19 WITNESS GRANBERG: I would assume so at this
20 point without analyzing it further.

21 MR. KEELING: If you know, what would that --
22 moving to that form of treatment, what additional cost
23 would that impose on the City of Stockton?

24 WITNESS GRANBERG: It could be substantial.

25 We looked at a similar treatment option for -- as

1 opposed to converting to chloramines to reduce
2 disinfection byproducts in our treated water, and it was
3 on the order of 30 to -- 30 percent or so increase in
4 water rates for our customers. So we opted to go with
5 the chloramine conversion, much more cost-effective
6 option.

7 MR. KEELING: I want to leave bromides, then,
8 and go to something else you talked about in your
9 testimony, which was to chlorides.

10 You noted a concern that the WaterFix, if
11 approved, it might result in increased levels of
12 chlorides at the city's intake. What kind of response
13 would the city have if chloride levels did rise at the
14 intake point as a result of the proposed project?

15 WITNESS GRANBERG: We would have to look at
16 treatment alternatives for reducing that in the treated
17 water. And that -- that treatment may result -- or
18 that -- that may result in additional treatment by -- we
19 have a membrane plant, so we may have to add on
20 additional membrane treatment, you know, post-filter.

21 MR. KEELING: Do you have any idea what that
22 would cost the taxpayers?

23 WITNESS GRANBERG: An additional membrane
24 treatment would likely be in the form of reverse
25 osmosis. And we did look at some of our public health

1 goals, unregulated contaminants, and reported that to
2 counsel. That could be on the order of 100 to
3 200 percent increase in our water rates for reverse
4 osmosis treatment.

5 MR. KEELING: Bear with me for one minute.

6 Mr. Granberg, in your direct testimony, if I
7 recall, and took notes directly, you expressed a concern
8 about increased residence times resulting in an increase
9 in the conditions that promote microcystis, which I
10 believe is a neurotoxin from blue-green algae.

11 Do you recall that testimony?

12 WITNESS GRANBERG: Yes.

13 MR. KEELING: Is there -- in recent years, has
14 there been an increased problem with microcystis in the
15 Stockton area?

16 WITNESS GRANBERG: We're not seeing it so much
17 at our intake, but further into the interior of the
18 city, we have had blue-green algae concentrations,
19 elevated concentrations, in the downtown area.

20 MR. KEELING: If the residence times are
21 changed and other conditions are changed so as to
22 promote the growth of blue-green algae in the area of
23 the city's intake and the potential for microcystis,
24 what would the city's response be?

25 WITNESS GRANBERG: Well, we currently

1 pre-ozonate at our drinking water treatment plant. That
2 could be successful in -- in controlling that, but then
3 we run the risk of other byproducts in results from that
4 treatment option. So we may have to look to other
5 treatment alternatives to control that toxin in our
6 treated water.

7 MR. KEELING: Thank you, Mr. Granberg. I have
8 no further questions.

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

11 Not seeing any other interest in
12 cross-examination, Mr. Simmons, do you have redirect?

13 MR. SIMMONS: No, thank you.

14 CO-HEARING OFFICER DODUC: All right. So, at
15 this time, I believe you concluded your case in chief.
16 You have until noon next Thursday to submit in writing
17 your list of exhibits for the record. We will consider
18 objections also filed and issue a ruling subsequently.

19 MR. SIMMONS: Thank you.

20 CO-HEARING OFFICER DODUC: Thank you,
21 Mr. Simmons. Thank you, Mr. Granberg.

22 WITNESS GRANBERG: Thank you very much.

23 CO-HEARING OFFICER DODUC: Ms. Meserve, are
24 your witnesses ready to go or do we need to take a short
25 break?

1 MS. MESERVE: Good morning. Osha Meserve.

2 Yes, everyone is here. It might take a minute to get
3 everyone up there and get our slides and whatnot.

4 CO-HEARING OFFICER DODUC: Let's take a short
5 five-minute break while you do that.

6 Thank you.

7 (Off the record at 9:33 a.m. and back on
8 the record at 9:38 a.m.)

9 CO-HEARING OFFICER DODUC: All right. We are
10 back in session. I see Mr. Mizell at the podium.

11 MR. MIZELL: Yes. Good morning.
12 Tripp Mizell, DWR. I don't believe we ended up
13 resolving the objection to Mr. Tootle's revised
14 PowerPoint presentation last week, and I was wondering
15 if we were going to reach that before his presentation
16 on this panel.

17 CO-HEARING OFFICER DODUC: Remind me, please,
18 what --

19 MR. MIZELL: The original file PowerPoint
20 consisted of two slides with maps that did not contain
21 annotations. And the revised PowerPoint was, I believe,
22 six pages, with annotations. And it was submitted quite
23 past the deadline.

24 CO-HEARING OFFICER DODUC: I believe I made a
25 verbal ruling that surprise direct is not welcome and is

1 not allowed.

2 If Ms. Meserve wished to introduce those
3 exhibits, she may not do it through her declaration,
4 which we also ruled out, but she had several options of
5 introducing it as part of her rebuttal, introducing it
6 now and laying a foundation later, or -- what was the
7 third option?

8 Oh, yes, go ahead and introduce it and then
9 submit it into the record, and we will rule at that
10 time.

11 MR. MIZELL: Thank you very much.

12 CO-HEARING OFFICER DODUC: Ms. Meserve, at
13 this point, do you have any additional insight into the
14 issues that you wish to share with us?

15 MS. MESERVE: Yes, Madam Chair. Thank you.
16 Osha Meserve.

17 What the revised Errata 37 has in it is simply
18 reproductions of other materials that are elsewhere in
19 our case in chief and within DWR's petition.

20 So -- and I believe I didn't hear Mr. Mizell
21 say anything about new information. I guess there's a
22 couple of, you know, descriptive words on the left-hand
23 side of what is there.

24 So I was hoping that Mr. Tootle could present
25 his slide because it's of assistance and it was in line

1 with what you had said orally at the outset of these;
2 that as long as the material is already within the
3 record, that our experts and witnesses are allowed to
4 talk about those things and look at them.

5 So I think, you know, I leave it to you
6 whether he's able to do that, but I believe the issue is
7 different with respect to the error in uploading the
8 correct version of the PowerPoint last week than this
9 issue, which is really just Mr. Tootle preparing
10 something that is a little bit easier to follow and that
11 tied in. And then we've also included in the PowerPoint
12 references to where each of the figures came from in
13 Errata 37 for land, so that it would be very clear that
14 this is not new material.

15 CO-HEARING OFFICER DODUC: So it is your
16 request, then, to be allowed to proceed to introduce
17 these maps, and then we will rule on the objections as
18 well as on your submitted exhibits at a later time?

19 MS. MESERVE: That would be my request, yes.

20 CO-HEARING OFFICER DODUC: All right. Thank
21 you, Ms. Meserve.

22 Anything else to add, Mr. Mizell?

23 MR. MIZELL: Only to comment that it's not the
24 department's view that this is simply a reproduction of
25 the exhibits that were previously in the record as they

1 are annotated and have call-outs in them. So I just
2 think to the extent that -- that they are modified, it
3 does represent new material, in our minds.

4 CO-HEARING OFFICER DODUC: All right. So
5 noted, all of you. I will go ahead and allow
6 Ms. Meserve to continue.

7 MS. MESERVE: Thank you.

8 First I will present a brief opening
9 statement, and then we'll move on to the testimony.

10 CO-HEARING OFFICER DODUC: Before you do that,
11 let me go ahead and administer the oath to your
12 witnesses.

13 Please stand and raise your right hands.

14 RUSSELL VAN LOBEL SELS,

15 RICHARD ELLIOT,

16 JOSEF TOOTLE,

17 DANIEL WILSON,

18 ROBERT PYKE,

19 called as a witness by the Respondents, having
20 been first duly sworn, was examined and
21 testified as follows:

22 CO-HEARING OFFICER DODUC: Thank you. You may
23 be seated.

24 And Ms. Meserve, you may begin.

25 MS. MESERVE: Thank you. And I believe I'm

1 missing a couple minutes due to Mr. Vogel's policy
2 statement at the end of the day last week.

3 CO-HEARING OFFICER DODUC: Thank you for being
4 honest about that.

5 --o0o--

6 OPENING STATEMENT

7 MS. MESERVE: Thank you.

8 Good morning, Madam Chair, hearing officers,
9 and members of the board.

10 Bogle Vineyards, Diablo Vineyards, Stillwater
11 Orchards and local agencies of the North Delta and the
12 Delta Watershed Landowner Coalition are pleased to
13 present this physical injury panel today to you, along
14 with the assistance of San Joaquin County that we have
15 joined in for purposes of presenting this material.

16 And just briefly, local agencies of the
17 North Delta, our land is -- member agencies cover about
18 120,000 acres of the Northern Delta. They are made up
19 of reclamation and water districts that provide water
20 delivery and drainage system, and they're very directly
21 affected by this project.

22 The Delta Watershed Landowner Coalition is an
23 affiliation of the Sacramento-San Joaquin Delta
24 landowners and water users that are concerned with
25 projects that impact local agriculture and the

1 environment and their water uses.

2 You heard last week, we presented our case in
3 chief jointly with the Ryer Island focus in Islands,
4 Inc., on the salinity injuries.

5 Today we're going to look at some of the most
6 direct impacts of the project on legal users of water.
7 And these entities represented today are actively
8 engaged in agricultural operations in the Delta and
9 would be directly harmed by grant of the petition.

10 And they also include agencies and coalitions
11 that would also be harmed.

12 The panel presentation will include -- first,
13 we will hear from Russell van Lobel Sels, who will
14 discuss the impact on his ranches and from his
15 perspective as chair of the Delta County Farm Bureau
16 caucus and someone who's been very involved in the
17 development of this project.

18 And he will describe the damages to one of his
19 family's diversions that would occur from construction
20 of Intake 2. And he'll also talk about the water
21 delivery and drainage systems used by the individuals in
22 reclamation districts and how they had cannot easily be
23 modified as assumed by petitioners in their attempts to
24 avoid injury to, quote, temporarily impacted diversions.

25 You will then hear from Richard Elliot of

1 Stillwater Orchards. He presents the perspective of an
2 operations manager who has both direct and indirect
3 impacts from operations and construction if the proposed
4 diversion points were constructed.

5 He describes also the fate of the
6 Rose Orchard, including its diversion on the Sacramento
7 River under the footprint of Intake 2 should the
8 petition be granted.

9 He also discusses his groundwater wells and
10 how those may be impacted and injured by the project.

11 That's going to be backed up by the testimony
12 of Engineer Josef Tootle.

13 Second-to-last, we'll hear from Daniel Wilson,
14 who provides the perspective of a farming manager with
15 historic orchard that would be completely destroyed by
16 the proposed Intake 2.

17 Though the petitioners' list relocation of
18 diversions and turnouts from the sedimentation basin of
19 mitigation, it is difficult to see how these measures
20 would prevent injury when the entire orchard would be
21 destroyed by intake.

22 And then lastly, we'll hear from
23 Engineer Josef Tootle, the geotechnical engineer with
24 20 years' experience, who will talk about injuries to
25 water users from the proposed new diversion, the

1 tunnels, and the slurry cutoff falls.

2 These project components would interfere with
3 surface and groundwater used in the vicinity of the
4 project during -- both during and after construction.

5 And Mr. Tootle's testimony is supported by
6 Dr. Robert Pike, who has extensive experience in and
7 outside the Delta addressing special problems in
8 geotechnical earthquake and water resource engineering.

9 Just to touch on a few of the issues that our
10 overall case in chief is addressing and that this panel
11 will be touching on in particular, the proposed change
12 is still inadequately described. And from the outset of
13 the petition, land and other protestants have pointed
14 out these significant holes.

15 The information provided in the case in chief
16 still does not meet the basic requirement. Just as one
17 example, changes in property ownership are still not
18 provided. Though the change relies on taking by force
19 hundreds of parcels of the private property and water
20 rights, detailed plans have not been presented for those
21 actions. And the petitioners never acknowledged this
22 plain fact in their materials and instead only refer to
23 permanent or temporary interference with just 15
24 diversions that are directly under the footprint. The
25 petition has not and must bring forth this basic

1 information.

2 The project information is also misleading in
3 terms of saying that it's going to take during high
4 flows and yet the engineering report states that the
5 diversion will be designed to take during low flows as
6 well.

7 Looking briefly at what substitutes injury to
8 legal users of water, for surface water uses, that means
9 that the change in place of use of appropriated water at
10 the new locations results in the appropriator using a
11 greater amount of water or, at the new location, reduces
12 return flows and thus reducing water available or the
13 water quality.

14 And the burden of proof under 1701 and 1702 is
15 on the party seeking permission. I think we heard cross
16 this morning regarding, you know, whether protestants
17 had -- had done this -- had developed this evidence.
18 That's not the burden of the protestants.

19 And then groundwater use, which this panel
20 focuses on, groundwater is treated the same, is an
21 overlying right, and it is a water use and a water
22 right, the same as a riparian right to appropriate
23 surface water. Thus injury to groundwater uses would
24 also constitute an injury to legal users of water under
25 1702 of the Water Code.

1 As we're going to be discussing in detail
2 today, the proposed changes would lead to injury. They
3 would disrupt water delivery and water removal
4 operations, the drainage on the Delta islands. And the
5 petition is insufficiently detailed to provide an
6 understanding of how the project will interfere with the
7 ongoing ag ops and other rural water systems.

8 Changing groundwater elevations also, either
9 by lowering the water table with pumping for
10 construction, dewatering, or cutting off the seepage,
11 the underflow through cutoff walls at the intakes or at
12 the shafts and also by the tunnels themselves will have
13 both direct and indirect impacts on Delta homes, farms,
14 and special districts that rely on groundwater in the
15 vicinity of the project.

16 As we described here today, the construction
17 and operation of the North Delta diversions would block
18 the subsurface flows.

19 The EIR -- the draft EIR for this project from
20 2015 admits that the project would deplete groundwater
21 supplies or interfere with groundwater recharge and
22 would be a significant and unavoidable impact.

23 The EIR also admits that during operations,
24 the project would interfere with agricultural drainage
25 so as to lead to significant and unavoidable impact.

1 I know the water -- the CEQA is a separate
2 process. However, this is important information
3 regarding the petitioners' own conclusions with respect
4 to injury to these water users.

5 And then the mitigation put forth so far,
6 including the cutoff walls described in DWR-218, does
7 not fix these problems.

8 And as a result of all this interference, the
9 EIR -- the draft EIR also admitted that the project
10 would have significant and unavoidable impacts on
11 agriculture as a result of constructing and operating
12 the proposed water diversion points and conveyance
13 facility. And this is consistent with our own
14 investigations with respect to the direct physical
15 injuries and interference with surface water and ground
16 water use.

17 So while petitioners frame their request as
18 limited to three new points of diversion, in fact, major
19 changes in hydrology of the Delta would result from the
20 petition, worsening water quality and interfering with
21 access to water by legal users.

22 And for many Delta diverters, operations of
23 the new points of diversion would also create permanent
24 drought-like conditions as was described in the salinity
25 panel and will be discussed further in the harmful algal

1 bloom panel later today because just minimal bypass
2 flows will be left in Sacramento River.

3 And in addition to all this, there are
4 inadequate conditions being proposed to prevent legal
5 use -- injuries to legal users of the water. And
6 despite this, the petitioners claim there will be no
7 injury. But in support of that no-injury claim, they
8 provide vague promises to investigate the extent of
9 injury in the future or apply a very broad menu of
10 options to allegedly eliminate injury.

11 Notably, there's been no effort to even
12 identify what water uses would be identified. As I
13 mentioned before, the focus has been on just the
14 15 diversions under the direct footprint of the project.

15 In conclusion, the petitioners have failed at
16 every turn to provide the information required by law to
17 assess the requested massive changes to the hydrology
18 and the environment of the Delta, including water uses.

19 Starting with an incomplete petition, the
20 proponents of the tunnels plan have still not delivered
21 what is required of any diverting requesting a change
22 before the Water Board.

23 An assessment of this petition should occur in
24 an orderly fashion applying applicable legal standards.
25 There are no special exceptions for projects that are

1 too big to fail. Instead, the greater the scale of the
2 changes, the more important a careful review in
3 conformance with legal requirements is to protection of
4 the public interest and to legal rights.

5 At this time, we don't believe there are any
6 conditions that could be suggested to prevent injury to
7 legal users of water from grant of the petition.

8 And after hearing all the of the evidence we
9 will respectfully request that the petition be denied.

10 So, with that, we will turn to our first
11 witness who will be Russell van Loben Sels.

12 --o0o--

13 DIRECT EXAMINATION

14 MS. MESERVE: And, Russell, could you please
15 state your name and tell me about your background as a
16 farmer in the Delta?

17 WITNESS VAN LOBEN SELS: My name is
18 Russell van Loben Sels. My great-grandfather came to
19 the Delta in 1876 and began farming then. We are
20 farming some of the same property that he farmed at that
21 time.

22 Myself, personally, after college, four years
23 of college, and three years in the military, I returned
24 to the farm in 1969 and have been farming the Delta
25 since -- since that time, so approximately 47 years.

1 MS. MESERVE: What leadership positions do you
2 hold relating to your work as a farmer in the Delta?

3 WITNESS VAN LOBEN SELS: I am vice president
4 and CFO of Amistad Ranches. I'm vice president and CFO
5 of Esperanza Enterprises. At the time the BDCP was
6 introduced, I was the chair of the Sacramento County
7 Farm Bureau.

8 And at that time, we created an organization
9 called the Delta Caucus, which is a combination of all
10 of the farm bureaus -- the entities in the Delta, in
11 order to address many of the things that were going on
12 in the Delta at that time.

13 MS. MESERVE: Can you tell us briefly what
14 reclamation districts do in the Delta?

15 WITNESS VAN LOBEN SELS: Most reclamation
16 districts were created in the late 1800s, early 1900s,
17 and their function was to provide flood protection,
18 reclaim the land. And so the primary objectives were
19 build the levies and the drainage systems within those
20 levies to reclaim that land. Some reclamation districts
21 also provided the basic infrastructure for irrigation.

22 MS. MESERVE: With respect to your family
23 operations, about how many diversions does your family
24 operate in the Delta?

25 WITNESS VAN LOBEN SELS: We operate somewhere

1 between 10 and 15. Some are direct diversions, and some
2 are indirect or duplicate diversions. But 10 to 15 is
3 what we operate.

4 MS. MESERVE: What kinds of water rights are
5 associated with these diversions?

6 WITNESS VAN LOBEN SELS: Our water rights are
7 based upon patents that are from the 1870s for our
8 pre-1914 right.

9 We are also adjacent to natural water courses
10 which provides for riparian rights. And then in
11 addition to that, we have contractual rights with the
12 North Delta Water Agency.

13 So those three water rights cover our
14 diversions.

15 MS. MESERVE: And do you keep your water
16 rights on file with the Water Board as required?

17 WITNESS VAN LOBEN SELS: Yes, we do.

18 MS. MESERVE: Do you believe the contract
19 between the North Delta Water Agency and DWR would
20 protect your farm by itself from reductions in water
21 supply or quality caused by the grant of the petition?

22 WITNESS VAN LOBEN SELS: The North Delta Water
23 Agency contract was an assurance that was negotiated at
24 the time the canal was being considered, and it
25 primarily guarantees water quality within the

1 North Delta Water Agency boundaries.

2 It does recognize our right to use water.

3 Every -- every owner of land within that boundary is
4 recognized as a legal diverter of water within that
5 agency.

6 MS. MESERVE: Does the North Delta Water
7 Agency contract, in your opinion, replace or take away
8 your riparian and pre-1914 rights that are on file with
9 the Water Board?

10 WITNESS VAN LOBEN SELS: I would consider it
11 as an augmentation of it, not as a replacement. I
12 believe the pre-1914 and the riparian rights are
13 primary, and the North Delta Water Agency contract is
14 just a -- augments that right.

15 MS. MESERVE: Do you have concerns about water
16 quality in the North Delta as they relate to the ability
17 to use existing water diversions?

18 WITNESS VAN LOBEN SELS: With these new
19 diversions, any -- any reduction or removal of flow in
20 the Sacramento River in the north part of the Delta will
21 diminish flow downstream of those diversions. And that
22 will result in either increased salinity or -- and
23 changes in water quality, or reductions in the level of
24 the river which could impact the efficiency and the
25 ability to operate our diversions.

1 MS. MESERVE: Can you briefly explain why
2 you're concerned about the water level, how that would
3 affect efficiency and ability to operate the diversions?

4 WITNESS VAN LOBEN SELS: In the 1970s, there
5 were some temporary barriers placed within the river.
6 One of them was at Steamboat Slough, and it -- it
7 reduced the water level downstream from those. And it's
8 a perfect example of what happens. Pumps wouldn't work.
9 They were -- they were -- they were not in the water
10 anymore.

11 So any reduction in flow downstream of these
12 new diversions will result in some -- have to result in
13 some changes in the level of the river. And it's very
14 critical because our pumps, our diversion sites, are not
15 designed for what the new flow might be or the new
16 levels might be.

17 CO-HEARING OFFICER DODUC: Hold on,
18 Ms. Meserve.

19 Ms. Ansley?

20 MS. ANSLEY: Hi. Jolie-Anne Ansley for the
21 Department of Water Resources.

22 We were reluctant to stop the flow of
23 Mr. van Loben Sels' testimony, but we'd like to lodge an
24 objection to testimony outside the scope of his direct.

25 We believe that there is no testimony

1 regarding the North Delta contract and also the
2 testimony regarding temporary barriers. We will try and
3 minimize these type of objections, but we felt it was
4 time to lodge one.

5 CO-HEARING OFFICER DODUC: Ms. Meserve, your
6 response to that objection?

7 MS. MESERVE: I'll have to look at the details
8 of that. I've taken notes. If they're saying it's not
9 in there, I guess -- yeah, I think it would be best to
10 work this stuff out at the back end. I'm trying to keep
11 the questions within what's in the testimony. And I
12 apologize if that didn't happen.

13 MS. MORRIS: Stefanie Morris, State Water
14 Contractors.

15 I would join the objection. I don't think
16 it's appropriate to wait until the end. If you didn't
17 put the testimony in your written testimony, it's
18 surprise testimony, and it shouldn't be allowed in. And
19 we shouldn't even have to listen through it, because it
20 shouldn't become part of the record.

21 CO-HEARING OFFICER DODUC: Ms. Meserve, I
22 actually have pulled up Mr. van Loben Sels' testimony
23 right here, and I really do not see it either.

24 MS. MESERVE: I believe -- I mean, one of the
25 things with respect to the contract relates to the water

1 rights, so I think it's generally within. He does talk
2 about impacts to water level, and then his own personal
3 experience relates to when they put barriers in decades
4 ago and how that affected it. So I think it's within
5 the realm.

6 I would ask that we be allowed to present our
7 case in chief as others have without interruption.

8 CO-HEARING OFFICER DODUC: Ms. Ansley?

9 MS. ANSLEY: Respectfully, even though
10 topically we were talking about his water rights, you
11 know, he did not provide testimony regarding North Delta
12 contracts. So anything he says is essentially new and
13 surprise testimony.

14 I think that the rules are quite clear. I
15 think we could make a lot of tangential sort of
16 connections between his direct testimony which is on the
17 page and almost any topic, but I will leave it at that.
18 But he does not list the contract in his discussion of
19 water rights nor his views on the contract in terms of
20 interpretation.

21 CO-HEARING OFFICER DODUC: Mr. van Loben Sels,
22 are you testifying here today as an expert witness or
23 are you just offering -- not "just" -- but are you
24 offering your expert opinion based on your farming
25 operations?

1 WITNESS VAN LOBEN SELS: I'm presenting my
2 information based upon 47 years, which is a long time.
3 And, as such, I would say as an expert witness with
4 regards to those issues.

5 CO-HEARING OFFICER DODUC: All right.

6 MS. MESERVE: We have listed in our notice
7 that he is a percipient and/expert witness.

8 CO-HEARING OFFICER DODUC: Ms. Morris?

9 MS. MORRIS: The whole point of direct
10 testimony in writing is to provide the basis. And so
11 just saying experience and not expounding on it and then
12 now trying to add a whole new line of testimony that we
13 haven't had an opportunity to prepare for
14 cross-examination, is, in fact, surprise testimony.

15 CO-HEARING OFFICER DODUC: All right. I will
16 sustain the objection.

17 Ms. Meserve, I will ask you to proceed on a
18 different line of questioning.

19 MS. ANSLEY: Respectfully, we also, obviously,
20 move to strike that testimony. I'm sorry I didn't say
21 that earlier.

22 CO-HEARING OFFICER DODUC: So noted. Thank
23 you.

24 Ms. Meserve?

25 MS. MESERVE: I think we talked about your

1 concerns with water quality in the North Delta as they
2 relate to your intakes. Is there anything you want to
3 add to what you've already said?

4 WITNESS VAN LOBEN SELS: No. Just that any
5 reduction in flow will result in changes downriver which
6 will -- will affect water levels as well as water
7 quality.

8 MS. MESERVE: And you have diversions that are
9 right within the vicinity of the proposed petition we're
10 talking about, correct?

11 WITNESS VAN LOBEN SELS: Yes.

12 MS. MESERVE: And are you a trustee for a
13 reclamation district?

14 WITNESS VAN LOBEN SELS: Yes, I am.

15 MS. MESERVE: Tell me what reclamation
16 district and where it's located.

17 WITNESS VAN LOBEN SELS: I'm trustee on
18 Reclamation District 744, which is located in the area
19 of the Diversion No. 2. Diversion No. 2 is located
20 within the boundaries of Reclamation District 744.

21 MS. MESERVE: Mr. Long, could you please put
22 up on the screen Land 60?

23 Did you help develop this figure,
24 Mr. van Loben Sels?

25 WITNESS VAN LOBEN SELS: Yes, I did.

1 MS. MESERVE: And tell me how this figure was
2 made.

3 WITNESS VAN LOBEN SELS: So Reclamation
4 District 744 south boundary is there, east boundary and
5 north boundary is up above, west boundary is the
6 Sacramento River.

7 The green lines you see within -- on that
8 slide are the backbone of the drainage system for the
9 reclamation district.

10 The reclamation district drains back to this
11 point here, Stone Lakes, and that's where we -- we pump
12 water out.

13 So we have basically a drain that comes this
14 way. And then from here, it drains down that way and
15 comes back in over here.

16 The drainage system is also used for
17 irrigation. So diversion sites along the Sacramento
18 River, a lot of them pump directly into those ditches
19 and then are transported throughout the district for --
20 for repumping onto the land.

21 MS. MESERVE: And does this delivery and
22 drainage system, how does it work? Is it by pump or by
23 gravity?

24 WITNESS VAN LOBEN SELS: It's by gravity. So,
25 for example, the water is pumped from the river into the

1 irrigation district canals where the -- the reclamation
2 district canals.

3 From the point that it enters the canals, it's
4 handled by gravity. There are several different points
5 of -- where we have flashboard risers, we call them,
6 which will stop the water, hold it. And then it will
7 drop down to the next level, held there. And then from
8 there be pumped out if it's in excess.

9 MS. MESERVE: Now, in which -- can you please
10 point out which of the diversions is Amistad Ranch?

11 WITNESS VAN LOBEN SELS: So within the
12 footprint of the project, this is Amistad Ranch's
13 diversion. We have other diversions within the
14 district, but this is the one that will be obliterated
15 by the project.

16 MS. MESERVE: What kind of produce does
17 Amistad Ranch produce?

18 WITNESS VAN LOBEN SELS: Amistad Ranch
19 produces corn, wheat, safflower, alfalfa, tomatoes, wine
20 grapes, and in another location, pears.

21 MS. MESERVE: Mr. Long, could you put up
22 Exhibit DWR-2, Slide 21? And I have an excerpt there
23 for everybody.

24 You can go from my materials if you want.
25 Easier. DWR-2.

1 In your opinion, would the -- are you -- let's
2 scroll down, please, to Slide 21.

3 So, there again, can you locate on the map the
4 Amistad Ranch diversion?

5 WITNESS VAN LOBEN SELS: It's right there.

6 MS. MESERVE: So if we scroll up to the first
7 page of this excerpt of the PowerPoint, do you believe
8 that the petitioners -- are they claiming that you will
9 be temporarily affected and is this correct?

10 WITNESS VAN LOBEN SELS: That diversion site
11 will probably be permanently affected.

12 Any land that it -- that it provides water for
13 outside of the project or further into the project will
14 be -- will be permanently affected as well.

15 MS. MESERVE: And why would it be a permanent
16 impact?

17 WITNESS VAN LOBEN SELS: Because it is going
18 to be with that -- that pump won't be there. There will
19 be fish screens there.

20 MS. MESERVE: But whatever placement diversion
21 hooks up to that same distribution system we were
22 looking at in Land 60 and operate?

23 WITNESS VAN LOBEN SELS: So the temporary
24 diversion site would have to be placed in a position
25 where it could gravity-feed the land that it feeds

1 today. And I don't think there's the capability of
2 doing that because right in the middle of the district
3 is high point and it drains each way.

4 That diversion site that will be permanently
5 affected is on what I call the south part of the
6 district. And anything -- and the diversion site that
7 would replace it would be on the north side of the
8 district, which would gravity-feed the wrong way.

9 MS. MESERVE: So are you saying it wouldn't be
10 able to gravity-feed?

11 WITNESS VAN LOBEN SELS: That's correct.

12 MS. MESERVE: I would like to move on to
13 Land 58, if we could, please.

14 In addition to having diversions within -- if
15 we could just go to the same -- well, you can do it from
16 here, if you would like, but I have them all on the
17 drive.

18 So in addition to the diversions from the
19 river, we will turn to groundwater use in the area.

20 Are you familiar with this figure,
21 Mr. van Loben Sels, Land 58?

22 WITNESS VAN LOBEN SELS: Yes.

23 MS. MESERVE: What does it show?

24 WITNESS VAN LOBEN SELS: It shows the project
25 area as well as groundwater or wells that serve domestic

1 purposes, basically homes, within the vicinity of the
2 project.

3 As you'll notice, each of those homes, one,
4 two, three, four are outside -- five, are outside of the
5 boundaries of the project but very close to the project.

6 Within Reclamation District 744, there are
7 probably 21 groundwater wells all serving residences.

8 MS. MESERVE: Are there also ag wells in the
9 same area?

10 WITNESS VAN LOBEN SELS: No.

11 MS. MESERVE: Now, this Land 58, do you think
12 that it shows all the wells in the area or just some of
13 them?

14 WITNESS VAN LOBEN SELS: Just some of them.

15 MS. MESERVE: What's your concern with the
16 wells, generally, being adjacent to the project
17 proposal?

18 WITNESS VAN LOBEN SELS: Well, one of the
19 requirements to build this is to dewater the
20 construction area. And if you -- most of these wells
21 are probably 120 to 150 feet deep at the most. And if
22 you dewater the area of construction, those wells will
23 be dewatered as well.

24 MS. MESERVE: Anything else you would like to
25 say to the members of the board today?

1 WITNESS VAN LOBEN SELS: Well, one of my
2 concluding statements in my policy statement to you
3 earlier that was read by my son one of the first days of
4 this hearing is that I believe that there are more
5 efficient and more practical ways to approach diverting
6 Sacramento River water than building a project such as
7 this.

8 My -- my closing statement would be that this
9 project will damage legal water right users from the
10 location of the diversions all the way south throughout
11 the Delta.

12 MS. MESERVE: Thank you.

13 We will go on to Mr. Richard Elliot.

14 CO-HEARING OFFICER DODUC: Ms. Meserve, I have
15 a note here that you requested 15 minutes for
16 Mr. Elliot?

17 MS. MESERVE: Yes.

18 CO-HEARING OFFICER DODUC: I'm checking with
19 the court reporter.

20 We'll take a break after then. Is that all
21 right?

22 --o0o--

23 DIRECT EXAMINATION

24 MS. MESERVE: Let's see. Could you please
25 state your name and tell us a little bit about your

1 background as a farmer in the Delta, Mr. Elliot?

2 WITNESS ELLIOT: My name is Richard Elliot,
3 and I'm a -- our family has been in the Delta since the
4 1850s and I'm fifth generation. I'm a graduate from
5 Chico State as ag business. Been farming since I came
6 back from college and before that, started when I was
7 like 9. So I've been in the farming business all my
8 life and in the Delta all my life.

9 MS. MESERVE: And which reclamation districts
10 or other areas of the Delta do you farm?

11 WITNESS ELLIOT: We farm in Reclamation
12 District No. 3, 349, and 755, those reclamation
13 districts.

14 MS. MESERVE: Is there another area that
15 doesn't have an RD name already?

16 WITNESS ELLIOT: Yeah. It's the one where
17 they're putting Diversion No. 3 in. And it's more
18 taking -- it's not a reclamation district; it's run by
19 the County of Sacramento.

20 MS. MESERVE: If we could put up Land 7,
21 please.

22 What leadership positions do you hold related
23 to your farming activities in the Delta?

24 WITNESS ELLIOT: Well, I'm the operation
25 manager of the Stillwater Orchard. I'm a partner of the

1 operation. I belong to a number of grower groups:
2 California Pear Association and the California Fresh
3 Fruit Association and other groups.

4 MS. MESERVE: Why did you choose to
5 participate in this proceeding today?

6 WITNESS ELLIOT: Because we're as -- as -- you
7 know, we care about the Delta. We've been living in the
8 Delta all our lives. We make our living off the Delta.
9 You know, we believe of ourselves as caretakers of the
10 Delta. And we've done a pretty good job for a long,
11 long time, and we're very concerned what this project
12 will do. That's why we're here.

13 MS. MESERVE: How many acres in the Delta are
14 you involved in with farming or managing?

15 WITNESS ELLIOT: We manage, we farm
16 1500 acres.

17 MS. MESERVE: What kind of produce does
18 Stillwater Orchard produce and where's that sold?

19 WITNESS ELLIOT: We grow -- our main variety
20 of -- our commodity is pears, and we grow about ten
21 different varieties. We also grow cherries, kiwis,
22 apples.

23 And we're not only growers, we're packers. We
24 pack all our own fruit. And we also do all our own
25 sales. And the fruit goes all over United States, all

1 over pretty much -- we ship South America, Canada,
2 Mexico, and all the restaurants around Sacramento
3 locally, retailers locally.

4 MS. MESERVE: With respect to your operations,
5 we do have Land 7 up here. What does this figure show
6 on it in terms of your operations?

7 WITNESS ELLIOT: You want all of them?

8 MS. MESERVE: Just in general. Thank you.

9 WITNESS ELLIOT: Well, this is where the
10 diversion that's going to affect us right here, this
11 one. We grow -- we grow all the way down the
12 Sacramento River. Even south we have some, south where
13 it doesn't go.

14 All those triangles are diversions that we
15 have. We have about 10 diversions that I think we're
16 showing there. We have a total of 15 diversions.

17 So -- and the other thing you can notice is
18 that when -- our family's always bought property along
19 the Sacramento River and Steamboat and always by a
20 river, because we believe in the water rights of
21 riparian very much.

22 MS. MESERVE: What kind of water rights do you
23 believe you hold?

24 WITNESS ELLIOT: I believe we -- well, we have
25 the pre-1914 water rights, riparian water rights, and

1 the North Delta Water Agency water rights.

2 MS. MESERVE: Are these water rights reflected
3 in materials on file with the Water Board?

4 WITNESS ELLIOT: Yes, they are.

5 MS. MESERVE: Currently, are you able to
6 divert water to irrigate your orchard and crops at any
7 time you feel the orchard needs irrigation?

8 WITNESS ELLIOT: Yes, we do.

9 MS. MESERVE: Do you ever, at this time, have
10 to be concerned about the water quality not being
11 adequate for irrigation?

12 WITNESS ELLIOT: At this time, no. We've
13 never -- water where we are located has always been
14 fairly good quality water.

15 MS. MESERVE: What are your concerns about
16 water quality in the North Delta if the points of
17 diversions are located in the area shown on this figure,
18 the new ones?

19 WITNESS ELLIOT: Well, if these diversions
20 here, everything south of here of those diversions that
21 were going to be affected.

22 So my end, I believe that the -- you know,
23 we'll have water levels, difference in water level, and
24 of quality of the water. And maybe even, I believe,
25 reverse flows.

1 MS. MESERVE: What kinds of diversions does
2 your operation use?

3 WITNESS ELLIOT: These are all direct
4 diversions out of the Sacramento River and Steamboat and
5 Sutter Sloughs.

6 They're all -- they're all -- not syphoned,
7 but they're pressure pumps. So they have to be -- so
8 you syphon the water and then you have these pressure
9 pumps to pump it. So they're not direct syphon pumps.

10 MS. MESERVE: Now, let's go ahead and look at
11 Exhibit DWR-2, Slide 22, if we could. It's in that same
12 excerpt we were looking at before, if that's easier, at
13 the top.

14 If we could scroll down to Slide 22. This is
15 the footprint shown for diversion -- what's called
16 Diversion No. 3 of the proposal. Can you show me where
17 your diversion is on this map?

18 WITNESS ELLIOT: Okay. Our diversion for this
19 property is right there.

20 MS. MESERVE: What is that property? What do
21 you call that?

22 WITNESS ELLIOT: We call this our Rose Orchard
23 property, this whole Rose Orchard.

24 MS. MESERVE: And why do you call it
25 Rose Ranch?

1 WITNESS ELLIOT: Well, we used to own piece of
2 property in West Sacramento, and we call that one Rose.
3 That was taken over actually by developers, by the
4 eminent domain on a freeway that went through it. So we
5 lost that ranch and then we bought that ranch.

6 CO-HEARING OFFICER DODUC: Please hold on.

7 Mr. Herrick?

8 MR. HERRICK: John Herrick, South Delta Water
9 Agency. I just want to say, at times here the witnesses
10 are saying, "Here on the maps," which doesn't reflect in
11 the record. So if we could have some slight description
12 of, you know, the S number next to it to the left or
13 something like that just so we can.

14 CO-HEARING OFFICER DODUC: Very good point,
15 Mr. Herrick. Thank you.

16 MS. MESERVE: Maybe you could read the S
17 number that we're talking about that's associated with
18 Rose Ranch.

19 WITNESS ELLIOT: Okay. I'm talking about
20 S016915 diversion.

21 MS. MESERVE: I will point out for the record
22 also that on page 2 of Mr. Elliot's testimony, there's a
23 typo with respect to the diversion number and we will
24 correct that in an errata, but that is the very same
25 diversion.

1 Okay. Now what does Rose Ranch produce?

2 WITNESS ELLIOT: Rose Ranch produces -- it
3 produces pears, they have the Bosc pears, Hailey Red
4 pears; a number of varieties of cherries. It has Fuji
5 and Gala apples. So it's all planted in tree crops.

6 MS. MESERVE: And scrolling up to Slide 19, if
7 we could, please.

8 What's your understanding, Mr. Elliot, of
9 what's being proposed by petitioners with respect to the
10 Rose Ranch diversion?

11 Let me ask you this way: Is this considered a
12 temporary impact or a permanent impact?

13 WITNESS ELLIOT: They're going to remove --
14 you know, with the diversion that they're going to be
15 putting in, I will lose permanently my ability to pump
16 water out of the Sacramento River. So my diversion will
17 be gone permanently.

18 MS. MESERVE: In your view, Mr. Elliot, is
19 this indeed a temporary impact on your diversion and
20 your operations and use of water?

21 WITNESS ELLIOT: No, I don't believe it's
22 temporary. I believe it's a permanent loss.

23 MS. MESERVE: Can we look at Land 57, please?

24 For the record, that last slide was DWR-2
25 errata. And that's what I did excerpt it from.

1 Can you show me again on this figure -- sorry.
2 This labeled -- okay. This is Diversion 2. Can you
3 show me again where the Rose Ranch is located on this
4 figure, please?

5 WITNESS ELLIOT: It's not on that map yet.

6 Well, it's going to be.

7 MS. MESERVE: Scroll down, if you would, to
8 Diversion 3.

9 There we go.

10 MS. MESERVE:

11 If you could just show -- this is a better
12 picture -- where the Rose Ranch is located here, please.

13 WITNESS ELLIOT: That's in this area here.

14 CO-HEARING OFFICER DODUC: Could you describe
15 what you're pointing at for the record?

16 WITNESS ELLIOT: I am pointing at the
17 boundaries of Rose Orchard. And it runs along, goes
18 down the back slough here, comes across. This is a
19 railroad track. Comes across, goes to Sacramento River,
20 runs along. That's -- there's a diversion right there.
21 The shop, a little house is located right there, and the
22 driveway to get to the property is right there.

23 MS. MESERVE: Now, if you could just describe
24 how -- this picture shows generally what part of Rose
25 Ranch would be taken. How would that interfere with

1 your operations and uses of water at Rose Ranch?

2 WITNESS ELLIOT: Well, the way the system
3 works is that we have a diversion in its location here
4 and it's -- a main line goes through the middle and
5 irrigates all this.

6 MS. MESERVE: When you say "here," where do
7 you mean?

8 WITNESS ELLIOT: I mean the diversion point
9 that I stated before.

10 MS. MESERVE: On the Sacramento River?

11 WITNESS ELLIOT: Sacramento River.

12 MR. KEELING: The difficulty is that words
13 like "here" and "this" will not mean a thing on the
14 written record. So we need to reference those with
15 something, some physical aspect of the slide. For
16 example, the bulge out at the center left-hand side, the
17 bulge of the river might have been a reference point, if
18 that helps.

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

21 MS. MESERVE: Okay.

22 CO-HEARING OFFICER DODUC: Very helpful for a
23 Stanford guy.

24 MS. MESERVE: Is there anything else you
25 wanted to say about Rose Ranch? I wasn't sure if you

1 were finished.

2 WITNESS ELLIOT: Well, we're going to talk --
3 I wanted to talk about the wells that are out there. I
4 have one well that's right there.

5 CO-HEARING OFFICER DODUC: "Right there" is?

6 MS. MESERVE: Let's go ahead and show Land 50.
7 I think that will assist. Let's try to use descriptive
8 terms, Mr. Elliot, if we could.

9 MS. McCUE: What page of Land 57 was that?

10 MS. MESERVE: Page 2. There's three figures
11 together.

12 We're looking at Land 58. If you could
13 describe, Mr. Elliot, what this shows.

14 WITNESS ELLIOT: It's showing our Rose Ranch
15 location and it's showing boundaries.

16 MS. MESERVE: Which is where? Under which
17 intake proposed by the project?

18 WITNESS ELLIOT: It's showing Intake No. 3.

19 MS. MESERVE: And the little green marks, what
20 do those show?

21 WITNESS ELLIOT: The little green marks are
22 showing the wells that are on our property and other
23 properties along the -- the area where the project is
24 going to be.

25 MS. MESERVE: Do you have any idea just as an

1 estimate how many groundwater wells may be in the area
2 shown on this map which is including both Intake 2 and 3
3 as numbered by the petitioners?

4 WITNESS ELLIOT: I would say it's showing 12.
5 There's quite a few more. There's one in this location
6 by the -- by the Sacramento River. It's a domestic
7 well.

8 MS. MESERVE: Is that on the Rose Ranch,
9 Mr. Elliot?

10 WITNESS ELLIOT: That's on the Rose Ranch,
11 yes.

12 MS. MESERVE: Then if we could talk about the
13 well marked as W12. Is that also on Rose Ranch?

14 WITNESS ELLIOT: W12 is right there. That's
15 on the Rose Ranch.

16 MS. MESERVE: Is that an agricultural well?

17 WITNESS ELLIOT: It is.

18 MS. MESERVE: What do you use that water for?

19 WITNESS ELLIOT: We use it for irrigating and
20 also for watering -- using it to water roads and spray
21 outlets, for spraying.

22 MS. MESERVE: And what is your concern about
23 the operation of these wells if the tunnels and intakes
24 and associated facilities would be built?

25 WITNESS ELLIOT: Our concern is the -- as they

1 dewater the area, even though we're outside the
2 boundaries on W12, I'm not sure we know where that is
3 being supplied. They could be shutting off the water
4 that is coming -- the aquifer that I'm using to use that
5 well. So that's our concern, is what happens when they
6 start the dewatering process.

7 MS. MESERVE: And did you have other
8 construction-related concerns during the extended
9 construction period that it would take to build this
10 project?

11 WITNESS ELLIOT: Yeah. In our experience with
12 our Rose Ranch that was in West Sacramento, once the
13 project -- once the freeway went through and -- it
14 became very hard to farm. We had crews out there.
15 Certain days we couldn't spray our necessary sprays. We
16 couldn't irrigate because they -- it just -- it became a
17 real problem to just farm next to us over a site. So
18 that's one of our concerns.

19 The drainage of the -- whatever is going to be
20 left. There's tiles and drainage. We don't know the
21 effect and how that's going to be. We feel we're going
22 to be affected and damaged at that point because the
23 drainage -- if you look at this line right here, Hood is
24 drained -- Town of Hood is drained through here on --
25 goes through our property, goes down and goes over here,

1 and is -- everything -- all the water is deployed into
2 the slough over here. This will be all affected, the
3 drainage from coming from Hood.

4 MS. MESERVE: Excuse me. I'll move on to --

5 MR. KEELING: Well, let the record reflect
6 that the laser pointer that was doing part of the
7 testimony at that moment was directed to the bottom
8 center quarter portion of this slide.

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

11 MS. MESERVE: Okay. Just to get -- to mention
12 something that -- were you also concerned about the
13 ability to get your produce to market in terms of
14 access?

15 WITNESS ELLIOT: Yes. During the harvest
16 time, I don't know what to expect with traffic and
17 trucks being stopped and things like that. But it's
18 very important that we have timely matter to get trucks
19 in and get trucks out. We feel that the trucks -- we
20 could lose market share business and have a problem with
21 maybe losing some of our markets through the fact that
22 we can't get the retailers' trucks in and out of the
23 Delta fast enough, and so they'll go somewhere else.

24 CO-HEARING OFFICER DODUC: Thank you.

25 Hold on a second, Ms. Meserve.

1 Ms. Ansley?

2 MS. ANSLEY: Jolie-Anne Ansley for the
3 Department of Water Resources.

4 Just, respectfully, we'd like to lodge an
5 objection here for the record that we find no testimony
6 concerning alleged impacts to drainage in Mr. Elliot's
7 testimony.

8 In addition, we find testimony concerning one
9 well not identified by number.

10 Thank you.

11 CO-HEARING OFFICER DODUC: Ms. Meserve,
12 response for the record?

13 MS. MESERVE: I believe that his testimony
14 goes into the fact that he works on -- the water
15 delivery and drainage is sort of two sides of the same
16 coin in the Delta.

17 So I believe it's encompassed. I will take a
18 look at that for purposes of submitting that evidence at
19 the end of the process.

20 CO-HEARING OFFICER DODUC: That's not
21 necessary. There's enough of a linkage there, in my
22 opinion. Objection overruled.

23 Proceed, Ms. Meserve.

24 MS. MESERVE: With respect to the Rose Ranch,
25 briefly, what other concerns do you have in terms of the

1 portion of ground and the diversion that would be under
2 the footprint that could be taken by this project if it
3 was approved?

4 WITNESS ELLIOT: On our Rose Ranch, if you
5 look at Diversion 3, it's going to cut -- it's going to
6 cut the ranch in half. And it's going to not allow me
7 to have access to the river.

8 And so if we're left with the part -- the
9 partial property to the east and not have access to the
10 river, we have been -- we have lost our riparian water
11 rights to that parcel.

12 And that's, to us, since we've always figured
13 that that was one of our most important water rights, we
14 feel that we've been -- that will be a big impact as
15 well.

16 MS. MESERVE: And in terms of the quality of
17 the land, how would you compare the part that's proposed
18 to be taken by the Intake 3 versus the part that you
19 might have left?

20 WITNESS ELLIOT: Well, everybody knows in the
21 farming community that the property that's right along
22 the Sacramento River is the best ground.

23 As you go away from the river, the ground gets
24 a little -- it gets clayier and it's not as good. So
25 I'm losing the best part of the ranch.

1 MS. MESERVE: And if -- do you think that if a
2 replacement diversion could be provided that the rest of
3 the orchard could be viable?

4 WITNESS ELLIOT: I believe you could irrigate
5 it and take care of it, but I don't know if it's going
6 to be economical because you're gone taking a big chunk
7 of the best ground. The piece works as a whole right
8 now because you have good areas and you have bad. But
9 as you cut it up and take the best, the bad's -- what's
10 left is not going to be economically possible.

11 MS. MESERVE: Thank you. Now, is there
12 anything else you'd like to add to your testimony before
13 you conclude, Mr. Elliot?

14 WITNESS ELLIOT: I'm fine. Thank you.

15 CO-HEARING OFFICER DODUC: All right. Thank
16 you, Mr. Elliot.

17 Before we take our break, though, I need to
18 correct something I said earlier, which, unfortunately,
19 is not going to be in your interest, Ms. Meserve.

20 Ms. Heinrich has refreshed my memory that your
21 initial exhibit Land 37, which was Mr. Tootle's
22 PowerPoint, was actually the one that consisted of two
23 maps. And your revised Land 37 was the more extensive
24 PowerPoint instead of the other way around, which is
25 what I was thinking of this morning.

1 So to be consistent with our ruling last week
2 with respect to Mr. Ringelberg, I'm hereby directing
3 you, in conducting your direct of Mr. Tootle, to stick
4 with the initial submission that was made.

5 MS. MESERVE: To be clear in case there's any
6 lack of clarity, does it matter that -- like, for
7 instance, there's two slides and then it goes to
8 DWR-212, page 55. So it's just a replication of
9 something in the record already and then --

10 CO-HEARING OFFICER DODUC: Hold on. Slow
11 down, Ms. Meserve. To what are you referring? I have
12 Land 37, and I have Land 37 revised.

13 MS. MESERVE: Right. I'm referring to the
14 errata, and I guess I'm just point out -- I mean, I can
15 have Mr. Long jump around and find these things. But I
16 guess it would be nice to just be able to go through it
17 because, like I said, the third page is just DWR-212,
18 page 55. The next page is just the figure from the
19 slurry cutoff walls in DWR-218. And then the next page
20 is just the Land 58 that we've been looking at in
21 another map that came out of DWR's case in chief.

22 So, I mean, I just --

23 CO-HEARING OFFICER DODUC: I know. And I
24 appreciate that you're trying to be helpful with this
25 late submission in order to guide the direct testimony.

1 My concern is, given the number of parties
2 involved, the potential for numerous late submissions or
3 PowerPoints is something I want to discourage. That's
4 why we have the deadlines.

5 And I do appreciate the intent was to be
6 helpful; but just to be consistent, I'm going to ask you
7 to stick with what was initially submitted.

8 MS. MESERVE: Okay.

9 CO-HEARING OFFICER DODUC: Thank you.

10 With that, we will take our 15-minute break,
11 and we'll resume at -- that clock is wrong. We will
12 resume at 11:00 o'clock.

13 (Off the record at 10:43 a.m. and back
14 on the record at 11:00 a.m.)

15 CO-HEARING OFFICER DODUC: Thank you,
16 everyone. It is 11:00 o'clock. We are back in session.

17 Ms. Meserve, please move to your next witness.

18 MS. MESERVE: Thank you.

19 Just to clarify -- I think I might have
20 skipped over an important item. Just to clarify,
21 Mr. Elliot, is Land 25 a true and correct copy of your
22 testimony?

23 You thought you were done. I'll come back to
24 you.

25 Mr. van Loben Sels, is Land 30 a true and

1 correct copy of your testimony?

2 WITNESS VAN LOBEN SELS: Yes.

3 MS. MESERVE: Thank you.

4 WITNESS ELLIOT: Yes, it is.

5 MS. MESERVE: Thank you.

6 CO-HEARING OFFICER DODUC: I think it's a very
7 good sign that he checked and didn't just immediately
8 answer.

9 MS. MESERVE: That's right.

10 We'll move on to Mr. Daniel Wilson, who is our
11 third witness today.

12 --o0o--

13 DIRECT EXAMINATION

14 MS. MESERVE: And, Mr. Wilson, is Land 20 a
15 true and correct copy of your testimony?

16 WITNESS WILSON: Yes, it is.

17 MS. MESERVE: If we could look at DWR-2,
18 Errata Slide 21, again, Mr. Long.

19 Can you show me on this figure where your
20 property is located?

21 WITNESS WILSON: My property is located about
22 the center of the illustration Intake 2 diversion. It
23 is near S019377, which is a diversion point that's there
24 for a small parcel. It's Assessor's Parcel
25 No. 132-0010-0010, commonly referred to as the Snook,

1 S-N-O-O-K, Ranch.

2 MS. MESERVE: Now looking at Land 57 and the
3 Intake 2 figure, I'll ask you to identify your property
4 on that same figure that we were looking at before,
5 please, once it comes up.

6 WITNESS WILSON: Yes. Our property is, again,
7 about the middle of the exhibit. And it's the same
8 assessor's parcel number ending with 002.

9 MS. MESERVE: Thank you.

10 Now, if we could pull up Land 69. And I have
11 the excerpt, but if you have to scroll through from the
12 Web page, it will be page 91.

13 Now, looking at this page of the property
14 acquisition plan for the Delta Habitat Conveyance
15 Program, can you see your APN number on page 91?

16 WITNESS WILSON: I saw it go by a couple
17 times. It's at the top --

18 MS. MESERVE: I'm sorry. I believe it might
19 be PDF page 91.

20 WITNESS WILSON: Okay. Stop.

21 MS. MESERVE: Thank you.

22 WITNESS WILSON: It's the top number, again,
23 the assessor parcel number ending 002 transmission line.
24 The first entry there, that is our property. And it's a
25 substation intake and intake work area.

1 And, yes, there is a single-family residence,
2 but it's on a smaller different parcel.

3 MS. MESERVE: Okay. Mr. Wilson, why don't you
4 go ahead and provide a summary of your testimony, and
5 then I'll have a couple follow-up questions for you at
6 the end of that.

7 WITNESS WILSON: My name is Daniel Wilson. I
8 graduated Davis with an engineering degree in mechanical
9 engineering. I've been involved with farming and water
10 and floods all my life.

11 I sit or have sat on several reclamation
12 districts over the years and dealt with a lot of these
13 issues. I'm a sixth generation farmer. And I also have
14 a -- run a farm management company, and we are
15 responsible for maintaining and reporting on about 50 to
16 60 water diversions in the Delta.

17 I also manage the only grain facility in
18 Isleton in the middle of Delta.

19 On a personal note, got very interested in
20 this project when the original plan had designated our
21 farm as a muck pit site and my house as a muck pit site,
22 which is essentially where the muck is placed that comes
23 out of the tunnel. That got me focused on this project
24 and its impact on the Delta.

25 The configuration has since been moved, I

1 think in part because of me pointing out that it's
2 probably a bad spot to put it.

3 The three things that are focusing my
4 attention here is -- one is Parcel 132-001002 is
5 completely and totally destroyed. It's been in my
6 family for three generations. And, you know, that's a
7 pretty obvious physical harm.

8 It's also equally obvious to me that the
9 60 to -- 50 to 60 diversions that I'm responsible for
10 will be negatively impacted by lowered head levels. And
11 various studies have been done by the DWR and other
12 folks that it will be at least a foot or perhaps 2 feet
13 when the thing is fired up full blast. And that will
14 stop syphons from running and that will stop turbine
15 pumps from running correctly, and it will impact our
16 ability to irrigate.

17 In a little more vague world, the effects on
18 salinity to me are sort of obvious. I've done some
19 modeling of things for flood control, not for low flow.
20 But it's pretty clear to me that if you divert
21 9,000 cubic feet a second up in Sacramento, it's going
22 to cause backflow and salinity intrusion. And we farm
23 all the way from the northern intake to sort of the
24 middle of Grand Island, so we're affected all along the
25 line there in various degrees.

1 The example of the salt dams were brought up.
2 And that's where we as Delta people have seen a clear
3 example of this kind of situation handling.

4 There's been a lot of discussion that the
5 regulations will protect us from fish flows and salinity
6 flows and this and that, but there's a general feeling
7 that if the DWR has the ability to make water move
8 backwards, they'll ultimately use it despite the
9 regulations.

10 That's kind of the attitude that we've had
11 since the peripheral canal; that if the plumbing exists
12 to suck the water backwards, it will happen.

13 I guess I would wrap it up that my main reason
14 for being here is very specific; that -- that our
15 orchard up in the northern part of the Delta at
16 Intake No. 2 will be completely and thoroughly destroyed.
17 Having a temporary diversion to take care of that is not
18 even relevant to us because the orchard will not exist
19 anymore. So I would class that as a permanent damage.

20 I think that pretty much summarizes my
21 testimony.

22 MS. MESERVE: Mr. Wilson, could you tell us
23 what you -- what produce is grown at Snook Ranch?

24 WITNESS WILSON: It's a diversified pear
25 operation. It has Bartlett pears, Bosc pears, a couple

1 varieties of red pears.

2 We run a packing facility, and we have to be
3 able to provide different varieties of pears at
4 different times of the year, very similar to the L.A.
5 operation. And it is a kind of key piece of property to
6 provide these different types of pears.

7 MS. MESERVE: Could we have Land 57 on the
8 overhead, please? On the first page.

9 So just to clarify, Mr. Wilson, can you point
10 out and use your words to show --

11 WITNESS WILSON: Use my words --

12 MS. MESERVE: Sorry. We've already identified
13 your parcel here. I guess the question is just if it's
14 the parcel ending in 0002. So would any part of your
15 orchard be left at Snook Ranch if Diversion No. 2 was
16 constructed?

17 WITNESS WILSON: No. If you look at the way
18 the drawing is done and several other drawings I've
19 seen, the entire parcel, the entire Snook Ranch
20 Parcel 002 will be obliterated.

21 An earlier iteration of this when they were
22 not gravity, they were just pumps, actual physical pumps
23 were on that property. So it's my belief that that
24 property is dead center to Intake No. 2.

25 MS. MESERVE: Would you consider that to be an

1 injury to your water uses if that all occurred?

2 WITNESS WILSON: Yes. I mean, I would have no
3 water use up there because I wouldn't exist anymore. I
4 guess that's pretty much an injury.

5 MS. MESERVE: Thank you, Mr. Wilson.

6 Is there anything else you'd like to add to
7 your testimony?

8 WITNESS WILSON: No. I think I would be
9 inclined to reiterate what we've all said; that we all
10 feel there's more practical ways to do this. And we've
11 been sort of wrestling with this issue for 30, 40 years,
12 and we'll continue to as long as we can.

13 Thank you.

14 MS. MESERVE: Move on to our expert witness,
15 Joe Tootle.

16 --o0o--

17 DIRECT EXAMINATION

18 MS. MESERVE: So, Mr. Tootle, have you
19 reviewed Land 36, your statement of qualifications?

20 WITNESS TOOTLE: Yes, I have.

21 MS. MESERVE: And did you prepare that?

22 WITNESS TOOTLE: I did.

23 MS. MESERVE: Is it an accurate statement of
24 your qualifications?

25 WITNESS TOOTLE: Yes.

1 MS. MESERVE: Can you explain just in a little
2 bit more detail what you believe your qualifications are
3 to opine on the injury to water users from this
4 proposal?

5 WITNESS TOOTLE: As a licensed civil and
6 geotechnical engineer, I've been practicing for over
7 20 years in Northern California, primarily in
8 San Francisco Bay area and the Central Valley of
9 California.

10 Over my career, I've had the great fortune to
11 work on many projects, both small and very large, both
12 private development projects as well as public
13 infrastructure projects.

14 It's also been my privilege to have seen the
15 vast majority of those projects move into construction.
16 I've worked on both design and then seeing them be
17 built. I've watched them be relatively successful in
18 their performance.

19 It's really that experience watching a project
20 go from design to construction where I've gained a very
21 great respect for the potential variability that exists
22 underground, particularly these -- these projects that
23 have large subsurface components to them where you do
24 large amounts of design level exploration to figure out
25 what is in the subsurface. And even with very intensive

1 subsurface explorations, the changes that you encounter
2 are very -- are very great and oftentimes humble you as
3 an engineer, and you need to adapt your designs to
4 accommodate those.

5 So this project is no different in my
6 perspective. It's a very large below-grade project
7 that's going to include lots of earthwork. And the
8 potential variability of the subsurface soil is great,
9 in my opinion, and the amount of data collected so far
10 is very small. There's not very much data, in my
11 opinion, to reach some of the conclusions that I think
12 the project proponents have.

13 MS. MESERVE: Mr. Tootle, before we get too
14 far into that, is Land 35 a true and correct copy of
15 your written testimony submitted here, revised?

16 WITNESS TOOTLE: Yes, it is.

17 MS. MESERVE: Have you reviewed the land
18 exhibits submitted in connection with your testimony,
19 including Land 58, 59, and 65?

20 WITNESS TOOTLE: I have.

21 MS. MESERVE: And are those exhibits true and
22 correct copies of the documents you used or relied on in
23 forming your opinions in this matter?

24 WITNESS TOOTLE: They are.

25 MS. MESERVE: If we could just pull up

1 Land 58, the Sac County wells map, for a moment.

2 And if you could describe for us just very
3 briefly why you believe this map is relevant and
4 reliable enough to rely on for your testimony.

5 WITNESS TOOTLE: The location of the map
6 relied on many sources, both, you know, users of the
7 groundwater, either domestic and/or irrigation, as well
8 as contractors that have been hired to install these
9 facilities, as well as just general understanding of the
10 civil works of the area.

11 For example, if there is a residence that is
12 drawing -- that is using water and is nonmunicipal water
13 system, the logical conclusion is that they're using a
14 domestic water well.

15 So these locations represent some of the wells
16 that are being used in this particular location that
17 have potential to be negatively impacted by this
18 project.

19 MS. MESERVE: Then if we could just pull up
20 the Land 59.

21 Is there anything that you would want to add
22 with respect to the figures that were prepared to show
23 examples of San Joaquin County groundwater wells in
24 relation to the project?

25 WITNESS TOOTLE: The data sources are similar

1 in nature. Although San Joaquin County, some of these
2 maps, they do have permitting process through the county
3 health department where they do have records of latitude
4 and longitude or APN numbers for wells.

5 So in addition to the other sources of
6 information I referenced, some of these San Joaquin maps
7 relied on some of those databases to collect the well
8 locations.

9 MS. MESERVE: Can you explain why -- why the
10 wells -- why the San Joaquin County and Sac County
11 representative well maps focused on the areas around the
12 tunnels?

13 MR. TOOTLE: I think the intent of the maps
14 that show wells in close proximity to the project, both
15 tunnels as well as the intake structures and other
16 components of the project, will go to demonstrate that
17 the proximity of the wells to these projects is what
18 could result in the injury to the users of those water
19 wells if the project is constructed as proposed.

20 MS. MESERVE: Now, just looking briefly at
21 another source that you used, Land 65, is that Volume II
22 of the conceptual engineering report for the project?

23 As an alternative, we could look at Land 2 as
24 an excerpt. Okay.

25 Is this the document that you used?

1 WITNESS TOOTLE: Yes, it is.

2 MS. MESERVE: Why did you think that the map
3 book from the conceptual engineering report would be
4 relevant?

5 WITNESS TOOTLE: I think it provides the -- a
6 lot of relevant geotechnical information to the project
7 and provides the information that I relied on to form my
8 opinions as a geotechnical engineer.

9 MS. MESERVE: Now, in terms of the other maps
10 that were prepared as figures, rather, that were
11 prepared as part of this case in chief by BSK including
12 Land 3, 4, 5, 7, and 12, are these the kind of diagrams
13 that you generally see in your work and rely on to make
14 assessments about impacts in other matters?

15 WITNESS TOOTLE: They're representative, yes.

16 MS. MESERVE: Did you find anything -- did you
17 feel that they had adequate foundation and were prepared
18 in the typical course of business for engineering or
19 practice in terms of being a conceptual rendering?

20 WITNESS TOOTLE: I think some of the
21 subsurface data is less than what I typically see when
22 you prepare some conceptual or preliminary drawings. As
23 a geotechnical engineer, we typically like to see more
24 subsurface data than less.

25 That was one thing I did note, was that lack

1 of information.

2 MS. MESERVE: But as an example of what might
3 be there, did you find it instructive at all?

4 WITNESS TOOTLE: Yes. I think it gave a very
5 basic concept of what could be there.

6 MS. MESERVE: Do you believe that the wells
7 shown in Land 58 and 59, do you -- in your experience,
8 do you believe that's all the wells in the area or just
9 a sample?

10 WITNESS TOOTLE: Based on my experience, it is
11 very likely only a sample. It is very likely that
12 there's a lot more wells out there than are just shown
13 on those exhibits.

14 And I don't believe the intent of those
15 exhibits was to be an exhaustive presentation of all the
16 wells in area.

17 MS. MESERVE: Thank you.

18 And now, if you could just go ahead and
19 proceed with your testimony using the exhibits and not
20 the errata PowerPoint, please.

21 WITNESS TOOTLE: Sure. I guess I'll start off
22 by saying the intent of the errata wasn't to introduce
23 new testimony as much as it was to take existing
24 information and put it in a concise format out of
25 respect for the time of this panel.

1 But I think if we could pull up page 25 from
2 DWR-212, it might help.

3 I thought I'd take a few minutes, even though
4 I know the panel is very knowledgeable of the project,
5 just to describe a few components as they're relevant to
6 the context of the testimony I provided. Although I'll
7 try not to go too fast out of respect for the court
8 reporter.

9 CO-HEARING OFFICER DODUC: Before you proceed,
10 Mr. Tootle, Ms. Meserve had requested a total of an hour
11 and 20 minutes for her direct.

12 You're about to run out of the first hour. I
13 assume you would still like that additional 20 minutes
14 for Mr. Tootle?

15 MS. MESERVE: Yes, if we may. I think that I
16 had put an hour and 23 minutes, it looks like what it
17 added up to. But, yes, I think I had marked 30 minutes
18 for Mr. Tootle. We will try to proceed quickly.

19 CO-HEARING OFFICER DODUC: Let's go ahead and
20 put an additional 20 minutes for Ms. Meserve.

21 MS. MESERVE: Thank you.

22 WITNESS TOOTLE: I don't know if it's possible
23 to scroll down so that the entire alignment is on the
24 screen; but, you know, obviously the project has several
25 components but includes several intakes. The northern

1 reaches of the project, relatively small diameter and
2 relatively shallow tunnels that lead from the intakes to
3 Forebay and then relatively deeper or relatively larger
4 diameter tunnels that proceed south through a series of
5 vertical shafts to Clifton Court Forebay.

6 So many of these components are intended to be
7 constructed in the dry, meaning that the groundwater
8 will be lower in order to facilitate the construction.
9 Some of these components, like the intakes and the
10 shafts, are those examples.

11 The tunnel itself is anticipated to be
12 constructed essentially in the wet. And so the
13 construction techniques are obviously different for
14 those two types of construction.

15 When you go to build a structure that's below
16 grade, below the groundwater table, and you want to do
17 it in the dry, you obviously have to remove that water.
18 And so that's what the project was proposing.

19 When you do that, you end up not just drawing
20 down the water at the construction site but beyond the
21 footprint of the construction site, which will have
22 definite impact on the wells that are close by and to
23 those users.

24 To prevent that injury, the project did, in
25 later stages, add slurry cutoff walls around the

1 perimeter of these work sites. Slurry cutoff walls are
2 a relatively common technique to prevent the groundwater
3 from being drawn down outside the construction site.
4 They're vertical barriers to horizontal groundwater
5 flow. They do work very effectively if they're
6 constructed properly.

7 But one thing that appeared to be overlooked
8 when -- when I looked at the documentation was that
9 these structures are permanent structures. They're
10 being put in place to prevent a temporary construction
11 phase impact although they remain in the ground and will
12 remain as horizontal barriers or barriers to horizontal
13 groundwater flow following construction of the project.

14 That's relevant when you look at the
15 complexity of the subsurface soils and how those
16 barriers are a likely danger to adjacent water users.

17 The tunnels themselves, like I said, would be
18 constructed essentially in wet. There are no slurry
19 cutoff walls proposed there.

20 But particularly the southern tunnel, it's a
21 large diameter tunnel, wells in the adjacent vicinity
22 are screened at the depth that the tunnel will be
23 constructed at.

24 And the tunnel is going to be impermeable;
25 it's a concrete structure. So it will act as a

1 permanent barrier to horizontal groundwater flow within
2 the footprint and depth of the tunnel itself.

3 If you go to, I think, Land Exhibit 40, I'll
4 try and explain why, you know, some of these features
5 are likely to injure adjacent users of water.

6 So the exhibit that should be coming up is a
7 geologic map prepared by the U.S. Geological Survey.
8 It's in an area of -- I guess it's going to be -- sorry.
9 I don't have the page number. You might have to go to
10 maybe page 20. Might take a while to get there.

11 It's labeled "Baldwin Island."

12 MS. MESERVE: For clarification, we can use
13 the original PowerPoint which included this map to
14 Land 37.

15 WITNESS TOOTLE: If there's an easier way to
16 get to it.

17 Here we go. It might be a little hard to see
18 at this scale. But the intent of the geologic map was
19 to present the complex nature of the deposits at the
20 ground surface. You can see the distributary channel
21 nature of the area. You have a lot of meandering
22 channels that cut through the ground surface.

23 This map is -- these types of maps are
24 generally prepared through historical aerial photograph
25 review and confirmation on the ground of what the

1 geologists observe in the aerial paragraphs.

2 And so there's some -- there's obviously the
3 active channels that you can see on the surface. These
4 squiggly lines that are all over the map are the
5 channels as they are approximately existed although you
6 can see dash lines in many locations where these --
7 where former historic channels used to be located that
8 are now filled in and abandoned either through natural
9 processes or sometimes even manmade processes.

10 So the nature of the deposition of the soils
11 is very erratic, very random, not at all linear like the
12 proposed project that's going to cut across all these
13 highly variable deposits.

14 So, as I said, this map looks at the ground
15 surface and the near surface. And so it really only it
16 represents maybe the last few thousand years of the most
17 recent active policying period. So it gives you a
18 little bit of insight on how complex the near surface
19 may be, but the subsurface is also oftentimes just as
20 complex or even more complex.

21 You can see on the map that there's what
22 appear to be small little islands of different deposits,
23 you know, in a sea of the surrounding deposit.

24 So on this particular map page, these little
25 circles, many of them represent what are called eolian

1 deposits. They're windblown sand deposits, essentially
2 dune sands. And they appear to be little dots here, but
3 when they were deposited, it was during the last glacial
4 advance. So when that occurred tens of hundreds of
5 thousands of years ago and when it was at its maximum,
6 the sea level was about 300 feet lower than it is. So
7 this was not an area inundated, you know, by waters from
8 the Pacific Ocean. It was dry. There was dune sands
9 blowing across the plain at the time. You did still
10 have channels moving through here.

11 But when the sea levels rose as the glaciers
12 melted, these -- more clayey deposits started to fill in
13 around these dune sands. So not only do you have
14 complex reworking of the deposits because of the
15 meandering distributary channels, but then you also have
16 these complex subsurface structures of dune sand
17 surrounded by more marshy deposits.

18 That's very significant in that the sand is
19 relatively clean and highly permeable. It has a high
20 hydrologic conductivity. The soils around it are more
21 clayey in nature, generally speaking. So their
22 hydrologic conductivity is oftentimes several orders of
23 magnitude lower than the eolian deposits, which means
24 that water will move through the sand at a rate that's
25 hundreds or even thousands of times faster or more

1 easier than the other deposits.

2 And so if your well screen is in one of these
3 sandier deposits, it could be surrounded by clayier
4 deposits. And the nature of the -- or the geometry of
5 those deposits are highly complex and could easily be
6 altered by whatever below-grade structures may be buried
7 in their proximity.

8 If you go to -- which would have been, I
9 think, the next slide in this exhibit. It was -- I
10 think it was Land 41.

11 MS. MESERVE: I believe it's just in this
12 same --

13 WITNESS TOOTLE: Is it in the same document?

14 MS. MESERVE: Scroll down.

15 If we could go back to the PowerPoint, please.
16 It's going to save time.

17 WITNESS TOOTLE: It would if that's on the
18 next page.

19 CO-HEARING OFFICER DODUC: Go back to Land 37,
20 the original Land 37.

21 WITNESS TOOTLE: Here we go. These
22 illustrations were developed in reference to a Delta
23 system that isn't the San Joaquin Delta, but the
24 geological depositional processes are very similar to
25 what's in the San Joaquin Delta.

1 So the intent of these illustrations were to
2 give some insight into not just the complexity of the
3 ground surface but the complexity of the soils in the
4 subsurface.

5 So you see on the exhibit in the upper
6 left-hand corner it's demonstrating how distributary
7 channels start to form and then how they mature in the
8 exhibit below.

9 What's important to look at here, they have
10 different deposits that are labeled various labels on
11 them. When you look at these deposits, it's good to
12 imagine that they'll have various abilities to transmit
13 water. Some have very high hydrologic conductivities.
14 Some have very low hydrologic conductivities.

15 So these soil deposits get laid down, they get
16 reworked with time over thousands of years, and their
17 initial shapes and geographic distribution are often
18 changed and intermixed.

19 And the illustration to the right kind of
20 demonstrates how these historic channels that we talked
21 about on the previous exhibit can get cut off with time,
22 and you end up with very dramatic and very sharp
23 variations in material types. You can transition very
24 quickly from a high permeability soil into a low
25 permeability soil, and the ability for water to move

1 across those horizons is very difficult.

2 So whenever you take a very linear project and
3 insert it through a very complex nonlinear subsurface
4 condition like this, you will disrupt the flow of the
5 groundwater that exists before the project. It's
6 practically inevitable.

7 What the ultimate resulting injuries of that
8 disruption will be are hard to tell. They're hard to
9 predict even with large quantities of data.

10 Large quantities of data don't currently exist
11 for this project. So to quantify the exact injury that
12 could result is biblical, but to conclude that there is
13 no injury is almost impossible, in my opinion.

14 If you go to page 55 of DWR-212. It should be
15 a profile along the alignment of the project, profile
16 taken in the same proximity of the geologic map that we
17 looked at a few slides earlier.

18 And the exhibit does have some soil-boring
19 logs on it. It's -- the horizontal scale has been
20 compressed or vertical scale has been exaggerated so
21 that you can fit a lot of information on one sheet.

22 But, again, when you look at this exhibit and
23 you concentrate on where the tunnel alignment is going
24 to be, you can see that between these borings, there's
25 very little consistency in the types of soils that you

1 see.

2 So the colors that you see on here, the blues
3 and greens, represent the clayier, kind of finer grain
4 deposits that have low hydrologic conductivities. The
5 yellow colors represent soils that have high hydrologic
6 conductivities.

7 So when you are trying to construct a well,
8 even for domestic or irrigation purposes, your goal is
9 to get your screened interval of the well, the location
10 of the well that will draw the water into the well to be
11 used. You want that to be in these more permeable
12 layers that your well will produce suitable quantities
13 of water.

14 And as you can see, this alignment is going to
15 cut across widely varying types of soil. And as I try
16 to depict in the previous illustrations, the variation
17 isn't just linear along this alignment, but it's in and
18 out of the page as well.

19 So if your well screen happens to be in a
20 highly permeable zone that is in its former channel that
21 got cut off by a stream meandering thousands of years
22 ago, a linear project could cut that off and drastically
23 reduce the quantity of the water that could be coming
24 out of that well, even alter the quality of the water
25 coming out of that well, and it's a very difficult thing

1 to predict.

2 Page 8 of DWR-218. The slurry wall proposal
3 that's part of the project is illustrated in that figure
4 I think it was intended to demonstrate how slurry walls
5 would reduce potential construction phase impacts but,
6 again, didn't speak to permanent impacts when those
7 slurry walls are left behind following construction of
8 the project.

9 CO-HEARING OFFICER DODUC: What page?

10 WITNESS TOOTLE: Page 8. This is the one I
11 was talking about.

12 So the figure there at the bottom. Actually,
13 look at the one in the middle first.

14 So that's a demonstration of what would happen
15 when you dewater a project site to construct it. You
16 put a dewatering well in place, it draws the groundwater
17 down and allows the construction to proceed in the dry,
18 as I said earlier. But it has wide-ranging impacts on
19 adjacent water users and would injure their ability to
20 use the water like they did before the project.

21 So introducing slurry cutoff walls, which is
22 being proposed as is illustrated in the bottom figure,
23 it does prevent this and it does a very effective job if
24 they're constructed properly.

25 So this illustration shows slurry cutoff walls

1 penetrating through the permeable layer into an
2 impermeable layer.

3 And when it's constructed like that, it will
4 effectively reduce any practical or significant
5 transmission of water across that vertical boundary and
6 allows you to do your construction within the perimeter
7 of those wells in the dry and not injure people on the
8 other side, assuming that your work site is a
9 homogeneous, isotropic, infinite half-space as shown in
10 this figure. So this figure assumes sand that stretches
11 across the page and in and out of the page in an
12 impermeable layer.

13 So once the project was constructed, if you
14 have an irrigation well or your domestic well on the
15 side and your water was being drawn from this direction,
16 in this illustration the intent is the water could just
17 flow around the project site and still get to your well
18 and the water user not be injured.

19 In an idealized world, that would be true.
20 However, the subsurface conditions along this project
21 are not idealized. They're highly complex and highly
22 variable.

23 And so the conclusions drawn in this paper
24 represent the assumptions of this paper, but, in my
25 opinion, don't represent the realities of the project.

1 Then finally we had been looking at Land 58, I
2 believe. So for consistency, we could go back to that
3 exhibit possibly. Or maybe it was 59. I lost track.

4 I apologize for jumping around.

5 CO-HEARING OFFICER DODUC: You did try to --

6 WITNESS TOOTLE: Before getting an
7 understanding of how complex the subsurface soils are
8 throughout the San Joaquin Delta, they may appear that
9 the project wouldn't injure these water users that are
10 represented by these well locations. However, it's --
11 without a very detailed understanding of what the
12 subsurface stratigraphy is, it's almost impossible to
13 know.

14 And in my experience, given the high
15 variability of the soils in this area, it's very likely
16 that these water users will be injured. These
17 below-grade structures are going to alter the way that
18 the water flows through the subsurface in the
19 pre-project condition. I think it's inevitable. And to
20 conclude there's no injury, I think, is a large
21 oversight.

22 MS. MESERVE: If I might have a couple more
23 minutes with Mr. Tootle. And then I need to
24 authenticate Mr. Pyke. Then we will wrap up.

25 CO-HEARING OFFICER DODUC: Proceed, please.

1 MS. MESERVE: Thanks.

2 If we could pull up Land 2 briefly, which is a
3 small file, thankfully.

4 I'm going to show you, Mr. Tootle, a
5 cross-section from the conceptual engineering report map
6 book.

7 You had said earlier you were explaining why
8 the depth of the well and depth of the tunnel matters in
9 terms of your analysis. I was just wondering if you
10 could explain that in terms of using this figure.

11 WITNESS TOOTLE: So, as I said, the --
12 irrigation domestic wells have screened intervals that
13 are intended to intercept those highly permeable layers,
14 and that's where they draw the water in from.

15 And so when the screen interval of the well is
16 in the same depth range as the -- as the tunnel -- as I
17 said, the tunnel is an impermeable structure. And so
18 the tunnel is at high likelihood of disrupting that
19 permeable layer and preventing or altering the flow of
20 water to the well that exists in the pre-project
21 condition. And many of the wells in this area had
22 screened intervals that are in the same depth range as
23 the proposed tunnel project.

24 MS. MESERVE: And is the depth range shown on
25 the bottom portion of this?

1 WITNESS TOOTLE: So there's a vertical scale
2 on here, and, you know, the large-diameter tunnel that's
3 on the right-hand of this picture is shown to be at, you
4 know, an elevation of negative 30 feet to negative
5 90 feet with the ground surface at about elevation 10.
6 So it's about, you know, 80 to 120 feet deep.

7 And the depth of the smaller tunnel to the
8 left, the bottom is about the same depth range; but
9 since it's a smaller diameter, the top is, you know,
10 closer to about 90 feet deep.

11 MS. MESERVE: And did you also look at the --
12 this is just the first map book picture at the beginning
13 of the route. Did you look at the subsequent similar
14 pictures in formulating your opinion?

15 WITNESS TOOTLE: Yes.

16 MS. MESERVE: And just briefly, in your
17 testimony you touched on the proposed mitigation that
18 came in the draft EIR for groundwater. And in your
19 analysis, did you find that any of the mitigation
20 measures, like groundwater 1, 5, or 11 in the EIR which
21 are referenced in your testimony, would be effective in
22 preventing injury?

23 WITNESS TOOTLE: No.

24 MS. MESERVE: I think with that -- is there
25 anything else that you wanted to add?

1 WITNESS TOOTLE: I think that was it.

2 MS. MESERVE: Okay. I'll just briefly...

3 Dr. Robert Pyke also assisted in preparing the
4 testimony for this panel.

5 --o0o--

6 DIRECT EXAMINATION

7 MS. MESERVE: Mr. Pyke, have you reviewed
8 Land 39, your statement of qualifications?

9 WITNESS PYKE: Yes.

10 MS. MESERVE: And did you prepare that?

11 WITNESS PYKE: Yes.

12 MS. MESERVE: Is it an accurate statement of
13 your qualifications?

14 WITNESS PYKE: Yes.

15 MS. MESERVE: Have you reviewed Land 38, which
16 is the original testimony submitted in this proceeding?

17 WITNESS PYKE: Yes.

18 MS. MESERVE: And is that an accurate
19 statement, summarizes your work on this panel?

20 WITNESS PYKE: Yes.

21 MS. MESERVE: With that, we'll conclude.

22 Thank you.

23 CO-HEARING OFFICER DODUC: Thank you,

24 Ms. Meserve.

25 Let me get some estimates. We are going to

1 take a lunch break before beginning the
2 cross-examination. But let me get an estimate of who
3 all would like to conduct cross-examination and how much
4 time you anticipate.

5 Just come on up, please. DWR?

6 MR. MIZELL: Yes. Tripp Mizell, DWR. We
7 anticipate one hour.

8 CO-HEARING OFFICER DODUC: Ms. Morris?

9 MS. MORRIS: If I have any, it would be less
10 than 30 minutes.

11 CO-HEARING OFFICER DODUC: Ms. Akroyd?

12 MS. AKROYD: Approximately 15 to 20 minutes.

13 CO-HEARING OFFICER DODUC: Mr. Herrick?

14 MR. HERRICK: No more than 15 minutes.

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

16 MS. DES JARDINS: 10 to 20 minutes.

17 CO-HEARING OFFICER DODUC: I'm seeing about
18 two to three hours of cross-examination.

19 Unless anyone objects, my recommendation will
20 be to adjourn early and continue with Panel No. 3 next
21 Thursday.

22 MR. KEELING: So then I have permission to
23 contact those witnesses from Panel 3 and tell Mr. Kent,
24 in particular, not to come up to Sacramento.

25 CO-HEARING OFFICER DODUC: Let me see if

1 there's any objection to that.

2 We do have two days next week. And next week
3 we'll have Panel 3 in Mr. Herrick's case in chief.

4 I believe Mr. Brodsky is not due up until
5 after Thanksgiving.

6 MR. HERRICK: Yes. That's what I was going to
7 ask. Should I tell my expert panel to leave now because
8 they won't be on today?

9 CO-HEARING OFFICER DODUC: Definitely won't be
10 on today, because we have Panel 3 yet.

11 MR. HERRICK: Thank you.

12 CO-HEARING OFFICER DODUC: Ms. Daly, did you
13 have a question?

14 MS. DALY: Barbara Daly with North Delta
15 Cares. I'm speaking on behalf of the Nicky Suard for
16 Snug Harbor, and she's on her way. She would like a few
17 minutes for cross-examination of Panel 2, please.

18 CO-HEARING OFFICER DODUC: Excellent.

19 Any concerns and objections about deferring
20 Panel 3 to next Thursday?

21 Not seeing any, we will make it so.

22 With that, we will take our lunch break and
23 we'll resume at 1:00 o'clock.

24 (Whereupon the luncheon recess was taken
25 at 11:48 a.m.)

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1 NOVEMBER 10, 2016 AFTERNOON SESSION 1:00 P.M.

2 --o0o--

3 CO-HEARING OFFICER DODUC: All right. Good
4 afternoon, everyone. It's 1:00 o'clock. We're resuming
5 with cross-examination by the Department of Water
6 Resources. You had anticipated one hour.

7 What are your topic areas, Mr. Mizell or
8 Ms. Ansley?

9 MR. MIZELL: Tripp Mizell for the Department.

10 I will be performing the cross-examination. I
11 will be assisted by Ms. Ansley.

12 The topics as to the farmers, we'll be asking
13 them about impacts to their diversions, the experienced
14 EC and water levels at those diversions, and the basis
15 of rights asserted in their testimony from this morning.

16 And for the cross-examination of Mr. Tootle,
17 we'll be exploring the groundwater well proximity to the
18 proposed project, mitigation measures proposed by the
19 department, and soil types contained within the
20 testimony of both land and DWR.

21 CO-HEARING OFFICER DODUC: Thank you.

22 Please proceed.

23 --o0o--

24 CROSS-EXAMINATION

25

1 MR. MIZELL: Good afternoon, Mr. van Loben
2 Sels.

3 I'd like to bring your attention to Land
4 Exhibit 60, please.

5 WITNESS VAN LOBEN SELS: Good afternoon.

6 MR. MIZELL: This is an exhibit that you spoke
7 to earlier, and I believe you identified the
8 Amistad Ranch intake as S021406; is that correct?

9 WITNESS VAN LOBEN SELS: Correct.

10 MR. MIZELL: Okay. And you indicated in your
11 testimony that you believe that this is a permanently
12 impacted diversion point; is that correct?

13 WITNESS VAN LOBEN SELS: Yes.

14 MR. MIZELL: Are you aware of the footprint of
15 the proposed intakes?

16 WITNESS VAN LOBEN SELS: To the extent that
17 you're looking at this map, I believe it's the -- the
18 red lines basically are the intake with the -- well,
19 with the exception, I believe, that if we drew a line
20 from there to there, we would probably be more accurate.

21 MR. MIZELL: And by "there to there," you're
22 indicating with the laser pointer a section of highway
23 to the north of the northern arm -- I'm calling it an
24 "arm," it's the northern portion of the red outline?

25 WITNESS VAN LOBEN SELS: Correct.

1 MR. MIZELL: And it's your testimony that
2 you've reviewed DWR Exhibit 2; is that correct?

3 WITNESS VAN LOBEN SELS: Could you show me
4 what that would be?

5 MR. MIZELL: Certainly.

6 Mr. Long, could we bring up DWR Exhibit 2,
7 page 21. 2 errata, please. 2 errata.

8 MS. McCUE: Which slide?

9 MR. MIZELL: Slide 21, please.

10 WITNESS VAN LOBEN SELS: Yes, I've seen that
11 slide.

12 MR. MIZELL: Again, the diversion point for
13 Amistad Ranch is indicated by the same number, S021402?

14 WITNESS VAN LOBEN SELS: Yes -- 406, is it
15 not?

16 MR. MIZELL: Yes.

17 WITNESS VAN LOBEN SELS: 406, not 402.

18 MR. MIZELL: Have you reviewed other slides
19 within this exhibit?

20 WITNESS VAN LOBEN SELS: I have reviewed the
21 slides that we've seen this morning. I'm not sure
22 whether the slides might be within this exhibit. So I
23 would say perhaps yes, perhaps no.

24 MR. MIZELL: Okay. Very good. Yes.

25 Mr. Long, could we bring up Slide 13, please?

1 Are you familiar with this slide?

2 WITNESS VAN LOBEN SELS: I've seen slides
3 similar to this, different iterations over the last
4 eight years or so. This slide is basically an intake.

5 MR. MIZELL: And on this slide, does the shape
6 of the footprint of the intake include long arms that
7 proceed to the north and south of it or does the intake
8 have essentially a trapezoidal shape?

9 WITNESS VAN LOBEN SELS: The footprint of the
10 project is not just the intake itself. The footprint
11 goes far beyond that in that there are maintenance areas
12 and there are muck storage sites.

13 So I don't think that this slide really
14 represents the footprint of the project as it relates to
15 my diversion site or the effects on Reclamation
16 District 744.

17 MR. MIZELL: In your previous testimony, I
18 believe you indicated that you believed it was a
19 permanent impact to your diversion point because it fell
20 within the footprint of the screen.

21 WITNESS VAN LOBEN SELS: No, I did not say the
22 footprint of the screen. It was the footprint of the
23 project. The footprint of the project is what -- the
24 total influence on my diversion site at that point and
25 in Reclamation District 744.

1 MR. MIZELL: Thank you for that clarification.
2 I certainly appreciate it.

3 If we could go back to DWR-2, page 21, please.

4 Mr. van Loben Sels, do you see the thin black
5 line that indicates the project footprint from the site?

6 WITNESS VAN LOBEN SELS: Yes.

7 MR. MIZELL: Is it your understanding that
8 what I'm characterizing as a long arm to the north of
9 the square portion of that footprint is a highway
10 realignment?

11 WITNESS VAN LOBEN SELS: I don't know what is
12 in that -- that long arm. It could be a highway
13 realignment. It could be many other things.

14 But I also know that the footprint of the
15 project is not just limited to that long arm. It goes
16 all the way to the east, all the way to -- to the back
17 levy with maintenance area here, muck site here, and
18 other things in here.

19 So this long, thin arm that you're referring
20 to, the long, thin arm going from the north of the
21 diversion site itself is part of the project certainty.
22 But the project footprint is much larger than that small
23 arm.

24 MR. MIZELL: I believe that was -- that is my
25 understanding as well. So I appreciate the extra

1 explanation.

2 With regard to your testimony on what would
3 impact your intake location, is it your testimony that
4 you are not aware of what features of the project
5 currently impact your diversion plan?

6 WITNESS VAN LOBEN SELS: Again, it's the
7 footprint of the project. To me, it doesn't matter what
8 features are within that footprint. It's the footprint
9 of the project.

10 If my diversion site is either obliterated or
11 it can't get to a distribution system that we're using
12 today, then it's permanently impacted.

13 It's not -- to me, it's not what -- the
14 elements within that footprint; it's that footprint in
15 its entirety. And whatever might be within it is going
16 to interfere with that diversion.

17 MR. MIZELL: So is it your contention that any
18 impact, no matter how temporary, is a permanent impact
19 to your diversion point?

20 MR. KEELING: Objection. Calls for a legal
21 conclusion. But to the extent it's a factual nature, he
22 may answer.

23 CO-HEARING OFFICER DODUC: Thank you for that
24 permission, Mr. Keeling.

25 Please answer to the best of your ability,

1 Mr. van Loben Sels.

2 WITNESS VAN LOBEN SELS: Again, we're talking
3 about a footprint. We're talking about a situation
4 where you said -- could you rephrase the question?

5 MR. MIZELL: I'm simply trying to get a better
6 understanding of what you consider to be the basis of a
7 permanent impact. So maybe I'm not being very artful.

8 I believe what you were just explaining to me
9 was your contention that any impact, no matter how
10 temporary, to your diversion point substitutes a
11 permanent impact to your diversion point.

12 WITNESS VAN LOBEN SELS: That's not what I
13 said, nor is it my conclusion.

14 To say any impact, no matter how temporary,
15 could be one day, of course, I wouldn't go there. But
16 we're talking about an impact that could last ten years
17 during the construction phase, and that's -- that's on
18 DWR's estimation as a temporary impact.

19 If that's the kind of temporary impact we're
20 talking about, I would say yes, that's a -- that's a
21 permanent impact upon that diversion site.

22 MR. MIZELL: I'd like to ask you a
23 hypothetical to avoid any sort of confusion about me
24 testifying.

25 I'll simply assert my hypothetical that the

1 long arm proceeds north of -- of the main square of this
2 footprint is due to a highway realignment which would be
3 a temporary amount of construction that would impact
4 your diversion point for a specific duration, however,
5 your impact -- your diversion point would remain.

6 In your opinion, what length of time would the
7 construction have to persist before it became a
8 permanent impact to your water right?

9 MR. KEELING: Objection. Calls for a legal
10 conclusion, temporary versus permanent.

11 CO-HEARING OFFICER DODUC: I would like to
12 hear Mr. van Loben Sels' response. Thank you.

13 WITNESS VAN LOBEN SELS: So if -- if you had a
14 child and you didn't -- I'll give you an answer with a
15 hypothetical and then go beyond that.

16 If you had a child and you didn't feed it for
17 a month, would that be a temporary or would that be
18 permanent impact?

19 I have the same situation. I have living
20 crops. And if the highway realignment is there for ten
21 years, that's a permanent impact. Those crops don't get
22 irrigated because there's no pump.

23 There's other things that are happening within
24 the footprint than just that highway that would -- that
25 would preclude my even being able to use the pump to

1 distribute the water to the crops again.

2 So I would have to say that, yes, it's a
3 permanent impact.

4 CO-HEARING OFFICER DODUC: Mr. van Loben Sels,
5 putting aside the permanent/temporary and using your
6 analogy, if you're not able to feed that child but
7 someone else feeds that child during that month period,
8 is that acceptable?

9 WITNESS VAN LOBEN SELS: Acceptable to the
10 point that it's feasible.

11 And at this point, I'm not sure that another
12 diversion site could be temporarily put in place that
13 could adequately accomplish the same thing because of
14 the -- of the -- because of the topography of the
15 reclamation district as well as the topography of each
16 individual field that has been -- that has been leveled
17 to match the distribution system as well as the drainage
18 system. So I'm not sure if it would be feasible.

19 CO-HEARING OFFICER DODUC: Okay. Thank you.

20 MR. MIZELL: So are you familiar, then, with
21 the concept of mitigation?

22 WITNESS VAN LOBEN SELS: Yes.

23 MR. MIZELL: And have you read the mitigation
24 measures proposed by this project for similar impacts
25 such as the one you're indicating to the intake site?

1 WITNESS VAN LOBEN SELS: The specific
2 mitigation measures, I have not read.

3 MR. MIZELL: Mr. Long, can we scroll down
4 through this exhibit? I'm looking for the slide that's
5 entitled "Temporary and Permanent Impact Mitigation for
6 Diversion Sites."

7 I think it might have been actually above
8 page 21. One up. Page 19, please.

9 So based on our conversation,
10 Mr. van Loben Sels, it's your understanding that, should
11 it be feasible, providing new groundwater wells or an
12 alternative surface supply would be sufficient to
13 mitigate for impacts to the diversion point indicated on
14 the map?

15 MR. KEELING: Calls for speculation based on a
16 hypothetical. Vague and ambiguous.

17 CO-HEARING OFFICER DODUC: Mr. van Loben Sels,
18 what is your opinion, if you have any, regarding these
19 two measures for mitigation that's on this slide?

20 WITNESS VAN LOBEN SELS: The question that
21 comes to my mind is feasibility and providing new
22 groundwater wells. For example, if you have a residence
23 that depended upon a domestic well and you're 15 feet
24 from the footprint of this project, there's going to be
25 dewatering going on. The question would have to be:

1 Where would you site a well, and would it be feasible to
2 continue to supply that home from whatever site you
3 might choose? If it's a very far distance, you probably
4 wouldn't be able to do it.

5 So feasibility is key in both of those
6 mitigation measures or -- mitigation strategies.

7 MR. MIZELL: Thank you very much.

8 Mr. Long, I'd like to move to Land 58, please.

9 Mr. van Loben Sels, in your testimony today,
10 it was my understanding that you believe that the
11 construction of the project will result in a dewatering
12 of the area surrounding the intakes. Is that your
13 testimony?

14 WITNESS VAN LOBEN SELS: Yes.

15 MR. MIZELL: I believe I also heard that the
16 wells indicated on this slide you believe to be 120 and
17 150 feet deep; is that also correct?

18 WITNESS VAN LOBEN SELS: They could even be
19 shallower.

20 MR. MIZELL: More shallower?

21 WITNESS VAN LOBEN SELS: I know there are
22 none -- well, I don't know. There are varying depths,
23 and they go from very shallow to probably 125 feet.

24 MR. MIZELL: Are you personally familiar with
25 each of the wells indicated on this slide?

1 WITNESS VAN LOBEN SELS: Could you enlarge the
2 northern part of that slide? Enlarge it one time. And
3 I think we'll get to the area that I'm more sure of.

4 This is in Reclamation District 744. We
5 farm -- we farm -- wrong way.

6 We farm a great deal of -- probably 250 to
7 3- -- 400 acres of the area that's in this footprint
8 here. And so I'm familiar with the residents there,
9 there, there, Dr. Gough. I'm familiar with those
10 residents. I'm familiar with all of these residences.

11 And each residence -- primarily, there are a
12 couple that are using wells between two or three
13 residents, but those residents have wells. The only one
14 of those wells that I'm unfamiliar with is that one.
15 And that may have been a historical site, but I do not
16 believe that that well is active.

17 But those -- there's a residence there,
18 residence there. In fact, that is the residence of our
19 previous Secretary of State, Debra Bowen. And you've
20 got Dr. Gough there and others along here. So I am
21 familiar with those residents, yes.

22 MR. KEELING: For the record --

23 CO-HEARING OFFICER DODUC: Mr. Keeling?

24 MR. KEELING: The well that he indicated he
25 was not intimately familiar with, W6.

1 Is that right, Mr. van Loben Sels?

2 WITNESS VAN LOBEN SELS: Yes, it's W6. I'm
3 not familiar with that well.

4 MR. KEELING: Thank you.

5 MR. MIZELL: That's where I was going to make
6 a clarification as well.

7 If I understand your testimony,
8 Mr. van Loben Sels, you are familiar with W1, W2, W3,
9 W4, and W5?

10 WITNESS VAN LOBEN SELS: Yes. Yes.

11 MR. MIZELL: Thank you.

12 And the basis of your belief that these wells
13 will be dewatered is what?

14 WITNESS VAN LOBEN SELS: Basically, the EIR
15 has said that you're going to dewater the area that
16 you're working in. And if you dewater the area and
17 those wells are straws into that dewatered area, or if
18 you put slurry walls that cut those wells off from
19 wherever their source of flow is from, then it's your
20 own work that I believe says those things, that you're
21 going to dewater.

22 MR. MIZELL: Okay. So it sounds as though you
23 are familiar with what Mr. -- Mr. Tootle has indicated
24 in his testimony that slurry walls will be used and also
25 what the department presented?

1 WITNESS VAN LOBEN SELS: I was aware that
2 slurry walls had been suggested as a way to mitigate
3 the -- the dewatering effects that you identified as
4 occurring because you were dewatering the sites, yes.

5 MR. MIZELL: Are you aware of a memorandum
6 that was provided produced by Ms. Gwen Buchholz and
7 testified to earlier in this proceeding submitted as
8 DWR-218?

9 WITNESS VAN LOBEN SELS: No.

10 MR. MIZELL: Mr. Long, could we bring up
11 DWR-218, please?

12 This was a memorandum that was submitted by
13 the department when it was putting on its case in chief.
14 And it's my understanding that it convinced the
15 department to using slurry walls is a clarification on
16 the information presented in the recirculated draft EIR
17 that you were relying upon.

18 Would the commitment to using slurry walls
19 change your conclusion that wells in the region of the
20 intake that we've been discussing will be impacted by
21 dewatering?

22 MR. KEELING: Objection. Calls for
23 speculation based on an incomplete hypothetical and may
24 call for expert testimony, as well.

25 CO-HEARING OFFICER DODUC: Mr. van Loben Sels,

1 are you able to respond to any of that? Are you
2 offering an opinion? If you can't, you can't.

3 WITNESS VAN LOBEN SELS: I've got 47 years and
4 longer of experience with groundwater in the Delta, and
5 it moves in mysterious ways.

6 And so I doubt very much that putting a slurry
7 wall in any one place is going to do exactly what you
8 want it to do. So I would say that I would not accept
9 the hypothetical that a slurry wall would satisfy this
10 adverse impact.

11 CO-HEARING OFFICER DODUC: Your witness is
12 doing very well, Mr. Keeling. Just let him answer.

13 MR. KEELING: Thank you.

14 MR. MIZELL: If we could bring up Land 50,
15 then, please.

16 On this slide, are you aware of where the
17 slurry walls would be located?

18 WITNESS VAN LOBEN SELS: No.

19 MR. MIZELL: If the slurry walls were located
20 only within the square that would be where the intake
21 actually sits, is it still your contention that the
22 groundwater wells indicated earlier would be impacted by
23 dewatering?

24 CO-HEARING OFFICER DODUC: Do you have an
25 opinion?

1 WITNESS VAN LOBEN SELS: Well, first of all,
2 it -- there's a big "if" there. And that's not been
3 determined nor has it been described on that map.

4 So, given that, I would have to again say
5 slurry walls are -- are an effort to avoid an adverse
6 impact that I believe is imperfect. And no matter where
7 you place them around the walls or -- you're going to
8 have impacts that you don't really realize because -- or
9 that you can't foresee because of the way water moves
10 through the Delta and the way it goes from one place to
11 another. And I don't even know how that occurs.

12 I would say that it's a big hypothetical that
13 a slurry wall could -- could work.

14 MR. MIZELL: Thank you very much.

15 I'd like to discuss your conclusions regarding
16 water quality. I believe in your testimony earlier, you
17 indicate that water quality would be impacted in the
18 vicinity of your intake; is that correct?

19 WITNESS VAN LOBEN SELS: No. I think it was
20 water quality would be affected downstream of the
21 intakes. Not in the vicinity, but downstream from the
22 intakes.

23 MR. MIZELL: Are you aware of the water
24 quality that has occurred downstream of Intake 2 during
25 the water year 2014 and '15?

1 WITNESS VAN LOBEN SELS: I believe you're
2 referring to a time when saltwater intruded into the
3 Delta past Courtland; is that correct?

4 MR. MIZELL: I'm referring to the drought
5 water year 2014/2015.

6 WITNESS VAN LOBEN SELS: And I'm aware
7 generally that saltwater intruded very -- intruded into
8 the Delta to a distance that -- but I don't know where.
9 And so I couldn't tell you.

10 But I can tell you that the -- in 2014, the
11 water quality that intruded into the Delta, the
12 saltwater that intruded was higher or went further north
13 than normal -- further inland than normal on both the
14 San Joaquin River and the Sacramento.

15 MR. MIZELL: Are you aware that flows in the
16 2014/2015 water year were as low as 4,000 CFS?

17 WITNESS VAN LOBEN SELS: I was not aware of
18 that, but it wouldn't surprise me.

19 MR. MIZELL: Are you aware that when it was
20 that low, the EC in the vicinity of Intake 2 was 300,
21 which is sometimes referred to as 0.3 EC?

22 WITNESS VAN LOBEN SELS: I was not aware of
23 that. But, again, my testimony was that -- that if you
24 reduce the flow by diverting water further north into
25 the Delta, that flow will be reduced downstream, water

1 quality -- because flow is the hydraulic barrier to the
2 ocean, water quality within the Delta -- and it may not
3 be in a straight line, it could be more in the Western
4 Delta -- water in the Delta will deteriorate because
5 saltwater will intrude if you reduce the hydraulic
6 barrier to the ocean.

7 That's exactly what happened in 2014.
8 Mother Nature created a situation where flow was reduced
9 far below normal and saltwater intruded. And so if you
10 reduce flow, the saltwater will intrude further.

11 And, to me, it's not necessarily what happens
12 at Diversion No. 2. I have intakes -- I have diversion
13 sites much further south as do other farmers. I'm
14 concerned more about the entire Delta than just
15 Diversion 2.

16 MR. MIZELL: Thank you, Mr. van Loben Sels.

17 I'd like to move to Mr. Elliot.

18 Mr. Elliot, are you aware that the North Delta
19 does not hold any riparian or appropriate water rights?

20 WITNESS ELLIOT: Yes.

21 MR. MIZELL: Would you like to revise your
22 former testimony that you believe that North Delta Water
23 Agency does hold a water right?

24 WITNESS ELLIOT: No. Excuse me, I don't
25 believe I said that. I said that I hold riparian and

1 pre-1914 water rights.

2 MR. MIZELL: Thank you for the clarification.

3 WITNESS ELLIOT: As well as the North Delta
4 Water Agency rights.

5 MR. MIZELL: Could you maybe repeat that last
6 portion? I think you trailed off.

7 WITNESS ELLIOT: I believe I have three water
8 rights: I have pre-1914, I have riparian, and I have
9 North Delta Water Agency water rights contract. That's
10 what I have.

11 MR. MIZELL: Thank you for that clarification.

12 So your understanding is North Delta Water
13 Agency is a contractual right with the department?

14 WITNESS ELLIOT: Yes.

15 MR. MIZELL: Thank you.

16 Did you experience any water levels or water
17 quality problems during the 2014 water drought?

18 WITNESS ELLIOT: The only -- we had a couple
19 issues with the level of the water. The water quality
20 where we are wasn't a problem; the flows were.

21 We ended up having a lot of hyacinth and weed
22 problems around our intakes and would just plug up our
23 pipes and that was due to low flows.

24 MR. MIZELL: Do you believe that you have a
25 contractual right to hyacinth-free water?

1 WITNESS ELLIOT: No. You asked me if I had
2 any problems, and that's one of my problems.

3 MR. MIZELL: Thank you. I probably was too
4 broad in my question.

5 I'm going to explore a similar line of
6 questioning here that I did with Mr. van Loben Sels in
7 terms of your statement previously that your intake will
8 be permanently affected. So please bear with me.

9 If we could bring up DWR-2, page 22. That's
10 DWR-2, errata -- DWR-2, errata page 22, please.

11 Thank you.

12 So do I understand correctly that your intake
13 identified earlier is identified by S016915?

14 WITNESS ELLIOT: Yes.

15 MR. MIZELL: And is it true that that intake
16 falls within the southern arm of the footprint?

17 WITNESS ELLIOT: Yes.

18 MR. MIZELL: And are you aware of the
19 mitigation measures proposed by the department to
20 mitigate for temporary impacts?

21 WITNESS ELLIOT: Yes. I just read it.

22 MR. MIZELL: So similar question: Assuming
23 the feasibility of those mitigation measures, would you
24 still assert that this intake will be permanently
25 impacted?

1 MR. KEELING: And a similar objection. Calls
2 for speculation based upon an incomplete hypothetical.

3 CO-HEARING OFFICER DODUC: I will ask
4 Mr. Elliot to answer as best he can.

5 WITNESS ELLIOT: Okay. Well, what I'd like
6 to -- I believe that when you -- when I say that it's
7 permanently affected, I believe that you're not going
8 to, you know -- it's pretty much when the project
9 happens, I'm going to lose that site, that diversion,
10 and that's going to be a permanent. Because the
11 project, my understanding, is it's for ten years, around
12 ten years at the least. And so I'd lose all access to
13 my water, my water rights, to that diversion.

14 MR. MIZELL: And you believe you will lose
15 access to all water at that diversion point despite the
16 potential for mitigation to provide water from a
17 different source?

18 WITNESS ELLIOT: From that source, it's
19 permanent. As far as another site, a well, you know,
20 put a well in there, I don't know how you're going to
21 guarantee the slurry walls. That system takes about
22 1500 gallons per minute. I don't see how a well is
23 going to be able to produce that.

24 I also don't -- I don't see how you're going
25 to give me access to the river.

1 MR. MIZELL: At any point in the future after
2 construction begins, is that your contention?

3 WITNESS ELLIOT: Well, that depends on how
4 long it's going to take. I mean, the project -- you're
5 going to start the project, it's going to be a daily --
6 it's going to be going on and on. How are you going
7 to -- how are we going to guarantee water to that site?

8 MR. MIZELL: So you're not familiar with
9 mitigation measures proposed and reviewed earlier that
10 explain how the department proposes to replace water
11 supplies during the temporary construction period; is
12 that correct?

13 WITNESS ELLIOT: I understand that it's either
14 going to be a well or it's going to be some other
15 surface water attempt. Is that correct?

16 MR. MIZELL: Is that your understanding of
17 what we reviewed earlier?

18 WITNESS ELLIOT: Yes.

19 MR. MIZELL: Okay. Earlier you in your
20 testimony you indicated concern that your riparian water
21 rights would be lost; is that correct?

22 WITNESS ELLIOT: Yes.

23 MR. MIZELL: Are you aware of how riparian
24 water rights are lost?

25 WITNESS ELLIOT: Well, I believe if you -- if

1 your property is taken and you have property along the
2 river, which this is, I will lose that right to the
3 river.

4 MR. MIZELL: So it's your belief that
5 severance of the parcel from the river course is what
6 disrupts the riparian right? I'm simply trying to
7 clarify.

8 WITNESS ELLIOT: Right, whatever remaining --
9 whatever will remain won't have access to the river.

10 MR. MIZELL: So the basis of your claim that
11 you risk losing your riparian water right is not the
12 temporary interruption of the diversion point, but,
13 rather, your concern about severance of the parcel from
14 the water course, correct?

15 MR. KEELING: Objection. Calls for a legal
16 conclusion.

17 CO-HEARING OFFICER DODUC: Well, I'm -- let me
18 ask this because I'm also interested in Mr. Elliot's
19 answer.

20 When you expressed concern about losing your
21 riparian water rights, what do you mean by that? And in
22 what way do you believe the proposed project will
23 deprive you of that riparian right?

24 WITNESS ELLIOT: Well, if I'm looking at the
25 boundaries -- if I'm looking at the boundaries, I'm

1 assuming that the project's going to take my diversion
2 and also take the parcel that is going to be cut. My
3 parcel is going to be cut in sections. But I'm losing
4 the ability to be next -- I'm losing my ability to
5 access the river. So everything east will not have
6 access to the river. I lose that. I lose my riparian
7 rights that I had.

8 CO-HEARING OFFICER DODUC: Thank you.

9 MR. MIZELL: Thank you very much, Mr. Elliot.
10 I'm going to move on to Mr. Wilson, please.

11 Can we bring up Land 69, please?

12 Mr. Wilson, do you recognize this document?

13 WITNESS WILSON: Do I recognize that there's
14 a -- I recognize the document, yeah. I don't have it --
15 I haven't memorized it.

16 MR. MIZELL: Thankfully, right? Because
17 that's -- I don't even want to memorize that.

18 Isn't it true that this is a draft document?

19 WITNESS WILSON: I think that's fairly
20 apparent.

21 MR. MIZELL: And do you know what the date of
22 this document is?

23 WITNESS WILSON: No.

24 MR. MIZELL: Do you have any understanding of
25 whether or not it's been updated?

1 WITNESS WILSON: No.

2 MR. MIZELL: Does the document indicate that
3 it was prepared for draft internal discussion purposes
4 only?

5 WITNESS WILSON: No, that's not my
6 understanding. I'm assuming that a draft document is
7 put out to discuss with everybody the fact that I have
8 access to it. It's a public meeting, says it's not
9 private.

10 MR. MIZELL: Mr. Long, could you enlarge the
11 bottom footer of this page, please?

12 Would the footer of this document change your
13 belief as to why this document was prepared?

14 WITNESS WILSON: Again, whether it says it's a
15 confidential draft or a draft or anything else, to me,
16 if it's out in there in the public and easily
17 accessible, it is a document that, you know -- perhaps
18 if you told me where you were going with this question,
19 I could answer you more clearly.

20 MR. MIZELL: Mr. Wilson, are you aware of the
21 Public Records Act?

22 WITNESS WILSON: Was there a question?

23 MR. MIZELL: Are you aware of the
24 Public Records Act?

25 WITNESS WILSON: I'm not an attorney; I'm a

1 farmer. No, I'm not aware of it.

2 MR. MIZELL: You're not aware that it exists?

3 WITNESS WILSON: Well, I'm aware that it
4 exists, but that's about the end of it.

5 MR. MIZELL: Okay. Thank you.

6 What's the basis for your earlier testimony
7 that DWR will reverse the flow of the Sacramento River?

8 WITNESS WILSON: The flow of the
9 Sacramento River is many, many times less than
10 9,000 cubic feet a second. This project has capacity of
11 9,000 cubic feet a second and if it was enhanced later
12 on, probably 15,000 cubic feet a second. Logic --
13 hydraulic logic would always say that it has the ability
14 to reverse the flow.

15 MR. MIZELL: So your basis for that belief is
16 speculation on a project that is not being proposed to
17 the State Water Board?

18 WITNESS WILSON: Repeat that question?

19 MR. MIZELL: You just indicated that your --
20 the basis of your belief that DWR will reverse the flow
21 of the Sacramento River was a speculative 15,000 CFS
22 project that's not before the State Water Board. I'm
23 asking if that's correct.

24 WITNESS WILSON: I believe, given the paucity
25 of details in these programs and what little we have

1 been shown, that speculation is the only way to approach
2 this project, you know.

3 If you want to give me more specific
4 information, I could give you a more specific answer.
5 But we have not seen a lot of details on this project,
6 and I think that's one of the problems.

7 MR. MIZELL: Are you aware of the petition
8 that was submitted to this State Water Board that
9 initiated this hearing?

10 WITNESS WILSON: Am I aware there was a
11 petition that initiated this hearing that I'm currently
12 at? Yes.

13 MR. MIZELL: And are you aware of the maximum
14 CFS requested in that petition?

15 WITNESS WILSON: I'm aware that that is a
16 speculation on your part that they will hold to that.

17 We have a certain level of distrust in the
18 Delta that commitments have been made and have not been
19 followed through, such as salinity control on the
20 North Delta Water Project; that many times rules have
21 been violated that were assured to us that they would
22 not be violated.

23 So I'm not basing any of my conclusions on
24 that number in the petition. You're right, they are
25 speculation.

1 MR. MIZELL: Is it your testimony that the
2 entirety of your property is being taken by this
3 project?

4 WITNESS WILSON: Yes. And every single
5 proposal for Intake No. 2 going back many, many
6 iterations has shown that. And it's the first logical
7 wide spot above the bend in the river that you would
8 normally put that intake at. So any type of rational
9 logic would say that would be the location of it.

10 MR. MIZELL: Thank you very much, Mr. Wilson.

11 WITNESS WILSON: Are we done?

12 MR. MIZELL: Yes, thank you.

13 I'd like to turn to Mr. Tootle.

14 Did you draft what has been marked Land 35
15 errata?

16 WITNESS TOOTLE: Could you put up 35 errata
17 for me?

18 Yes.

19 MR. MIZELL: Did anyone assist you in drafting
20 the testimony in Land 35 errata?

21 WITNESS TOOTLE: Yes.

22 MR. MIZELL: Who was that?

23 WITNESS TOOTLE: I collaborated with
24 Dr. Robert Pyke.

25 MR. MIZELL: Anyone else?

1 WITNESS TOOTLE: No.

2 MR. MIZELL: Can you identify for us the
3 portions of your testimony that Mr. Pyke drew?

4 WITNESS TOOTLE: They're primarily the
5 portions that were stricken from this panel. I believe
6 that to be part of the Part 2 panel, if I have had right
7 terminology.

8 MR. MIZELL: Thank you.

9 As you note in your testimony, the California
10 WaterFix proposes to use slurry cutoff walls at specific
11 construction sites to isolate the effects of dewatering,
12 correct?

13 WITNESS TOOTLE: That's correct.

14 MR. MIZELL: And you recognize in your
15 testimony that this technique is effective at reducing
16 potential construction-related impacts of dewatering,
17 correct?

18 WITNESS TOOTLE: If constructed properly, yes.

19 MR. MIZELL: And isn't it correct that your
20 concerns expressed today and in your written testimony
21 are those regarding slurry walls limited to long-term
22 impacts at the intake and shaft locations?

23 WITNESS TOOTLE: The impacts of slurry walls
24 would be both short-term and long-term.

25 MR. MIZELL: In your testimony, you also

1 indicate that you're concerned about impacts on
2 groundwater based upon the tunnels, correct?

3 WITNESS TOOTLE: The tunnel structures do have
4 the potential, in my opinion, of altering the current
5 groundwater flow which could result in the injury to
6 adjacent groundwater users.

7 MR. MIZELL: And is that concern based upon
8 the size of the tunnel in proximity to the groundwater
9 wells?

10 WITNESS TOOTLE: The larger the tunnel, the
11 larger the potential for the impact. So if it's a large
12 structure, it has a larger potential to negatively
13 impact or injure those water users that are adjacent to
14 the facility.

15 MR. MIZELL: Is there any relationship between
16 the distance between the tunnel and the well in
17 measuring impact?

18 WITNESS TOOTLE: It's highly dependent on the
19 subsurface stratigraphy.

20 MR. MIZELL: Are the locations of potential
21 wells you cite to Land 58 and 59?

22 WITNESS TOOTLE: Correct.

23 MR. MIZELL: You indicated previously that's
24 not an exhaustive list of wells, in your opinion,
25 correct?

1 WITNESS TOOTLE: That is my opinion.

2 MR. MIZELL: And the wells identified in
3 Land 59 came from the San Joaquin County Department of
4 Health?

5 WITNESS TOOTLE: I haven't memorized the
6 number of the slides, so I can't speak directly to
7 whether 59 was San Joaquin County or any other county.
8 If you bring it up, it might be helpful.

9 MR. MIZELL: Mr. Long, can we bring up
10 Land 59, please?

11 Does this refresh your memory?

12 WITNESS TOOTLE: It does.

13 Can you repeat your question?

14 MR. MIZELL: Certainly. Are the locations of
15 the wells indicated in Land 59 from the San Joaquin
16 County Health Department?

17 WITNESS TOOTLE: I believe representatives of
18 San Joaquin County prepared this map, but they relied on
19 multiple sources based on my conversations with them.
20 Only one of their data sources was the health
21 department.

22 MR. MIZELL: Do you recall what the other
23 sources were?

24 WITNESS TOOTLE: They included oral
25 conversations with well users. They were also based on

1 the knowledge of the civil works, the water distribution
2 systems that are servicing areas. So if there's -- if
3 there is a user of domestic water that is not connected
4 to a municipal system, the assumption was made that it
5 was a domestic well that was supplying the water.

6 MR. MIZELL: To be clear, some of the marks on
7 this exhibit that would indicate a well location are
8 assumed locations based on merely the presence of a
9 resident not connected to a municipal system, correct?

10 WITNESS TOOTLE: That's simply one of the
11 potential data sources that was used to compile the map.

12 MR. MIZELL: How certain are you that wells
13 exist at those locations?

14 WITNESS TOOTLE: I have not personally visited
15 the site and observed the well, so I couldn't positively
16 identify a well location based on my personal
17 observation.

18 MR. MIZELL: So earlier I believe you
19 indicated that the individuals who prepared these maps
20 relied upon either GPS locations, lat/longs, parcel
21 numbers or, as we just went over, the assumption based
22 upon the residents unconnected to a municipal supply?

23 WITNESS TOOTLE: Those were parts -- that was
24 parts -- those pieces of information were used to
25 develop these maps.

1 MR. MIZELL: Are you aware of any additional
2 pieces of information that I did not just list?

3 WITNESS TOOTLE: Well, there were, like I say,
4 conversations that took place with well-drilling
5 contractors as well as property owners.

6 I don't have very specific knowledge
7 personally which map reflects which set of data, but
8 those pieces of data were also included in the overall
9 preparation of the well location maps that we've seen
10 today.

11 MR. MIZELL: Are you aware of the specificity
12 with which the locations were identified during those
13 conversations?

14 WITNESS TOOTLE: What do you mean by
15 "specificity"?

16 MR. MIZELL: Precisely where on the map a well
17 would be located.

18 WITNESS TOOTLE: If there was a latitude and
19 longitude record, that's where the dot is on the map.

20 If there was a parcel number, I would -- some
21 of those dots were placed in the middle of the parcel
22 with no other piece of information to know exactly where
23 the dot was. And any other information gathered through
24 oral interview would be accurate to the degree that the
25 person being interviewed was able to locate it.

1 MR. MIZELL: So just so I'm perfectly clear in
2 my brain on this, it sounds as though, if precise,
3 either lat/long or GPS coordinates were not available,
4 it was presumed to be in the center of the parcel; is
5 that correct?

6 WITNESS TOOTLE: In some cases, I believe that
7 is correct. Not necessarily all cases.

8 MR. MIZELL: Are the well locations in
9 Exhibits Land 58 and 59 the basis on which you conclude
10 that there are impacts from the proposed project?

11 WITNESS TOOTLE: The specific locations aren't
12 the basis of my conclusion. As was stated earlier, the
13 groundwater in this area -- I think the words used were
14 "moves in mysterious ways."

15 The reason it's mysterious is because of the
16 complexity I spoke to earlier. The location of the
17 aquifers and the aquitards and aquicludes are very
18 complex and difficult to know. So the specific location
19 of any specific dot on a map is less significant than
20 the overall understanding of the subsurface geology, how
21 it got there and how water moves through it. So it's
22 really the basis of that that is my conclusion.

23 MR. MIZELL: And based on that generality,
24 isn't it true that your testimony can't be used to show
25 specific injury to any particular well?

1 WITNESS TOOTLE: It's difficult to quantify
2 the amount of injury that could occur just based on the
3 lack of data that's been collected by the project
4 proponents.

5 There's a -- not very much subsurface
6 information. The subsurface conditions are not very
7 well characterized, in my opinion. So it's difficult to
8 quantify what the injury is. But then it's equally as
9 difficult, if not impossible, to conclude there is no
10 potential for injury.

11 MR. MIZELL: What is meant by the legend next
12 to the red dot that says "Potential Potable" -- down at
13 the bottom of the page -- "Water System Well"?

14 WITNESS TOOTLE: I don't know the specific
15 meaning of that word or those words.

16 MR. MIZELL: Are you aware that wells
17 indicated by red dots actually exist?

18 WITNESS TOOTLE: Can you say that again?

19 MR. MIZELL: Are you aware if wells indicated
20 by red dots actually exist?

21 WITNESS TOOTLE: I think I explained the
22 source data for the dots on the maps. So as far as that
23 data goes, that's my understanding.

24 MR. MIZELL: So is your answer no, you do not
25 know if these wells actually exist?

1 WITNESS TOOTLE: As stated last time, I have
2 not seen them with my own eyes. I know the data sources
3 that were used to collect this information, and that's
4 what I testified to here today.

5 MR. MIZELL: Does your testimony identify the
6 depth of any wells indicated in 58 or 59?

7 WITNESS TOOTLE: I don't recall if I indicated
8 well depths in my testimony.

9 MR. MIZELL: Do you recall if you indicated
10 the depth of any screens on any of the wells in Land 58
11 or 59?

12 WITNESS TOOTLE: I don't recall.

13 MR. MIZELL: Have you inspected any well
14 drilling logs or reports to determine the soils and
15 respective depths of soils in the vicinity of any of the
16 wells indicated on Land 58 and 59?

17 WITNESS TOOTLE: I have not.

18 MR. MIZELL: Is it true that you relied on
19 geologic maps of near-surface geology to support your
20 conclusions?

21 WITNESS TOOTLE: Which conclusions are those?

22 MR. MIZELL: Those contained in your
23 testimony.

24 MR. KEELING: Objection. Vague and ambiguous.

25 CO-HEARING OFFICER DODUC: Mr. Mizell?

1 MR. MIZELL: Yes, I'm trying to think of a way
2 to walk us through the exhibits maybe to get to my
3 question more clearly.

4 If we could bring up Land 37, errata. Page 2
5 -- not 37.

6 CO-HEARING OFFICER DODUC: Yes, because we
7 can't pull that up.

8 MR. MIZELL: Sorry. I'm reading the wrong
9 one. That was my objection line.

10 CO-HEARING OFFICER DODUC: You cannot have
11 your cake and eat it, too, Mr. Mizell.

12 MR. MIZELL: Land 35 errata. Page 2.

13 I'm looking for lines 13 to --

14 CO-HEARING OFFICER DODUC: Mr. Mizell, your
15 one hour is up. How much additional questions do you
16 have?

17 MR. MIZELL: If I could request an additional
18 20 minutes. I spent a bit longer delving into the
19 farming questions than I had anticipated.

20 But I believe --

21 CO-HEARING OFFICER DODUC: I believe you still
22 have mitigation measures and soil types to cover.

23 MR. MIZELL: Correct.

24 CO-HEARING OFFICER DODUC: And you're now
25 focusing on groundwater well proximity?

1 MR. MIZELL: That is correct.

2 CO-HEARING OFFICER DODUC: All right. Let's
3 give you another 20 minutes, and we'll take a break at
4 that time.

5 MR. MIZELL: Thank you.

6 Looking at lines 13 through 18.

7 WITNESS TOOTLE: All right.

8 MR. MIZELL: Is the Atwater report the basis
9 of the conclusions you draw in your testimony?

10 WITNESS TOOTLE: I relied on Atwater's map as
11 part of the data that formed my conclusion.

12 MR. MIZELL: Would you characterize Atwater's
13 map as a geologic map?

14 WITNESS TOOTLE: I would.

15 MR. MIZELL: Is Atwater's map only a
16 near-surface geology?

17 WITNESS TOOTLE: The map is of the ground
18 surface, yes. It does indicate where some concealed
19 below-surface deposits or former channels may exist or
20 likely exist. So it would depend on your definition of
21 "near surface." It's a relative term.

22 MR. MIZELL: Previously I believe you
23 indicated it was prepared with the use of aerial
24 photography; is that correct?

25 WITNESS TOOTLE: These types of maps typically

1 rely on historical aerial photograph review, yes.

2 MR. MIZELL: Is this map the basis on which
3 you claim that subsurface soils are complex?

4 WITNESS TOOTLE: It would depend on your
5 definition of "subsurface." That includes near surface
6 or not?

7 MR. MIZELL: In your use of the term
8 "subsurface," what was your intended meaning?

9 WITNESS TOOTLE: I'd have to have more context
10 to your question.

11 MR. MIZELL: It's my understanding previously
12 in your testimony you distinguished between near surface
13 and subsurface when discussing your testimony. Is that
14 a correct understanding?

15 WITNESS TOOTLE: Yes.

16 MR. MIZELL: And in that distinction, how deep
17 does near surface go and from how deep does subsurface
18 go, or are they one in the same?

19 WITNESS TOOTLE: My intent would be that they
20 were different and that the subsurface would be deeper
21 than as described on just the surface of Atwater's map.

22 MR. MIZELL: And so for discussions about the
23 subsurface soil types, if it's not contained in
24 Atwater's map, if it's deeper than Atwater's map, as you
25 just indicated, what is the basis of that discussion?

1 WITNESS TOOTLE: It's the, I guess, general
2 knowledge of the geologic deposition of the area. So
3 the -- Atwater's map is of the current surface and is
4 describing the geology that's there, where there is
5 geologic processes that have occurred over hundreds of
6 thousands and millions of years that have shaped the
7 subsurface soils that are below the surface of Atwater's
8 map.

9 MR. MIZELL: Was there any data provided in
10 your testimony that describes the subsurface soil
11 composition?

12 WITNESS TOOTLE: The data that was presented
13 was the very limited data that's in DWR's documents.

14 MR. MIZELL: So you provided no additional
15 information on the complexity of the subsurface soils;
16 is that correct?

17 WITNESS TOOTLE: I did provide a couple
18 illustrations from a different reference source that
19 attempts to illustrate the -- the fluvial
20 geomorphological processes that have deposited some of
21 these soils.

22 MR. MIZELL: If I understand correctly, those
23 were the figures contained in Land 37, page 2?

24 WITNESS TOOTLE: That sounds correct, yes.

25 MR. MIZELL: If we could bring up Land 37,

1 page 2, please.

2 Looking at these figures that you've provided,
3 how deep do they go?

4 WITNESS TOOTLE: There's no scale provided.
5 They're intended to be illustrative.

6 MR. MIZELL: In your estimation, how close to
7 the proposed tunnel alignment is the most at-risk well
8 that you point to in your testimony?

9 WITNESS TOOTLE: Given the limited data
10 available for this project, it's -- that's almost an
11 impossible question to ask.

12 The proximity in plan view of any particular
13 well, the tunnel alignment, is not as important as the
14 shape of the subsurface aquifer in which the well is
15 drawing water.

16 As you can see from the illustrations on the
17 screen, it can be very complex. Wells that are very
18 close to the alignment may have very little impact.
19 Wells that are farther away may have a very big impact.

20 MR. MIZELL: If we could bring up Land 59,
21 page 5, please.

22 I'll assert to you as a hypothetical that the
23 blue dot in the upper right-hand of this image is the
24 closest well indicated in the Exhibit Land 59 that is a
25 distinct distance from a major water course.

1 With that hypothetical in mind, how far away
2 from the tunnel alignment would you say that right-hand
3 blue dot is?

4 WITNESS TOOTLE: I believe there's a scale on
5 the bottom of the map, but I can't read it at this
6 resolution.

7 MR. MIZELL: Mr. Long, could we blow up the
8 bottom scale, please?

9 WITNESS TOOTLE: Could you pan down, Mr. Long?
10 Go back up to the dot.

11 It appears to be approximately a thousand
12 feet, if that scale is correct.

13 MR. MIZELL: Are you aware if this particular
14 dot is an assumed location or a known location?

15 WITNESS TOOTLE: I guess you'd have to define
16 the terms "assumed" and "known."

17 MR. MIZELL: Actually, for purposes of this
18 hypothetical, let's assume this was one of the locations
19 that actually had a specific location provided.

20 WITNESS TOOTLE: By "specific," you mean a GPS
21 or a latitude and longitude?

22 MR. MIZELL: Yeah. So let's assume it's
23 accurate, and it's a thousand feet, by your estimation,
24 from the alignment.

25 WITNESS TOOTLE: Okay.

1 MR. MIZELL: Is that correct? If the scale is
2 accurate.

3 WITNESS TOOTLE: That's approximate, yes.

4 MR. MIZELL: If we could bring up DWR-574,
5 please. This was provided on the thumb drive. We'll be
6 providing paper copies as well.

7 I'll assert to you now for the purposes of
8 this hypothetical that this is a scale drawing prepared
9 by one of our engineers of that well location and the
10 pipeline alignment. And DWR will authenticate it in
11 rebuttal.

12 When you've had a chance to review the
13 exhibit, just let me know when you're ready to answer my
14 questions.

15 WITNESS TOOTLE: Ready for your question.

16 MR. MIZELL: Is it your belief that the blue
17 dot on the left-hand side of the image that indicates
18 the 40-foot diameter tunnel would impact the groundwater
19 indicated by the small red line in the center of the
20 image?

21 MR. KEELING: Objection. Calls for
22 speculation based on an incomplete hypothetical
23 parameters not established, such as the variety of the
24 soil types, et cetera.

25 CO-HEARING OFFICER DODUC: I acknowledge that,

1 but Mr. Tootle is an expert in this area, so I will ask
2 him to answer to the best of his ability. And if he
3 needs more information or cannot answer, he's free to
4 say so.

5 WITNESS TOOTLE: There's insufficient data in
6 the cross-section to draw any conclusion. The soil
7 deposits are described as saturated sands, clays, and
8 silts.

9 As I testified earlier, the hydraulic
10 conductivity of clay and sand could be hundreds or
11 thousands of -- the sand could be hundreds or a thousand
12 times more than permeable than the clay. And without
13 seeing what the stratigraphy is and the relationship
14 between the tunnel and the well, it would be impossible
15 to say that there was no potential impact or what the
16 degree to the impact would be.

17 It's clear that the tunnel would alter the
18 subsurface flow of water in one degree or another, but
19 the degree to which it will alter it cannot be derived
20 from this figure.

21 MR. MIZELL: What is basis of your belief that
22 that the tunnel would alter the groundwater as it
23 relates to that indicated well?

24 WITNESS TOOTLE: I don't believe I made that
25 statement.

1 MR. MIZELL: Can you please clarify the
2 statement that you just made?

3 WITNESS TOOTLE: I said it's impossible to
4 tell from this cross-section and the data on it what
5 impact the tunnel would have or to what degree it would
6 impact the well.

7 But it's an impermeable object amongst what
8 appears to be a mixture of permeable and impermeable
9 soils. So my statement that it will alter the flow of
10 the groundwater, that, I believe to be a true statement.
11 The degree to which it will alter it is impossible to
12 define based on this figure.

13 MR. MIZELL: So based upon your knowledge of
14 the area and the location that we've indicated that this
15 hypothetical well is on the Land 59 exhibit, it's
16 impossible to tell whether or not the tunnel would
17 impact the well on this figure?

18 WITNESS TOOTLE: It's impossible to make the
19 statement that it will not impact the well. I think
20 that's the impossibility.

21 MR. MIZELL: And do you believe that knowing
22 the subsurface strata would help inform that
23 understanding?

24 WITNESS TOOTLE: It would help inform it, yes.

25 MR. MIZELL: If there were more sands or

1 highly permeable layers in the vicinity of this well,
2 there would be a lesser likelihood of impact than if
3 there were impermeable layers in the vicinity of this
4 well; is that correct?

5 WITNESS TOOTLE: It would depend on the
6 interrelation between the two, not necessarily the
7 quantity of either one.

8 MR. MIZELL: Mr. Long, could we bring up
9 DWR-212? I'm looking for page 3-18.

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

12 MR. MIZELL: No, I do not.

13 If you could search for Figure 3-2d, lowercase
14 "d," that might bring it up.

15 CO-HEARING OFFICER DODUC: I don't think the
16 search is going well.

17 MR. MIZELL: The page number is 3-189. I'm
18 not sure how PDF identifies it, if you could put that in
19 the page number or not.

20 CO-HEARING OFFICER DODUC: Mr. Long, I suggest
21 you stop the search, because it's taking a very long
22 time, and see where we are. And then just scroll.

23 I think we killed the computer.

24 We're on Section 3. That's a good sign.

25 3 what, Mr. Mizell?

1 MR. MIZELL: 3-18. Maybe there's a way to
2 short-cut this. Maybe if we go to page 55.

3 CO-HEARING OFFICER DODUC: Let's not short-cut
4 anymore. We're almost there. 3-4. Keep going.

5 Ms. Heinrich pointed out that it was in the
6 revised PowerPoint, that we disregard it. Thank you so
7 much, Mr. Mizell.

8 MR. MIZELL: I believe they actually put
9 page 55, which is 3-2c in their PowerPoint, and I'm
10 referring to 3-2d. But, yes, very good.

11 In your testimony, you discussed your
12 interpretation of the colors on these watering charts.
13 Is it your belief that yellow indicates high
14 conductivities and blue indicates low conductivities?

15 WITNESS TOOTLE: That's generally correct.

16 MR. MIZELL: Do you see the indicator
17 "Bacon Island reception shaft"?

18 WITNESS TOOTLE: I do.

19 MR. MIZELL: I'll assert this was the
20 reception shaft that was directly downstream of the well
21 we previously were discussing in the hypothetical.

22 If that assertion is correct, what are the
23 general soil types in the upper 80 feet of the borings
24 located on either side of the Bacon Island reception
25 shaft?

1 WITNESS TOOTLE: They're a mixture of just
2 about everything.

3 MR. MIZELL: Are they generally yellow or
4 generally blue?

5 WITNESS TOOTLE: The boring that's marked the
6 last two digits 51 has more yellow than the boring
7 indicated with 053.

8 CO-HEARING OFFICER DODUC: Mr. Mizell, your
9 additional 20 minutes is up.

10 And you, as far as I can ascertain, spent it
11 all on ground water well proximity.

12 MR. MIZELL: We were just getting to soil
13 types. And in order not to expend any more time on
14 searching for page numbers, I have maybe one or two
15 questions left and I'll wrap up.

16 CO-HEARING OFFICER DODUC: Please do.

17 MR. MIZELL: Mr. Tootle, are you aware that
18 Mitigation Measure Groundwater 1 would put in place
19 monitoring of groundwater along the construction
20 alignment prior to beginning construction and establish
21 a baseline of groundwater levels in the vicinity of the
22 pipeline?

23 WITNESS TOOTLE: Yes.

24 MR. MIZELL: And are you aware that the
25 groundwater mitigation measures proposed -- proposing

1 mitigate any impacts from that identified baseline?

2 WITNESS TOOTLE: I'm not sure what's meant by
3 "any." That's a very broad term. Impacts could be
4 widely varying.

5 MR. MIZELL: True. I'll be more specific.

6 Are you aware that the department proposes to
7 mitigate groundwater impacts?

8 WITNESS TOOTLE: I believe I have read that,
9 yes. I don't know what they mean by "impact." Again,
10 it's a general term.

11 MR. MIZELL: Thank you very much for your
12 patience.

13 WITNESS TOOTLE: You're welcome.

14 MR. MIZELL: That's all my cross-examination
15 for this panel. Thank you.

16 CO-HEARING OFFICER DODUC: Thank you,
17 Mr. Mizell.

18 Before we break, let me ask. I believe
19 Ms. Morris, Ms. Akroyd, Mr. Herrick, Ms. Des Jardins,
20 and Ms. Suard, who is now here, also have
21 cross-examination.

22 Do any of you have cross-examination for
23 Mr. Wilson, Mr. van Loben Sels, or Mr. Elliot?

24 MS. MORRIS: No.

25 MS. AKROYD: Yes.

1 CO-HEARING OFFICER DODUC: How much time do
2 you anticipate just for those three gentlemen?

3 MS. AKROYD: Maybe 15 minutes.

4 CO-HEARING OFFICER DODUC: Okay. Who else?

5 MR. HERRICK: No. John Herrick.

6 MS. SUARD: Mr. van Loben Sels.

7 CO-HEARING OFFICER DODUC: About?

8 MS. SUARD: Ten minutes.

9 CO-HEARING OFFICER DODUC: Okay.

10 Ms. Des Jardins?

11 MS. DES JARDINS: 15, maybe 20.

12 CO-HEARING OFFICER DODUC: If it's all right
13 with everyone, I would like to resume with just
14 cross-examination of Mr. Wilson, Mr. van Loben Sels, and
15 Mr. Elliot so that we can dismiss them unless they want
16 to stay for the rest of the time.

17 We will start with Ms. Akroyd, followed by
18 Ms. Des Jardins, followed by Ms. Suard. I believe those
19 are ones that have questions for these three gentlemen;
20 is that correct?

21 MR. HERRICK: If you're going to hold them
22 to -- I'll have like two minutes of questions.

23 CO-HEARING OFFICER DODUC: Okay. Insert
24 Mr. Herrick's name as well.

25 With that, we'll take our 15-minute break, and

1 we will resume at 2:45.

2 (Off the record at 2:28 p.m. and back on
3 the record at 2:45 p.m.)

4 CO-HEARING OFFICER DODUC: All right. Thank
5 you, everyone. It is 2:45. We are back in session.

6 And even though I didn't specifically say so,
7 I hope from now on everyone understands to take
8 advantage of the break to work with Mr. Long and
9 Ms. McCue if you have documents or things that need to
10 be put up on the screen as you are conducting your
11 cross-examination. It will be very helpful to get that
12 all set up at a time during the break.

13 Since Ms. Akroyd has been patiently waiting
14 for us, I'm assuming she's ready to go.

15 Please proceed with your cross-examination.

16 We're now just focused on Mr. Wilson,
17 Mr. van Loben Sels, and Mr. Elliot.

18 --o0o--

19 CROSS-EXAMINATION

20 MS. AKROYD: Thank you.

21 Rebecca Akroyd for the San Luis Delta-Mendota
22 Water Authority.

23 First, the summary for you. I have several
24 questions regarding the testimony on injury from changes
25 in water levels and water quality and then several

1 questions regarding support for claimed water rights.

2 CO-HEARING OFFICER DODUC: Okay.

3 MS. AKROYD: I'd like to begin with some
4 questions for Mr. Wilson.

5 Mr. Long, if I could have you bring up
6 Land 20. Just leave it on page 1 for now.

7 Mr. Wilson, in your written testimony, you
8 discussed lower water levels in the North Delta that
9 will result from the WaterFix project, correct?

10 WITNESS WILSON: Correct.

11 MS. AKROYD: You haven't done any modeling of
12 potential changes in water levels if WaterFix is built
13 and operated; is that right?

14 WITNESS WILSON: Have I done any --

15 MS. AKROYD: Have you done any analysis or
16 modeling?

17 WITNESS WILSON: Last modeling was 1986, so I
18 have not done any recent modeling.

19 MS. AKROYD: And has anyone done any modeling
20 on your behalf with the potential changes in water
21 levels if the WaterFix Project is built and operated?

22 WITNESS WILSON: That's an interesting
23 question.

24 I would have to make the argument that I have
25 that modeling in my head. It makes perfect sense to me

1 that if you remove 9,000 CFS upstream in the
2 Sacramento River, it will lower the Delta, yes.

3 So have I done any computer simulations? No.
4 If that's your specific question.

5 MS. AKROYD: Yes. That's my specific
6 question. Your answer is no then?

7 WITNESS WILSON: No, my answer is yes. I
8 haven't done any computer simulation.

9 MS. AKROYD: Elsewhere in your testimony you
10 state that changes to water quality downstream of the
11 proposed intakes are also a concern for you, correct?

12 WITNESS WILSON: That is correct.

13 MS. AKROYD: And you haven't done any computer
14 simulation modeling of any potential changes in water
15 quality if WaterFix is built and operated?

16 WITNESS WILSON: I have not done any computer
17 simulations of water quality or water levels.

18 MS. AKROYD: No one else has done any such
19 modeling on your behalf; is that correct?

20 WITNESS WILSON: Well, I think DWR has done a
21 lot of simulations on my behalf. And I assume they're
22 working for me, and I'm assuming other people have done
23 simulations on my behalf. But specifically, have I
24 hired anybody? No.

25 MS. AKROYD: Thank you.

1 Now moving on to some questions for
2 Mr. Elliot.

3 Bring up Land 25. Go to page 2, middle of the
4 page. Thank you.

5 Mr. Elliot, in your written testimony, you
6 reference riparian and pre-1914 water rights, correct?

7 WITNESS ELLIOT: Correct.

8 MS. AKROYD: And there you, at approximately
9 lines 12 to 14, you state that documentation of your
10 water rights are on file with the Water Board, and you
11 reference Exhibits Land 53 and Land 7.

12 Do you see that?

13 WITNESS ELLIOT: Yes.

14 MS. AKROYD: Thank you.

15 Mr. Long, if we can go to the exhibit index
16 for this group, please, land, and to Land 53.

17 And there it indicates that Mr. Elliot's water
18 rights are described in the protest that was filed on
19 January 5th, 2016.

20 I'd like to go ahead and bring up that
21 protest. On the jump drive I provided, Mr. Long, it's
22 Exhibit SLDMWA-6. It's a copy of the land protest. I
23 have hard copies I can provide if necessary.

24 CO-HEARING OFFICER DODUC: You might want to
25 show it to Mr. Elliot.

1 Would you like a hard copy in addition to
2 what's being shown on the screen?

3 WITNESS ELLIOT: Sure.

4 CO-HEARING OFFICER DODUC: Let's give him a
5 hard copy.

6 MS. AKROYD: Thank you. This is a copy of the
7 protest filed by land. If we all go to page 4 of the
8 protest.

9 There the protest references a description of
10 land affiliated water rights in Exhibit B. It's
11 approximately the middle of the page in bold. "See
12 description of land affiliated water rights in
13 Exhibit B."

14 Do you see that?

15 WITNESS ELLIOT: Yes.

16 MS. AKROYD: If we can go to Exhibit B.
17 Begins PDF page 26.

18 So, Mr. Elliot, toward the back end of your
19 packet.

20 CO-HEARING OFFICER DODUC: Very efficient,
21 Ms. Akroyd. Thank you.

22 MS. AKROYD: Can you -- can you start
23 scrolling to the next page, please? Thank you.

24 About halfway down the page, there's a general
25 description of the location of land water rights. And

1 the statement that, "Due to time constraints, the
2 description of water rights within the land area may be
3 supplemented with additional information."

4 Do you see that?

5 WITNESS ELLIOT: Yes.

6 MS. AKROYD: Are you aware whether land has
7 submitted any additional documentation of your water
8 rights in relation to this hearing?

9 WITNESS ELLIOT: No.

10 MS. AKROYD: And you haven't presented any
11 documentation of your claimed riparian or pre-1914
12 rights here today; is that right?

13 WITNESS ELLIOT: Correct.

14 MS. AKROYD: Thank you.

15 Now, Mr. Long, if we could please go back to
16 Land 25.

17 I have a few questions that are similar to the
18 one questions I just asked of Mr. Wilson.

19 Here in your written testimony, you state
20 concerns about lower water levels and increased salinity
21 from the WaterFix project; is that right?

22 WITNESS ELLIOT: Yes.

23 MS. AKROYD: You haven't done any modeling of
24 potential changes in water levels if WaterFix is built
25 and operated; is that correct?

1 WITNESS ELLIOT: That's correct.

2 MS. AKROYD: And no one else has done any such
3 modeling on your behalf; is that correct?

4 WITNESS ELLIOT: Not on my behalf.

5 MS. AKROYD: Thank you.

6 Finally, similar line of questions for
7 Mr. van Loben Sels. Excuse me.

8 This will all sound very familiar. If we can
9 first bring up Land 30, page 1, but if we can scroll
10 down to lines beginning 11 or 12. Scroll down just --
11 next page, please. Here we go.

12 Mr. van Loben Sels, on page 1 of your
13 testimony, you reference riparian and pre-1914 water
14 rights for Amistad Ranches, correct?

15 WITNESS VAN LOBEN SELS: Yes.

16 MS. AKROYD: Land hasn't submitted any
17 additional documentation of your water rights in
18 relation to this hearing; is that right?

19 WITNESS VAN LOBEN SELS: Not that I'm aware
20 of.

21 MS. AKROYD: And you haven't presented any
22 documentation of your claimed riparian or pre-1914
23 rights here today?

24 WITNESS VAN LOBEN SELS: Not today. That
25 doesn't mean it hasn't been presented at another time.

1 MS. AKROYD: But you haven't presented any
2 documentation in this hearing, correct?

3 WITNESS VAN LOBEN SELS: This hearing, I
4 believe there is reporting that has been done that --
5 that State Water Resources Control Board has that claims
6 both riparian, pre-1914, as well as contractual rights
7 under the North Delta Water Agency's contract.

8 I believe that's part of this hearing.

9 MS. AKROYD: To perhaps narrow it slightly,
10 are you aware of any exhibits that have been submitted
11 as documentation of your riparian?

12 WITNESS VAN LOBEN SELS: Not particular
13 exhibits, no.

14 MS. AKROYD: Thank you.

15 If we can scroll down to the next page of the
16 testimony, page 2, top of the page.

17 In your written testimony on page 2, you
18 identify your concern that the WaterFix Project will
19 result in downstream water degradation.

20 Do you see that?

21 WITNESS VAN LOBEN SELS: Yes.

22 MS. AKROYD: You haven't done any modeling of
23 potential changes in water quality if WaterFix is built
24 or operated, correct?

25 WITNESS VAN LOBEN SELS: I have not done any

1 modeling. However, I don't think that either
2 establishes or does not establish that this will happen.

3 Just from a logical point of view, if you
4 reduce the barrier, hydraulic barrier, to the ocean,
5 which is flow, by diverting in the north part of the
6 Delta, you will change the water quality. The water
7 quality will be worse.

8 That's not based on modeling, which was your
9 question. But, however, it's a logical conclusion.

10 MS. AKROYD: Thank you for that.

11 Understanding what you just explained, to have
12 a complete record, no one else has done any such
13 computer simulation modeling on your behalf of any
14 changes in the water quality?

15 WITNESS VAN LOBEN SELS: I'm not sure if
16 that's the case. There's a consortium of water
17 people -- I think the North Delta Water Agency is
18 involved as well as upstream -- that have done modeling
19 and perhaps is part of this process. I'm not sure. But
20 there has been modeling done to establish just what I'm
21 showing or suggesting.

22 MS. AKROYD: In relation to your written
23 testimony here, however, you're not relying on any such
24 modeling?

25 WITNESS VAN LOBEN SELS: No. I'm relying on

1 common sense.

2 MS. AKROYD: Thank you.

3 I have nothing further for this panel.

4 CO-HEARING OFFICER DODUC: Thank you,

5 Mr. Akroyd.

6 Mr. Herrick?

7 --oOo--

8 CROSS-EXAMINATION

9 MR. HERRICK: John Herrick for North Delta and
10 other parties. I just have a couple questions.

11 Mr. van Loben Sels, do you have experience in
12 flood-fighting, flood-prevention work?

13 WITNESS VAN LOBEN SELS: Yes.

14 MR. HERRICK: Is it your understanding that
15 the intakes proposed for the California WaterFix have
16 structures that extend out into the channel of the
17 Sacramento River?

18 WITNESS VAN LOBEN SELS: Yes.

19 MR. HERRICK: Do you have any concerns with
20 the existence of the structures in the middle of the
21 channel or out in the channel?

22 WITNESS VAN LOBEN SELS: Yes. There will be
23 some scouring that will occur. Because of that, I'm
24 assuming that the -- that they will attempt to -- to
25 take care of that. But there is the concern not only

1 there, but as you change the flow and you shift it to
2 the other side of the river, there will be effects of it
3 on the other side of the river as well.

4 MR. HERRICK: And the structures would, like,
5 catch, capture, or hold things floating on the river
6 during flood times?

7 WITNESS VAN LOBEN SELS: Certainly.

8 MR. HERRICK: And are you aware of any
9 analysis presented by the petitioners that deal with
10 those potential impacts?

11 WITNESS VAN LOBEN SELS: No.

12 MR. HERRICK: Do those potential impacts put
13 the levies in the area at risk?

14 WITNESS VAN LOBEN SELS: Yes.

15 MR. HERRICK: Thank you. No further
16 questions.

17 CO-HEARING OFFICER DODUC: Thank you,
18 Mr. Herrick.

19 Ms. Des Jardins followed by Ms. Suard.

20 --o0o--

21 CROSS-EXAMINATION

22 MS. DES JARDINS: Can we bring up DDJ-133,
23 please?

24 And I'm Deirdre Des Jardins, principal with
25 California Water Research.

1 This question is for Mr. van Loben Sels.

2 This is a letter, a comment letter, to
3 WaterFix dated October 30th, 2015.

4 And can we go to page 6, please?

5 CO-HEARING OFFICER DODUC: First of all, are
6 you familiar with this document?

7 WITNESS VAN LOBEN SELS: I believe I am.

8 I'm the chair of the Delta Caucus, and I
9 prepared most of this document. It's been some time, so
10 I probably don't remember everything in it, but I
11 recognize my signature certainly.

12 MS. DES JARDINS: Okay. Can we go to page 5?
13 There's just a comment about mitigation that seemed --

14 So this is analysis of proposed mitigation,
15 and it says: "The Delta Caucus prior comment letter
16 pointed out that CEQA requires that mitigation be
17 feasible, fully enforceable, adequately financed, and
18 monitored.

19 "Mitigation measures that are discretionary,
20 deferred, unfunded and that may not be feasible are not
21 adequate mitigation."

22 So these were concerns I believe you expressed
23 not just on the basis of your impacts, but it's more
24 general for the Delta Counties Coalition on mitigation?

25 WITNESS VAN LOBEN SELS: So the --

1 CO-HEARING OFFICER DODUC: Sorry. Was that a
2 question, Ms. Des Jardins?

3 MS. DES JARDINS: Yeah. I mean, so there are
4 concerns here about mitigation. There was a discussion
5 about mitigation specifically.

6 CO-HEARING OFFICER DODUC: Do you want to
7 limit your question to the testimony Mr. van Loben Sels
8 provided today on the issue of mitigation?

9 MS. DES JARDINS: Yeah. Just that DWR was
10 discussing mitigation of groundwater impacts, and I was
11 wondering if you thought that any of these comments were
12 relevant to that discussion.

13 This was done on October 30th, and then the
14 notice of the hearing went out that same day.

15 CO-HEARING OFFICER DODUC: Mr. Mizell?

16 MR. MIZELL: I'd like to object to the
17 relevance of this document and the line of questioning
18 over the applicability of CEQA mitigation measures when
19 what we were discussing during our cross-examination was
20 the mitigation that might be required or contemplated by
21 this board through this permitting process.

22 I believe they're distinct, and we've already
23 had lots of discussion about the applicability of the
24 CEQA critiques in this particular format.

25 CO-HEARING OFFICER DODUC: Putting aside the

1 reference to CEQA there, Mr. van Loben Sels, does the
2 statement about your concerns about mitigation and that
3 it be feasible, fully enforceable, adequately financed,
4 and monitored apply to your concern with respect to
5 mitigation in this matter?

6 WITNESS VAN LOBEN SELS: Yes.

7 CO-HEARING OFFICER DODUC: Thank you.

8 MS. DES JARDINS: Okay. That's fine.

9 Then I'd like to go to the February 11th,
10 2016, prehearing conference ruling.

11 MS. McCUE: Is there an exhibit number?

12 MS. DES JARDINS: I asked the hearing team
13 before, and they said that I could go to it.

14 CO-HEARING OFFICER DODUC: As that's being
15 pulled up, perhaps, Ms. Des Jardins, you could go ahead
16 and just ask your question.

17 What in particular of that ruling did you want
18 to ask Mr. van Loben Sels details about?

19 MS. DES JARDINS: It states: "The lack of
20 information concerning project operations and potential
21 effects is due in part to the fact that, at petitioners'
22 request, the State Water Board skipped the protest
23 resolution process that would normally precede a hearing
24 on water rights. The petition process under Water Code
25 Section 1701, et seq., includes various procedures

1 designed to supply supporting information in narrow
2 issues prior to any board hearing or decision."

3 CO-HEARING OFFICER DODUC: What is your
4 question, Ms. Des Jardins?

5 MS. DES JARDINS: This is just relating to --
6 on page 6, this is just relating to were -- prior to
7 your testimony in this hearing, did you get information
8 on potential mitigation relating to your protest?

9 CO-HEARING OFFICER DODUC: You could have
10 asked that without pulling up the ruling but...

11 Mr. van Loben Sels, was there any discussion
12 in the information that you received from petitioners
13 regarding mitigation prior to this hearing?

14 WITNESS VAN LOBEN SELS: That's always been
15 a -- that's always been a major concern of mine. There
16 had there been statements that mitigation is available,
17 for example, temporary pumping plants, changes in
18 drainage, those kinds of things, dewatering, slurry
19 walls, those kinds of things.

20 But to my knowledge and -- in Reclamation
21 District 744, there's been no effort to determine
22 whether any mitigation measure is feasible to offset
23 many of the impacts that will be created.

24 And so that is one of my concerns, and I -- I
25 will say that there's been a real lack of communication

1 and a lack of really understanding the conditions on the
2 ground when it comes to mitigation to many of the
3 impacts created by this petition.

4 CO-HEARING OFFICER DODUC: Thank you.

5 MS. DES JARDINS: I just wanted to ask -- so
6 the question's asked by DWR about slurry walls and so
7 on. Was this communication made with you before your
8 testimony or is it just now?

9 WITNESS VAN LOBEN SELS: I was aware of the
10 slurry walls prior to the testimony only because we had
11 some discussions as to, you know, how this panel might
12 function and what some of the issues might be.

13 MS. DES JARDINS: Okay. Thank you. That
14 concludes that line of questioning.

15 Mr. van Loben Sels, you said you have been
16 farming for 47 years?

17 WITNESS VAN LOBEN SELS: That's correct.

18 MS. DES JARDINS: In the Delta?

19 WITNESS VAN LOBEN SELS: That's correct.

20 MS. DES JARDINS: Is that since 1969?

21 WITNESS VAN LOBEN SELS: Since 1969 and prior
22 to that time as a young adult -- well, as a young child,
23 I you know, worked in the fields during the summers,
24 those kinds of things. So I have even more than
25 47 years, but I've been actively and full-time for

1 47 years.

2 MS. DES JARDINS: Okay. So because of your
3 length of experience, I wanted to go to Exhibit DDJ-95,
4 which is -- this is just to authenticate. This is the
5 Decision 1275 which was granted. It was -- scroll down
6 a little.

7 CO-HEARING OFFICER DODUC: Are you familiar
8 with this decision?

9 WITNESS VAN LOBEN SELS: I am not.

10 CO-HEARING OFFICER DODUC: He's not.

11 MS. DES JARDINS: You're not familiar with the
12 decision.

13 I did -- are you familiar that contracts with
14 the Department of Water Resources, that there were any
15 permit terms regarding -- regarding signing contracts
16 with Delta water users?

17 WITNESS VAN LOBEN SELS: If you're referring
18 to the North Delta Water Agency contract, I'm familiar
19 with that, yes.

20 MS. DES JARDINS: Could we go to DDJ-96 which
21 is highlighted? It's easier to pull things up.

22 I just want to go to that term. So can we go
23 to page 46?

24 CO-HEARING OFFICER DODUC: First of all, what
25 is this document?

1 MS. DES JARDINS: It's decision -- 1275 is
2 just a permit term about signing contracts --

3 CO-HEARING OFFICER DODUC: Isn't this a
4 decision that Mr. van Loben Sels is not familiar with?

5 WITNESS VAN LOBEN SELS: I'm not familiar.

6 MS. DES JARDINS: I want to ask him about the
7 negotiations for contracts. It just says water stored
8 under the permits is issued pursuant -- "shall be
9 available within the Sacramento River Basin on the Delta
10 for such uses as are reasonably required to adequately
11 supply both present and future beneficial needs of said
12 areas provided, however, such water computer shall not
13 be available until an agreement for such uses of said
14 water is first entered into with the State of
15 California."

16 So I was wondering at what point -- do you
17 have any recollection of when negotiations began with
18 the State of California? Was it shortly after this was
19 signed? You know, and who -- was it included in 1981?

20 CO-HEARING OFFICER DODUC: Actually,
21 Mr. Mizell?

22 MR. MIZELL: I'd like to object to the
23 relevance of this document given the witness has
24 indicated his unfamiliarity with it. As well as object
25 to the line of questioning asking for the opinion of

1 somebody unfamiliar with the document on contract
2 negotiations between the department and others.

3 CO-HEARING OFFICER DODUC: Ms. Des Jardins,
4 make the connection for me, because I'm not clear what
5 this decision and its relevance to the issues before us.

6 MS. DES JARDINS: Respectfully, this is the
7 decision that granted the permits, you know, for the
8 State Water Project that are at -- are going to be
9 amended in this proceeding.

10 CO-HEARING OFFICER DODUC: And?

11 MS. DES JARDINS: And I did request that these
12 decisions be posted by the staff. I felt there were
13 considerations of --

14 CO-HEARING OFFICER DODUC: That's fine,
15 Ms. Des Jardins. But these permits -- these are not
16 permit terms for the contract that -- or the water
17 rights that Mr. van Loben Sels is familiar with. He has
18 said he has no familiarity with this decision.

19 So I am at a loss as to where you're going
20 with this particular witness.

21 MS. DES JARDINS: Okay. I was just --

22 You signed a document -- you signed a contract
23 with DWR in 1981; is that correct?

24 WITNESS VAN LOBEN SELS: The North Delta Water
25 Agency signed the contract with the State of California

1 in 1981. I did not personally.

2 MS. DES JARDINS: Right. Yeah. And that was
3 to provide -- provide water for -- within the service
4 area?

5 CO-HEARING OFFICER DODUC: Mr. van Loben Sels,
6 since you are not familiar with this decision, I would
7 encourage you to not hesitate to say you do not know to
8 any questions that are asked of you.

9 And I am not going to allow Ms. Des Jardins
10 much leeway on this matter.

11 WITNESS VAN LOBEN SELS: Madam Chair, it
12 appears to me that this document is an assurance that
13 gave the area of origin priority. That's all that this
14 looks like to me. It doesn't -- it has nothing to do
15 with any contracts that are in the Delta.

16 CO-HEARING OFFICER DODUC: Thank you.

17 WITNESS VAN LOBEN SELS: That's what it
18 appears like to me.

19 CO-HEARING OFFICER DODUC: Mr. Mizell?

20 MR. MIZELL: Objection. That conclusion, it's
21 a legal conclusion. And I don't believe we're here to
22 interpret the contract of the 1981 North Delta contract
23 nor the water rights decisions from the 1960s.

24 CO-HEARING OFFICER DODUC: All right.

25 Move on, please, Ms. Des Jardins. Next topic

1 area.

2 MS. DES JARDINS: I would like to assert a
3 standing objection to not being able to ask questions
4 about the permit terms of the permits that are being
5 amended by this change petition. Thank you.

6 CO-HEARING OFFICER DODUC: You are welcome to
7 make arguments when your case comes up; but your right
8 to ask questions, Ms. Des Jardins, is subject to my
9 finding that it is relevant, first of all, to the
10 testimony that this witness presented and that you are
11 able to make that relevance clear.

12 So your objection is noted. It is overruled.
13 Move on.

14 MS. DES JARDINS: Okay. I just respectfully
15 wanted to state --

16 CO-HEARING OFFICER DODUC: When most people
17 say "respectfully," they mean the opposite. So I would
18 discourage you from using that word again.

19 MS. DES JARDINS: I would just like to note
20 that I am not a water rights user, so that's why I was
21 asking the question of Mr. van Loben Sels.

22 But I'd like to go to Exhibit DDJ-129.

23 And with respect to what this -- let's go to
24 page 2. So this is for Mr. van Loben Sels and
25 Daniel Wilson and Richard Elliot.

1 There was a complaint filed by the Department
2 of Water Resources in 2014. It says they alleged that
3 South and Central Delta diversions were illegally diverting
4 water in excess of their water rights.

5 Mr. van Loben Sels, it states: "All riparian
6 and pre-1914 claimants required to submit the following
7 information."

8 Were you required to submit this information?
9 Did you get this letter, and were you required to submit
10 this information?

11 WITNESS VAN LOBEN SELS: I have seen this
12 letter. And I did not -- as I recall, we were not
13 required to submit information.

14 In the North Delta area, again, we have
15 riparian, pre-1914, and contractual rights. So to the
16 extent that our riparian and pre-1914 rights may have
17 been challenged, the North Delta Water Agency contract
18 took care of any water that we needed.

19 So, as I recall, we did not have to comply
20 with this letter, relying upon our contract with State
21 of California.

22 MS. DES JARDINS: Okay. Thank you very much.

23 CO-HEARING OFFICER DODUC: Mr. Mizell, do you
24 have something to say?

25 MR. MIZELL: I'm going to object to the

1 relevance of a unsubstantiated letter at this point. We
2 don't have a lot of foundation on this letter.

3 If we take it at face value, it's not relevant
4 to this proceeding. The Department of Reclamation has
5 not asserted any challenge to the water rights of
6 this -- Mr. van Loben Sels or any of the panels at this
7 time. This would be, apparently, in a different
8 proceeding, a different point in time, and not part of
9 the California WaterFix.

10 CO-HEARING OFFICER DODUC: What was your
11 point, Ms. Des Jardins, in asking this question?

12 MS. DES JARDINS: There were concerns
13 expressed prior to granting the permits about the
14 commingling of stored water and unstored water.

15 It's not an argument that I can complete at
16 this point in time. But I do believe that this is -- if
17 we scroll up to the top, this is a water right order
18 that was made by the board. It was an order for
19 additional information. And I -- I can make more of a
20 case about the relevance of this information,
21 particularly with respect to Permit Term 14 of the
22 bureau contracts which requires them to keep to --
23 report to the board the location and amount of stored
24 water that's diverted.

25 CO-HEARING OFFICER DODUC: Ms. Des Jardins,

1 you may make such argument in your case in chief. The
2 objection is sustained. Move on, please.

3 MS. DES JARDINS: Thank you.

4 I'd like to go to -- I would also like to
5 assert a standing objection to this. Thank you.

6 I'd like to go to Mr. --

7 CO-HEARING OFFICER DODUC: Your standing
8 objection is overruled.

9 MS. DES JARDINS: Yeah. Thank you.

10 So I would like to go to page 2 of
11 Daniel Wilson's testimony. Page 2, line 13.

12 So you state: "There is much discussion about
13 modeling of future scenarios and regulations that would
14 ensure future diversions do not harm water users in the
15 Delta. The modeling is inadequate and inaccurate by its
16 very nature.

17 "The petitioners have made clear the modeling
18 is for comparative purposes only, and cross-examination
19 has revealed serious problems with even relying on the
20 modeling for comparative purposes."

21 Mr. Wilson, I just wanted to ask you: Do you
22 have an idea of the amount of water that would be
23 diverted at the intakes and different seasons for --
24 from the evidence that was presented?

25 WITNESS WILSON: Well, I think the intakes are

1 designed for 9,000 cubic feet a second. And I can't
2 imagine they would design it for 9,000 cubic feet a
3 second if that wasn't their intention on certain time
4 periods. It wouldn't make any sense to divert less than
5 that.

6 MS. DES JARDINS: Okay. So I'd like to go to
7 the October 30th, 2015, hearing notice.

8 CO-HEARING OFFICER DODUC: Since you're
9 referring to a document that we all should be familiar
10 with it, what is your question?

11 MS. DES JARDINS: Page 9, there's a table
12 there that I can't replicate, but page 9 has a list of
13 the permits.

14 Mr. Wilson, this states that these are the
15 permits for the DWR that are thought to be changed. The
16 maximum export amount is 10,350 CFS. Are you aware of
17 the DWR's permit limit of 10,350?

18 WITNESS WILSON: Not that specific number.
19 But now that I look at it, it's the ability of the pumps
20 to pump 15,000 and the ability of the pipeline to move
21 9,000, the two numbers that I'm concerned with.
22 Regardless of what permits, a -- permits can be changed.

23 MS. DES JARDINS: Let me go to page 10 because
24 it's a combined -- let's go to page 10 which also has
25 the bureau's permits. So the bureau's permit permits --

1 if you see 12721, 12722, 12723, are for 8,000, 1,000,
2 and 9,000 CFS, a total of 18,000 CFS.

3 And those are also the -- the bureau is also
4 seeking to add the tunnels as a point of rediversion.
5 So it will be combined between the two of those.

6 Does this -- are you aware of any -- are you
7 aware that the bureau is also seeking this change?

8 WITNESS WILSON: Yes, I am.

9 MS. DES JARDINS: Were you aware of this limit
10 on the -- it's a fairly large limit on the total amount
11 of direct diversion to the Sacramento River.

12 WITNESS WILSON: I don't actually see it as a
13 limit. Given the fact that the sum of the two permits
14 exceeds the capacity of the pumps and exceeds the
15 capacity of the tunnels, it's not really relevant, to me
16 at least.

17 MS. DES JARDINS: So did you look for any
18 limit in -- in the application that constrained the
19 potential diversions below 15,000 CFS?

20 WITNESS WILSON: No, I did not because I
21 assumed if it's on paper, it can be changed. And this
22 has been our logic since the late '70s with the
23 peripheral canal that if the plumbing existed, the water
24 could go. And so, no, I have not researched the permits
25 to any great degree.

1 MS. DES JARDINS: Are you aware that DWR is
2 required to give both -- under its permit terms to give
3 both the location and the amount diverted prior to
4 adding a new point of diversion to its permits?

5 WITNESS WILSON: I guess in these general
6 rational sort of a way, yes. I'm aware that's the whole
7 point of these hearings, I assume.

8 MS. DES JARDINS: So you're just assuming that
9 they will divert, then, the maximum CFS that's feasible
10 given the permit and regulatory constraints?

11 MR. KEELING: Objection. Calls for
12 speculation.

13 MS. DES JARDINS: I --

14 CO-HEARING OFFICER DODUC: Where are you
15 going -- Ms. Des Jardins, where are you going with this
16 line of questioning?

17 MS. DES JARDINS: I was just trying to ask --
18 Mr. Wilson said that he thought that they could divert
19 15,000 CFS, and I was just trying to follow up on that.

20 CO-HEARING OFFICER DODUC: I think he has
21 already answered that.

22 MS. DES JARDINS: Mr. Wilson, are you aware
23 that there is a permit term that states that a Delta
24 water user will not be severed from their water supply
25 without an agreement or without condemnation proceedings

1 for DWR?

2 WITNESS WILSON: Are you referring to riparian
3 water user or any kind of water user?

4 MS. DES JARDINS: Specifically with respect to
5 water users in the Delta.

6 WITNESS WILSON: Am I aware that we can't have
7 our water cut off or destroyed without some kind of
8 permit or deal? Yeah.

9 MS. DES JARDINS: No. This is a permit term
10 in DWR's -- in the permits that are sought to be
11 amended.

12 CO-HEARING OFFICER DODUC: Why are you asking
13 Mr. Wilson about terms in DWR's permit?

14 MS. DES JARDINS: Because -- respectfully, the
15 board --

16 CO-HEARING OFFICER DODUC: Strike that word
17 from your vocabulary, please, when addressing me.

18 MS. DES JARDINS: The board did put them there
19 in consideration of the rights in the areas of --

20 CO-HEARING OFFICER DODUC: Yes. But
21 Mr. Wilson is not an expert on someone else's permits.

22 Move on.

23 MS. DES JARDINS: Okay. I think that's all of
24 my questioning. Thank you.

25 CO-HEARING OFFICER DODUC: Ms. Suard?

1 --o0o--

2 CROSS-EXAMINATION

3 MS. SUARD: Nicky Suard with Sag Harbor
4 Resorts.

5 And I did ask to have one of my slide sets
6 from operations, actually, be pulled up. And I just am
7 using a few slides from this, and these are for
8 Mr. van Loben Sels.

9 So this first map -- I like to work with
10 graphics and maps because I think it's a little bit
11 easier to explain what I'm talking about. And if you
12 can explain, too, when I ask you where locations are.
13 This particular map is GeoTracker. It's from Water
14 Board's. I brought it up a couple different times.

15 The little green dots, they happen to be water
16 supply wells, different ones. There's public ones and
17 private ones and monitoring ones. But this happens to
18 be drinking water wells in particular. I am using this
19 map because Mr...

20 Can you describe roughly where Sutter Slough
21 is and Steamboat Slough? Can you just make reference?

22 WITNESS VAN LOBEN SELS: So if on the map you
23 see the town of Courtland, Sutter Slough is
24 approximately across the river from Courtland. And
25 Steamboat Slough is approximately maybe 2 miles south of

1 Courtland. Both of them are on the west side of the
2 Sacramento River.

3 MS. SUARD: Okay. Thank you.

4 Are both of these natural tributaries of the
5 Sacramento River?

6 WITNESS VAN LOBEN SELS: Yes.

7 MS. SUARD: Okay. And I'm asking you the
8 questions because you've been in the Delta a long time,
9 and you keep referring to common sense and I like that.

10 Okay. So if there's insufficient flow on
11 Steamboat and Sutter Slough, does it matter how that
12 insufficient flow occurred?

13 WITNESS VAN LOBEN SELS: In my estimation, it
14 really doesn't matter how it occurred, whether it was
15 drought, diversion, whatever. If there's insufficient
16 flow, there will be results regardless of how it
17 occurred.

18 MS. SUARD: Okay. So my line of questioning,
19 isn't necessarily about what causes the insufficient
20 flow, whether it's tunnels, whether it's other
21 conveyance methods. I'm just mostly going to focus on
22 downriver from whatever method takes the water.

23 So could we go to Slide 60, please? No,
24 that's not it. Sorry. Go up one down, please. No.

25 Page -- can you go to the -- again, we're going to have

1 trouble. I don't know why these numbers aren't correct.

2 Sorry. I have the exact same thing from
3 online on my phone. I'm going to see if I can find the
4 next one.

5 MR. LONG: Your margin note says page 50. 50,
6 not 60. Does that help?

7 MS. SUARD: How about if we try 52, please?

8 So this is sort of that same map that I
9 started out with. Green dots are wells, drinking water
10 wells. And is this a representation,
11 Mr. van Loben Sels, of the area of
12 Steamboat/Sutter Slough that you just mentioned?

13 WITNESS VAN LOBEN SELS: I have the pointer
14 now, so it will be a little easier for people to tell
15 again.

16 Here's the town of Courtland. Sutter Slough
17 cuts right across there and joins -- well, yeah,
18 Sutter Slough joins Elk Slough here, and
19 Steamboat Slough is down here, and comes into Minor and
20 Elk Slough down here.

21 MS. SUARD: Okay. So do you see the blue
22 arrow that I actually added? And that's why I don't
23 have the reference to the gamma map, because I did edit
24 this map and I put arrows in.

25 So the blue arrows, is that the general

1 outflow?

2 WITNESS VAN LOBEN SELS: So as diversion
3 sites, the diversion sites that are being proposed are
4 up here upstream. And so any flow coming down would
5 come down and as it hits these other channels that break
6 off from the Sacramento River, part of the flow goes
7 down this way. Part of the flow would come down
8 Steamboat Slough. Part of the flow would continue down
9 towards Walnut Grove. So the flow as it comes down from
10 the diversion sites begins to be divided at this point
11 right in Courtland.

12 MS. SUARD: Okay. Thank you.

13 Before any projects -- I'm just asking how it
14 flows now. When the water flows into Sutter Slough,
15 does the water keep going down to Steamboat Slough or
16 does it split off to Miner's Slough?

17 WITNESS VAN LOBEN SELS: It comes down,
18 crosses over to Miner in this complex here, which is --
19 what is that slough there?

20 MS. SUARD: That's Miner.

21 WITNESS VAN LOBEN SELS: So part of it goes
22 again down Miner; part of it comes down this way.

23 So it -- it's sort of -- it just sort of
24 dissipates out according to how many channels it has to
25 go into.

1 MS. SUARD: Okay. Could we go to slide --
2 let's see 43, please.

3 Okay. So this particular slide -- again, I'm
4 going to emphasize, doesn't matter how the water is
5 taken in. When we're talking about downriver locations,
6 I'm concerned about impacts.

7 So this particular slide, the one on the
8 right, was from the Bay Delta Conservation Plan, and it
9 is a reference to salinity impacts if there are barriers
10 put at Sutter Slough and Steamboat Slough.

11 Do you have -- have you seen something that
12 looks like this before?

13 WITNESS VAN LOBEN SELS: Yes.

14 MS. SUARD: You talked about in the 1970s, I
15 think '77, there were barriers in.

16 WITNESS VAN LOBEN SELS: Yes. That was a
17 series of drought years and barriers were placed in
18 Sutter Slough and Steamboat Slough, and perhaps other
19 places as well, in order to keep flow from going to the
20 west side of the Sacramento River, keep the freshest
21 water going down towards Locke, the cross channels in
22 down -- more down here towards Tracy.

23 So the idea was to control the saltwater down
24 in this area and cut flow going to the west side of the
25 Sacramento River. But there were dams in Sutter Slough

1 and Steamboat Slough.

2 MS. SUARD: Okay. And so on the west side,
3 what does that say, "Saltier with barriers"? What was
4 the experience?

5 WITNESS VAN LOBEN SELS: There were two
6 experiences that we -- occurred. There was more
7 saltwater down here at the bottom here, the end of
8 Ryer Island. And also the flows or the river levels
9 actually dropped, and pumps south or downstream from
10 those barriers either didn't work or worked very
11 efficiently. We had several pumps that we couldn't pump
12 water out of all summer long when those barriers were in
13 place.

14 MS. SUARD: Thank you.

15 So if the tunnels are installed and there's
16 9,000 cubic feet per second leaving, which means there's
17 only 5,000 cubic second because that was the bypass
18 flow, and that greenish gray, do you think that that's
19 going to -- where do you think the green-gray lines
20 going to go instead since the water won't be flowing
21 down Georgiana?

22 CO-HEARING OFFICER DODUC: Hold on a second.

23 Mr. Mizell?

24 MR. MIZELL: I'm going to object to the
25 expertise of this particular witness to talk about the

1 hydrologic effects of the proposed project, particularly
2 given the statements of what's being proposed by the
3 questioner in this particular circumstance. We've seen
4 no statements of qualifications about Mr. van Loben Sels
5 being an expert in hydrology, and his bio provided in
6 his testimony certainly doesn't lay that foundation.

7 MR. KEELING: If I may, Mr. van Loben Sels was
8 not designated as an expert. I understand that his
9 testimony is as a percipient witness.

10 MR. MIZELL: Actually, Ms. Meserve indicated
11 earlier that he is both a percipient and expert
12 witness --

13 CO-HEARING OFFICER DODUC: Enough.

14 Mr. Mizell, we'll take your objections under
15 consideration when the evidence is provided by this
16 witness.

17 Please answer to the best of your ability.

18 WITNESS VAN LOBEN SELS: The question, as I
19 understand it, is how would reduced flow from -- from
20 diversion sites or any other reason from up in this area
21 affect the west side of the river.

22 The flow coming down -- the first tributaries
23 to receive the reduced flow would be these two -- the
24 Sutter Slough and Steamboat Slough.

25 And, again, if you have reduced flows, those

1 hit down into the river down here. Reduced flows result
2 in less hydraulic barrier to saltwater, number one, and,
3 number two, increased stationary time. There's a
4 specific term. And both of them relate to water
5 quality. So I would expect that whole area on the west
6 side would be saltier.

7 MS. SUARD: So the whole area on the west side
8 and as well as the whole area in the Central Delta since
9 they won't have --

10 WITNESS VAN LOBEN SELS: I would assume that
11 bypass flows would be adjusted -- and this is just an
12 assumption -- because the well -- or the pumps down in
13 Tracy would be protected to a certain extent from the
14 saltwater intrusion by flow coming down the main stem of
15 the Sacramento River through the gates at Locke and down
16 into the Central Delta.

17 So a key element of the central water -- the
18 State Water Project and the bureau would be to maintain
19 the salinity at the pumps in Tracy. So I would imagine
20 that there might be some degradation but less there than
21 on the west side tributaries.

22 MS. SUARD: Okay. That makes a lot of common
23 sense.

24 I would like to go back to Slide 20. Same
25 thing. It's -- it's the flow, and the little barrier

1 things were taken off.

2 DWR had provided the information of flow
3 splits. I don't know if you were familiar with that.
4 But if there's 5,000 feet of flow left on the
5 Sacramento River and you have Steamboat Slough,
6 Sutter Slough, the Delta Cross Channel, Georgiana, and
7 lower Steamboat -- lower Sacramento River all to share
8 that 5,000 cubic feet per second of flow, do you think
9 that's enough flow to keep saltwater encroachment out?

10 WITNESS VAN LOBEN SELS: I think that any
11 reduction in flow beyond what we're dealing with today
12 and any reduction in outflow from what we're dealing
13 with today into the bay will result in more saltwater
14 intrusion than we have today.

15 The Delta is saltier than it has been
16 historically. Only approximately 48 percent of the
17 unimpaired flow from the Sacramento and San Joaquin
18 River reaches the Bay. And that again is the hydraulic
19 barrier to the ocean.

20 So if you reduce that to 5,000 CFS beyond
21 these pumps, you will have reduced outflow and you will
22 have increased saltwater intrusion, yes.

23 MS. SUARD: Do you think we've had enough flow
24 in the last couple years in drought years, or do you
25 think there -- has there been sufficient flow?

1 WITNESS VAN LOBEN SELS: Well, there has been
2 relaxation of standards. And I understand that, you
3 know, as conditions are what they are, you have to deal
4 with them. And we all do the best we can.

5 I would have liked to have seen more flow out
6 in the Sacramento River and more flow out to the Bay. I
7 think everybody in the state would. And so
8 insufficient, yes. That's what Mother Nature gives us.
9 That's what we have to deal with it.

10 MS. SUARD: I do want to ask you a little
11 about the North Delta Water Agency. You've been in the
12 Delta for a long time. And I'd like to understand
13 better how it protects your rights and mine.

14 First of all, I'd better say I have a photo
15 there of Snug Harbor. And I'm on Steamboat Slough, and
16 I'm downriver from everything you're talking about.

17 WITNESS VAN LOBEN SELS: I would anticipate an
18 objection. Not hearing one yet, I will start. I see
19 standing up, so should I wait?

20 CO-HEARING OFFICER DODUC: That was very well
21 done, Mr. van Loben Sels.

22 MR. MIZELL: Yes, we'll object to this line of
23 questioning.

24 CO-HEARING OFFICER DODUC: Ms. Suard?

25 MS. SUARD: I am also a party and one of the

1 water users protected by the North Delta Water Agency.

2 CO-HEARING OFFICER DODUC: Contract?

3 MS. SUARD: -- contract. And I actually
4 submitted as one of my evidence pieces -- and if you
5 want me to bring that up, I just -- I just wanted to
6 have an understanding, a good summary from, you know,
7 one of the people that's been very involved in all that
8 for a lot of years.

9 CO-HEARING OFFICER DODUC: That's sounds,
10 however, like asking for a legal opinion which
11 Mr. van Loben Sels is not, and his attorneys might want
12 to jump in as well.

13 MR. KEELING: I'm happy. You're doing a great
14 job without me.

15 MS. MESERVE: We agree. He's not here as a
16 legal expert.

17 CO-HEARING OFFICER DODUC: I'm sorry. He's
18 not here as legal expert, correct?

19 MS. MESERVE: That's correct.

20 CO-HEARING OFFICER DODUC: Let's not ask him
21 for a legal opinion, Ms. Suard.

22 MS. SUARD: Okay.

23 Then I'm done with him. Thank you.

24 CO-HEARING OFFICER DODUC: Thank you.

25 Any redirect?

1 MS. MESERVE: Yes, Madam Hearing Officer, just
2 very briefly.

3 --o0o--

4 REDIRECT EXAMINATION

5 MS. MESERVE: Just sticking with
6 Mr. van Loben Sels for a moment.

7 You were asked on cross-exam about whether
8 replacement water supplies might prevent injury. And I
9 wanted you to just clarify -- could you clarify whether
10 the way that your delivery system in RD 744 works was
11 part of your response about the impact being permanent?

12 WITNESS VAN LOBEN SELS: The way Reclamation
13 District 744 works -- and I don't know, Osha, if there's
14 a map you can throw up there.

15 MS. MESERVE: That would be Land 60, I
16 believe.

17 WITNESS VAN LOBEN SELS: My diversion, 06, is
18 right here. It's actually just a little bit further to
19 the south. But it goes into a ditch there and goes down
20 to into the reclamation ditches and irrigates --
21 basically can be distributed all the way up to here and
22 all way down to here. So all of this land to the south
23 of that can be irrigated from that diversion site.

24 In the reclamation district, there's a high
25 point right here. And water that is here goes that way;

1 water that is here goes this way.

2 The proposed mitigation site --

3 MR. KEELING: For the record, can we indicate
4 where "here" is when you're talking about the high
5 point?

6 WITNESS VAN LOBEN SELS: The high point is
7 right at the northern border of the project footprint
8 and it --

9 CO-HEARING OFFICER DODUC: Being the section
10 of the red and green lines?

11 WITNESS VAN LOBEN SELS: Correct.

12 The proposed mitigation for losing this
13 diversion site was to put a temporary diversion site
14 somewhere up in here which would then go out just north
15 of the project footprint and which would extend out into
16 the reclamation district ditch south of the high point.

17 And the difficulty there is I can't irrigate
18 everything that I can from here, from the -- from 06.
19 When it -- actually, they projected -- they wanted to go
20 north of this high point, and so the difficulty is, is
21 bringing the water back south over that high point. You
22 can't -- can't do it.

23 So that diversion site was not feasible. And
24 that's the thing about mitigation; it has to be
25 feasible. In this case, it wasn't.

1 Does that answer your question?

2 MS. MESERVE: Yes. Thank you.

3 So just to be clear, do you think that the
4 measures that we saw on DWR-2 errata, Slide 19,
5 specifically providing groundwater wells or an alternate
6 water supply would be effective in preventing injury?

7 WITNESS VAN LOBEN SELS: No.

8 MS. MESERVE: And are you the only water user
9 that would be injured if this water system that's shown
10 in green here on Land 60 was cut off from the river
11 water supply?

12 WITNESS VAN LOBEN SELS: No. There are about
13 three other farmers that would also be affected.

14 MS. MESERVE: Are you aware,
15 Mr. van Loben Sels, that the recirculated draft EIR/EIS
16 concludes that both construction and operation would
17 result in significant and unavoidable groundwater
18 impacts?

19 WITNESS VAN LOBEN SELS: That's what the EIR
20 shows.

21 MS. MESERVE: Okay. And then I just have a
22 couple of redirect questions for Mr. Elliot.

23 Just to clarify, since we talked about
24 Rose Ranch and you were asked about the remaining
25 portion and how an alternative supply might be provided,

1 and just to clarify, are you concerned about the ability
2 to operate that ranch with the portion of it gone
3 adjacent to the river, even if a water supply could be
4 provided?

5 WITNESS ELLIOT: Yes, I am.

6 MS. MESERVE: And if we could, Ms. Akroyd
7 asked you about Land 25, page 2, lines 13 and 14.

8 Could we bring that up quickly, please?

9 In that portion of your testimony on lines 13
10 and 14, the citation, can you read to me what the
11 citation to your -- on file with Water Board Water
12 Rights are on line 14?

13 WITNESS ELLIOT: Land 53 and Land 7.

14 MS. MESERVE: Okay.

15 WITNESS ELLIOT: Land 53 and Land 7.

16 MS. MESERVE: Take a look at Land 7, please,
17 first.

18 Then, Mr. Elliot, this is a map of your water
19 rights that we provided in your protest; is that
20 correct?

21 WITNESS ELLIOT: Correct.

22 MS. MESERVE: Then if we could go to the land
23 most recent exhibit list and look at the portion of the
24 exhibit list that begins with 50.

25 And I'd like to have you read the portion of

1 that exhibit list that is just above the line of Land 50
2 once that comes up, please. Just above where it says
3 "Land 50." What does it say about that?

4 WITNESS ELLIOT: It says "Evidence by
5 reference pursuant to 23 CCR Section 648-3, Exhibits 50
6 through 55."

7 MS. MESERVE: And so does Land 53, what does
8 that say?

9 WITNESS ELLIOT: It says "Richard Elliot water
10 rights are described in the protest file on January 5,
11 2016."

12 MS. MESERVE: Mr. Elliot, your testimony, in
13 fact, does not refer to Land 55 as a basis for your
14 water rights, does it?

15 WITNESS ELLIOT: No.

16 MS. MESERVE: That's all I have. Thank you.

17 CO-HEARING OFFICER DODUC: Thank you,
18 Ms. Meserve.

19 Recross. Mr. Mizell first, then followed by
20 Ms. Ackroyd -- Akroyd. Sorry.

21 --o0o--

22 RECROSS-EXAMINATION

23 MR. MIZELL: If we could bring up Land 60.

24 Mr. van Loben Sels, you just indicated in
25 response to redirect that there's a location that you've

1 apparently discussed with somebody about a mitigated
2 intake location; is that correct?

3 WITNESS VAN LOBEN SELS: I thought I had seen
4 a map with a notation not identified, but I see it.
5 It's further to the south. So it could be that there
6 has been never been a pump site located or indicated.

7 However, the point is that it -- it -- provide
8 mitigation would be difficult given that the topography
9 of the reclamation district.

10 MR. MIZELL: So with that clarification, there
11 have been no conversations as of yet as to a specific
12 mitigation location for an intake site?

13 WITNESS VAN LOBEN SELS: No. There's been no
14 discussion with anybody about any kind of mitigation for
15 any of the impacts associated with this project in
16 Reclamation District 744. There's been no contact at
17 all.

18 MR. MIZELL: Do you believe it's physically
19 impossible to plumb water to the existing high point of
20 your irrigation system from a replacement intake?

21 WITNESS VAN LOBEN SELS: Well, judging from
22 this project, anything can be engineered. So I would
23 suggest that you can do it.

24 MR. MIZELL: Okay. So there are plumbing
25 possibilities to overcome gravity?

1 WITNESS VAN LOBEN SELS: We do it all the
2 time. It's called pumping.

3 MR. MIZELL: Excellent.

4 Are you aware that the recirculated draft
5 EIR/EIS impacts on groundwater were modified by the
6 groundwater memo by Gwen Buchholz?

7 WITNESS VAN LOBEN SELS: I have not seen that
8 memo.

9 MR. MIZELL: I believe we looked at it earlier
10 on my cross-examination. Do we need to bring it up
11 again?

12 WITNESS VAN LOBEN SELS: Yes.

13 MR. MIZELL: Mr. Long, I believe it's DWR-218.

14 Previously we discussed this memorandum. Do
15 you recall what we discussed about this memo from
16 Gwen Buchholz?

17 WITNESS VAN LOBEN SELS: No. Go ahead and ask
18 your question.

19 MR. MIZELL: Are you aware the department has
20 committed to use slurry cutoff walls to avoid the
21 impacts to groundwater outside of the immediate
22 construction dewatering area?

23 WITNESS VAN LOBEN SELS: I'm aware that
24 they're proposing to use slurry walls to attempt to
25 mitigate. There is nothing that I have been able to

1 ascertain that would establish that that would be
2 feasible and that would accomplish the result. It's a
3 concept at this point and nothing more, as far as I'm
4 concerned.

5 MR. MIZELL: Are you aware of the testimony of
6 the expert, Mr. Tootle -- I'm very sorry -- Mr. Tootle,
7 his testimony about if slurry cutoff walls are
8 constructed appropriately, they are an effective
9 solution to minimizing groundwater impacts?

10 WITNESS VAN LOBEN SELS: That was his
11 testimony. But his testimony was also that it's very
12 difficult to understand what will happen because there's
13 very little knowledge as to how they would function
14 within the Delta. And so given the static environment,
15 I think, as DWR portrayed in the -- in their analysis of
16 it, they could be quite effective but then that assumes
17 more than we know. So I think that you minimized -- or
18 you summarized something that wasn't actually his
19 conclusion.

20 MR. MIZELL: Are you aware that the
21 groundwater impacts described in the recirculated draft
22 EIR/EIS are not based upon your skepticism over slurry
23 cutoff walls?

24 MR. KEELING: Objection. Argumentative.

25 CO-HEARING OFFICER DODUC: Mr. Mizell,

1 rephrase that, please.

2 MR. MIZELL: Are you aware of the basis on
3 which the recirculated draft EIR/EIS discussed
4 groundwater impacts?

5 MR. KEELING: Objection. Vague and ambiguous.

6 CO-HEARING OFFICER DODUC: If you do not know,
7 just answer, Mr. van Loben Sels.

8 WITNESS VAN LOBEN SELS: I will say that in a
9 lot of cases, from my perspective, the mitigation and
10 the results from the mitigation have been overly
11 optimistic.

12 MR. MIZELL: And what is that statement based
13 upon?

14 WITNESS VAN LOBEN SELS: That basically says
15 that the real feasibility of many of these mitigation
16 measures and the actual result may be not as effective
17 as portrayed in the EIR/EIS.

18 MR. MIZELL: But didn't we just discuss that
19 we can engineer quite a lot of solutions for supplying
20 surface water, for instance?

21 WITNESS VAN LOBEN SELS: Groundwater is
22 entirely different. With surface water, you can put in
23 pipelines, you can do a variety of things. With
24 groundwater, you're dealing with many different layers
25 of different materials as was -- as was stated earlier,

1 and so it's far more difficult to predict what will
2 happen.

3 MR. MIZELL: Are you aware of slurry cutoff
4 walls anywhere else in the Delta for construction
5 projects?

6 WITNESS VAN LOBEN SELS: Not for a
7 construction project. I'm aware that CEQA has installed
8 slurry walls into the levies north of Freeport and
9 throughout that area for flood control.

10 MR. MIZELL: Are you aware of the Freeport
11 Diversion Project?

12 WITNESS VAN LOBEN SELS: Yes, I am.

13 MR. MIZELL: Are you aware of any groundwater
14 problems surrounding the Freeport Diversion Project?

15 WITNESS VAN LOBEN SELS: No, but I'm not sure
16 that that is completely applicable to what's being
17 proposed here. You've got an entirely different
18 situation.

19 We're not dewatering there. Here you're
20 dewatering and trying to avoid that whereas the Freeport
21 facility is entirely different.

22 MR. MIZELL: So it's your understanding that
23 the Freeport diversion facility was constructed in the
24 wet?

25 WITNESS VAN LOBEN SELS: I have no idea how

1 that was constructed.

2 MR. MIZELL: Okay. Thank you very much.

3 I'd just ask one question of Mr. Elliot.

4 Is it your assertion that it is physically
5 impossible to engineer plumbing to mitigate for
6 temporary disruptions of your intake?

7 MR. KEELING: Objection. Calls for expert
8 testimony in engineering. "Physically impossible"?

9 CO-HEARING OFFICER DODUC: Mr. Elliot, just
10 provide your opinion to the best that you can. If you
11 do not know, then say you don't know.

12 WITNESS ELLIOT: I really don't know.

13 MR. MIZELL: Thank you very much.

14 CO-HEARING OFFICER DODUC: Thank you.

15 Ms. Akroyd. Who else has recross?

16 All right. Ms. Akroyd.

17 --o0o--

18 RE-CROSS-EXAMINATION

19 MS. AKROYD: Rebecca Akroyd for San Luis and
20 Delta-Mendota Water Authority. Just a few questions for
21 Mr. Elliot.

22 Mr. Long, if you could pull back up Land 25 at
23 page 2, lines 12 to 14.

24 Now, Mr. Elliot, a moment ago during redirect,
25 I believe you testified that you're not relying on

1 Exhibits Land 53 or Land 7 as support for your riparian
2 or pre-'14 water rights; is that correct?

3 MS. MESERVE: Objection. Misstates testimony.

4 CO-HEARING OFFICER DODUC: What was your
5 question again, Ms. Akroyd?

6 MS. AKROYD: I can restate that slightly.

7 CO-HEARING OFFICER DODUC: Okay. Go ahead.

8 MS. AKROYD: Mr. Elliot, are you relying on
9 Land 53 or Land 7 as support for your claimed riparian
10 or pre-1914 water rights?

11 WITNESS ELLIOT: I guess, yes.

12 MS. AKROYD: Thank you.

13 And I understand from the questions during
14 redirect, you're also referencing and relying here on
15 water rights documentation that are on file with the
16 State Water Board; is that right?

17 WITNESS ELLIOT: Yes.

18 MS. AKROYD: But land hasn't provided any
19 specific documentation in support of these water rights
20 in this proceeding; is that correct?

21 WITNESS ELLIOT: I -- I'm not sure.

22 MS. AKROYD: And you haven't testified today
23 to any information specifically describing the basis for
24 your claimed riparian or pre-1914 water rights; is that
25 correct?

1 WITNESS ELLIOT: Are you asking me if I have
2 them or how I -- how I'm saying I have them? I have
3 them --

4 MS. AKROYD: I can clarify the question.

5 WITNESS ELLIOT: Yeah. I don't understand the
6 question.

7 MS. AKROYD: I wanted to confirm that you
8 haven't testified today as to the specific basis for
9 your claimed riparian or pre-1914 water rights, correct?

10 WITNESS ELLIOT: Correct.

11 MS. AKROYD: Thank you. Nothing further.

12 CO-HEARING OFFICER DODUC: Thank you.

13 Not seeing any other recross, I will thank
14 Mr. Wilson, Mr. van Loben Sels, and Mr. Elliot for being
15 here today.

16 WITNESS VAN LOBEN SELS: Thank you,
17 Madam Chair.

18 CO-HEARING OFFICER DODUC: With that, I will
19 ask the court reporter, do you need a short break or --

20 Let's take a short five-minute break.

21 (Off the record at 4:01 p.m. and back on
22 the record at 4:06 p.m.)

23 CO-HEARING OFFICER DODUC: Thank you,
24 everyone. If you could grab a seat. We are going to
25 resume with cross-examination of Mr. Tootle and

1 Mr. Pyke. I have some remaining cross-examination by
2 one, two, three, four -- potentially five parties.

3 Again, I would strongly encourage all of you
4 conducting cross-examination to be efficient; but most
5 importantly, to make sure that your questions are
6 relevant to the issues before us in this hearing.

7 I recognize that these are expert witnesses
8 that may generate a lot of interest in you in terms of
9 various topic areas. Feel free to explore them at your
10 own time. With respect to appearing before this board
11 in this proceeding, we have ensure that the
12 cross-examination is within the realm and is relevant to
13 the issues before us.

14 So I don't mean to be too strict, but I do
15 need to keep all of you very focused on that narrow
16 focus of this hearing and specifically focus on the
17 cross-examination of these witnesses.

18 So with that -- and, unfortunately,
19 Ms. Des Jardins was not here to hear that little lecture
20 from me. So Mr. Herrick will have -- if you could do me
21 a favor and repeat that to Ms. Des Jardins.

22 MR. HERRICK: I will.

23 CO-HEARING OFFICER DODUC: Thank you.

24 With that, then, Ms. Morris has left, but does
25 the State Water Contractors have cross-examination?

1 MS. MORRIS: No, thank you.

2 CO-HEARING OFFICER DODUC: All right. That
3 leads me to Ms. Akroyd.

4 MS. AKROYD: No, thank you.

5 CO-HEARING OFFICER DODUC: This might go
6 quicker than I thought.

7 Mr. Herrick?

8 MR. HERRICK: Now everybody's going to hate me
9 more.

10 --o0o--

11 CROSS-EXAMINATION

12 MR. HERRICK: Thank you. Once again,
13 John Herrick, South Delta, et al.

14 I'll be very, very brief. I just have a
15 couple questions for Mr. Tootle.

16 Mr. Tootle, you testified about the slurry
17 walls and the potential problems associated therewith,
18 correct?

19 WITNESS TOOTLE: That's correct.

20 MR. HERRICK: Is there any geologic
21 information that leads you to believe that there is a
22 sufficient impermeable barrier down to a certain point
23 so the slurry wall can make a connection with that
24 impermeable layer?

25 WITNESS TOOTLE: That's a great point. It

1 speaks to one of the figures I presented that was
2 idealized in nature. In my opinion, there's
3 insufficient data to support a continuous impermeable
4 layer to tie those slurry walls with the proposed
5 locations.

6 MR. HERRICK: So although slurry walls might
7 be usable in this circumstance, until one gets down to
8 the bottom of the slurry wall, one doesn't know whether
9 or not water is going to be leaking in while you're
10 trying to dewater that area, correct?

11 WITNESS TOOTLE: That is correct. That's what
12 I meant when I referred to if they're constructed
13 properly. That would be one of the components that I
14 was referring to, that they did have a complete cutoff
15 at the bottom of the wall.

16 MR. HERRICK: And in addition, if you don't
17 know the geological conditions around the slurry walls,
18 you don't know where, from what direction, water may
19 flow into that area, correct?

20 WITNESS TOOTLE: That's correct. It's
21 difficult to tell where the water's flowing from and
22 going to.

23 MR. HERRICK: And that's the point, isn't it?
24 That if you don't have that subsurface information, one
25 cannot make conclusions about whether or not other areas

1 or people or interests are being harmed, correct?

2 WITNESS TOOTLE: That is correct.

3 MR. HERRICK: Just briefly, there was -- I
4 think it was DWR-574 -- we don't have to bring that
5 up -- but it was that representation of the tunnel with
6 the neighboring well and then an area that said, you
7 know, full of water with the various soil types in it.

8 Do you remember that question?

9 WITNESS TOOTLE: I do.

10 MR. HERRICK: And isn't it true that in the
11 Delta there can be sand lenses in various places,
12 connected or not, running in various directions
13 interspersed in between other layers that may be less
14 permeable, correct?

15 WITNESS TOOTLE: That is correct.

16 MR. HERRICK: Unless you know what those
17 layers are and where they are and to the extent they go
18 in a direction, you can't tell whether or not one area's
19 water supply is connected to another area, correct?

20 WITNESS TOOTLE: That is correct.

21 MR. HERRICK: And so your concern is that two
22 40-foot tunnels, if that's what their diameter are,
23 might interfere with some sort of layer that is allowing
24 water to pass that goes to somebody's well, correct?

25 WITNESS TOOTLE: That is a likelihood,

1 correct.

2 MR. HERRICK: Are you aware of any such
3 geologic information that's been provided by DWR in
4 order to assess the impact to any of the wells that were
5 mentioned in today's testimony?

6 WITNESS TOOTLE: I think there's wholly
7 insufficient information to draw that conclusion.

8 MR. HERRICK: Mr. Tootle, do you know whether
9 or not the dewatering of the well -- excuse me, let me
10 start over.

11 The theory that the proponents can put slurry
12 walls around an area and dewater it, do you know whether
13 or not that might have an effect on the neighboring
14 levies?

15 WITNESS TOOTLE: I think the potential for
16 that exists. Again, it would depend on the subsurface
17 stratigraphy that's very complicated and how it
18 interrelates to the project site and how close the
19 project site is to the levies, which -- there's many
20 locations where it's right at the levy location.

21 MR. HERRICK: So if the dewatering
22 notwithstanding any slurry walls affects the water flow
23 under a levy, that may or may not affect that levy's
24 stability; is that correct?

25 WITNESS TOOTLE: If the slurry wall isn't

1 constructed in a manner that prevents anything from
2 coming through, if it doesn't penetrate an impermeable
3 layer we discussed before, it could have a negative
4 impact on the adjacent levy structures.

5 MR. HERRICK: Thank you.

6 And, lastly, there were some questions with
7 regards to the Atwater map or maps that you used in your
8 presentation. Do you recall those conversations?

9 WITNESS TOOTLE: Yes.

10 MR. HERRICK: And those Atwater maps provide
11 lines or arrows which indicate either current or
12 historic water flow, correct?

13 WITNESS TOOTLE: I believe that is correct.

14 MR. HERRICK: The purpose of those maps was to
15 indicate historic waterways or current waterways?

16 WITNESS TOOTLE: They do, yes.

17 MR. HERRICK: And any historic waterway would
18 be the result of natural hydrologic conditions, flows of
19 water, and materials that may be in the water, and the
20 land that the water flows on, correct?

21 WITNESS TOOTLE: That's correct.

22 MR. HERRICK: And is there any dispute that
23 when the natural processes like that created the
24 channels in the Delta, that they left certain footprints
25 that we can see today?

1 WITNESS TOOTLE: I'm unaware of anybody that
2 disputes that.

3 MR. HERRICK: And with those old channels,
4 they're actually the result of those processes, and we
5 can see that they have deposited lighter materials in
6 certain areas and heavier materials in other areas,
7 correct?

8 WITNESS TOOTLE: That's correct.

9 MR. HERRICK: And until one does an
10 investigation, one doesn't know how deep any of those
11 materials may go until -- well, one doesn't know,
12 correct?

13 WITNESS TOOTLE: That's correct.

14 MR. HERRICK: And is there any information
15 that you've seen presented by petitioners that indicates
16 whether or not any of those sand lenses or coarser
17 materials left over from historic channels intersect the
18 line of the tunnels, the proposed line of the tunnels?

19 WITNESS TOOTLE: I've only seen some borings
20 that was on one of the exhibits we demonstrated that had
21 soil stratigraphy at the one location logged at those
22 specific locations.

23 MR. HERRICK: And, lastly, I believe you were
24 asked whether or not the Atwater maps were simply aerial
25 views of the geology. Do you remember that?

1 WITNESS TOOTLE: I do.

2 MR. HERRICK: I thought you said earlier in
3 your testimony that you had also confirmed that aerial
4 photographs showed things like the sand lenses from
5 those previous channels, correct?

6 WITNESS TOOTLE: You can see tonal differences
7 in the ground surface that indicate those former
8 channels that you're talking about. Tonal, color
9 differences -- there's tonal differences in the color of
10 the ground surface.

11 MS. SUARD: That's all I have. Thank you very
12 much.

13 CO-HEARING OFFICER DODUC: Thank you,
14 Mr. Herrick.

15 Let the record also show that during the
16 break, Ms. Heinrich left us and we're now joined by
17 Ms. Samantha Olson.

18 Ms. Des Jardins, you were out of the
19 building -- or out of the room when I gave some
20 instructions with respect to cross-examination. Rather
21 than repeating myself, I've asked Mr. Herrick to have a
22 side conversation with you. So before we get to your
23 cross-examination, he will do that.

24 And I will turn right now to Ms. Suard for her
25 cross-examination.

1 MS. DES JARDINS: I don't have any questions
2 for the rest of the witnesses.

3 CO-HEARING OFFICER DODUC: I suggest you have
4 a chat with Mr. Herrick anyway, but thank you.

5 Ms. Suard?

6 --o0o--

7 CROSS-EXAMINATION

8 MS. SUARD: Hi. Nicky Suard for Snug Harbor.
9 I haven't met you before.

10 So I just want to ask a couple questions, and
11 I did have a map that's up for me but not up there.

12 Is that -- okay. I just want to make sure you
13 can see it. I just like to use maps for references.

14 This particular map is from Water Boards and
15 it is -- it tracks where all the different drinking
16 water wells are in the Delta. So I'm going to be asking
17 you questions about impacts to drinking water wells, not
18 just right in the pathway of the proposed tunnel
19 construction but potentially other areas.

20 But first I'd like to ask you: Have you had
21 any previous experience with issues around water wells
22 in the Delta? Have you worked on any other issues in
23 the Delta?

24 WITNESS TOOTLE: I've worked on multiple
25 projects that included well locations within their

1 footprint and had to monitor the water levels in them
2 and abandoned them for different purposes. So I'm
3 familiar with water wells in the area, yes.

4 MS. SUARD: Could you tell me what projects
5 were those?

6 WITNESS TOOTLE: They include River Islands
7 Development Project. I've installed some wells in
8 different reclamation districts, including RD 17.

9 MS. SUARD: Could you say the island names?

10 WITNESS TOOTLE: Stewart Tract, Mossdale
11 Tract, Ryer Island --

12 MS. SUARD: Okay.

13 WITNESS TOOTLE: -- are some examples.

14 MS. SUARD: Okay. What did you do with
15 Ryer Island?

16 WITNESS TOOTLE: I reviewed their well
17 information that they had. I installed some monitoring
18 wells of my own and monitored them over a period of
19 time.

20 MS. SUARD: Okay. Was that monitoring
21 groundwater or hydraulic pressure from Yolo Bypass or --

22 WITNESS TOOTLE: I'm sorry. It was
23 groundwater elevations that we were monitoring.

24 MS. SUARD: Okay. What time period was that?

25 WITNESS TOOTLE: It was over a course of a

1 year we did the monitoring. So it was approximately a
2 12- to 13-month period. That was several years ago now.
3 I don't remember. Maybe four, five years ago
4 approximately.

5 MS. SUARD: It's kind of important, the year.
6 Is it 2012 or '10?

7 WITNESS TOOTLE: I believe it was before 2012.
8 Sorry I don't recall specifically.

9 MS. SUARD: Were -- those monitoring wells,
10 where were they located? Ryer Island is 11,000 acres.
11 It's pretty big.

12 WITNESS TOOTLE: There's a duck club that I
13 think is adjacent to Miner Slough approximately
14 two-thirds of the way up the island, I guess.

15 MS. SUARD: On this map, can you see the words
16 "Five Points"?

17 WITNESS TOOTLE: Yes, I can.

18 MS. SUARD: Okay. So is that duck club below
19 that? I see a green dot below that.

20 WITNESS TOOTLE: I believe it is below the
21 words "Five Points."

22 MS. SUARD: Okay. There's sort of a -- what
23 looks like a restoration area on Ryer Island. Is that
24 the area where you're doing the monitoring wells?

25 WITNESS TOOTLE: I guess the duck club could

1 look like a restoration area. So it was just to the
2 east of that location, yes.

3 CO-HEARING OFFICER DODUC: Help me understand,
4 Ms. Suard, why is this important to me?

5 MS. SUARD: I was just -- what happens in one
6 area of Ryer Island impacts other areas of Ryer Island.
7 Whatever happens upriver, happens downriver. That's --
8 so I wasn't actually aware of this particular project.
9 So I was curious. Okay.

10 CO-HEARING OFFICER DODUC: Be curious on your
11 own time, please.

12 MS. SUARD: Sorry.

13 Okay. So I'm just going to ask. This map
14 gives an indication of many other drinking water wells
15 in the Delta. You see that, right? That's what the
16 green dots are.

17 WITNESS TOOTLE: Yes, I would -- I would
18 accept that that's what this map is intended to show.

19 MS. SUARD: Okay. In your experience as a
20 hydrologist and everything, is it possible that more
21 than just 15 drinking water wells would be impacted by
22 the operation of the twin tunnels?

23 WITNESS TOOTLE: I think I would stipulate
24 that there's a potential to impact more than 15.

25 MS. SUARD: Would you have an idea -- could

1 you, just looking at this map -- by the way, this is
2 public drinking water wells. This is not all the wells
3 that are out there. Or these are just ones that have
4 monitoring results.

5 Would you say that -- would it be 50, 100?

6 WITNESS TOOTLE: I could not speculate. You
7 do bring up a good point; that there is not one
8 comprehensive database of all the water wells that are
9 in the Central Valley or the Delta specifically.

10 And so to pinpoint an exact number is
11 extremely difficult. I don't have that information.
12 I'm not sure it exists in one location anywhere,
13 frankly.

14 MS. SUARD: I think Water Boards is getting
15 pretty good at this. They've got a lot of them, I
16 think, now. It is in different areas, but they're --
17 they're getting there.

18 So, in your mind, is the impact to wells,
19 if -- outside of the 15 that DWR admits would be
20 irreversibly damaged, is the impact to other wells
21 something that you would assume if there would be other
22 impact?

23 CO-HEARING OFFICER DODUC: Yes, Mr. Mizell, we
24 will strike the part about irreversible damage to those
25 15 wells.

1 MR. MIZELL: Thank you.

2 CO-HEARING OFFICER DODUC: Ignore that part,
3 Mr. Tootle.

4 MS. SUARD: What I'm meaning to say is not
5 counting the 15 wells that have been recognized by the
6 WaterFix.

7 MS. MESERVE: Objection. Misstates the
8 testimony and the petition -- the petitioners. So I
9 think it's too confusing.

10 CO-HEARING OFFICER DODUC: Ms. Meserve is
11 defending you, Mr. Mizell.

12 MS. MESERVE: If I might just clarify, it's
13 15 diversions that are in the PowerPoint DWR-2 errata
14 identified as being permanently or temporarily damaged
15 by the project. So it's not wells. There have been no
16 wells identified.

17 MS. SUARD: Thank you. That's a very good
18 point. Thank you.

19 So I'm talking about drinking water wells. I
20 do think there were some identified, but --

21 CO-HEARING OFFICER DODUC: Let's not testify.
22 What is your question?

23 MS. SUARD: Okay. Okay.

24 Based on your experience, do you anticipate
25 that any drinking water wells could be impacted by

1 operation of the tunnels, meaning taking, you know, most
2 of the water out of the Sacramento River for diversion
3 into the tunnels?

4 CO-HEARING OFFICER DODUC: Mr. Mizell is going
5 to object that as well.

6 Mr. Tootle, what is your opinion with respect
7 to impacts to groundwater wells? Actually, you already
8 answered that question.

9 Where are you going with this, Ms. Suard?

10 MS. SUARD: Let me try it a different way.
11 Let me say -- could we have SHR-24.

12 CO-HEARING OFFICER DODUC: It would be really
13 helpful if you just ask your question without asking
14 casting aspersions into what you believe the petitioners
15 are requesting or doing.

16 MS. SUARD: I'm sorry. I don't mean to do
17 that.

18 What I'm trying to understand is, in your
19 experience, do you believe that groundwater drinking
20 water wells, particularly shallower ones, would be
21 impacted by diversion of Sacramento River water from the
22 North Delta?

23 And I brought up this graphic. This is a
24 graphic from --

25 CO-HEARING OFFICER DODUC: Well, let's not

1 refer to the graphics just yet.

2 Mr. Tootle, just answer her question, ignoring
3 the graphics for now, based on whatever work you've done
4 in preparation for this hearing.

5 WITNESS TOOTLE: Well, I think the project as
6 proposed has a definite potential to injure water users
7 through just the existence of the project, not
8 necessarily specifically the operation. That was what
9 my testimony was directed to. So the operations of the
10 project I haven't really evaluated, but the presence of
11 the project could injure the adjacent water users.

12 MS. SUARD: Thank you.

13 So now I will refer to this graphic. And this
14 comes from the Bay Delta Conservation Plan modeling, and
15 it's just a nice way of referring to how aquifers -- how
16 rivers and aquifer or groundwater might interchange.

17 So -- trying to word it correctly. In your
18 understanding, is there a hydraulic connectivity between
19 the rivers or the sloughs like Steamboat Slough and the
20 drinking water aquifer? Do they interchange?

21 WITNESS TOOTLE: I'm sorry. Did you mention a
22 specific slough?

23 MS. SUARD: I said Steamboat Slough, but let's
24 say any North Delta slough. I was trying to be very
25 specific.

1 CO-HEARING OFFICER DODUC: Yes. Try to be
2 very specific. Let's focus on Steamboat.

3 MS. SUARD: Steamboat Slough. Is there a
4 hydraulic connectivity between the flow on
5 Steamboat Slough and the aquifer -- the drinking water
6 aquifer below it?

7 WITNESS TOOTLE: I don't have any specific
8 knowledge of that connection at Steamboat Slough.

9 MS. SUARD: Okay. It's sort of hypothetical,
10 but if documentation indicates that there is hydraulic
11 connectivity between flows on Miner Slough and like
12 Prospect Island, for example, would you assume that if
13 that area which Miner Slough is just a little bit north
14 of us, northwest, if there's connectivity between
15 Miner Slough and the drinking water aquifer right there
16 where you were doing monitoring, wouldn't it make sense
17 that there would be the same type of connectivity on
18 Steamboat Slough?

19 WITNESS TOOTLE: I think it's possible. The
20 geologic processes were similar that created both those
21 locations. But I have no specific knowledge of it.

22 MS. SUARD: Okay. What would you
23 anticipate -- how do drinking water aquifers get
24 replenished?

25 CO-HEARING OFFICER DODUC: And that is a very

1 general question.

2 MS. SUARD: In the Delta -- in the North Delta
3 on Steamboat Slough, how do you believe the drinking
4 water aquifer is replenished?

5 WITNESS TOOTLE: It would greatly depend on
6 the specific aquifer in question. So I think that
7 question is too general to have a specific answer.

8 MS. SUARD: Okay. If -- if there is not
9 sufficient freshwater flow on Steamboat Slough and lower
10 Sacramento River going out past Rio Vista, would one
11 expect salinity encroachment?

12 WITNESS TOOTLE: Encroachment into what?

13 MS. SUARD: Into the Sacramento River and
14 Steamboat Slough.

15 WITNESS TOOTLE: I believe the possibility
16 exists.

17 MS. SUARD: Okay. I do also -- it's just one
18 other question about the -- the -- when everybody was
19 asking about the -- I don't know what it's called, the
20 cofferdams and all that. I didn't -- it's like a --
21 like a big metal bathtub. Would that be a good
22 description of it?

23 WITNESS TOOTLE: I believe the intent is to
24 use a slurry mixture, which is a mixture of water and
25 a -- a low permeability clay. It's not a metal,

1 obviously. I believe the intent of the cutoff walls is
2 for them to be a soil medium and not a steel medium.

3 MS. SUARD: So when hydraulic -- when water --
4 when groundwater flows and hits that, will that
5 groundwater go underneath it, above it, to the side?

6 CO-HEARING OFFICER DODUC: Mr. Mizell?

7 MR. MIZELL: On the last question, I believe
8 it was addressed to the cofferdams. And if that's the
9 case, I think we're confusing things. But for clarity
10 of the record, I believe the response was in regard to
11 the slurry cutoff walls, not the cofferdams. I'd like
12 the two to be specifically identified, I guess.

13 MS. SUARD: I apologize. I may be saying the
14 wrong thing.

15 The area around the construction of the
16 intakes that -- that would keep water out of the
17 construction area. On the other side of whatever keeps
18 the water out of the construction area, water --
19 groundwater's going to hit that. And I'm a little
20 concerned if there's a lot -- if we have a wet year and
21 there's a lot of water, where is that water going to go.
22 Hydraulically speaking, what happens to that water?

23 CO-HEARING OFFICER DODUC: Do you have an
24 opinion, Mr. Tootle?

25 WITNESS TOOTLE: It would greatly depend again

1 on what the actual subsurface conditions are. And so
2 it's difficult to answer that question. There isn't
3 really a sufficient amount of information to make a
4 determination as to which direction the water may flow
5 in any one of these locations.

6 MS. SUARD: Okay. Thank you.

7 WITNESS VAN LOBEN SELS: You're welcome.

8 CO-HEARING OFFICER DODUC: Any redirect?

9 MS. MESERVE: Thank you, Madam Chair, briefly.

10 --o0o--

11 REDIRECT EXAMINATION

12 MS. MESERVE: We talked a lot about the cutoff
13 walls. What special conditions in the Delta, as you
14 understand them, make constructing an effective cutoff
15 wall difficult?

16 WITNESS TOOTLE: It's really the high
17 variability of the materials in the subsurface. It's
18 difficult to know exactly where the soils with high
19 hydraulic conductivity or high permeability and where
20 the soils with low permeability are. And so
21 constructing them properly and getting a complete and
22 effective seal is difficult just because of the high and
23 complex variability of the soils you're working in.

24 MS. MESERVE: And while, according to DWR-218,
25 cutoff walls if effectively constructed could prevent

1 drawdowns of nearby wells, did you also conclude that
2 cutoff walls may also cause injury to groundwater wells
3 in the vicinity by lowering or cutting off supplies for
4 those wells?

5 WITNESS TOOTLE: Yes. The attributes of the
6 cutoff walls that make them effective for the
7 construction dewatering mitigation are the same
8 attributes that could cause the injury to the adjacent
9 water users. Those cutoff walls are effective barriers
10 to horizontal groundwater flow when constructed
11 properly. And so that barrier to groundwater flow will
12 remain in place and is the exact thing that could injure
13 those water users.

14 MS. MESERVE: You were asked by Mr. Mizell
15 about reliance on Atwater, which is that Land 40.

16 In addition to Atwater, in formulating your
17 testimony, what other things, including your experience,
18 did you rely on in drafting and talking about the
19 testimony today?

20 WITNESS TOOTLE: I think I relied heavily on
21 my experience. I mentioned Stewart Tract earlier. The
22 last two construction seasons, we've constructed
23 relatively large below-grade excavations in the dry to
24 very extensive geotechnical explorations and
25 geomorphological evaluations of what the subsurface was

1 anticipated to be with very dense boring and CPT data,
2 exploration trenches, geophysical analysis.

3 And when we excavated these areas, it was
4 surprisingly different in a lot of locations. As much
5 work as we did to identify what they thought would be
6 there, we still were surprised.

7 And, you know, it's experiences like that that
8 we need to believe that it's very difficult to know what
9 you're going to encounter.

10 MS. MESERVE: Mr. Tootle, did you also rely on
11 the conceptual engineering reports found at DWR-212 as
12 well as at Land 65 in formulating your opinions, looking
13 at those descriptions and figures?

14 WITNESS TOOTLE: I did.

15 MS. MESERVE: Next question has to do with an
16 exhibit that's called SCWA-1.

17 Mr. Long, if you could bring that up, please?

18 Mr. Mizell asked you in cross-examination
19 about the closest well in relation. It says -- it's
20 Sacramento County Water Agency 1.

21 Mr. Mizell asked you about the closest well.
22 In preparing your testimony, did you also look at this
23 exhibit called SCWA-1?

24 WITNESS TOOTLE: I did.

25 MS. MESERVE: And what does this show?

1 WITNESS TOOTLE: This shows two well locations
2 that are less than 500 feet from the proposed tunnel
3 location.

4 CO-HEARING OFFICER DODUC: Mr. Mizell?

5 MR. MIZELL: We will object to this as being
6 not within his written testimony. I do not believe this
7 exhibit was referenced in his written testimony and,
8 therefore, constitutes surprise testimony.

9 MR. KEELING: This is response to Mr. Mizell's
10 cross.

11 MR. MIZELL: At no point did cross-examination
12 bring up anything about the Sacramento County Water
13 Agency's exhibits or well information.

14 And in response to my question, Mr. Tootle did
15 not indicate that he relied upon this nor that he was
16 aware of any wells and how close they were to the tunnel
17 alignment. Therefore, we went to a hypothetical
18 instead.

19 We may have conducted cross in a much
20 different manner had this exhibit been indicated by him
21 or his written testimony at this time.

22 CO-HEARING OFFICER DODUC: Mr. Keeling.

23 Ms. Meserve, was this exhibit mentioned in his
24 testimony?

25 MS. MESERVE: No, it was not.

1 CO-HEARING OFFICER DODUC: Then I will sustain
2 the objection.

3 Move on, please.

4 MS. MESERVE: Yes.

5 If we could look at Land 59, please, to
6 clarify some of the questions that came up regarding
7 Land 59.

8 In preparing for your testimony today, did you
9 speak with the engineer, Gerardo Dominguez, that
10 prepared this exhibit?

11 WITNESS TOOTLE: I did speak with him, yes.

12 MS. MESERVE: And just to clarify the
13 difference between the blue dot and the red dot at the
14 bottom which is covered by that gray part --

15 There we go. Thank you.

16 The map depicts a blue dot and a red dot. Did
17 Mr. Dominguez describe what the red dot was derived
18 from?

19 WITNESS TOOTLE: Yes. I did go back and
20 pre-reference that correspondence. And I mentioned many
21 different sources of data that were used to collect --
22 or to prepare these maps.

23 And the blue dots were intended to represent
24 those locations that I mentioned where there was either
25 latitude and longitude information or assessor's parcel

1 number information.

2 And then the red dots were intended to
3 represent those locations where no land use exists that
4 consumes domestic water. And it was also known that
5 there was no municipal water supply to those locations.

6 So a reasonable assumption was made that they
7 were using a domestic water well.

8 MS. MESERVE: And were the red dots, the
9 potential potable systems, was that for marinas?

10 WITNESS TOOTLE: I believe it included
11 marinas, yes.

12 MS. MESERVE: Then with respect to Land 58,
13 look at that briefly and look down at the legend.

14 Just to clarify, does this exhibit,
15 Mr. Tootle, show the depth range of the wells that were
16 discussed that are mapped on here?

17 If we could go to legend, the white box.

18 WITNESS TOOTLE: Yes. So this particular
19 legend indicates between 97 and 182 feet.

20 MS. MESERVE: And just to clarify, why is that
21 depth -- why is that relevant to this discussion of
22 injury to wells?

23 WITNESS TOOTLE: Portions of this proposed
24 project extend within those ranges.

25 MS. MESERVE: And did the petition or any

1 other materials that you reviewed in preparation for
2 this testimony include information regarding the
3 location or depth of groundwater wells in the vicinity
4 of the diversions or the tunnels and associated works?

5 WITNESS TOOTLE: I'm sorry. Can you restate
6 that for me?

7 MS. MESERVE: In your review of materials that
8 were part of the case in chief of the petitioners, did
9 you find any information regarding the location of
10 groundwater wells in the vicinity of the proposed
11 diversions?

12 WITNESS TOOTLE: Yes.

13 MS. MESERVE: You did find locations within
14 DWR's testimony?

15 WITNESS TOOTLE: Oh, I'm sorry. I
16 misunderstood you. That's why I asked you to repeat it.

17 In land's information, it was. I did not find
18 any in DWR's. I apologize.

19 MS. MESERVE: And do you believe that DWR has
20 shown there will be no injury to groundwater users in
21 the vicinity of the proposed tunnels, intakes, and other
22 facilities?

23 WITNESS TOOTLE: I don't believe they've
24 demonstrated that.

25 MS. MESERVE: Thank you.

1 CO-HEARING OFFICER DODUC: Thank you.

2 Recross. Anyone else?

3 All right.

4 MR. MIZELL: Hello again. Ms. Meserve just --

5 CO-HEARING OFFICER DODUC: I'm sorry. For the
6 record, is Mr. Mizell from DWR conducting recross?

7 MR. MIZELL: Yes. Tripp Mizell from DWR.

8 --o0o--

9 RE-CROSS-EXAMINATION

10 MR. MIZELL: Ms. Meserve just asked you some
11 questions about the effectiveness of slurry cutoff walls
12 and their construction. And I believe you were
13 explaining that, similar to previously, that unless they
14 are constructed correctly, they may not be effective and
15 that subsurface soils are -- that you're not aware of
16 the information that would give us certainty as to what
17 we would experience.

18 Are those correct generalizations of the
19 testimony so far?

20 WITNESS TOOTLE: Yes.

21 MR. MIZELL: Isn't it your testimony from
22 earlier that you have not gathered any subsurface soil
23 information to conclude that slurry walls are
24 insufficient to block groundwater impacts at this time?

25 WITNESS TOOTLE: I don't recall that I

1 testified to that.

2 MR. MIZELL: Let me ask it a different way.
3 What subsurface soil information have you gathered that
4 is the basis of your claim that slurry cutoff walls
5 cannot be effective?

6 WITNESS TOOTLE: I'm not sure I said they
7 could not be effective. Maybe I don't understand the
8 question. I'm sorry.

9 If they're constructed properly, they can be
10 very effective. I think I testified to that.

11 MR. MIZELL: I believe when you were answering
12 questions from Mr. Herrick, there was some question
13 about whether or not we would reach an effective
14 impermeable layer in constructing slurry cutoff walls.

15 Do you recall that line of questioning with
16 Mr. Herrick?

17 WITNESS TOOTLE: I do.

18 MR. MIZELL: Do you have any information that
19 would indicate whether or not we will reach an effective
20 impermeable layer when constructing the slurry cutoff
21 walls?

22 WITNESS TOOTLE: I have not conducted an
23 independent geotechnical exploration at your proposed
24 project locations. So I have not collected that
25 information independently, and I have not seen any of

1 that information presented by DWR.

2 MR. MIZELL: Are you aware that the department
3 has proposed the use of a concrete plug should there not
4 be an impermeable layer found at the dewatering sites?

5 WITNESS TOOTLE: I'm not sure I understand
6 what you mean by "a concrete plug."

7 MR. MIZELL: How might one construct an
8 effective slurry cutoff wall if an impermeable layer is
9 not found?

10 WITNESS TOOTLE: If you can't tie into an
11 impermeable layer at the base of the wall, water will go
12 under the wall into your dewatered area.

13 MR. MIZELL: Is there any way to prevent that
14 engineering-wise?

15 WITNESS TOOTLE: There is not.

16 MR. MIZELL: Are you aware of any other major
17 construction projects that use slurry walls in the
18 Delta?

19 WITNESS TOOTLE: Can you clarify what you mean
20 by "construction projects"?

21 MR. MIZELL: Certainly. Are you aware of the
22 Freeport Diversion Project?

23 WITNESS TOOTLE: I'm aware that it exists.

24 MR. MIZELL: Are you aware of their use of
25 slurry walls in the construction of that project?

1 WITNESS TOOTLE: I'm not aware of their
2 construction processes, no.

3 MR. MIZELL: Have you run any modeling or
4 conducted any analyses regarding the direction of
5 groundwater flows around the construction sites proposed
6 in this project?

7 WITNESS TOOTLE: I have not.

8 MR. MIZELL: Have you reviewed the testimony
9 submitted by the department and Bureau of Reclamation
10 regarding the direction of flows of groundwater in and
11 around the construction sites?

12 WITNESS TOOTLE: I reviewed lots of documents.
13 I can't say that I reviewed them all.

14 MR. MIZELL: You don't recall having reviewed
15 that?

16 WITNESS TOOTLE: I don't recall.

17 MR. MIZELL: Okay. You just indicated that in
18 addition to relying upon, Atwater, you also -- excuse
19 me. You also relied upon your experience with a
20 Stewart Tract construction project. Am I stating that
21 correctly?

22 WITNESS TOOTLE: That's one of them, yes.

23 MR. MIZELL: And I believe it was also your
24 testimony that, in that construction project, they
25 constructed facilities in the dry?

1 WITNESS TOOTLE: That's correct.

2 MR. MIZELL: What were the techniques used in
3 that construction project?

4 WITNESS TOOTLE: Dewatering wells were
5 installed to lower the groundwater table, and the
6 project was constructed in that manner.

7 MR. MIZELL: So there were no concerns about
8 widespread dewatering during the construction of that
9 project on Stewart Tract?

10 WITNESS TOOTLE: The owner of that project
11 owned not just the site that they were working on but
12 vast tracts of land around it, and that owner was,
13 therefore, not concerned about impacting their own use.

14 MR. MIZELL: Were there any impacts beyond his
15 property that you're aware of?

16 WITNESS TOOTLE: None that I am aware of.

17 MR. MIZELL: Thank you very much.

18 CO-HEARING OFFICER DODUC: Did you have a
19 question, Ms. Des Jardins?

20 MS. DES JARDINS: I just have recross.

21 CO-HEARING OFFICER DODUC: You did not conduct
22 cross.

23 MS. DES JARDINS: So I can't recross. Thank
24 you.

25 CO-HEARING OFFICER DODUC: All right.

1 If there's nothing else, then I will thank
2 Mr. Tootle and Mr. Pyke.

3 Before we adjourn for the day, let me give all
4 the parties, those here as well as those hopefully
5 watching on Webcast, a reminder and a request.

6 The reminder is that you are prohibited from
7 talking to us and the hearing team and the hearing
8 staff, but you're not prohibited from talking to each
9 other, especially all the parties who are protestants to
10 this petition. So that's the reminder.

11 The request is, as you're looking at each
12 other's exhibits and testimonies, obviously there are a
13 lot of expertise being offered by various parties, and
14 many of you are interested as well as are curious about
15 the variety of topics that these experts can provide.

16 I would encourage you to make contact with
17 them through their representatives. And I would
18 encourage their representatives, to the extent possible,
19 to accommodate those requests so that you can have those
20 outside discussions without taking time during the
21 process of these hearings to explore areas that are not
22 relevant to the subject matter before us, not relevant
23 to the issues that are before us that we need to make
24 decisions on.

25 And when I say "relevance," I mean direct,

1 clear, convincing relevance. Obviously any topic area
2 of any interest could have some relevance to things in
3 the Delta, but that does not mean that it is appropriate
4 to explore those topics during the course of this
5 evidentiary hearing which is very focused on the
6 petitions before us and the key issues that we are
7 considering.

8 So that is my reminder and my request to
9 everybody.

10 With that, I thank you all again for the
11 efficient conduct today. We'll reconvene again in the
12 Coastal Room next Thursday.

13 We will begin with Ms. Meserve, Panel No. 3.
14 I believe you're estimating an hour and a half for
15 direct.

16 Any estimates on cross at this time?

17 I want to give Mr. Herrick some assurance that
18 his witnesses may not be needed until we reconvene after
19 lunch.

20 Mr. Mizell? You're usually the ones with the
21 bulk of the cross-examination.

22 MR. MIZELL: At the time, I believe we would
23 give you a ballpark estimate of two hours.

24 CO-HEARING OFFICER DODUC: Okay.

25 Then I think it's safe to say, Mr. Herrick, we

1 will not need you until 1:00 p.m. at the earliest. And
2 we'll revisit that before we take our lunch break on
3 Thursday.

4 Thank you all. Have a good weekend. We will
5 see you on Thursday.

6 (Whereupon, the hearing was closed at
7 4:49 p.m.)

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1 CERTIFICATE OF REPORTER

2 I, Megan Alvarez, a Certified Shorthand
3 Reporter, hereby certify that the foregoing proceedings
4 were taken in shorthand by me at the time and place
5 therein stated, and that the said proceedings were
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8 I further certify that I am not of counsel or
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