

BEFORE THE  
CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

IN RE THE MATTERS OF:

SWRCB Enforcement Actions  
ENFO1951; ENFO1949

WEST SIDE IRRIGATION  
DISTRICT CEASE AND DESIST  
ORDER HEARING,

and

BYRON-BETHANY IRRIGATION  
DISTRICT ADMINISTRATIVE  
CIVIL LIABILITY HEARING.

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VIDEOTAPE DEPOSITION OF JOHN O'HAGAN  
Volume II

November 20, 2015

Reported By: KATHRYN DAVIS, CSR No. 3808

kathryndavis & associates  
deposition reporting

WSID CDO/BBID ACL  
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1 BE IT REMEMBERED, that on Friday, November 20,  
2 2015, commencing at the hour of 8:35 thereof, at the  
3 offices of SOMACH SIMMONS & DUNN, 500 Capitol Mall,  
4 Suite 1000, Sacramento, California, before me, KATHRYN  
5 DAVIS, a Certified Shorthand Reporter in the State of  
6 California, duly authorized to administer oaths and  
7 affirmations, there personally appeared

8 JOHN O'HAGAN,

9 called as witness herein, who, having been duly sworn,  
10 was thereupon examined and interrogated as hereinafter  
11 set forth.

12 --oOo-

13 THE VIDEOGRAPHER: My name is Candace Knight. I  
14 will be videotaping this proceeding on behalf of  
15 Sacramento Legal Video Center, LLC, located at 3550 Watt  
16 Avenue, suite 140, in Sacramento, California.

17 The date is November 20th, 2015. The time on  
18 the video monitor is 8:35 a.m. Our location is 500  
19 Capitol Mall, suite 1000, in Sacramento, California.

20 We are here in the matter of Byron-Bethany  
21 Irrigation District Cease and Desist Order. The  
22 noticing attorney is Jennifer Spaletta. The court  
23 reporter is Kathryn Davis of Kathryn Davis & Associates.

24 This is the deposition of John O'Hagan. This is  
25 a single-track recording. Overlapping voices cannot be

1 separated. Private discussions on the record will also  
2 be recorded. Would counsel please identify yourselves,  
3 your firms and those you represent?

4 MR. CARRIGAN: Cris Carrigan for the witness.

5 MR. TAURIAINEN: Andrew Tauriainen, Office of  
6 Enforcement, State Water Board, for the Prosecution  
7 Team.

8 MS. SPALETTA: Jennifer Spaletta representing  
9 Central Delta Water Agency.

10 MR. KELLY: Daniel Kelly for the Byron-Bethany  
11 Irrigation District.

12 MS. ZOLEZZI: Jeanne Zolezzi. Herum Crabtree  
13 Suntag for the West Side, Patterson and -- who do I  
14 represent?

15 MR. KELLY: Banta.

16 MS. ZOLEZZI: Banta-Carbona Irrigation District.

17 MR. O'LAUGHLIN: Tim O'Laughlin, San Joaquin  
18 Tributaries Authority.

19 MS. BERNADETT: Lauren Bernadett with  
20 Byron-Bethany Irrigation District.

21 MS. MORRIS: Stefanie Morris, counsel for State  
22 Water Contractors.

23 MR. MIZELL: Tripp Mizell, California Department  
24 of Water Resources.

25 THE VIDEOGRAPHER: Would you please swear in the

1 witness?

2 (Whereupon, the witness was sworn.)

3 EXAMINATION BY MR. O'LAUGHLIN

4 Q BY MR. O'LAUGHLIN: Good morning, Mr. O'Hagan.

5 My name is Tim O'Laughlin and I represent the San

6 Joaquin Tributaries Authority. I am going to be asking

7 you some questions.

8 Before we got on the record, I asked you to turn

9 to Exhibit 43. Do you have Exhibit 43 in front of you,

10 Mr. O'Hagan?

11 A Yes.

12 Q I'm going to ask you some questions about this

13 exhibit and we'll go through it. On the first side on

14 the right-hand side, it says, "Demand includes Legal

15 Delta demand in proportion to San Joaquin's River

16 contribution..."

17 Do you see that in the upper right-hand corner?

18 A Yes.

19 Q So what in this sentence does the word

20 "proportion" mean?

21 A "Proportion" means it is proportioning the

22 total inflows into the Delta from the different

23 tributaries and contributing it to the San Joaquin

24 side or the Sacramento side.

25 Q And was the total flow in based on the FNF or

1 was a it based on actual stream flow data at Freeport in  
2 Vernalis?

3 A It was based on FNF.

4 Q Thank you. So if the inflow into the Delta on a  
5 day was 65 CSF from the Sacramento River and 35 percent  
6 from the San Joaquin River, then the proportionality  
7 would be 35 percent to the San Joaquin River and  
8 65 percent to the Sacramento River?

9 A Correct. But each of the San Joaquin would  
10 include other tributaries that are tributary to the  
11 San Joaquin. So that also includes Mokelumne River  
12 and Cosumnes River full natural flows.

13 Q Actually, you took my next question out of my  
14 mouth. Thank you.

15 When you did these analyses for the supply  
16 demand from 2015, was the proportion changed on a daily  
17 basis, a weekly basis on a monthly basis?

18 A Monthly.

19 Q Was the proportion changed looking forward,  
20 i.e., forecasting, or was it looked in retrospect?

21 A In forecasting.

22 Q And so let's say it was May 1st and you had the  
23 projected FNF from the Department of Water Resources for  
24 May, you would then break that down proportionally  
25 between the Sacramento and San Joaquin River and project

1 out what the percentage, the proportional allocation  
2 would be for May; is that correct?

3 A I believe so but my staff did these  
4 calculations. I did not do them.

5 Q And thank you for that. And I understand that  
6 you are directing Brian Coats and Mr. Yeazell --  
7 Yeazell, Yeazell --

8 A "Yeazell."

9 Q What is it?

10 A "Yeazell."

11 Q "Yeazell"?

12 MS. ZOLEZZI: He says "Yeazell."

13 THE WITNESS: I'll apologize to Jeff. I call  
14 him Jeff.

15 Q BY MR. O'LAUGHLIN: All right.

16 Now, I want to go through the chart in a little  
17 bit. On the left-hand side, it has numbers going zero,  
18 5,000, 10,000, 15,000. Do you understand what those  
19 numbers are?

20 A Yes.

21 Q And what are those numbers?

22 A Those are the average, monthly average of the  
23 demand from in acre-feet from the water right  
24 reportings.

25 Q Now what does it mean on the column next to

1 where the numbers are, it says "time-averaged." Do you  
2 know what was meant by "time-averaged"?

3 A I believe it is due to the fact that we are  
4 doing this every month, so it is an average over the  
5 months. Each month has a different proportion.

6 Q So if I understood you correctly, let me make it  
7 real simple. If an Irrigation District said that they  
8 were going to use 30 acre-feet in a month, then what the  
9 time average was, was that would break down that  
10 30 acre-feet every day in the month, correct?

11 A Yes. It would be an averaged rate of  
12 diversion for that reported monthly demand. So if  
13 the month was 30 days, it would be 30 days. If it  
14 was 31, it would be 31.

15 Q Okay. Thank you.

16 Now I want to focus in on the graph. The first  
17 color is kind of orange. And it appears to be labeled  
18 "post-1914 demand." Do you see that?

19 A Yes.

20 Q So the first question I had is when this graph  
21 is made, is the "post-1914 demand" additive to the  
22 "pre-14 demand" in "riparian demand" or is there really  
23 orange going all the way behind this, so that it is  
24 10,000 of post-14 demand? Do you understand my  
25 question?



1 MR. CARRIGAN: Calls for speculation. Lacks  
2 foundation. Compound.

3 THE WITNESS: To my knowledge, these are  
4 additive as you go up. So the "riparian demand" sits by  
5 itself. Then "pre-14 demand" is added to that, and then  
6 the "post-14 demands" are added. So it is not hiding  
7 each of them.

8 Q BY MR. O'LAUGHLIN: Perfect. Thank you.

9 All right. Now, this is a San Joaquin River  
10 Basin Supply/Demand, correct?

11 A Correct.

12 Q Now, you mentioned -- when you did this  
13 analysis, did you include the Cosumnes, Calaveras and  
14 Mokelumne Rivers in this analysis?

15 MR. CARRIGAN: Lacks foundation. Calls for  
16 speculation.

17 THE WITNESS: Again, I did not do the analysis.  
18 I directed staff to do that analysis. But to my  
19 knowledge for the San Joaquin watershed, the Cosumnes  
20 and the Mokelumne River are included as part of the full  
21 natural flow available.

22 Q BY MR. O'LAUGHLIN: Are they included in regards  
23 to demand?

24 MR. CARRIGAN: Same objections.

25 THE WITNESS: Could you explain your question?

1 Q BY MR. O'LAUGHLIN: Yes. So I understand that  
2 their FNF was included in regards to supply. Was the  
3 East Bay MUD's demand included in the spreadsheet here  
4 as a post-14 or a pre-14 right?

5 A To my knowledge, yes.

6 Q Thank you.

7 Focusing on the post-14 demand, I'm going to  
8 start down with the Friant. Are you familiar with the  
9 Friant project, Mr. O'Hagan?

10 A Yes.

11 Q Then do you understand that they have a  
12 post-1914 right to divert based on a priority of 1929?

13 A I don't know the priority but I know they  
14 have a post-14 water right.

15 Q And that water right is held by the United  
16 States Bureau of Reclamation; is that correct?

17 A Correct.

18 Q Now in looking at -- and I'm going to pick  
19 March 1st through April 1st. Do you know how I would go  
20 about determining what the post-14 demand, included  
21 within that orange box, was allocated to the United  
22 States Bureau of Reclamation at Millerton?

23 A You would have to look at the spreadsheet  
24 that supports this demand analysis and look for the  
25 U.S. Bureau of Reclamation's appropriative water

1 right.

2 Q So, I did that and I'm confused. There were  
3 2010, 2011, 2012 and 2013 reporting on the spreadsheet.  
4 Was that the numbers that were used to support the  
5 demand for the United States Bureau of Reclamation's  
6 diversions at Friant?

7 MR. CARRIGAN: Assumes facts not in evidence.  
8 Calls for speculation. Lacks foundation.

9 MR. KELLY: Can you please read that question  
10 back?

11 (Whereupon, the record was read.)

12 THE WITNESS: Again, to my knowledge, because I  
13 did not do the calculation, my direction was for 2015 to  
14 utilize an average of 2010, '11 and '12 statement  
15 reports for the statement reporting, so it would be an  
16 average of three years. If there was two years, it  
17 would be the average of two years.

18 For the permits and license holders, it would be  
19 the 2014 diversions, I believe, because we had -- we  
20 would have that data. Wait a minute. I have to think  
21 back now. It might be 2013, depending on when we got  
22 the data. I'm trying to --

23 MR. CARRIGAN: Let me caution the witness not to  
24 speculate or guess.

25 MR. O'LAUGHLIN: He knows that.

1 MR. CARRIGAN: That is all right.

2 THE WITNESS: I'm trying to recall.

3 Q BY MR. O'LAUGHLIN: All right. Are you done? I  
4 don't want to interrupt.

5 A Yes.

6 Q So then if I'm looking at March 1st through  
7 April 1st for post-1914 demand, these are not the face  
8 value of the permits or licenses held by the  
9 appropriators; is that correct?

10 MR. CARRIGAN: Ambiguous.

11 THE WITNESS: It is not the face value that is  
12 shown in eWRIMS.

13 Q BY MR. O'LAUGHLIN: Now on the statements of  
14 diversion that were used in 2010, 2011, 2012 -- did I  
15 get that right? 2010 or was it 2011 that you started?  
16 I'm sorry. I wrote it down wrong, I think.

17 MS. ZOLEZZI: '10, '11, '12.

18 MR. O'LAUGHLIN: '10, '11 and '12. Thank you.

19 Q So for 2010, 2011 and 2012, did you average the  
20 monthly demand that was reported or did you take the  
21 highest demand that was reported?

22 MR. CARRIGAN: Calls for speculation. Lacks  
23 foundation.

24 THE WITNESS: Again, my staff did the  
25 calculations. But to my knowledge, it is the average.

1 Q BY MR. O'LAUGHLIN: So if I --

2 A -- of reported.

3 Q Of reported. So if the United States Bureau of  
4 Reclamation at Friant had reported in 2010 that they had  
5 diverted ten acre-feet in April, and then they had  
6 reported in 2011 10 acre-feet in April, and then they  
7 had reported in 2012 10 acre-feet in April, the demand  
8 that was put into this sheet would show 10 acre-feet in  
9 April, correct?

10 MR. CARRIGAN: Renew my same objections.

11 Q BY MR. O'LAUGHLIN: All right.

12 A To clarify, we established that the Bureau at  
13 Friant was operating under an appropriative water  
14 right, so they did not use an average for that year.

15 Q Okay. But did they --

16 A That was for statement holders.

17 Q So what did you do?

18 A Again, I'm not sure if it was 2013 or 2014  
19 data. I'd have to check with my staff for the  
20 information for the 2015 demand data.

21 Q Did you ever check the demand data that was put  
22 into the post-14 demand data that's denoted in  
23 Exhibit 43 and compare it to the water availability in  
24 2014?

25 A I did not personally do that.

1 Q Did you ask your staff to do a QA/QC of that to  
2 see if the amount of demand that was reported matched up  
3 to the amount of water that was available in 2014?

4 A I had my staff do QA/QCs on the reported  
5 demand as we discussed previously.

6 Q Okay. And as you sit here today, you are  
7 unclear as to the appropriators, as to whether or not  
8 you used their 2013 or 2014 diversions, correct?

9 A My staff would know that.

10 Q Now on the proportional -- I'm going back to the  
11 first sentence, Mr. O'Hagan, up on the top. On the  
12 proportionality, how was the proportionality assigned to  
13 the San Joaquin River basin denoted in the graph between  
14 post-14 demand, pre-14 demand and riparian demand?

15 MR. CARRIGAN: Calls for speculation. Lacks  
16 foundation.

17 THE WITNESS: Could you repeat your question?

18 Q BY MR. O'LAUGHLIN: Yeah. I want to know -- so  
19 you look at this chart, and this appears to be the San  
20 Joaquin River basin. But I wanted to know how the legal  
21 demand, the demand includes Legal Delta demand in  
22 proportion to the San Joaquin. I wanted to know how  
23 that was broken out into this graph or where it would  
24 show up.

25 MR. CARRIGAN: Same objections.

1 THE WITNESS: It is based on -- to separate the  
2 rights? Is that what you are asking?

3 Q BY MR. O'LAUGHLIN: See, I can't tell. I can't  
4 tell if you broke it out by the right or if you put it  
5 into a lump sum someplace.

6 MR. CARRIGAN: There is no question pending.

7 Q BY MR. O'LAUGHLIN: Okay. So going back to my  
8 original question. Was the Legal Delta demand, in  
9 proportion to the San Joaquin, how is it denoted in this  
10 graph?

11 MR. CARRIGAN: Renew the objections.

12 THE WITNESS: I don't understand your question,  
13 Tim.

14 Q BY MR. O'LAUGHLIN: Well, okay. My  
15 understanding is, let's say going back to the question  
16 that we asked earlier. The San Joaquin is assigned  
17 35 percent of the Legal Delta demand. And the Legal  
18 Delta demand included riparians and pre-14s.

19 How was that 35 percent placed into this demand  
20 chart that we see in front of us in Exhibit 43? Was it  
21 all allocated to riparians? Was it all allocated to  
22 pre-14? Was it all allocated to post-14 or did you try  
23 to divide it up between the three?

24 MR. CARRIGAN: Calls for speculation. Lacks  
25 foundation.

1           THE WITNESS: For the reported demands under the  
2 different types of rights, it's based on what people  
3 reported as far as the type of rights. If they claimed  
4 pre-14, they got pre-14. In the Delta, however, if they  
5 claimed both rights, I believe that the staff moved  
6 those into all riparian based on statements by the Delta  
7 water users.

8           Q           BY MR. O'LAUGHLIN: Do you know as you sit here  
9 today and look at Exhibit 43 -- and I'm not trying to  
10 trick you or anything. Look down at the date in the  
11 lower right-hand corner before you answer the question.

12                   Do you know if by that date your staff had made  
13 a determination to take the statements of diversion that  
14 had both pre-14 and riparians and move them all into the  
15 riparian column?

16           A           I don't know if that was done by that date,  
17 no.

18           Q           Sorry. We are going to have to flip so maybe I  
19 can get an answer to your question. Turn to Exhibit 27,  
20 please. Do you have Exhibit 27 in front of you, Mr.  
21 O'Hagan?

22           A           Yes.

23           Q           I'll give you a few minutes to look at it and  
24 refresh your recollection. Ready?

25           A           (Witness reading.)



1 Q Okay. Do you understand this to be the demand  
2 table for the Sacramento -- Sacramento River basin's  
3 supply/demand?

4 A I understand this is a printout of  
5 information from our worksheets.

6 Q Okay. About under "riparian" and "riparian  
7 pre-14," if you go down a little bit it says, "FNF  
8 ratio." Do you see that?

9 A Yes.

10 Q And if you go to -- let's go to April. It says  
11 "71.6 percent." Do you see that?

12 A Excuse me. I just knocked off my mic.

13 Q Oh, okay.

14 A Could you repeat the question?

15 Q Sure. Go down under "riparian and riparian  
16 pre-14," it says "FNF ratio." Do you see that, Mr.  
17 O'Hagan?

18 A I'm looking for "riparian and pre-14"  
19 combined.

20 Q It is right up at the top under "demand in  
21 acre-feet" at the top right there.

22 A It looks like it says, "riparian and riparian  
23 and pre-14." Yeah.

24 Q Sorry.

25 A Mine has a binder hole in it.

1 Q Okay. So it says "FNF ratio"?

2 A Yes.

3 Q Okay. And then go to April and it says  
4 "71.6 percent." Do you see that?

5 A Yes.

6 Q Now, that is the percentage of demand from the  
7 Delta that was allocated to the San Joaquin -- to the  
8 Sacramento River, correct?

9 MR. CARRIGAN: Document speaks for itself.

10 THE WITNESS: Again, this is a product produced  
11 by my staff.

12 Q BY MR. O'LAUGHLIN: Right.

13 A But I believe that is correct.

14 Q Okay. So if I wanted to understand in April,  
15 then, I would take -- the Sacramento would be the  
16 difference between 100 percent and 71.6 percent,  
17 correct?

18 MR. CARRIGAN: Document speaks for itself.  
19 Lacks foundation. Calls for speculation.

20 THE WITNESS: Again, my staff did these  
21 calculations, so they broke up the flows based on the  
22 proration as I described.

23 Q BY MR. O'LAUGHLIN: Right. So the San Joaquin  
24 River would roughly have 28.4 percent, correct?

25 MR. CARRIGAN: Same objections.

1 THE WITNESS: If that's what their calculation  
2 showed on the other side.

3 Q BY MR. O'LAUGHLIN: Well, what I'm trying to  
4 get -- I'm not trying to be cute about it. I just want  
5 to know. There isn't any other source. We have the  
6 Sacramento and San Joaquin River. Was there anything  
7 else you were looking at to get to 100 percent of the  
8 allocation for FNF in the Delta?

9 A Again, it is the other tributaries that are  
10 included. When you use those words "Sacramento and  
11 San Joaquin," I want to make sure that you are  
12 including the other tributaries that were included  
13 as part of the San Joaquin side.

14 Q Right.

15 A And the other tribs that were included as  
16 part of the Sacramento side.

17 Q Correct.

18 A So to answer your question, with that  
19 understanding, I believe, yes.

20 Q Okay. So now if we go down in this, it says  
21 that -- if you go down in April, it says "Delta." Do  
22 you see that under "pre-14 only"?

23 A Yes.

24 Q And it says 12,993 acre-feet. Do you see that?

25 A Yes.

1 Q Now I realize this is the Sacramento side, but  
2 here is my question. When you took the percentage of  
3 allocation, did you take -- on this chart it would be  
4 71.6 percent. Did you take 71.6 percent of 12,993 and  
5 allocate it to the Sacramento system and put it under a  
6 pre-14 demand?

7 MR. CARRIGAN: Document speaks for itself.  
8 Calls for speculation. Lacks foundation.

9 THE WITNESS: Again, I did not do these  
10 calculations.

11 Q BY MR. O'LAUGHLIN: You know what? Can we just  
12 stipulate, if it is okay with you, I understand you did  
13 none of the calculations; that you were just a general  
14 manager. But my understanding is that you directed your  
15 staff to do these, correct?

16 A Correct.

17 Q Okay.

18 A So, I mean, they would be the ones to ask the  
19 questions on how these tables were developed.

20 MR. CARRIGAN: So I guess, counsel, my concern  
21 is you are asking him to interpret a document that he  
22 did not create or prepare. So I understand your  
23 stipulation.

24 MR. O'LAUGHLIN: Okay.

25 MR. CARRIGAN: I'm just asserting the objection

1 based on the fact that he did not prepare this so --

2 MR. O'LAUGHLIN: Right.

3 MS. ZOLEZZI: He did make recommendations to his  
4 supervisor based on these documents, however. So he had  
5 to have had an understanding of them.

6 MR. CARRIGAN: Then ask the witness if that is  
7 what his understanding was.

8 Q BY MR. O'LAUGHLIN: Okay. So going back to  
9 Exhibit 43 again. Tell me, if you can, what your  
10 understanding is of how I would determine where the  
11 Legal Delta demand is included in the graph.

12 A The Legal Delta demand, to my understanding,  
13 is -- the total Legal Delta demand is adjusted by  
14 the proration of the full natural flows that were  
15 done.

16 Q Okay. And then how was it included in this  
17 chart, the proration, if you know?

18 A Based on the calculations from the  
19 spreadsheet.

20 Q Okay. While we are on the upstream at  
21 Millerton, do you see the yellow part of the graph has  
22 "riparian demand" on it, Mr. O'Hagan?

23 A Yes.

24 Q Okay. Can you tell me what the -- who is  
25 included in the "riparian demand" on the San Joaquin

1 River Basin Supply/Demand chart?

2 A No. I can't identify who is in there.

3 Q Do you know if the San Joaquin River Exchange  
4 Contractors were included in the "riparian demand" that  
5 is denoted as the yellow on Exhibit 43?

6 A If they filed a statement with us and it was  
7 reported in the years that we were using, they would  
8 be in there.

9 Q Do you have any understanding if your staff  
10 changed the denotation for the Exchange Contractors from  
11 pre-14 riparian to strictly riparian?

12 A Yes.

13 Q Do you know when that occurred?

14 A Not the exact date.

15 Q Do you know why that occurred?

16 A I believe that was a discussion from the  
17 Exchange Contractors' counsel.

18 Q So it was something to the effect of, we have  
19 pre-14 and riparians and what?

20 A It is similar to the Delta folks, that they  
21 were going to exercise their riparian even if the  
22 pre-14s were curtailed.

23 Q Can you explain that to me in the context of a  
24 water supply availability if you are only looking at  
25 full natural flow?

1 A Well, that means that there is a higher  
2 demand on full natural flow if the demand is under  
3 riparian.

4 Q Did you ever ask anyone at the State Water  
5 Resources Control Board to reconcile -- well, wait. Let  
6 me ask you differently. Strike that.

7 Did you make the decision to change the Exchange  
8 Contractors pre-14 riparian to strictly riparian?

9 A I believe so.

10 Q When you made your decision, did you try to  
11 reconcile the decision that you made with the Millview  
12 case?

13 MR. CARRIGAN: Calls for legal conclusion.

14 MS. MORRIS: Join.

15 THE WITNESS: No.

16 Q BY MR. O'LAUGHLIN: Do you know what the  
17 Millview case is?

18 A Yes.

19 Q Have you read the Millview case?

20 A Yes.

21 Q In looking at this graph for post-1914s, we had  
22 some discussion yesterday that appropriative rights that  
23 were strictly labeled "power" were excluded from the  
24 demand equation, correct?

25 A That was the instructions, yes.

1 Q Now, how were appropriative rights that had  
2 power in M & I or power irrigation treated in the  
3 demand, post-1914 demand?

4 A To my knowledge, they were included.

5 Q Did you ever inquire or look at CalSIM or CalSIM  
6 modeling to ascertain what depletions or accretions were  
7 in the San Joaquin River?

8 A I did not look at those models.

9 Q When the full natural flow was presented to you  
10 in the beginning of the month, my understanding is the  
11 blue line on this chart is the actual daily FNF; is that  
12 correct?

13 A It is the calculated daily FNF.

14 Q Were you ever aware of the reporting in 2015  
15 where CDEC reported a FNF. And then next to it, it has  
16 an "E." Do you know what that is?

17 MR. CARRIGAN: Compound.

18 THE WITNESS: I believe the "E" would be  
19 "estimate" or "error." I don't know what that is. I'm  
20 sorry.

21 Q BY MR. O'LAUGHLIN: Okay. Did your staff ever  
22 QA/QC the daily FNFs that you received from DWR?

23 MR. CARRIGAN: Calls for speculation. Lacks  
24 foundation.

25 THE WITNESS: I believe staff was in contact



1 with the Department of Water Resources on FNF  
2 calculations, so I would assume so.

3 Q BY MR. O'LAUGHLIN: Now, one of the things I was  
4 perplexed about. Did your staff actually pull the FNFs  
5 for the stations that were used on the San Joaquin River  
6 daily or did you wait for DWR to supply that information  
7 for you?

8 MR. CARRIGAN: Calls for speculation. Lacks  
9 foundation. Compound.

10 THE WITNESS: Again, my staff did that so I  
11 can't speak on how often they did that.

12 Q BY MR. O'LAUGHLIN: I'm going to ask you some  
13 questions. We have probably been through some of these,  
14 but just so I can check them off my list.

15 How were stored water quality releases treated  
16 from New Melones in your calculation?

17 A For available supply?

18 Q Yes.

19 A Full natural flow was used, not storage  
20 releases.

21 Q And that would be the same answer if stored  
22 water was released to meet FERC flow requirements on the  
23 Tuolumne and Merced, correct?

24 MR. CARRIGAN: Incomplete hypothetical. Calls  
25 for speculation.

1 THE WITNESS: Correct.

2 Q BY MR. O'LAUGHLIN: How were the POTWs on the  
3 San Joaquin River treated in regards to water supply  
4 availability for your supply/demand analysis?

5 MR. CARRIGAN: Asked and answered. Vague.  
6 Compound.

7 THE WITNESS: That is not natural flow, so they  
8 were not part of supply and demand. Again, as I  
9 testified yesterday, however, we continued to look at  
10 available daily supply when we were before and after we  
11 made these decisions, so the daily flows.

12 Q BY MR. O'LAUGHLIN: Those are your handwritten  
13 notes, right?

14 A Those are the stream flows that I was checking  
15 as actual stream flows.

16 Q Do you know if POTWs report their discharges on  
17 a daily basis?

18 A I personally don't know.

19 Q Did you have your staff investigate that in 2015  
20 to look at available supply?

21 A No.

22 Q Do you know if there are drains in the San  
23 Joaquin River basin that are gauged and measured?

24 A Yes. Sloughs.

25 Q Sloughs, drains?

1 A Yes.

2 Q Was any information from those gauges used in  
3 determining the amount of supply available in your  
4 supply/demand analysis?

5 MR. CARRIGAN: Calls for speculation. Lacks  
6 foundation.

7 THE WITNESS: Again, the supply side was full  
8 natural flow. The sloughs that you are mentioning on  
9 the San Joaquin were looked at on the evidence or the  
10 information I provided the other day regarding real  
11 stream flows.

12 Q BY MR. O'LAUGHLIN: I want to look at a  
13 situation and maybe you can help me walk through this.  
14 Let's go to May 1st on the Stanislaus River. So post-14  
15 rights have been curtailed, right, at this point in  
16 time?

17 A Post-1914 rights have been curtailed.

18 Q And you understand that Oakdale and South San  
19 Joaquin have a pre-14 adjudicated water right; is that  
20 correct?

21 A They are claiming pre-14 rights and they also  
22 have post-14 rights.

23 Q Correct. So let's say -- and my understanding  
24 is that for the San Joaquin River basin supply side,  
25 that the full natural flow is measured at Goodwin,

1 correct?

2 A Full natural flow is measured at different  
3 points. The staff used -- I'd have to ask staff on  
4 the location but I believe they used Goodwin for  
5 their full natural flow calculation.

6 Q If you turn to Exhibit 43 and you look at the  
7 second paragraph, does GDW refresh your recollection,  
8 Mr. O'Hagan?

9 A Right. So it is Goodwin.

10 Q So let's assume that the full natural flow on  
11 May 1st is 800 CSF at Goodwin. Do you have that in your  
12 mind?

13 A Okay.

14 Q Okay. And the two districts are diverting 800  
15 CSF into their canal under their pre-14 water rights.  
16 Do you have that in your head? Because pre-14 rights  
17 had not been curtailed yet, correct?

18 A Correct.

19 Q Okay. So it would be your understanding that  
20 they would be legally entitled to take the full 800 CSF  
21 if it was there and available, correct?

22 MR. CARRIGAN: Calls for a legal conclusion.

23 THE WITNESS: Not necessarily, because that full  
24 natural flow may be required by senior rights  
25 downstream.

1 Q BY MR. O'LAUGHLIN: Okay. Did you make any  
2 determination on May 1st that there were senior rights  
3 downstream that had a priority over Oakdale on that day?

4 A There was Delta demand under riparian rights  
5 that in normal cases are senior.

6 Q Other than that, let's assume for this  
7 hypothetical that they were diverting the 800 FNF and  
8 the United States Bureau of Reclamation was releasing  
9 200 CSF down below Goodwin for instream flows.

10 Would the 200 CSF that was released by the  
11 Bureau of Reclamation show up in your San Joaquin River  
12 Basin Supply/Demand?

13 A Again, it would be only full natural flow.  
14 But my checks for live stream flows would show that  
15 at Vernalis.

16 Q Now if that was stored water that was being  
17 released at New Melones on May 1st, is it your  
18 understanding under California law that riparians are  
19 not entitled to divert stored water?

20 MR. CARRIGAN: Objection. Calls for legal  
21 conclusion.

22 MS. MORRIS: Join.

23 THE WITNESS: Yes.

24 Q BY MR. O'LAUGHLIN: Did your staff look at the  
25 Tuolumne and Merced rivers to ascertain what amount of

1 stored water was being released in May by those  
2 facilities?

3 MR. CARRIGAN: Calls for speculation.

4 THE WITNESS: Again, the calculations for the  
5 demand analysis was full natural flow. The check on  
6 releases would be the live stream checks that were done  
7 on that -- in the information that I gave you.

8 Q BY MR. O'LAUGHLIN: So what was your opinion,  
9 then, of water availability for people downstream of the  
10 rim reservoirs in May if all the water being released on  
11 the Stanislaus, the Tuolumne and the Merced was stored  
12 water?

13 MR. CARRIGAN: Incomplete hypothetical. Vague.  
14 Overbroad.

15 THE WITNESS: I believe the information I showed  
16 you the other day was full natural flow was exceeding  
17 the flows in the river prior to May 1. So reservoirs  
18 were collecting. But the flows at Vernalis would still  
19 be -- the actual flows would still be insufficient to  
20 meet Delta demand.

21 Q BY MR. O'LAUGHLIN: Have you ever seen DWR's  
22 Particle Tracking Model?

23 A I believe I've seen the information submitted  
24 by stakeholders.

25 Q In your analysis that you were doing for water

1 supply availability in the Delta, did you ask DWR to use  
2 their Particle Tracking Model?

3 A I did not.

4 Q Is there a reason why you did not ask DWR to use  
5 their Particle Tracking Model?

6 A I didn't ask them to do it.

7 Q Did you have discussions with DWR about doing  
8 modeling to determine the water supply availability in  
9 the Delta?

10 A I did not.

11 Q Did your staff?

12 A I can't speak for my staff.

13 Q Okay. In this matter, is it your understanding  
14 that West Side Irrigation District takes water from the  
15 San Joaquin River?

16 A My understanding is that West Side is taking  
17 water from the San Joaquin River, yes.

18 Q Now when you were doing your analysis for the  
19 West Side Irrigation District, did you only look at the  
20 amount of water flowing in the San Joaquin River to  
21 determine if there was supply available for West Side  
22 Irrigation at their diversion point?

23 A For West Side, they are a post-1914 water  
24 right holder. And in the Delta for our analysis,  
25 they were not curtailed until May 1st. So they were

1 given a proportion possibly that would be equivalent  
2 to getting -- it is not a legal determination but  
3 some natural flow from the Sacramento River.

4 Q So if the proportionality was such, then in  
5 actuality was your analysis that was done for  
6 availability of water in the Delta to treat the entire  
7 Delta as one giant mixing zone for all the water that  
8 came into it?

9 MR. CARRIGAN: Vague.

10 THE WITNESS: I wouldn't say "mixing zone." We  
11 wanted to look at all scenarios. And that is why we  
12 have so many curves to respond to stakeholders'  
13 concerns. One of those issues was the Delta pool  
14 theory. So we wanted to make sure that we considered  
15 that in our curtailment of rights before we took  
16 curtailments of rights.

17 Q Can you explain to me what you understand the  
18 Delta pool theory to be?

19 A There is a mixing of water in the Delta from  
20 all sources.

21 Q So would it be your understanding, then, that if  
22 all the water -- the assertion under the Delta pool  
23 theory is that all the water is mixed in the Delta. So  
24 that even though BBID has a right to divert from the San  
25 Joaquin River, if water is there and subject to



1 diversion, they take it?

2 MR. CARRIGAN: Calls for a legal conclusion.

3 THE WITNESS: Could you repeat the question?

4 MR. O'LAUGHLIN: Well, she can read it back.

5 (Whereupon, the record was read.)

6 MR. O'LAUGHLIN: That is an absolutely terrible  
7 question. I should be disbarred for that. Aren't you  
8 going to say anything? You are not going to object?

9 MS. MORRIS: You have to reask the question and  
10 then I'll object.

11 THE WITNESS: That was a tough one, Tim.

12 MR. O'LAUGHLIN: Sorry about that, John. That  
13 is pretty bad.

14 Q Do you understand if the Delta pool theory has  
15 been addressed by the State Water Resources Control  
16 Board in previous State Board decisions?

17 A I think they have addressed it. Whether it  
18 has been resolved or not, I don't think so.

19 Q Are you familiar with the Phelps case?

20 A Yes.

21 Q Is that a case that you believe addressed the  
22 Delta pool theory?

23 A It addressed rights to interconnected or  
24 non-interconnected groundwater, so I would think it  
25 might be a little different.

1 Q Did you have any discussions with Tom Howard in  
2 April of 2015 regarding the operations of New Melones  
3 Reservoir?

4 A I don't recall.

5 Q Okay. Do you recall ever receiving a memo from  
6 Mr. Howard about the resolution of a dispute at New  
7 Melones and the operations of New Melones in April of  
8 2015?

9 MR. CARRIGAN: I'm going to caution not to tread  
10 here, John, with your answer on anything that might have  
11 been attorney-client privileged or any discussions you  
12 may have had with Mr. Howard that involved Mr. Lauffer  
13 or other counsel that may have been privileged.

14 So if you would restrict your answer in that  
15 respect, if you have a memory of that. I'm sure counsel  
16 is not asking for privileged information so --

17 Q BY MR. O'LAUGHLIN: No.

18 A But I don't recall.

19 Q What was -- I'm trying to understand. Kathy  
20 Mrowka kind of left me with the impression that your  
21 office, in 2015, was pretty isolated because you were  
22 looking at this concern about prosecutions and making  
23 sure that you kept up the separation between the  
24 prosecution and the hearing team and the State Board.

25 How was information conveyed from your senior

1 management to you about the temporary urgency change  
2 petitions and their effect on water supply and demand in  
3 2015?

4 A I may have because I'm a program -- you know,  
5 I'm an assistant deputy director, I may have been  
6 copied on that information.

7 Q Okay.

8 A But I don't see the relationship with our  
9 water supply and demand analysis that we were  
10 performing.

11 Q So were you aware that an operation plan was  
12 submitted by the United States Bureau of Reclamation for  
13 New Melones in 2015 that was approved by Mr. Howard in a  
14 temporary urgency change petition?

15 A I was aware of that.

16 Q Were you aware that under the operation plan,  
17 that only "X" amount of water would be going down the  
18 river in May, June, July, August, September?

19 MR. CARRIGAN: Vague.

20 THE WITNESS: I don't know the exact pieces of  
21 that agreement, no.

22 Q BY MR. O'LAUGHLIN: Well, what I'm trying to  
23 understand, and maybe you can help me, is why  
24 curtailment orders were issued on the Stanislaus River  
25 in light of the State Water Resources Control Board's

1 approval of the temporary urgency change petition by  
2 Reclamation in the operation plan that was approved  
3 therein?

4 MR. CARRIGAN: Calls for a legal conclusion.  
5 Speculation. Lacks foundation.

6 Q BY MR. O'LAUGHLIN: If you know.

7 A Again, we are -- the curtailment analysis was  
8 to protect senior rights and their priorities. That  
9 agreement is dealt probably with stored water.

10 Q If I was to tell you that the agreement only had  
11 a set release from June 1st to October 1st of 150 CSF  
12 per day, does that change your answer that you just  
13 gave?

14 MR. CARRIGAN: Incomplete hypothetical. Same  
15 objections.

16 THE WITNESS: No, because there is upstream  
17 demands for waters that still would be subject to  
18 priority.

19 Q BY MR. O'LAUGHLIN: Upstream of where?

20 A The Bureau's projects.

21 Q Did you direct your staff to do any QA/QC on  
22 people claiming pre-1914 water rights in the Delta?

23 A We investigated compliance with the notices  
24 of curtailment, so we had staff out doing  
25 investigations all year.

1 Q Yeah. But did you ever determine, like, if  
2 somebody put down "pre-1914, 1887," did you ever go out  
3 and try to determine if that person had a pre-14 right  
4 priority date of 1887?

5 A That was one of the purposes of the  
6 Informational Order that was issued in February of  
7 2015, to get information to support people's claims  
8 or rights.

9 Q Are you familiar with an entity called Woods  
10 Irrigation Company?

11 A Yes.

12 Q And they claim both pre-14 and riparian rights;  
13 is that correct?

14 A Yes, to my knowledge.

15 Q And, in fact, there was a State Board proceeding  
16 regarding Woods Irrigation Company; is that correct?

17 A I think that proceeding is still pending.

18 Q And was it your understanding, in the original  
19 decision issued by the State Board, that they found that  
20 Woods Irrigation Company had a 1911 priority date?

21 MR. CARRIGAN: Calls for a legal conclusion.

22 MS. SPALETTA: Assumes facts not in evidence.

23 THE WITNESS: I don't recall if the Board  
24 identified a priority date.

25 Q BY MR. O'LAUGHLIN: So let's assume that for

1 purposes of this that Woods Irrigation Company has a  
2 priority date of 1911. What is the practical effect of  
3 changing Woods from a pre-14 riparian to strictly a  
4 riparian on upstream pre-1914 rights that have a senior  
5 priority date to 1911?

6 MR. CARRIGAN: Incomplete hypothetical. Calls  
7 for a legal conclusion.

8 THE WITNESS: I couldn't speculate on the  
9 effects of parties upstream.

10 Q BY MR. O'LAUGHLIN: Well, on your spreadsheet  
11 analysis, wouldn't their demand change from pre-14  
12 riparian to riparian and then go to a higher priority  
13 than what any pre-14 water right would be?

14 A If that is what staff's -- if that happened  
15 on the Woods water right, then they would be  
16 recognized as a riparian.

17 Q Right. So if you turn to Exhibit 27 -- sorry.  
18 27 and 29.

19 A Which one first?

20 Q Let me find it first and get the right one.  
21 Turn to -- sorry. These charts all start to look the  
22 same. Sorry about that.

23 MR. KELLY: Just don't mess up my binder.

24 MR. O'LAUGHLIN: I'm ripping it apart. The poor  
25 person that put this together -- I hope that wasn't you.

1 Q Okay. 27. Do you have that in front of you,  
2 Mr. O'Hagan?

3 A Yes.

4 Q So why don't we look at April again. The  
5 numbers are pretty easy. Look under "riparian and  
6 riparian pre-14." And in the Delta column it has  
7 67,452. Do you see that?

8 A Delta South of Mosssdale?

9 Q No. It says "Delta." Delta South of Mosssdale  
10 was only 926.

11 A Okay. Yes, I see the 67,000.

12 Q Okay. So if you look across, for every month it  
13 is projecting a demand based on riparian and riparian  
14 pre-14: 67, 124, 176, 188. Do you see those numbers?

15 A Yes.

16 Q Now if you go down, it appears that your staff  
17 broke out what the pre-14 only was; is that correct?

18 MR. CARRIGAN: Document speaks for itself.

19 Q BY MR. O'LAUGHLIN: For the Delta we now have  
20 12,990, 25,000, 40,000. Do you see those numbers?

21 A Yes, for the Delta.

22 Q Okay. Let's hope I can get to the right one.  
23 Now turn to -- now turn to Exhibit 31, please.

24 A Again, this date on Exhibit 27 is 11/13/2015.

25 Q That's just the copier here.

1 MS. ZOLEZZI: The printing.

2 Q BY MR. O'LAUGHLIN: From the printing person.

3 A Which exhibit?

4 Q 31.

5 A I have it.

6 Q Okay. Now on this graph we can pick out --  
7 let's look at May. And if you look at the graph, it  
8 says "riparian" and "pre-14." So let's look at May.

9 No. Let's look at June. June is a better  
10 month. Let's look at June. "Pre-14" it says "Delta"  
11 and it says 250,923. Do you see that?

12 A Still trying to find it. I'm sorry.

13 Q No. Take your time. We are not in a rush. It  
14 is "riparian." And the next one down, John, is  
15 "pre-14." And then "Delta" is right underneath  
16 "Sacramento." And scroll over to June and it says  
17 250,923.

18 A I see the number.

19 Q Okay. And you have to kind of (indicating) do  
20 this, John, because I'm going to ask you questions.  
21 Sorry.

22 A Back to the -- what was the other one?

23 Q Yes, back to No. 27.

24 A Okay. Again, what is the date of this --  
25 this information on this Exhibit 31?



1 Q Well, that's the great question because I was  
2 going to ask you that. So what is the date?

3 A My staff produced that.

4 MR. CARRIGAN: Calls for speculation. Lacks  
5 foundation.

6 Q BY MR. O'LAUGHLIN: There you go. Perfect  
7 answer. I already knew that.

8 Go to 27. And now go down to -- once again, go  
9 down to "pre-14" only.

10 A In June?

11 Q In June. Go to "Delta" and then scroll across.

12 A Okay.

13 Q It says 40,391 acre-feet. Do you see that?

14 A Yes.

15 Q Okay. And you don't know the date that these  
16 charts, these graphs were completed; is that correct?

17 A Correct.

18 Q Okay. But it appears that this is a change in  
19 the methodology of how pre-14 water was being accounted  
20 for in the Delta; is that correct?

21 MR. CARRIGAN: Document speaks for itself.

22 Calls for speculation. Lacks foundation.

23 THE WITNESS: Again, I don't want to speculate  
24 on this prior document because I don't know what even  
25 year it applies to. It looks like it has got some 2014

1 dates in it.

2 Q BY MR. O'LAUGHLIN: Where do you see 2014 dates  
3 in the Exhibit 27?

4 A On the right-hand side --

5 MR. CARRIGAN: Hold on, John. I'm sorry. The  
6 witness is looking at Exhibit 31.

7 THE WITNESS: I'm sorry.

8 MR. CARRIGAN: I apologize for the confusion.

9 Q BY MR. O'LAUGHLIN: Oh, you are looking at 31?  
10 No, that is fine. I'm sorry. No, I just want to get  
11 clear. Sorry, John. Exhibit 31 is --

12 A No. There is some 10/15/14 on the right-hand  
13 side on the far right.

14 Q Where it says 10/15/14, 11/15/14?

15 A Yes.

16 Q So we would ask your staff if those numbers are  
17 embedded within the demand analysis; is that correct?

18 A Yeah. Unless you've done a comparison of,  
19 like, 4/15/15 and look at April. I haven't done  
20 that.

21 Q It appears though, however, that if we were to  
22 look at the two exhibits, that there is roughly a  
23 200,000 acre-foot difference in the pre-14 demand  
24 between the two exhibits, ballpark-ish; is that correct?

25 MR. CARRIGAN: Document speaks for itself --

1 documents speak for themselves.

2 THE WITNESS: There is a difference.

3 Q BY MR. O'LAUGHLIN: Approximately 200,000.

4 MR. CARRIGAN: Same objection.

5 Q BY MR. O'LAUGHLIN: Correct?

6 So in looking at that, if all that demand was  
7 taken from riparian and pre-14 and slammed into riparian  
8 demand for the month, what would be the change in CSF on  
9 a daily basis for FNF?

10 MR. CARRIGAN: Calls for speculation. Assumes  
11 facts not in evidence.

12 THE WITNESS: These are monthly acre-foot  
13 amounts. And we spread that as, you know, into average  
14 cubic feet per second. So you would do the math.

15 Q BY MR. O'LAUGHLIN: Okay. So I could basically  
16 take the month of June -- I forget. Does June have 30  
17 or 31 days? Divide it by 31 and then roughly divide it  
18 by two -- I always use two, I know it is not two -- and  
19 then that would come up with the CSF equivalent?

20 MR. CARRIGAN: Incomplete hypothetical.

21 Q BY MR. O'LAUGHLIN: Correct?

22 A June has 30 days.

23 Q Thank you. 30 days. And then I could divide it  
24 -- and then divide it by two roughly and then it would  
25 give me a CSF spinoff, right?

1 MR. CARRIGAN: Same objection.

2 THE WITNESS: A rough number. You are saying  
3 divide by 60 for June.

4 Q BY MR. O'LAUGHLIN: Right. Now, if I did that,  
5 would that CSF then all be allocated to riparians and  
6 they would have higher priority than the pre-14s,  
7 correct?

8 MR. CARRIGAN: Incomplete hypothetical.

9 MS. MORRIS: Calls for a legal conclusion.

10 THE WITNESS: Again, the staff did the  
11 calculation. But if they put that demand under  
12 riparian, then it was shown as riparian.

13 Q BY MR. O'LAUGHLIN: And then it would have a  
14 higher priority than pre-14 under your supply/demand  
15 chart, right?

16 A As claimed by the stakeholders who filled out  
17 the reports. If they claimed riparian, yes.

18 Q Did your staff ever look at patents in the Delta  
19 and what the dates of patents were in the Delta?

20 MR. CARRIGAN: Lacks foundation. Calls for  
21 speculation.

22 THE WITNESS: We have looked at patent dates.

23 Q BY MR. O'LAUGHLIN: Are those included in the  
24 supply/demand analysis?

25 MR. CARRIGAN: Same objections.

1 THE WITNESS: No.

2 Q BY MR. O'LAUGHLIN: Did you look at any  
3 prescriptive rights upstream of pre-14 rights versus  
4 riparian rights in the Delta?

5 MR. CARRIGAN: Same objections.

6 THE WITNESS: If the prescriptive rights were  
7 claimed and filing statements of water diversion and use  
8 or under permit -- which wouldn't be but -- then they  
9 would be part of the demand analysis.

10 Q BY MR. O'LAUGHLIN: Is it your understanding  
11 that the CVP and SWP are responsible to meet a water  
12 quality objective for X2 in the Delta?

13 MR. CARRIGAN: Calls for a legal conclusion.

14 MS. MORRIS: Join.

15 THE WITNESS: They are required to meet water  
16 quality standards in the Delta.

17 Q BY MR. O'LAUGHLIN: And those standards are set  
18 by D-1641; is that correct?

19 MR. CARRIGAN: Same objection.

20 THE WITNESS: And adjustments that have been  
21 made for drought TUCP orders.

22 Q BY MR. O'LAUGHLIN: Right. So this past year,  
23 we had TUCP orders that adjusted the water quality  
24 parameters that the CVP and the SWP were required to  
25 meet; is that correct?

1 A To my knowledge, yes.

2 Q Did you look in your water -- not you.

3 Did you have your staff look at the water in  
4 your water supply/demand at water that had been released  
5 and abandoned?

6 MS. MORRIS: Objection. Assumes facts not in  
7 evidence.

8 THE WITNESS: Our analysis looked at full  
9 natural flow.

10 Q BY MR. O'LAUGHLIN: So the only person who may  
11 have looked at abandoned water slightly, if at all,  
12 would have been you in your daily analysis of looking at  
13 the stream flow gauges, correct?

14 A The question of whether water is abandoned is  
15 the key. So if the water was abandoned, then it  
16 would be shown up on measurement stream gauges. And  
17 I was looking at available flows when making  
18 decisions to curtail or not.

19 Q So now when we get to the Delta, was it your  
20 understanding that approximately 4,000 CSF was the  
21 amount of water being released by the CVP and SWP to  
22 meet X2 this summer?

23 A Again, I don't know the exact number for the  
24 dates.

25 Q But it was some fairly substantial amount of

1 water being released by the projects upstream to meet  
2 the water quality requirements for X2 and Delta outflow,  
3 correct?

4 MR. CARRIGAN: Vague.

5 THE WITNESS: They make releases. And in summer  
6 months, those releases get higher, yes.

7 Q BY MR. O'LAUGHLIN: So are you aware of any  
8 order in D-1641 that protects that water as it moves  
9 through the Sacramento Bay-Delta system from depletions?

10 MS. MORRIS: Objection. Calls for a legal  
11 conclusion.

12 MR. CARRIGAN: I'll join that and also say  
13 vague.

14 THE WITNESS: I know there's measuring points  
15 for the San Joaquin side down to a certain point that  
16 water, but I don't know if the decision actually  
17 protects the water.

18 Q BY MR. O'LAUGHLIN: Do you know if it protects  
19 the water being released on the Sacramento side?

20 MR. CARRIGAN: Same objections.

21 THE WITNESS: Again, the water being released  
22 has more than consumptive use as beneficial purposes.  
23 It has salinity control requirements in the Delta. So  
24 the water that is being released to me is not being  
25 abandoned if it is making that purpose.

1 Q BY MR. O'LAUGHLIN: Okay. Now with that  
2 statement, I think that is a very succinct statement. I  
3 appreciate that very much.

4 So is there something within the Porter-Cologne  
5 Act that protects water being released to meet a water  
6 quality objective?

7 MR. CARRIGAN: Vague. Calls for legal  
8 conclusion.

9 THE WITNESS: I don't know.

10 Q BY MR. O'LAUGHLIN: Is there anything within the  
11 Clean Water Act that protects water that is being  
12 released for water quality purpose from use or diversion  
13 by other parties?

14 MR. CARRIGAN: Same two objections.

15 THE WITNESS: And I'm not sure.

16 Q BY MR. O'LAUGHLIN: Are you aware if the  
17 Department of Water Resources or the United States  
18 Bureau of Reclamation filed a Water Code Section 1707 on  
19 the water being released from the projects to meet water  
20 quality objectives in the Delta?

21 A I don't know.

22 Q Do you have any opinion, as you sit here today,  
23 as to whether or not water that's being released to meet  
24 an X2 and Delta outflow demand is protected from  
25 diversions in the Delta?



1 MS. MORRIS: Objection.

2 MR. CARRIGAN: Calls for a legal conclusion.

3 MS. MORRIS: Asked and answered.

4 THE WITNESS: It's being released from storage,  
5 that water in it. And it has an in-beneficial use, so  
6 it's not available for others to divert.

7 MR. O'LAUGHLIN: John, thank you very much. I  
8 appreciate it.

9 THE WITNESS: You bet.

10 MR. O'LAUGHLIN: Appreciate the time.

11 MR. KELLY: Take a break?

12 MR. CARRIGAN: Should we go off the record for a  
13 few minutes while the next questioner gets ready?

14 MR. KELLY: Yes.

15 THE VIDEOGRAPHER: Off the record at 9:43 a.m.  
16 This is the end of disk one.

17 (Whereupon, a recess was then taken.)

18 THE VIDEOGRAPHER: We are back on the record at  
19 9:57 a.m. This is disk two.

20 CONTINUED EXAMINATION BY MS. SPALETTA

21 Q BY MS. SPALETTA: We are back on the record  
22 after a short break. My name is Jennifer Spaletta from  
23 Spaletta Law. And I'll be asking you questions on  
24 behalf of the Central Valley Water Agency.

25 I understand that counsel for the State Board

1 had an exhibit they would like to mark.

2 MR. TAURIAINEN: Yes. Thank you.

3 The next marked exhibit, I believe it is No. 75,  
4 is the Prosecution Team's objections to Mr. O'Hagan's  
5 deposition notices. And that is all.

6 (Whereupon, Exhibit No. 75 was  
7 marked for identification.)

8 MS. SPALETTA: As we stated in our other  
9 deposition, the objections are noted. We don't  
10 necessarily agree with them but we don't anticipate  
11 having any issues. If we do, we'll deal with them as  
12 they come up.

13 (Whereupon, Exhibit No. 76 was  
14 marked for identification.)

15 Q BY MS. SPALETTA: The next exhibit we have  
16 marked is Exhibit No. 76. Does the witness have  
17 Exhibit No. 76 in front of him?

18 A Yes.

19 Q Exhibit 76 is a email that was produced by the  
20 State Board dated January 21st, 2015 which includes an  
21 email from you, Mr. O'Hagan, to Ms. Mrowka and Mr. Coats  
22 and Mr. Yeazell. If you could just take a moment to  
23 read it.

24 A (Witness reading.)

25 Q Mr. O'Hagan, does it refresh your memory as to

1 communications that you had with your staff regarding  
2 this supply/demand analysis in January of 2015?

3 A Not really.

4 Q Well, I'll represent to you that the email says,  
5 for example:

6 "Kathy and Brian: Let's think about a way to  
7 separate the demand for the storage portion of  
8 this total demand. (This has been raised by  
9 stakeholders.) Most rights for storage have  
10 face value of the capacity. It's reasonable to  
11 limit storage demands to only refill of existing  
12 empty storage space."

13 Do you know whether or not that adjustment was  
14 actually done on the demand side of the demand/supply  
15 analysis?

16 A No.

17 Q Was it not done or you don't know one way or the  
18 other?

19 A I do not think it was done.

20 Q Do you know why it wasn't done?

21 A Because it was difficult to separate that  
22 amount on the reports.

23 Q So then for a particular post-1914 or pre-1914  
24 appropriative right that is represented in the demand  
25 database, it could be that the demand represented

1 includes a storage right that could have never have been  
2 filled during 2015, correct?

3 MR. CARRIGAN: Calls for speculation. Lacks  
4 foundation. Incomplete hypothetical.

5 THE WITNESS: For 2015, most of the reservoirs  
6 were depleted. So it could include some but I can't  
7 speculate on how many or anything like that.

8 MS. SPALETTA: We'll mark our next exhibit in  
9 order as Exhibit 77.

10 (Whereupon, Exhibit No. 77 was  
11 marked for identification.)

12 Q BY MS. SPALETTA: Exhibit 77 is another email  
13 from Mr. Yeazell to you on June 10th, 2015. The subject  
14 matter is, "Supply/Demand graphs supporting pre-14  
15 curtailments."

16 And the email states:

17 "John, attached are the four supply/demand  
18 graphs for Cache and Putah Creek demands have  
19 been removed from the three analyses involving  
20 the Sacramento River basin."

21 Yesterday, I asked you if the Cache and Putah  
22 Creek demands were removed from this supply and demand  
23 analysis at some point in time in 2015 and you couldn't  
24 remember that. And I wondered if this email refreshed  
25 your memory.

1 A The Cache Creek supply and demand may have  
2 been removed in the Sacramento graph that pertains  
3 to -- with the only North Delta demand.

4 Q The attachments to this email include multiple  
5 graphs. There is the proportional Delta, pre-14  
6 supply/demand analysis. There is also the Sacramento  
7 plus North Delta, and also the San Joaquin plus  
8 proportional Delta, and then also a Sacramento/San  
9 Joaquin pre-14 supply and demand analysis.

10 So is it your testimony that they were only  
11 removed for the North Delta analysis or were they also  
12 removed for the other analyses involving the Sacramento?

13 MR. CARRIGAN: Objection. The documents speak  
14 for themselves.

15 THE WITNESS: And I believe the posted graphs  
16 identified when they are removed.

17 Q BY MS. SPALETTA: So there was a notation on the  
18 graph that would say that?

19 A I believe on the North Delta graph, there is  
20 a notation.

21 Q What was the rationale for removing those  
22 demands from the North Delta graph?

23 A I believe that was stakeholders' comments  
24 that the natural flow was insufficient to meet the  
25 demand or the natural flow was zero or the flow was

1 zero.

2 Q Now another question I had about this email is  
3 the attachment names. They all end in PDF, which my  
4 understanding is that means it was probably one of the  
5 graphs that had been produced to us in the form of a  
6 PDF. Is that your understanding?

7 MR. CARRIGAN: Misstates the document.

8 THE WITNESS: I don't know what the attachments  
9 are on this. I see that they say PDFs.

10 Q BY MS. SPALETTA: Unfortunately, in the Public  
11 Records Act request that we received from the State  
12 Board, the attachments were not with any of the emails.  
13 So it is very difficult to put that together for the  
14 purposes of asking you the questions.

15 But my question is really more about the term  
16 "web," w-e-b, that it is at the end of a few of these  
17 file names.

18 I asked you yesterday if you could help me  
19 identify which of the documents that were used for the  
20 various curtailment decisions actually were posted on  
21 the State Board's website. And you said you weren't  
22 sure. I'd have to ask Brian Coats.

23 Unfortunately Mr. Coats was also not able to  
24 tell us that. So I was wondering if internally you had  
25 some kind of nomenclature that you changed the file

1 names to include the word "web" if it got posted to the  
2 website.

3 A I have no knowledge of the acronym or the  
4 tail language of "web." I don't even know what that  
5 means. I don't look at the document names.

6 MS. SPALETTA: Mark our next document  
7 Exhibit 78. We are going to mark Exhibit 79 at the same  
8 time.

9 (Whereupon, Exhibit Nos. 78-79  
10 marked for identification.)

11 MR. TAURIAINEN: Are we on the record still?

12 I would like to clarify a statement by counsel  
13 with regard to Exhibit 77, an objection to a statement  
14 if I need to object.

15 All of the attachments to the email dated  
16 Wednesday, June 10th were disclosed, along with the  
17 email, in the November 12th PRA disclosure.

18 The emails were contained in one folder. The  
19 attachments were contained in another. And the  
20 attachment names are unchanged from that listed in the  
21 attachments to the emails. So they are all there.

22 MS. SPALETTA: The problem, Mr. Tauriainen, is  
23 that the attachment specific to each email were not next  
24 to each other in the production so --

25 MR. TAURIAINEN: They are listed alphabetically.

1 MS. SPALETTA: I understand that. But sometimes  
2 the same attachment names appear for several different  
3 emails. And given that there were more than 10,000  
4 pages of separate emails that you produced within the  
5 last week, we had some difficulty matching up the  
6 attachments -- which is one of the purposes of the  
7 deposition, to clarify which documents go where so that  
8 we, as stakeholders, have an understanding of the  
9 information.

10 MR. TAURIAINEN: Counsel, your statement was  
11 that the documents weren't produced.

12 MS. SPALETTA: No.

13 MR. TAURIAINEN: They were produced. You didn't  
14 say that they were produced in a fax that you can  
15 understand.

16 MS. SPALETTA: I am happy to stipulate that you  
17 produced a file entitled "attachments." And that it  
18 very well may include some of these attachments. What I  
19 can't stipulate to is that they were produced with the  
20 relevant email, which is why I'm having to ask the  
21 questions at the deposition.

22 I will say that you've produced a heck of a lot  
23 of documents. It is not that we didn't get some  
24 documents. It is just that we are having a hard time  
25 matching them up.



1 Q Okay. Let's move on.

2 We are looking at what has been marked as  
3 Exhibit 78, which is an email produced by the State  
4 Board dated April 21st, 2015. And then we also have  
5 marked Exhibit 79, which is a report entitled,  
6 "California Central Valley Unimpaired Flow Data, Fourth  
7 Edition Draft," published by the Bay-Delta Office of the  
8 California Department of Water Resources. May 2007.

9 Okay. Let's look at the email first. At the  
10 bottom of the email, Mr. O'Hagan, there is a message  
11 from Mr. Coats to Ms. Mrowka and yourself which states:

12 "Attached is the updated San Joaquin curve  
13 incorporating return flows and the San Joaquin  
14 Valley floor tribs' FNF from the 2007 DRW  
15 report."

16 Do you understand that the 2007 DWR report  
17 referenced by Mr. Coats is the document that we have  
18 marked as Exhibit 79?

19 A That is my understanding.

20 Q Now, the question I have is whether the document  
21 we have marked as Exhibit 79 was the source of both the  
22 return flows and the San Joaquin Valley floor tribs'  
23 FNFs or if it was just the source of the latter?

24 MR. CARRIGAN: Calls for speculation. Lacks  
25 foundation.

1 THE WITNESS: I can't speak to that.

2 Q BY MS. SPALETTA: Do you know one way or the  
3 other?

4 A No.

5 Q I thought you testified yesterday that the  
6 return flow information came from the May 2007 DWR  
7 report. I'm trying to get clarification on that.

8 MR. CARRIGAN: Do you have a question?

9 Q BY MS. SPALETTA: Well, if he could maybe take a  
10 minute to look at the May 2007 report. Is this a  
11 document that you are familiar with, Mr. O'Hagan?

12 A I have seen this document.

13 Q Is this something that you asked your staff to  
14 look at for purposes of obtaining information for this  
15 supply and demand analysis?

16 A I don't know if I asked them to look at this  
17 specific document. I asked them to look at  
18 available information for getting contributions from  
19 tribes and then also for return flow.

20 Q And did you decide which of the available  
21 information they located would be used or did you leave  
22 that decision up to them?

23 A I -- this was one of the documents I did see  
24 and I instructed them to use '77 as the year for the  
25 data.

1 Q Okay. So if we take a look, then, at  
2 Exhibit 79, can you show me which data from this report  
3 was included in the supply analysis?

4 MR. CARRIGAN: Calls for speculation. Lacks  
5 foundation.

6 THE WITNESS: Again, no. I did not do that  
7 work.

8 Q BY MS. SPALETTA: So you are not able to explain  
9 that?

10 A No.

11 Q On the email which is Exhibit 78, the middle of  
12 the page actually includes an email from you to Ms. Evoy  
13 and Mr. Grober. And it states:

14 "Barbara and Les: In an effort to continue  
15 consider stakeholder comments, we have added  
16 additional tributary inflow and estimate for  
17 return flows based on 1977 estimates."

18 Again, was the tributary inflow based on 1977  
19 estimates or just the return flow?

20 MR. CARRIGAN: Asked and answered.

21 THE WITNESS: Again, my staff did it. My  
22 understanding, it's 1977 data.

23 Q BY MS. SPALETTA: For both?

24 MR. CARRIGAN: Same objection.

25 THE WITNESS: I don't know if this is the source

1 of the '77 data for both of the information.

2 Q BY MS. SPALETTA: I'd like to avoid having to  
3 mark another exhibit, but one of the documents that was  
4 produced by the State Board in response to our request  
5 for information related to the water availability  
6 analysis was a pretty old report from July of 1956 that  
7 was entitled, "Investigation of the Sacramento/San  
8 Joaquin Delta Quantity and Quality of Water Applied to  
9 and Drained From the Delta Lowlands."

10 Is that a report that you considered as part of  
11 the supply and demand analysis?

12 A I do not think it is in our supply and demand  
13 analysis that is posted on the website.

14 Q Is it a report that you considered, though?

15 A I may have looked at it. I don't recall.

16 Q You don't recall. Okay. Then I will not mark  
17 it for your deposition. All right.

18 I'd like you to turn to Exhibit 9 in the binder,  
19 please. Do you recognize Exhibit 9, Mr. O'Hagan?

20 A Yes.

21 Q What is it?

22 A It is a map of points of diversions of water  
23 rights.

24 Q Are these all of the water rights within the  
25 Sacramento River watershed as you defined it for the

1 purposes of the supply/demand analysis?

2 MR. CARRIGAN: Document speaks for itself.

3 THE WITNESS: Again, this was produced by my  
4 staff. So I'm assuming it includes all water rights in  
5 the Sacramento River watershed.

6 Q Now the legend says that the CDEC FNF stations  
7 are identified. But it looks to me like because of all  
8 of the water right dots, they may be covered up. Do you  
9 know where the FNF station was on the Sacramento River?

10 A Well, there's more than one. And they are  
11 identified on the Department of Water Resources  
12 CDEC.

13 Q It is kind of hard to see it on this map. So  
14 let's go ahead and mark a different map, which is  
15 Exhibit 80. You can keep your binder up to Exhibit 9  
16 because we may look at both of them.

17 (Whereupon, Exhibit No. 80 was  
18 marked for identification.)

19 Q BY MS. SPALETTA: So Exhibit 80, do you  
20 recognize this document?

21 A Again, it is something my staff produced.

22 Q And what does it represent?

23 A The title is, "Locations of Water Rights Used  
24 in Demand Analysis in the San Joaquin River  
25 Watershed."

1 Q Now on what we have marked as Exhibit 80, you  
2 can see the FNF stations a little better, right? They  
3 are the larger orange dot on each river?

4 A Yes.

5 Q Now, it appears to me that there are several  
6 water rights that are upstream of the FNF stations on  
7 these maps. Do you see that?

8 MR. CARRIGAN: Document speaks for itself.

9 THE WITNESS: Yes.

10 Q BY MS. SPALETTA: How did your demand analysis  
11 account for that fact?

12 A It included all water rights that had  
13 reported demands in the watersheds that are  
14 applicable.

15 Q What is the relationship between the demands  
16 that are upstream of the FNF station and the FNF value  
17 that you were using?

18 A The FNF value will have an adjustment to  
19 stream flow with diversions, larger diversions, that  
20 are reported to the Department of Water Resources.  
21 So if the upstream reservoirs are collecting to  
22 storage, it might add to FNF. If they are  
23 withdrawing to storage, it would deduct from -- it  
24 would reduce the stream flow.

25 Q So the adjustments to FNF are only made for the

1 larger diversions upstream?

2 A Again, I don't know the exact diversions that  
3 are included in the FNF for the upstream diversions.  
4 That is done by the Department of Water Resources.

5 Q Did you work with the Department to ensure that  
6 their FNF calculation accounted for all the demand  
7 points that you mapped upstream of the FNF location?

8 A No.

9 Q Why not?

10 A Because that demand is still there.

11 Q But what is the impact of having demand that is  
12 upstream of the FNF station?

13 MR. CARRIGAN: Vague.

14 THE WITNESS: Again, it depends on what they  
15 reported they were diverting.

16 Q BY MS. SPALETTA: So is it your understanding  
17 that the FNF flow measurements are representing the  
18 unimpaired flow in the river after the demands upstream  
19 of that point have been met or before the demands  
20 upstream have been met?

21 A FNF is adjusted for the demands that are  
22 known and reported to the Department of Water  
23 Resources.

24 Q So if all of the demands that you have included  
25 in your analysis were not reported to the Department of

1 Water Resources, then that FNF number would not have  
2 been adjusted to account for them, correct?

3 MR. CARRIGAN: Calls for speculation.  
4 Incomplete hypothetical.

5 THE WITNESS: Correct. But then they are shown  
6 in the live stream data, you know, so that is an  
7 impaired flow.

8 Q BY MS. SPALETTA: Right, which means that the  
9 FNF number that did not account for those upstream  
10 demands was, in fact, a partially-impaired number. And  
11 when you then deducted those upstream demands in your  
12 analysis, they were double counted?

13 A No --

14 MR. CARRIGAN: There is no question pending.

15 Q BY MS. SPALETTA: You disagree with that? You  
16 disagree with that statement, Mr. O'Hagan?

17 A What do you mean by "double counted"?

18 Q Well, if they were not deducted from the FNF or  
19 were not added back into the FNF number, then the FNF  
20 number was reflecting the stream conditions after those  
21 diversions. And then in your demand analysis, you  
22 subtracted those demands again, and that would have  
23 resulted in double counting.

24 MR. CARRIGAN: Vague. Compound.

25 THE WITNESS: I don't agree with "double



1 counting" because the fact that in the early  
2 curtailments, I believe, FNF flows were greater than the  
3 actual stream flows.

4 Q BY MS. SPALETTA: Well, how does that make a  
5 difference?

6 A Well, we are trying to use the best available  
7 information we have. And we do not have records for  
8 every diminished small project that may be upstream.

9 Q Well, you do, actually, because you have  
10 included these demands as mapped on Exhibit 80 in the  
11 demand analysis, right?

12 MR. CARRIGAN: Argumentative.

13 Q BY MS. SPALETTA: Well, I just want to know, yes  
14 or no, whether you've included the data from the mapped  
15 points that are upstream of the FNF stations in the  
16 demand analysis.

17 MR. CARRIGAN: You've answered that.

18 THE WITNESS: To my knowledge, yes.

19 Q BY MS. SPALETTA: Yesterday you described the  
20 process that you went through to develop the  
21 supply/demand analysis for 2015. Did you seek any peer  
22 review for the methodology that was used?

23 A Again, I directed staff on how to do it. I  
24 did not develop the curves.

25 Q I understand that. But you directed staff as to

1 the method, correct?

2 A Yes.

3 Q And then based on your direction, they generated  
4 spreadsheets and generated charts which you then  
5 reviewed, correct?

6 A Correct.

7 Q Did you seek any peer review regarding the  
8 method that you'd directed staff to use to generate  
9 those charts?

10 A Yes.

11 Q What peer review did you seek?

12 A I asked Bay-Delta staff modeler Eleanor -- I  
13 don't know her last name -- to check Jeff's demand  
14 data. And I also believe that the Bay-Delta unit  
15 also were doing calculations in 2014 to propose to  
16 the Board an alternative methodology to use in lieu  
17 of the supply and demand based on statements with a  
18 Term 91 like model.

19 Q What happened regarding that suggestion?

20 A For 2014, I believe the comparison was close.  
21 And Eleanor assisted Jeff on making sure that our  
22 data was cleaned up and consistent, the demand data  
23 for Eleanor's check.

24 Q Is the Bay-Delta staff part of the State Water  
25 Resources Control Board or are they part of a different

1 agency?

2 A They are part of the State Water Board.

3 Q Did you seek any outside peer review?

4 A No.

5 Q Why not?

6 A We didn't.

7 Q Was there a reason you didn't?

8 A No. Mostly time probably.

9 Q Now this peer review that you sought from  
10 Eleanor, was that only in 2014 or did you also get it in  
11 2015?

12 A I don't know exactly the date that she was on  
13 board because she is no longer with the Board.

14 Q So are you not sure whether or not you sought  
15 peer review in 2015?

16 A I'm not sure.

17 Q Who are the water right consulting -- I should  
18 ask that differently. What is the name of the water  
19 right consulting firms that you worked most closely with  
20 when you were in the permitting section on water  
21 availability analysis?

22 A I wasn't in the permitting section.

23 Q I'm sorry. I thought you oversaw the permitting  
24 section for some time.

25 A I am the assistant deputy director, and the

1 permitting and licensing program is underneath me.

2 Q So as the assistant deputy director of that  
3 program, are you familiar with the consulting firms who  
4 have prepared water availability analyses to support  
5 water right applications for the State Board?

6 A I'm familiar with some of the names but I  
7 don't review their work.

8 Q Did you seek peer review from any of those  
9 firms?

10 MR. CARRIGAN: Asked and answered.

11 THE WITNESS: I believe that Murray, Burns &  
12 Kienlen have been one of the active stakeholders looking  
13 at our demand analysis.

14 And they, in 2014, I believe wrote comment  
15 letters to the Board regarding, I believe, support for  
16 the curtailment of post-1914 water rights. They  
17 utilized a different methodology but came to the same  
18 conclusion.

19 Q BY MS. SPALETTA: Other than MBK, any other  
20 outside consulting firms that you sought comments from  
21 regarding the methodology?

22 A I've asked all the stakeholder meetings for  
23 their comments, including yourself.

24 Q I'm not a water rights consulting firm though.

25 A But you have consulting firms under your

1 clients.

2 Q Are you sure about that?

3 A No.

4 Q Okay. Speaking of that --

5 MS. MORRIS: For the record, should we identify  
6 those people in the room who aren't attorneys? Because  
7 no one ever stated who they were and who they are  
8 representing, for the record.

9 MS. SPALETTA: Is that a request?

10 THE WITNESS: Because you have some sitting next  
11 to you, I made that --

12 MS. ZOLEZZI: Today, not in 2014.

13 MS. SPALETTA: I'd be happy to have our  
14 consultants today be identified for the record.

15 MR. BONSIGNORE: Nick Bonsignore with Wagner &  
16 Bonsignore, consulting civil engineers, representing  
17 West Side Irrigation District and BBID.

18 MR. YOUNG: Greg Young with Tully & Young  
19 representing BBID.

20 MS. SPALETTA: Any others?

21 Q Mr. O'Hagan, was BBID invited to any of the  
22 stakeholder meetings regarding your supply and demand  
23 analysis?

24 A To my knowledge, their counsel was invited.

25 Q What is that knowledge based on?

1 A Again, BBID was not invited specifically.

2 Q And was Wagner & Bonsignore asked to comment on  
3 your supply and demand analysis?

4 A I can't recall for 2014.

5 Q What about for 2015?

6 A Again, I don't recall.

7 MS. SPALETTA: All right. We'll mark our  
8 next exhibit in order as Exhibit 81.

9 (Whereupon, Exhibit No. 81 was  
10 marked for identification.)

11 Q BY MS. SPALETTA: Exhibit 81 is a report that  
12 was produced recently by the State Board to us entitled  
13 "Drought 77 Dry Year Program," State Water Resources  
14 Control Board's Division of Water Rights, January 1978.

15 I believe yesterday you testified that when you  
16 started this process in 2014, you and your staff looked  
17 back on what had been done in '77 and relied on a report  
18 from that time period.

19 Is this the report you were referring to?

20 A This is the report. And I believe there is  
21 an appendix to it.

22 MS. SPALETTA: Let's go ahead and mark the  
23 appendix as well so that we have both documents  
24 together. So we'll mark the appendix as Exhibit 82.

25 This is a voluminous document, so I only have

1 a copy for the witness and counsel. And the  
2 attorneys in the room will have to refer to the  
3 document as it was produced electronically by the  
4 State Board. It is in the "Water Availability"  
5 subfile.

6 (Whereupon, Exhibit No. 82 was  
7 marked for identification.)

8 Q BY MS. SPALETTA: We have now marked Exhibit 81,  
9 which is the report from January 1978. And just for  
10 shorthand, let's call it the "77 Dry Year Report."

11 Is that okay, Mr. O'Hagan?

12 A Oh, you are asking me -- yes.

13 Q And then we'll refer to the 77 Dry Year Report  
14 Appendix as Exhibit 82. Now, did you review both of  
15 these documents?

16 A Yes. I looked at these.

17 Q And when did you look at them?

18 A I don't recall.

19 Q Did you look at them when you were beginning to  
20 do your supply and demand analysis in 2014?

21 A At some time in either 2013 or 2014.

22 Q Did you know about these documents before that?

23 A No. I mean, we had to find these.

24 Q If you could turn to page 8.

25 A Which exhibit?

1 Q In Exhibit 81. And it is not actually the 8th  
2 page. It is the page that has the number 8 on the  
3 bottom.

4 Before we get into the specifics of this report,  
5 do you agree with me that the exhibit we have marked as  
6 Exhibit 81 includes a more general description of what  
7 was done, and then the appendix includes quite a bit  
8 more detail about what was done by the State Board  
9 during 1977?

10 MR. CARRIGAN: Document speaks for itself.

11 Q BY MS. SPALETTA: So I'm looking at page 8 of  
12 Exhibit 81. There is a subheading in the middle of the  
13 page that says, "Riparian water rights." Then about  
14 halfway through that first paragraph, under the  
15 subheading, it says:

16 "For estimating peak demand, it was assumed that  
17 85 percent of riparian lands were irrigated with  
18 a water duty of one CSF to 70 acres."

19 Did you use that assumption in your supply and  
20 demand analysis for 2015?

21 A No. We used the reported amounts under  
22 statements and permits and licenses.

23 Q Now yesterday you were trying to remember where  
24 the eight acre-foot per acre cap came from that was  
25 applied to some of the reported diversions that your



1 staff thought were too high, and you couldn't remember.  
2 I wondered if this might have been the source of that  
3 information.

4 A I don't recall.

5 Q Do you know if one CSF to 70 acres is anywhere  
6 close to the eight acre-feet per acre?

7 MR. CARRIGAN: Can you do math? She is asking.

8 THE WITNESS: Yes. I mean, it's one CSF per  
9 80 acres. It depends on acres, but no, it is not close.

10 Q You said one CSF for 80 --

11 A 70. I'm sorry. I said 70 yesterday.

12 Q Is it close or is it not close?

13 A That's a duty. It depends on how long that  
14 is applied. But eight feet, I think, is acre-feet  
15 that you are talking about.

16 Q I think we are determining that this probably  
17 wasn't the source of the eight acre-feet per acre. Is  
18 that your assumption?

19 MR. CARRIGAN: Document speaks for itself.  
20 Witness' prior testimony --

21 THE WITNESS: Again, I don't know where the  
22 eight acre-feet came from.

23 Q BY MS. SPALETTA: Okay. And looking at the next  
24 paragraph, the second sentence says:

25 "In addition to these demands, the following

1 demands in the Delta were satisfied coequally  
2 with the riparian demands: (a) the monthly  
3 nonagricultural consumptive uses (native and  
4 riparian vegetation, water surface evaporation)  
5 as estimated from the Department's report; and  
6 (b) the Delta outflow index of 3,000 CSF for the  
7 months of March through May 1977, and 1,500 CSF  
8 for the months of June through September as  
9 obtained from the State Federal Water Projects  
10 Operations Unit (Delta Unit) of the State  
11 Board."

12 Did you use a similar method in 2015?

13 A No.

14 Q Why not?

15 A Because those are not demands -- a lot of  
16 those are not demands that are related to claimed  
17 water rights.

18 Q So did you disagree with the fact that they were  
19 used in 1977?

20 A No.

21 MR. CARRIGAN: Assumes facts not in evidence.

22 THE WITNESS: In fact, when we initially started  
23 the concept of curtailment, we were considering having a  
24 outflow supply at the bottom underneath "riparian  
25 demand." But when we chose our methodology, we removed

1 that, which would make more water available for water  
2 right holders.

3 Q BY MS. SPALETTA: And who made that decision?

4 A Either myself or Tom Howard. I believe Mr.  
5 Howard.

6 Q And what was the rationale for removing it?

7 A To make sure that we are honoring the supply  
8 that is available and attributing it to water right  
9 holders.

10 Q Okay. Then beginning on page 9, do you see the  
11 subheading "pre-1914 appropriative rights"?

12 A Yes.

13 Q And then there is a discussion regarding the  
14 method that was used in 1977 for the pre-1914  
15 appropriative rights that flows onto the beginning of  
16 page 10. I would like you to look at that.

17 The top of page 10 says:

18 "The water supply available to satisfy pre-1914  
19 demands is equal to the residual natural supply  
20 after riparian demands are satisfied, plus the  
21 return flow from use of ground and project  
22 (stored or imported) water in the basin. For  
23 the middle and lower reaches of the Sacramento  
24 Basin, the return flow was determined from  
25 studies by the Department. However, for the San

1           Joaquin basin, return flow was estimated by  
2           subtracting residual natural supply from  
3           prorated gauge flows at gauge stations in the  
4           vicinity of river mouths or rim of the Delta.  
5           The summation of residual natural flow and  
6           return flow gave the total water supply  
7           available to satisfy the pre-1914 demands in the  
8           Sacramento/San Joaquin basins including the  
9           Delta."

10           Did you utilize that same methodology to  
11           determine available supply for pre-1914 demands in 2015?

12           A           No.

13           Q           Why not?

14           A           We used full natural flow as a supply -- with  
15           the adjustments from the 2007 report and the  
16           adjustments for the Delta.

17           Q           So why did you chose to do it differently?

18           A           That is the information that we were relying  
19           on.

20           Q           Well, yesterday you testified that you used the  
21           1977 methodology as your base. And so I went back and  
22           looked at the methodology, and it appears to be  
23           different than what you chose to use in 2015. So what  
24           I'm trying to figure out is what went into the decision  
25           process to do it differently.

1 A As far as the base, we are talking about how  
2 to stack demands on top of each other and depict it  
3 in the graphic. I believe -- I don't know where the  
4 graph is for '77, but we presented that at  
5 workshops -- I mean at Board meetings in 2014 on the  
6 stacked demand concept. So that is what I'm  
7 referring to.

8 Q And do I understand correctly, then, that in  
9 1977, what the State Board did was compute an amount of  
10 return flow from groundwater and project stored or  
11 imported water as part of the analysis of water  
12 available for pre-1914 appropriative rights?

13 MR. CARRIGAN: Calls for speculation. Lacks  
14 foundation. And the document speaks for itself.

15 THE WITNESS: And, again, what they did in '77  
16 for supply is different than what we did in 2014 and  
17 '15. We were using full natural flow. And for demand,  
18 we were using the reported demands by stakeholders.

19 Q BY MS. SPALETTA: But by excluding the return  
20 flows from groundwater and stored or imported project  
21 water, the sources of supply, then, were different  
22 between the 1977 analysis and the 2015 analysis,  
23 correct?

24 A They are different years. They are going to  
25 be different.

1 Q So is it your testimony that the return flows  
2 that existed from groundwater and the application of  
3 project water in 1977 did not exist in 2015?

4 A No.

5 Q Okay. So you agree with me that they did exist  
6 in both years?

7 A To some extent.

8 Q But a decision was made in 1977 to include them;  
9 yet you made the decision in 2015 to exclude them?

10 MR. CARRIGAN: Asked and answered. The '77  
11 document speaks for itself and, John, lacks foundation  
12 and calls for speculation on his testimony about that  
13 document.

14 Q BY MS. SPALETTA: Is that correct, Mr. O'Hagan?

15 A Again, can you repeat? Sorry.

16 Q I'll have the court reporter repeat the  
17 question.

18 (Whereupon, the record was read.)

19 MR. CARRIGAN: I renew my objection.

20 THE WITNESS: It wasn't a decision to include  
21 them or exclude them if we are continually looking at  
22 the live stream available.

23 Q BY MS. SPALETTA: How so?

24 A Because the live streams would include -- the  
25 gauging data that we look at before making the

1 decision includes return flows.

2 Q Did you look at any gauging data within the  
3 vicinity of BBID's point of diversion during 2015?

4 A I'm not aware of a gauge there, so no.

5 Q Did you look at any gauge data within the  
6 vicinity of West Side's point of diversion in 2015?

7 A No.

8 Q Was there any enforcement action taken against  
9 pre-1914 appropriative right holders during 1977, that  
10 you are aware of?

11 A I'm not aware of it. The report would speak  
12 to enforcement, I think.

13 Q All right. Let's turn our attention, then, to  
14 the appendix which we marked as Exhibit 82. You said  
15 this was a document that you reviewed either the latter  
16 part of 2013 or the early part of 2014, correct?

17 A Yes.

18 Q This is a rather voluminous document. So if the  
19 other attorneys would like to follow along, they can  
20 look at the electronic version that was previously  
21 produced. I believe it was part of the November 12th --

22 MR. TAURIAINEN: October 12th.

23 Q BY MS. SPALETTA: Sorry. October 12th  
24 production. So we are going to turn to page 13 of the  
25 exhibit, please, that we marked as Exhibit 82.

1 A Exhibit 82?

2 Q Yes.

3 A Page 13.

4 Q In page 13 there is a discussion of how the  
5 flows available for pre-1914 appropriative rights were  
6 included, including estimation of return flows. Are you  
7 familiar with this analysis that was done in 1977?

8 A I read over it.

9 Q And if we turn to the tables that are included  
10 in this appendix, beginning with the table on page 64,  
11 which I believe is table 18.

12 A (Witness reading.) Where are the page  
13 numbers?

14 Q Do you see the analysis there in table 18 on  
15 page 64 of the return flows from the various reclamation  
16 districts along the Sacramento River, Knights Landing to  
17 I Street Bridge?

18 A I see a table that is on page 64, yes.

19 Q And then there is a similar table on page 65  
20 computing the return flows from Glenn-Colusa Irrigation  
21 District, Maxwell Irrigation District, Princeton  
22 Codora-Glenn Irrigation District, Provident Irrigation  
23 District and Reclamation District 108.

24 A Yes.

25 Q And then on the next page, page 66, there is



1 actually a total of these return flows that is computed  
2 in the table. Do you see that?

3 A Page 66?

4 Q Yes.

5 A Yes.

6 Q I just want to confirm there was no similar  
7 analysis undertaken by the State Board in 2015 to  
8 determine return flows.

9 A Whatever additional accretion flows would be  
10 in the 2007 reports that I've already described,  
11 that staff adjusted flows with.

12 Q So if that adjustment had been made, we should  
13 be able to find it in Mr. Yeazell's spreadsheet?

14 MR. CARRIGAN: Calls for speculation. Lacks  
15 foundation.

16 THE WITNESS: The adjustments made would include  
17 adjustments to the full natural flow calculation based  
18 on what I understand is that 2007 report for 1977. It  
19 may not be this analysis here.

20 Q BY MS. SPALETTA: Do you have any reason to  
21 believe that the analysis performed by the State Board  
22 for return flows in 1977 was incorrect?

23 A No.

24 MS. SPALETTA: All right. We'll mark our  
25 next exhibit in order as Exhibit 83.

1 (Whereupon, Exhibit No. 83 was  
2 marked for identification.)

3 MS. SPALETTA: Counsel for the State Board, I  
4 just wanted to point out to you that the cover email of  
5 this exhibit has Mr. Sawyer's name on it. And I  
6 understand he is a lawyer at the State Board. I just  
7 want to make sure that that cover email was not  
8 inadvertently produced.

9 MR. CARRIGAN: No.

10 MS. SPALETTA: Great.

11 Q We have marked as Exhibit 83 an email and then  
12 an attached letter. The email is dated July 21st, 2014.  
13 From Mr. Craig Wilson, who was the Delta Watermaster at  
14 the time, addressed to you and Mr. Andy Sawyer.  
15 And the attachment is a letter from Ms. Jeanne Zolezzi  
16 on behalf of West Side Irrigation District regarding the  
17 water right curtailment in 2014.

18 Are you familiar with Ms. Zolezzi's letter?

19 A No.

20 Q You don't remember seeing it?

21 A Not for 2014, no.

22 Q So Ms. Zolezzi's letter is actually six pages  
23 long that includes a couple of attachments regarding the  
24 Delta and tidal flows. Were you ever asked to look at  
25 the issues raised in Ms. Zolezzi's letter?

1 MR. CARRIGAN: I'm not sure. I'm going to ask  
2 that the witness be -- that you narrow the focus of the  
3 issues raised or allow the witness to review the letter.

4 MS. SPALETTA: I'd be happy to let --

5 MR. CARRIGAN: I believe that "issues raised" is  
6 pretty vague.

7 MS. SPALETTA: So your objection is "vague."

8 MR. CARRIGAN: My objection is vague. And I  
9 would like the witness to be able to review the  
10 document; or you can focus on "issues raised" and ask  
11 about them specifically.

12 MS. SPALETTA: I'd be happy to give him time to  
13 review the document.

14 MR. CARRIGAN: Go ahead, John. Take a look at  
15 it.

16 THE WITNESS: It is six pages.

17 MR. CARRIGAN: Let me just ask. We have been on  
18 the record for well over an hour.

19 MS. SPALETTA: Let's take a break.

20 MR. CARRIGAN: So if it's okay with counsel, I  
21 know there is a question pending but --

22 MS. SPALETTA: That is okay. Let's take a  
23 break.

24 MR. KELLY: Give him time to review.

25 THE VIDEOGRAPHER: Off the record at 10:55 a.m.

1 (Whereupon, a recess was taken.)

2 THE VIDEOGRAPHER: We are back on the record at  
3 11:03 a.m.

4 Q BY MS. SPALETTA: All right. We took a quick  
5 break. And right before we took a break, we marked  
6 Exhibit 83, which included a letter from Ms. Zolezzi to  
7 Ms. Evoy at the State Board raising several concerns on  
8 behalf of West Side Irrigation District.

9 And Mr. O'Hagan, I believe you wanted a chance  
10 to look at the letter. Have you had a chance to do  
11 that?

12 A Yes. I scanned through it.

13 Q Now do you recall looking at this letter  
14 previously?

15 A No.

16 Q Do you recall any discussion with other people  
17 at the State Board about how to respond to Ms. Zolezzi's  
18 letter?

19 A We received many letters from Ms. Zolezzi, so  
20 that is the problem I'm having on particular  
21 letters. So a lot of these, because it deals with  
22 legal issues, it may have been referred to counsel.

23 Q Okay. Do you know if there was ever a response  
24 to Ms. Zolezzi's letter?

25 A No.

1 Q You don't know or there never was?

2 A I don't know.

3 MS. SPALETTA: Let's mark our next exhibit in  
4 order, Exhibit 84.

5 (Whereupon, Exhibit No. 84 was  
6 marked for identification.)

7 Q BY MS. SPALETTA: Exhibit 84 is another email  
8 from Jeanne to Barbara Evoy and then Barbara's response  
9 to Jeanne on October 6th, 2015, where you are cc'ed.  
10 And Barbara tells Jeanne:

11 "We held off responding to your letter dated  
12 July 23, 2014 as we elected to hold a public  
13 workshop to receive comments and ideas on the  
14 best process to address the legal and technical  
15 issues identified in your letter. As you know,  
16 the workshop was held on September 24th and  
17 comments were received. I hope to provide you  
18 with the response or identify the process the  
19 Board will be taking to address these issues in;  
20 a few weeks after we brief Board members."

21 Did you have a discussion with Ms. Evoy about  
22 how to respond to Ms. Zolezzi at this point in time?

23 A I don't recall.

24 Q Do you know whether there ever was a subsequent  
25 response to Ms. Zolezzi on the technical legal issues

1 addressed in this email?

2 A No, I don't.

3 Q Okay. Turning back to Exhibit 83. The very  
4 last page of this exhibit is a Historic Salinity  
5 Intrusion Chart that was attached to Ms. Zolezzi's  
6 letter from July 2014.

7 Have you ever looked at a chart like this?

8 A I don't recall looking at this chart.

9 Q Have you ever looked at a chart of Historic  
10 Salinity Intrusion into the Delta?

11 A Depicted a different way, I believe I've  
12 looked at salinity intrusion for many different  
13 years.

14 Q And why have you looked at it?

15 A Because they were presented to us.

16 Q By who?

17 A I don't recall.

18 Q Why or how is salinity intrusion into the Delta  
19 relevant for water management purposes, in your view?

20 A One of the beneficial uses of the projects  
21 are to repel salinity intrusion.

22 Q Is understanding salinity intrusion in the Delta  
23 important for the purposes of determining water supply  
24 availability?

25 A Yes.

1 Q How so?

2 A Because some of the water that's being  
3 beneficially used for salinity control is stored  
4 water releases that's not available for diversion by  
5 water right holders.

6 Q What is the purpose of those salinity control  
7 releases by the projects?

8 MR. CARRIGAN: Calls for speculation. Lacks  
9 foundation.

10 THE WITNESS: They are complying with Board  
11 orders.

12 Q BY MS. SPALETTA: And why did the Board order  
13 that they release water for salinity controls?

14 MR. CARRIGAN: Same objections and calls for a  
15 legal conclusion.

16 Q BY MS. SPALETTA: If you know.

17 A They are maintaining a salinity control  
18 protection for beneficial uses.

19 Q Which beneficial uses?

20 MR. CARRIGAN: Calls for speculation. Lacks  
21 foundation.

22 THE WITNESS: I believe municipal and ag.

23 Q BY MS. SPALETTA: How did salinity control issue  
24 impact, if at all, your supply and demand analysis for  
25 purposes of the curtailment decisions in 2015?

1 A Again, that was one of the determinations of  
2 using full natural flow because some of the storage  
3 releases are not available for diversion.

4 Q Now we talked about this a little bit yesterday.  
5 And what you described to me is that the full natural  
6 flow, as you understand it, enters the Delta channels,  
7 correct?

8 A Yes.

9 Q And then it mixes in those channels with what  
10 you described as brackish water, correct?

11 A It mixes. And in some areas becomes, yeah,  
12 brackish, a higher salinity content.

13 Q And then putting that together with your  
14 testimony today, my understanding is that the projects  
15 then release stored water to help control that salinity  
16 content in the Delta channels, correct?

17 A They are releasing stored water, yes, to  
18 comply with Board orders on salinity levels.

19 Q But absent those releases of stored water, you  
20 still had the phenomena, that you described yesterday,  
21 which is the full natural flow or natural flow enters  
22 the Delta channels, and then it mixes with whatever  
23 flows coming in from the west, and it creates some  
24 brackish water; correct?

25 MR. CARRIGAN: Misstates testimony. Calls for



1 speculation.

2 THE WITNESS: Without the storage releases, the  
3 water may not be suitable for beneficial uses.

4 Q BY MS. SPALETTA: It may not be. What do you  
5 base that on?

6 A It depends on the year, the season and the  
7 salinity content.

8 Q Do you have an understanding as to whether BBID,  
9 for example, historically diverted the water in the  
10 Delta channels during the summer of dry years before the  
11 project was built?

12 MR. CARRIGAN: Overbroad.

13 THE WITNESS: Yes. I looked at old water  
14 supervision reports.

15 Q BY MS. SPALETTA: And what did those reports  
16 tell you?

17 A That they had diverted some water.

18 Q And so is it your understanding, as you sit here  
19 today, that they were able to divert water in the summer  
20 months of dry years and use it, despite the fact that  
21 there were no project releases in those years?

22 MR. CARRIGAN: Vague. Overbroad. Assumes facts  
23 not in evidence.

24 THE WITNESS: My understanding prior to the  
25 project that they were able to divert. And then it

1 became more and more -- the water conditions became more  
2 salinity due to upstream development of more diversions.  
3 And that created the need for the projects. So that is  
4 why we curtail priority -- based on priority.

5 Q BY MS. SPALETTA: But in 2015, not only did you  
6 curtail the post-1914 rights, but you recommended  
7 curtailment of the pre-1914 rights, including BBID's  
8 right to divert from the Delta channels, correct?

9 A Correct.

10 Q And when you did that, did you understand that  
11 you were directing BBID not to divert during a set of  
12 circumstances that were very similar to times that BBID  
13 did divert historically during droughts prior to the  
14 projects?

15 MR. CARRIGAN: Vague. Overbroad. Calls for  
16 speculation. Lacks foundation.

17 THE WITNESS: I can't speculate whether BBID was  
18 diverting within its limits and not injuring other  
19 rights at that time. All we were doing is identifying  
20 available supply and the demands based on priorities.

21 So there's other priorities in the Delta above  
22 and beyond that are higher in demand than BBID's rights.  
23 Those would be the 1903 -- earlier than 1903, all the  
24 people we did not curtail are existing demands in the  
25 Delta that needed to be satisfied.

1 Q BY MS. SPALETTA: Did any of those prior rights  
2 in the Delta complain about BBID's diversions in 2015?

3 MR. CARRIGAN: Calls for speculation. Lacks  
4 foundation.

5 THE WITNESS: Not to my knowledge. We did get a  
6 complaint regarding diversions -- I did get a letter  
7 regarding diversions by Mountain House, I believe.

8 MS. SPALETTA: I think at this time, just  
9 because we are moving into the 11:00 hour, I'll turn the  
10 questioning over to Mr. Kelly.

11 Before we go on, should we mark the exhibit?

12 MR. KELLY: Yeah, I can do that first.

13 EXAMINATION BY MR. KELLY

14 Q BY MR. KELLY: Good morning, Mr. O'Hagan. I'm  
15 Daniel Kelly. I'm general counsel for the Byron-Bethany  
16 Irrigation District and I have a few questions. And I'm  
17 going to try to move along at a pace that gets everybody  
18 out of here by noon, if possible.

19 One thing I want to do first is we conferred  
20 with Mr. Tauriainen on the Prosecution Team with respect  
21 to two exhibits that were sent to us via email, I  
22 believe, yesterday. One of them was already marked and  
23 that is Exhibit 10.

24 And Mr. Tauriainen -- and correct me I'm  
25 wrong -- agreed to stipulate that the graph depicted at

1 Exhibit 10 was the graph that was used for the May 1st,  
2 2015 curtailment. Is that correct, Mr. Tauriainen?

3 MR. TAURIAINEN: Specifically, that graph is the  
4 graph posted on the State Board's website on the drought  
5 page in the Notices Section of the drought page as  
6 depicting the conditions in effect at the time of the  
7 May 1st water unavailability notice.

8 MR. KELLY: So that's the graph that was used  
9 for the May 1 curtailment; is that correct?

10 MR. TAURIAINEN: It is the graph that the  
11 website depicts as indicating the conditions in effect  
12 at the time of the issuance of the May 1st water  
13 unavailability notice.

14 MR. KELLY: Okay. And then next in order,  
15 please, is 85. Exhibit 85 is another graph that he sent  
16 us via email yesterday. We accessed that link and  
17 printed off that map.

18 And this was the map that -- I'm sorry -- the  
19 graph that we were informed was used to support the  
20 June 12th, 2015, curtailments of pre-1914 water rights.

21 (Whereupon, Exhibit No. 85 was  
22 marked for identification.)

23 MR. KELLY: Exhibit 10 was the graph that was  
24 already marked and represented the May 1st curtailment.  
25 The new chart that we just circulated that is entitled,

1 "2015 Combined Sacramento San Joaquin River Basin Senior  
2 Supply/Demand" with a date stamp on the bottom  
3 right-hand corner of 6/10 -- and I'm assuming it was  
4 2015 because that was cut off on my version.

5 That should be Exhibit 85. And that we  
6 understand was the graph that supported the June 12th,  
7 2015 curtailment notice.

8 MR. TAURIAINEN: Same clarification. That's the  
9 graph posted to the State Water Board's "Drought Year  
10 Water Actions, Notices of Water Unavailability," web  
11 page with a hyperlink noting that the conditions at the  
12 time of the June 12th notice are shown here. And the  
13 hyperlink goes to the graph contained in Exhibit 85.

14 MR. KELLY: And in Mr. Tauriainen's email for  
15 Exhibit 10, the email says, "Chart for May 1 notice with  
16 the link." And in the same email, the link to  
17 Exhibit 85 says, "Chart for June 12th notice."

18 Q Okay. Mr. O'Hagan, I have a couple of questions  
19 for you that follow-up on a discussion that you were  
20 just having with Ms. Spaletta. You said that you had  
21 reviewed some -- I think you said, "Water Supervisor  
22 Reports." Did I get that right?

23 A I believe those are the Sacramento/San  
24 Joaquin water reports that are very old.

25 Q Is that a DWR publication, do you know?

1 A I'm not 100 percent sure. I believe so.

2 Q Bulletin 23? Does that ring a bell? Have we  
3 just gone past --

4 A -- my recalls, yes.

5 Q That is fine.

6 I'd like to mark this next in order, please.

7 (Whereupon, Exhibit No. 86 was  
8 marked for identification.)

9 Q BY MR. KELLY: Mr. O'Hagan, the cover page here,  
10 is this the kind of "old report" you were referring to  
11 when you just had a discussion with Ms. Spaletta?

12 A Yes.

13 Q And this is a water report for the year 1931?  
14 Is that --

15 A The cover says that.

16 Q And I would like for you -- and what I did was,  
17 it is the cover page. It is page 85 and page 158 of  
18 that report. I just have a couple of questions for you  
19 about these pages.

20 MR. CARRIGAN: I'd like counsel to stipulate,  
21 for the record, that this is an incomplete copy of the  
22 document. And just allow me to object on the basis that  
23 the document speaks for itself. And then I won't have  
24 to interrupt each question with that objection.

25 MR. KELLY: That is absolutely fine. And if we

1 use this as the hearing, we'll provide a complete copy  
2 at the hearing.

3 Q Mr. O'Hagan, on the third page, which is marked  
4 page 158 of this exhibit, in your review of the Dry Year  
5 Reports, did you ever look at this type of graph in  
6 those Dry Year Reports? I'm sorry. Not in the Dry Year  
7 Reports -- in the Water Supervisor Reports that you just  
8 referred to.

9 A I don't recall looking at this. I was more  
10 looking at the diversions.

11 Q And so you looked more at the second page of the  
12 exhibit, which is page 85 of the report. Is that when  
13 you said "this," you were pointing to something. Are  
14 you pointing to --

15 A Correct.

16 Q Okay, the second page. If you can, though, look  
17 at the third page. The graph that is shown here has two  
18 solid and dark lines, I'll say, kind of down the bottom  
19 of the graph. Do you see those?

20 A Yes.

21 Q Those two lines, one of them is marked --  
22 actually, the bottom solid line is marked "discharge of  
23 Sacramento River at Sacramento." Do you see that?

24 A Yes.

25 Q And then there is a dark dashed line that runs

1 almost at zero towards the bottom. That is marked the  
2 discharge of the San Joaquin River near Vernalis. Do  
3 you see that?

4 A Yes.

5 Q And then the darkest, thickest line on that  
6 chart is marked "Combined discharge of Sacramento and  
7 San Joaquin Rivers." Do you see that?

8 A Yes.

9 Q And this chart is entitled, "Comparison of River  
10 Discharge and Salinity at Bay and Delta Stations." Do  
11 you see that at the bottom?

12 A Yes.

13 Q And it is marked for 1931. And I want you to  
14 look at -- because this, I think -- I want to provide  
15 some context for what we are going to do next, which is  
16 look at the chart that you said you looked at in these  
17 reports.

18 And I want you to take a look at what it shows  
19 the discharge of those rivers. And you can look at any,  
20 the combined -- or why don't you look at all of them:  
21 the combined, the Sacramento River, and the San Joaquin  
22 River discharges from June into July.

23 And the discharges of those rivers, according to  
24 this graph, dropped to just about zero in July of 1931.  
25 Do you see that?



1 A Yeah. It as above zero, yes.

2 Q But it's above zero. Actually, the discharge of  
3 the Sacramento River water goes below zero in July,  
4 doesn't it, according to this graph?

5 A That's why, yeah -- yes.

6 Q And so virtually no flow?

7 A That is what this graph suggests, yes.

8 Q Okay. So now let's take a look at the second  
9 page which is marked page 85 in the report. And you  
10 said you looked at the diversions in those older  
11 reports, right?

12 A Correct.

13 Q For what purpose did you look at the diversions  
14 in the older reports?

15 A I was interested in seeing if they had the  
16 ability to divert in those years.

17 Q And why were you interested in seeing that?

18 A Because I wanted to see the comparison of  
19 back then and now and whether there was a basis for  
20 their claimed rights.

21 Q And so in doing that and trying to answer those  
22 questions, were you interested at all in what the  
23 hydrology was like in those years?

24 A I knew it was a dry year.

25 Q You say you knew "it" was a dry year.

1 A '31 or --

2 Q Did you actually look at this report, 1931?

3 A I believe -- I can't recall which years I  
4 looked at. I looked at several.

5 Q Okay.

6 A But they were mostly dry years.

7 Q Okay. And so this chart on page 85 actually, it  
8 is entitled "Table 39." You see that the Byron-Bethany  
9 Irrigation District is identified in that chart,  
10 correct?

11 A Correct.

12 Q And at least according to this chart, which is  
13 prepared under the supervision of the State Engineer,  
14 this shows that the Byron-Bethany Irrigation District  
15 diverted water all summer long in 1931, correct?

16 A It shows diversion amounts all summer.

17 Q And do you know whether 1931 -- do you know  
18 whether in 1931 the state or Central Valley Project  
19 existed?

20 A To my knowledge, it did not exist.

21 Q Do you know, do you have any idea of when the  
22 Central Valley Project was constructed or when  
23 construction commenced?

24 A I would estimate only.

25 Q And what would your estimate be?

1 A In the '40's.

2 Q In the '40's. How about the State Water  
3 Project?

4 A I would estimate only in the '60s.

5 Q But certainly both projects were constructed --

6 A After.

7 Q -- after 1931. And so the 1931 diversion  
8 quantity shown here and the flows depicted in the graph  
9 that we looked at could not have had any project  
10 releases from those projects, right? Any water releases  
11 from those projects, correct?

12 A Correct.

13 MR. KELLY: And I'd like to mark next in  
14 order.

15 (Whereupon, Exhibit No. 87 was  
16 marked for identification.)

17 Q BY MR. KELLY: Mr. O'Hagan, Exhibit 87 -- and I  
18 represent and apologize that the maps are small. I  
19 wanted to print the entire plate from that same report  
20 on a single page. So I put it on an 11x17. So I'm not  
21 going to ask you to read anything in particular on this  
22 map.

23 I just want to know if you understand what these  
24 depict. And so what is on Exhibit 87, which comes from  
25 this same report that we were just referencing, are

1 maps -- well, let me ask you. What do these appear to  
2 be to you?

3 A My understanding, these are the encroachments  
4 of a certain salinity level in the Delta channels  
5 for the months in 1931.

6 Q And so they have a map. And when you say the  
7 "salinity" -- the map, generally, is of the Delta  
8 region. Is that your understanding?

9 A I believe so. I can't tell by the map.

10 Q Do you recognize roughly where the confluence of  
11 the Sacramento and San Joaquin River is on those maps?

12 A I would be able to tell. But on this copy,  
13 I'm having a little difficulty seeing it. Can you  
14 put it on the screen maybe and blow it up?

15 Q Would it help you if you looked at the title of  
16 the exhibit that says, "Variation of Salinity,  
17 Sacramento/San Joaquin Delta"?

18 A I'm not arguing that it is not the Delta.  
19 You asked me if I recognize it as that. If it is  
20 from that report, it's that -- that area is in the  
21 Delta area.

22 Q And do you have any understanding of the  
23 progression shown by the contour lines from May, to  
24 June, to July, to August, to September? Do you have any  
25 understanding of what the progression of those contour

1 lines reflects?

2 A Again, my understanding, it is showing this  
3 particular level of salinity and how far it reached  
4 in the Delta.

5 Q Okay. And so then if you looked at Exhibit 86  
6 again, the third page of that --

7 A Okay.

8 Q -- would the increase in salinity encroachment  
9 be consistent with the salinity levels depicted on that  
10 graph increasing through the year?

11 MR. CARRIGAN: I have to object. Calls for  
12 speculation. Lacks foundation. We have already got a  
13 standing objection that the document speaks for itself.

14 I'm not sure there is enough detail in that the  
15 entire exhibit would be necessary to reach the  
16 conclusion that you are asking the witness to reach.

17 Q BY MR. KELLY: Okay.

18 A On the two exhibits, I think that the  
19 encroachment levels that I believe it is  
20 representing on Exhibit 87 is for a specific level  
21 of salinity.

22 Q And what gives you that impression?

23 A 50 parts of chlorine per 1,000 parts of  
24 water.

25 Q Doesn't it say the lines of equal salinity at

1 intervals of 50 parts?

2 A Oh, you are correct. All right. Yes. It  
3 does say that.

4 Q And so would the progression of the salinity  
5 contours on the maps, in your experience at the State  
6 Water Board and the work that you've done, be consistent  
7 with what is shown on the graph that we were just  
8 talking about, Exhibit 86?

9 A If they are coming from the same report, I  
10 would think that they are consistent with each  
11 other.

12 Q And you said that you looked at either this  
13 report or of a similar dry year in doing what you were  
14 doing. Did it have any influence on the method of  
15 analysis that you had your staff undertake?

16 MR. CARRIGAN: Overbroad.

17 THE WITNESS: What I read from those reports is  
18 that before the projects, there was an influx of  
19 diversions in the upstream channels that caused a great  
20 impact on the Delta diversions' capabilities. Not  
21 because of the projects but because of upstream  
22 development of diversions, I believe, especially rice.

23 Q BY MR. KELLY: So would those upstream  
24 diversions that were developed subsequent to this, would  
25 those folks, do you know, be senior to the Byron-Bethany

1 Irrigation District?

2 MR. CARRIGAN: Vague. Calls for a legal  
3 conclusion.

4 THE WITNESS: Again, some may be senior. Some  
5 may be -- most would likely be junior if they were  
6 developed after the uses that were being made by  
7 Byron-Bethany.

8 Q BY MR. KELLY: Okay. Can you look at Exhibit 19  
9 in the binder, please. Have you ever seen what has been  
10 marked as Exhibit 19 before?

11 A I don't recall.

12 Q Do you know what the Delta Simulation Model is?

13 A I've heard of it, yes.

14 Q Do you refer to it as something other than the  
15 "Delta Simulation Model"?

16 A I don't refer to it at all.

17 Q You don't refer it to at all. Have you ever  
18 heard it referred -- have you ever heard it referred to  
19 at all in your work at the State Water Board?

20 A You have an example?

21 Q Have you ever heard of the DSM2 model?

22 A Yes.

23 Q Do you know what the DSM2 model is for?

24 A No. I'm not familiar with that model.

25 Q So you don't know whether or not the State Water

1 Board ever utilizes DSM2 modeling in coming to any of  
2 the decisions that the State Water Board reaches?

3 A I'm not involved with those. I'm not  
4 utilizing DSM2 modeling.

5 Q And so if DSM2 could be used to replicate what  
6 is contained in Exhibit 87 and Exhibit 86 for 2015, in  
7 an "without project" condition -- do you understand what  
8 I mean by "without project"?

9 A Modeled, yes.

10 Q What do I mean by "without project"?

11 A Without the influence of the Central Valley  
12 Project operation and also the State Water Project  
13 operation.

14 Q And so if DSM2 could be used to create a picture  
15 of the Delta in a "without project" condition, do you  
16 think that would be at all useful in determining whether  
17 there was water available for diversions in the Delta?

18 MR. CARRIGAN: Incomplete hypothetical.  
19 Compound. Vague.

20 THE WITNESS: It may be useful in certain ways.

21 Q BY MR. KELLY: I'd like for you to locate  
22 Attachment 5 of Exhibit 19. It is a technical  
23 memorandum prepared by CH2M Hill. Are you familiar with  
24 CH2M Hill?

25 A I've heard of them.



1 Q Are you aware that they do water modeling?

2 A I'm not personally aware.

3 Q You don't know that CH2M Hill does modeling for  
4 any of the large diverters in California?

5 A Not personally. Could you repeat the exhibit  
6 you want me to look at?

7 Q It is Attachment 5.

8 A Is it in this Exhibit 19?

9 Q It is, Mr. O'Hagan. And there --

10 A There is no tabs.

11 Q There are no tabs. But I would say it is about  
12 the last maybe 100 pages. So double-sided, maybe 50  
13 pages thick.

14 A I found four I'm going through. Good grief.  
15 Is it beyond the colored chart?

16 Q Yes. Just after those. Sorry.

17 A I'm having difficulty.

18 Q Let's just go. That is fine. And actually, I  
19 just saw you pass what I wanted to talk with you about.  
20 And that is -- I'm going to hold it up so you can see  
21 it. There are graphical depictions that look like this  
22 near the end of the report.

23 And that is actually what I want to talk to you  
24 about. So if you go about five or six pages from the  
25 end, that will be the end of Attachment 5 to that

1 report. I just want to show you these and ask you some  
2 questions about these.

3 And if you see -- what I would actually like you  
4 to look at is page 53 of Attachment 5. The page numbers  
5 are at the very bottom. And page 53 -- and I want you  
6 to assume, and I'm going to represent to you, that these  
7 are graphical depictions of DSM2 modeling results that  
8 CH2M Hill included in technical memorandum that it did  
9 in support of the State Water Board Contractors'  
10 complaint against Delta diversions.

11 Okay. What CH2M Hill did is they modeled the  
12 Delta from 2012 and through 2015 in consecutive months  
13 to capture the impact of multiple years of drought and  
14 low flow into the Delta. And then they modeled it in a  
15 "with" and "without project" condition.

16 Do you understand that?

17 A I understand.

18 Q Okay. And so page 53 is what CH2M Hill on  
19 behalf of the State Water Contractors believed that the  
20 Delta would look like on June 13th of 2015. And you see  
21 on the left-hand side the "width project."

22 A Yes.

23 Q And it shows -- and you see the average  
24 concentration key down on the left-hand side that shows  
25 the concentration of salinity?

1 A Yes.

2 Q And they are in color gradations, correct?

3 A Correct.

4 Q And so the "with project" depiction of the Delta  
5 is, I guess what we can call more fresh than the  
6 "without project" condition on that same date, right?

7 MR. CARRIGAN: Document speak for itself.

8 THE WITNESS: The dark blue, which is the less  
9 than 500 is much smaller.

10 Q BY MR. KELLY: And one would expect that if the  
11 projects are required to meet salinity standards in the  
12 Delta, right? They are required to keep the Delta more  
13 fresh than it might otherwise be, right?

14 A Correct.

15 Q At least certain times of the year, correct?

16 A Yeah.

17 MR. MIZELL: Calls for legal conclusion.

18 Q BY MR. KELLY: And June 15th is the date after  
19 curtailments were put into effect, right?

20 A For the June 12th curtailment.

21 Q Yes. June 13th is the day after.

22 A Correct.

23 Q And the "without project" modeling results that  
24 the State Water Contractors did shows that there was  
25 water of sufficient quality for agricultural use in the

1 South Delta, doesn't it?

2 MR. CARRIGAN: Document speaks for itself.

3 THE WITNESS: Again, the South Delta boundary is  
4 not depicted there.

5 Q BY MR. KELLY: Certainly there's some fresh  
6 water in the Delta, according to this modeling, isn't  
7 there?

8 MR. CARRIGAN: Vague. Same objection.

9 THE WITNESS: Based on this modeling, there is  
10 water at less than 500 concentration.

11 Q BY MR. KELLY: And so if the State Water  
12 Contractors had the ability to do this -- or if somebody  
13 else had the ability to do this, don't you think that  
14 this kind of information would have been useful in you  
15 making recommendations to Tom Howard about curtailments?

16 MR. CARRIGAN: Argumentative.

17 MR. KELLY: I'm asking what he thinks.

18 MR. CARRIGAN: Same objection.

19 THE WITNESS: The information doesn't provide  
20 anything on available supply and demand at that time.

21 Q BY MR. KELLY: If this model included all  
22 existing demands, would that be useful?

23 MR. CARRIGAN: Argumentative.

24 THE WITNESS: The basis for the demands would  
25 be -- you know, I believe there is some concern on the

1 demands being used in some models.

2 Q BY MR. KELLY: Did you, or anybody at your  
3 direction, conduct this type of analysis in making your  
4 water availability determinations in 2015?

5 MR. CARRIGAN: Vague.

6 THE WITNESS: Did we conduct a salinity model  
7 evaluation, no.

8 Q BY MR. KELLY: Why not?

9 A We were interested in available supply of  
10 water.

11 Q And is it your opinion, then, that the water  
12 that was present in the Delta, when the full natural  
13 flows dropped off, was not available to diverters in the  
14 Delta?

15 MR. CARRIGAN: Overbroad. Vague.

16 THE WITNESS: The water that was available was  
17 available for certain priorities of rights in the Delta  
18 based on the natural flows, and the other water in the  
19 Delta may have been storage releases.

20 Q BY MR. KELLY: So is it your opinion that the  
21 water that was present in the Delta, when full natural  
22 flows dropped off, was project water?

23 A No. There was full natural flow that was  
24 available for senior right holders, the riparians,  
25 and that is what we were trying to satisfy.

1 Q Is full natural flow in any way related to the  
2 quantity of water present in the Delta on any given day?

3 A Every day full natural flow is an adjusted  
4 amount for actual stream flows. So, yeah, it is  
5 contributing every day into the Delta.

6 Q So tell me how full natural flow today tells you  
7 how much water is present in the Delta today.

8 A I don't understand your question. I don't  
9 know what the flow is today.

10 Q What if the flow was zero today. I want you to  
11 assume that full natural flow today is zero. How do you  
12 then determine how much water is in the Delta based on  
13 zero full natural flow?

14 MR. CARRIGAN: Incomplete hypothetical.

15 THE WITNESS: I don't know. I guess you would  
16 have to do an analysis of the Delta channels and see how  
17 much water is in those channels. And those change based  
18 on tide.

19 Q BY MR. KELLY: And did you or did anyone at your  
20 direction do that?

21 A No.

22 Q Why not?

23 A Because the analysis is for the available  
24 supply. The water rights that are filed with us are  
25 claiming rights to certain sources of water. And

1 that water is an amount that is reserved when it  
2 gets depleted to senior right holders in the Delta.

3 Q When you say it is reserved, what do you mean?

4 A They have priority over junior right holders.

5 Q And so you said that there would be a quantity  
6 of water in the Delta channels, but you didn't do an  
7 analysis of how much water that was. Would that affect  
8 the water availability analysis if you included that  
9 supply?

10 A Again, the supply that is in the Delta  
11 includes the amounts that the projects are releasing  
12 right now for salinity control.

13 Q Is it exclusively water that the projects  
14 release?

15 A No.

16 Q If you know.

17 A No.

18 Q And yesterday I believe you testified a bit  
19 about water mixing with the sea in the Delta and  
20 becoming brackish and, at some point, unusable. Do you  
21 recall that testimony?

22 A No. I said that seawater wasn't subject to  
23 appropriation. And in the Delta, seawater mixes  
24 with the fresh flows and becomes brackish.

25 Q And at some point, does it become unusable for

1 beneficial uses, do you know?

2 A In some years, the salinity gets high that it  
3 probably comes unusable for some uses, yes.

4 Q And you indicated, just a moment ago, that the  
5 projects released stored water to repel that salinity  
6 intrusion; is that correct?

7 A And meet other water quality requirements.

8 Q Right. And so when the projects release water  
9 to repel salinity, don't the project releases mix with  
10 the seawater and then become unusable?

11 A Well, they are trying to make a condition  
12 satisfied that the Board has imposed on them for  
13 water quality standards to make the water -- to keep  
14 the water usable.

15 Q But certainly some of the water that the  
16 projects release also mixes with seawater and becomes  
17 unusable, doesn't it, or is it only the fresh water of  
18 the Delta that would otherwise be there that becomes  
19 unusable?

20 MR. CARRIGAN: Argumentative.

21 THE WITNESS: I'm not saying that fresh water  
22 becomes unusable. I think that seawater is not usable  
23 in itself as a water supply or it's subject to  
24 appropriation.

25 Q BY MR. KELLY: So I'm trying to understand how



1 the water the projects release to repel salinity stays  
2 in the Delta and is project water, and the other water  
3 isn't available for people.

4 MR. CARRIGAN: It misstates testimony.

5 Q BY MR. KELLY: It makes more sense to me that  
6 some or all of the project releases that are released  
7 with the intent to repel that salinity, that that water  
8 would mix with the seawater and possibly become  
9 unusable.

10 MR. CARRIGAN: Argumentative.

11 Q BY MR. KELLY: Did you consider anything --

12 MR. CARRIGAN: No question pending.

13 Q BY MR. KELLY: Did you consider anything like  
14 that when you were conducting your analysis in the  
15 Delta?

16 MR. CARRIGAN: Vague. Overbroad.

17 THE WITNESS: No.

18 Q BY MR. KELLY: Do you have any idea of the  
19 quantity of water discharged by wastewater treatment  
20 plants inside of the Delta within the Delta?

21 A Freeport is inside of the Delta.

22 Q Is Freeport a wastewater treatment plant?

23 A I mean, there's a -- I testified yesterday to  
24 a sewage treatment plant outflow that is reported in  
25 the Delta outflow calculations by the Bureau.

1 Q Is that Sac Regional, do you know?

2 A I believe so, yes.

3 Q Do you have any idea of the total quantity of  
4 water discharged from wastewater treatment plants in the  
5 Delta?

6 A No.

7 Q Did you look at that at all in conducting, in  
8 directing your staff to conduct the analysis of water  
9 availability in 2015?

10 MR. CARRIGAN: Asked and answered.

11 Argumentative.

12 THE WITNESS: No.

13 Q BY MR. KELLY: Do you have any opinion as to  
14 what type of water right holder would be entitled to  
15 divert those discharges?

16 MR. CARRIGAN: Calls for a legal conclusion.  
17 Speculation. No foundation.

18 THE WITNESS: That would not be -- that would be  
19 appropriative water right holders.

20 Q BY MR. KELLY: So wastewater treatment plant  
21 discharges, then, would not be available to meet  
22 riparian demand; is that your understanding?

23 MR. CARRIGAN: Same objection.

24 THE WITNESS: Yes.

25 Q BY MR. KELLY: And so was there any discussion

1 about whether or not those discharges within the Delta  
2 would be available to meet any of the pre-1914 demand?

3 MR. CARRIGAN: Overbroad. Vague.

4 THE WITNESS: I don't recall discussions. But  
5 as I testified yesterday, I looked at that contribution  
6 and looked at the remaining demand in the Delta for  
7 pre-14s. And it did not seem to change the decision to  
8 curtail.

9 Q BY MR. KELLY: You talked a little bit yesterday  
10 about -- I think you said it was a justification for not  
11 including some return flows from the Sacramento Valley.  
12 And I want you to correct me if I'm wrong.

13 I thought you said that a lot of the water use  
14 in the Sacramento Valley is delivered by the projects,  
15 and that the projects claimed the right to the return  
16 flows from those uses. Is that correct?

17 A I don't know if I used the word "a lot." I  
18 said water that is used by some contractors -- and I  
19 was specific in the Colusa Basin Drain in my  
20 testimony.

21 Q Okay.

22 A That I believe there's a claim, the  
23 Glenn-Colusa utilizes project water. And then that  
24 return flow is then used by other contractors  
25 downstream along the Colusa Basin Drain.

1 Q And do you know under what basis the  
2 Glenn-Colusa Irrigation District uses water?

3 MR. CARRIGAN: Calls for a legal conclusion.

4 THE WITNESS: It has a portfolio of available or  
5 claimed water rights.

6 Q BY MR. KELLY: And do you know under what basis  
7 the CVP delivers water to the Glenn-Colusa Irrigation  
8 District?

9 MR. CARRIGAN: Same objection.

10 THE WITNESS: They deliver them under a  
11 post-1914 water right.

12 Q BY MR. KELLY: The Bureau's post-1914 water  
13 right? Do you know if Glenn-Colusa has a settlement  
14 contract with the Bureau of Reclamation?

15 A Yes.

16 Q Do you know, do you have any idea or opinion as  
17 to what the basis of that settlement contract is? Do  
18 you know what the senior claim is that they asserted?

19 A Yes.

20 Q What is that?

21 A Pre-14.

22 Q And was Glenn-Colusa's pre-14 demand, if you  
23 know, included in the demand analysis for the 2015  
24 curtailments?

25 A If Glenn-Colusa reported under their

1 statement that they file on behalf of their pre-14  
2 water rights, if they reported diversions under  
3 their prior rights, it would -- it should have been  
4 included in our analysis.

5 Q And so if they reported they were going to  
6 divert water under their pre-14 rights, and you included  
7 it in the demand, but water was actually delivered by  
8 the projects under the settlement contracts, why did you  
9 not include the return flows if you included the demand  
10 in the demand on the natural system?

11 MR. CARRIGAN: Incomplete hypothetical.

12 THE WITNESS: Again in that example, I would say  
13 because that return flow, to my knowledge, is being  
14 delivered also to other contractors on the Colusa Basin  
15 Drain.

16 Q BY MR. KELLY: I understand that. But the  
17 problem is that you assume that they weren't getting  
18 waters from stored water. The demand analysis assumed  
19 that they were diverting under their preexisting rights,  
20 their pre-1914 rights, which was a demand on the natural  
21 flow.

22 A Yes.

23 Q If they were pulling water from natural flow,  
24 then the projects couldn't claim return flows from that,  
25 could they?

1 MR. CARRIGAN: Argumentative. Compound. Vague.

2 THE WITNESS: They were also exercising rights  
3 for stored water, you know, at the same time.

4 Q BY MR. KELLY: Does Glenn-Colusa have rights to  
5 stored water, do you know?

6 A Yes.

7 Q What rights do they have to stored water?

8 A They have a contract with the Central Valley,  
9 the Bureau of Reclamation.

10 Q And so if they were exercising rights to stored  
11 water, why were they included in the demand on the  
12 natural flow?

13 MR. CARRIGAN: Assumes facts not in evidence.  
14 Misstates testimony.

15 THE WITNESS: Again, their demand, if they  
16 reported zero under their prior rights, they had zero  
17 for months. If they reported diversion under their  
18 prior rights, that was their demand because they could  
19 exercise their rights to the available full natural  
20 flow.

21 Q BY MR. KELLY: And for the purposes of your  
22 analysis, did it matter where the water actually came  
23 from?

24 A As far as the supply from full natural flow,  
25 no, because the full natural flow we can't separate

1 the molecules of the stored water that may have  
2 reached them.

3 Q Mr. O'Hagan, in the work that you did, did you  
4 make any recommendations on enforcement this year?

5 MR. CARRIGAN: Overbroad.

6 THE WITNESS: I signed -- on behalf of the  
7 Division of Water Rights, I'm delegated to sign  
8 enforcement actions.

9 Q BY MR. KELLY: Do you know what that delegation  
10 is under? You said you signed the enforcement actions  
11 -- under delegation from whom?

12 A I am redelegated from the Deputy Director.  
13 And under water code for the Administrative Civil  
14 Liabilities and Cease and Desist Orders, that is  
15 authorized by water code to the Executive Director.  
16 He has delegated that down to the Deputy Director  
17 for Water Rights, and then she has redelegated that  
18 to me.

19 Q Do you know where that redelegation appears?

20 A On our redelegation documents.

21 Q When you say "redelegation documents," what do  
22 you mean?

23 A The Board has redelegation documents.

24 Q Are those -- you said the Board. Did the Board  
25 adopt a resolution or approve some type of redelegation

1 that I could find in the Board's records?

2 A We can supply you with a copy of the  
3 delegation document and of the redelegation  
4 document. Whether it is a Board order or an  
5 Executive Director -- because the water code gives  
6 him the authority, the Executive Director the  
7 authority. He is doing the redelegation or he is  
8 doing the delegation. And then it is being  
9 redelegated again.

10 Q Okay. So did you make -- other than signing the  
11 draft enforcement documents, did you make any decisions  
12 related to enforcement?

13 MR. CARRIGAN: Overbroad. Vague.

14 THE WITNESS: I make the decisions whether to  
15 issue it or not.

16 Q BY MR. KELLY: And so in making those decisions,  
17 was it your view that people were diverting illegally if  
18 there was insufficient water available or were they  
19 diverting illegally if they diverted after having  
20 received the notice from the Board?

21 MR. CARRIGAN: Incomplete hypothetical. Calls  
22 for a legal conclusion.

23 THE WITNESS: The enforcement actions are based  
24 on unauthorized diversions.

25 Q BY MR. KELLY: And what makes the diversion



1 unauthorized, in your view?

2 MR. CARRIGAN: Calls for a legal conclusion.

3 THE WITNESS: They are diverting water without  
4 sufficient water rights and/or priority.

5 Q BY MR. KELLY: And if they are diverting when  
6 there is insufficient water or do they need to be  
7 required -- I'm sorry. Strike that.

8 Do they need to be notified by the Board first  
9 that there is no water available?

10 MR. CARRIGAN: It calls for a legal conclusion.

11 THE WITNESS: Could you -- I don't understand  
12 your question.

13 MR. KELLY: Take a look at Exhibit 10.

14 And actually, I think we only have a couple of  
15 minutes left on the video. I only have about five or  
16 ten minutes left. So if we could just take a quick  
17 five-minute break.

18 MR. CARRIGAN: Sure.

19 MR. KELLY: Let's go off the record.

20 THE VIDEOGRAPHER: Going off the record at 11:58  
21 a.m. This is the end of disc two.

22 (Whereupon, a recess was then taken.)

23 THE VIDEOGRAPHER: Back on the record at 12:01  
24 p.m. This is disc three.

25 Q BY MR. KELLY: Mr. O'Hagan, I have a couple of

1 follow-up questions on the 1931 documents that you  
2 reviewed that we talked about a couple of minutes  
3 earlier. And I'm only going to do this for Mr.  
4 Carrigan's benefit.

5 I'm curious. You said that you looked at those  
6 documents. Did you look at those documents before or  
7 after the State Water Board issued the Administrative  
8 Civil Liability complaint to BBID?

9 A I don't recall because I looked at a lot of  
10 these other reports.

11 Q And do you recall why you would have looked at  
12 those reports and, specifically, at the BBID diversions  
13 in those reports?

14 A Again, as I recall, I was looking at them to  
15 see if they indeed were diverting water, and looking  
16 at whether they had a basis of a claim for the  
17 claims of rights they were doing, and then also the  
18 amounts that they were diverting.

19 Q So when you say if they had -- you said if there  
20 was something in there to support the basis of the  
21 claim?

22 A Yeah. Were they diverting 100 acre-feet back in  
23 1931 and 1928, 1924, and what are they diverting now?

24 Q And so was that an attempt to validate BBID's  
25 pre-1914 appropriative claim?

1 A Yeah. I was looking at -- making sure that  
2 there was a reasonable basis for their claims.

3 Q Did you do that for any other pre-1914 water  
4 right holders?

5 A I also looked at the diversions by West Side  
6 but they were a post-1914 water right holder.

7 Q But you don't remember whether that was before  
8 or after the ACL's issue?

9 A No. I don't recall.

10 Q So why would you be looking at -- it seems an  
11 odd coincidence, I guess, that you would be looking at  
12 those two districts, the only two districts in the Delta  
13 that enforcement actions were brought against.

14 Was there any discussion, prior to issuing the  
15 ACLs, to bring enforcement actions against those two  
16 districts in order to get at any of the issues the State  
17 Water Board wanted to get at this year?

18 MR. CARRIGAN: Overbroad. Don't answer if it  
19 infringes on attorney-client.

20 THE WITNESS: I don't understand your question.

21 Q BY MR. KELLY: Well, Mr. O'Hagan, at a couple of  
22 workshops, there were discussions among Board members  
23 and upper management and staff. And you were at those  
24 workshops and Mr. Carrigan was at those workshops -- and  
25 the chair of the Board had conversations with Mr.

1 Lauffer and Mr. Howard about meeting and coming up with  
2 a strategy moving forward to get at the long-standing  
3 controversy that existed in the Delta as part of the  
4 enforcement strategy moving forward.

5           Were you involved in any of those discussions?

6 A           I don't recall being party to a discussion  
7 with Board members.

8 Q           Did anybody outside of the enforcement section  
9 suggest that you bring an enforcement action against  
10 BBID?

11 A           No, not to my recall.

12 Q           Did anybody outside of the enforcement section  
13 suggest that you bring an enforcement action against the  
14 West Side Irrigation District?

15 A           I'd have to ask my attorney about the Delta  
16 Watermaster.

17 Q           Did the Delta Watermaster suggest that you bring  
18 an enforcement action against only West Side or did the  
19 Delta Watermaster suggest you do it also against BBID?

20 A           I wasn't saying that he suggested that we  
21 take a part. He was -- he was part of the  
22 discussion.

23 Q           So what discussion are you referring to?

24 A           About the enforcement actions.

25 Q           Who did you have those discussions with?

1 A It would be --

2 Q You can tell me if there was -- I can't ask you  
3 about a conversation with an attorney, but you can tell  
4 me if you talked to an attorney.

5 A I talked to an attorney.

6 Q So tell me who was present when you had those  
7 discussions.

8 A Andrew.

9 Q Anybody else besides Andrew? When you say  
10 "Andrew," are you referring to Mr. Tauriainen?

11 A Yes.

12 Q Okay. Anybody else besides Mr. Tauriainen,  
13 yourself and Mr. George?

14 A As I recall, it might have been my program  
15 manager, Kathy Mrowka.

16 Q Kathy Mrowka as well.

17 Are you aware of anyone outside of the four of  
18 you suggesting or recommending that you bring an  
19 enforcement action against BBID?

20 A I don't recall.

21 Q Do you know if Mr. Howard made a recommendation  
22 that you bring an action against BBID?

23 A I don't recall.

24 Q I want you to take a look at Exhibit 10, please.  
25 And Exhibit 10 -- and I'm probably going to get this

1 wrong -- but it reflects what was on the State Water  
2 Board's website at the time the May 1st curtailments  
3 were put into place.

4 I understand that this is the chart that you  
5 reviewed to make the recommendation for the May 1st  
6 curtailment. Is that your recollection?

7 A No.

8 Q What is your recollection about what chart  
9 supported the May 1st curtailment?

10 A Well, there was all the ones that we have  
11 discussed that would contribute it to it, including  
12 my review of the available realtime stream flows.

13 Q And so do you know if there was any other chart,  
14 besides Exhibit 10, that you used to make your  
15 recommendations to support the May 1st curtailment?

16 A We discussed the charts that you have copies  
17 of dealing with the North Delta and the San Joaquin  
18 and Sacramento River systems with the proportional  
19 Delta. So all of those graphic representations were  
20 considered in the decisions, along with the realtime  
21 flow data that we were looking at.

22 Q So Exhibit 10. If somebody is -- in your  
23 position at the Water Board this year as part of the  
24 enforcement section, if somebody had been diverting  
25 water when there was insufficient water available, is it

1 your opinion that that water right holder would be  
2 subject to an enforcement action?

3 MR. CARRIGAN: Calls for a legal conclusion.

4 THE WITNESS: I would have my staff look into  
5 it.

6 Q BY MR. KELLY: Why would you have them look into  
7 it?

8 A Because they were not consistent with -- if  
9 we issued a notice of violation, they would be  
10 inconsistent with that notice.

11 Q So explain to me what relevance the notice has  
12 in that analysis.

13 MR. CARRIGAN: Calls for a legal conclusion.

14 THE WITNESS: The notice has the findings of  
15 State Water Board's staff on the conditions of the  
16 watershed at the time. And we were trying to inform  
17 water right holders that should they continue to divert,  
18 they may be subject to enforcement actions later.

19 Q BY MR. KELLY: And that is fine. So what I'm  
20 trying to understand, Mr. O'Hagan, is if somebody didn't  
21 get a notice -- or didn't get a notice yet -- and if  
22 they had been diverting prior to getting the notice, but  
23 there actually wasn't water available according to the  
24 charts and the analysis, in your opinion, would those  
25 types of folks be subject to enforcement?

1 MR. CARRIGAN: Calls for legal conclusion.

2 THE WITNESS: I don't understand your question.

3 Q BY MR. KELLY: So look at Exhibit 10.

4 Exhibit 10 shows, among other things in the dark orange  
5 color, the post-1914 demand in the Sacramento River  
6 basin watershed, correct?

7 A It depicts that.

8 Q And the daily full natural flow depicted on here  
9 in the month of March is roughly in the bottom 15 to  
10 20 percent of that demand. Is that roughly accurate?

11 A The daily full natural flow?

12 Q Yes.

13 A Yes. It is -- in March?

14 Q Yes.

15 A It is at about 15,000 CSF.

16 Q So is that roughly the bottom 20 percent of the  
17 post-14 demand?

18 A Rough.

19 Q Roughly. And roughly the same in April?

20 A Well, it is less because the daily natural  
21 flow has gone down.

22 Q I'll give the system the benefit of the doubt  
23 and I'll say it is 20 percent, just to give them the  
24 benefit of the doubt. There were no post-14  
25 curtailments in the Sacramento River watershed until



1 May 1st, correct?

2 A In the Sacramento, yes.

3 Q The April 23rd was the San Joaquin side; May 1st  
4 was the Sacramento side; and then June 12th was the  
5 combined pre-14 curtailment, right?

6 A Right. I was just thinking whether -- there  
7 is other curtailment orders issued in the  
8 Sacramento. So I was trying to recall whether the  
9 fishery regulation curtailments had occurred or not.

10 Q The fishery regulation curtailments were on  
11 tributaries to the Sacramento River. There were Term 91  
12 curtailments that were already in place.

13 A In place.

14 Q They didn't apply to all post-14 folks, right?  
15 And if the Term 91 curtailments were in place, would the  
16 rights that were already curtailed still be included in  
17 this demand, do you know?

18 A I don't know but it wouldn't matter because  
19 they would be at the top levels because of their  
20 priority.

21 Q Okay.

22 A So the supply is well below where their  
23 demand would be shown.

24 Q Fair enough. Fair enough.

25 And so nobody was notified by the Board that

1 there was insufficient supply until May 1st; is that  
2 right?

3 A That is not correct.

4 Q Nobody on the Sacramento River side was notified  
5 that there was insufficient flows until May 1st?

6 A They had previously received a statewide  
7 warning, and then another potential for curtailment  
8 earlier that month, I believe.

9 Q Yeah. The Board had --

10 A Not the Board. Staff, I would say.

11 Q The staff had informed all water right holders  
12 in the state, actually -- right -- that because of the  
13 ongoing drought, that there could be curtailments that  
14 come later in the year.

15 That went out to everybody, correct?

16 A That went out electronically to everybody,  
17 you know, for notice.

18 Q But that wasn't a notice of actual  
19 unavailability, right? Wasn't that just the warning  
20 that it might happen?

21 A Yes, but there was another warning after that  
22 one.

23 Q Yes. I'm actually asking about actual notices  
24 of unavailability.

25 A May 1st was the first one for the Sacramento

1 River watershed pertaining to unavailability.

2 Q Right. And so if you look at Exhibit 10, I  
3 believe it shows -- and correct me if I'm wrong -- a  
4 substantial amount of post-1914 demand that could not  
5 have been met by full natural flow.

6 Is that what it shows?

7 A That is what it is depicting.

8 Q And I'm curious, then, as to whether or not the  
9 diverters that are within that category of folks whose  
10 demands could not be met from the full natural flow,  
11 whether in your opinion those folks could be subject to  
12 enforcement. And I'm asking you in the context of the  
13 May 1st notice.

14 MR. CARRIGAN: Calls for a legal conclusion.  
15 Vague.

16 THE WITNESS: All water rights are subject to  
17 prior rights so --

18 Q BY MR. KELLY: Okay. Let me ask it a different  
19 way. You issued enforcement actions only to people who  
20 had received the notice; is that correct? You issued  
21 enforcement actions to enforce the curtailments only  
22 against water right holders who had received the notice,  
23 correct?

24 A No.

25 Q Who else? What other water right holders, who

1 were curtailed, were enforced against?

2 A Well, you didn't ask it that way because you  
3 asked -- I didn't issue enforcement actions against  
4 anybody else, except who received the enforcement of  
5 the notice. And there are several other enforcement  
6 actions that I have signed that are not related to  
7 curtailment.

8 Q Right. And so why haven't you issued any  
9 enforcement actions against people who diverted when  
10 water was not available, even though they hadn't  
11 received the notice?

12 A We haven't put them on notice. But if we had  
13 complaints in which we investigate, again, if they  
14 were making unauthorized diversions, they may be  
15 subject to enforcement.

16 Q So what I want to understand is what is your  
17 understanding of the relevance of the May 1st notice?

18 MR. CARRIGAN: Calls for a legal conclusion.

19 Q BY MR. KELLY: In the context of issuing  
20 enforcement orders, which I understand comes out of --  
21 which are issued under your supervision. I'm asking  
22 what your understanding is, then, in issuing enforcement  
23 actions of the curtailment notices.

24 A My understanding is putting all people on  
25 notice and then letting them know that they have now

1 knowingly received a notice that tells them Board  
2 staff has made a determination that water is not  
3 available under their prior priority of right.

4           Therefore, if staff investigates and  
5 recommends that these parties continue to divert,  
6 and they recommend that an unauthorized diversions  
7 would occur, they would be subject to enforcement.

8 Q           So is that why, then, again looking on  
9 Exhibit 10 -- and if you looked at the month of March,  
10 the top 80 percent or so of those water right holders,  
11 for which water was not actually available, you wouldn't  
12 bring an enforcement action against them because they  
13 hadn't received a notice?

14           MR. CARRIGAN: Calls for speculation.

15           THE WITNESS: Again, we don't know about these  
16 parties and whether they are exercising other bases of  
17 rights.

18 Q           BY MR. KELLY: Right. But if you just simply  
19 assume that they are post-1914 water right holder only,  
20 and they were diverting during the month of March -- and  
21 according to this graph there was insufficient water  
22 available -- I'm just asking you whether or not you  
23 understand that they would or would not be subject to  
24 enforcement because a notice hadn't been issued.

25           MR. CARRIGAN: Calls for a legal conclusion.

1 Q BY MR. KELLY: I'm asking what your  
2 understanding is, Mr. O'Hagan. If you --

3 A I'm saying that --

4 MR. CARRIGAN: It is okay for him to ask that.  
5 It is okay for you to answer. It is also okay for me to  
6 object so --

7 THE WITNESS: My understanding is that anybody  
8 could be subject to enforcement if they are making an  
9 unauthorized diversion.

10 And the fact that we had not issued notices was  
11 relevant to what the conditions were happening in the  
12 watershed, as far as expected storms. If we had an  
13 expected storm coming in, we delayed issuing curtailment  
14 notices.

15 So the curtailment notice, once it went out, put  
16 people on notice that we have determined that there will  
17 not be water available under your priority of right  
18 based on our analysis from this point until we inform  
19 you otherwise.

20 Q BY MR. KELLY: So you said if somebody received  
21 a complaint. So if the California Department of Water  
22 Resources falls within that unmet demand in the month of  
23 March, and if BBID complains to the State Water Board,  
24 will the State Water Board then investigate? And if the  
25 Department of Water Resources was diverting, when there

1 was insufficient water available, will you bring an  
2 enforcement action against DWR?

3 A I can't speculate to that.

4 Q But would DWR, then, be subject to enforcement  
5 if they actually diverted when there was insufficient  
6 water available?

7 MR. CARRIGAN: Calls for a legal conclusion.

8 THE WITNESS: I couldn't speculate. It would  
9 depend on the staff's findings and recommendations.

10 MR. KELLY: Okay. I have no further questions.  
11 If nobody else has questions, we can go off the record.

12 MR. RUIZ: We are done then.

13 MR. KELLY: We can go off the record.

14 THE VIDEOGRAPHER: We are done for today.

15 We are going off the record at 12:20 p.m. It is  
16 the end of disk three and also the end of today's  
17 proceeding, the deposition of John O'Hagan.

18

19 (The deposition concluded at 12:20 p.m.)

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\_\_\_\_\_  
THE WITNESS

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DATE SIGNED

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DEPONENT'S CHANGES OR CORRECTIONS

Note: If you are adding to your testimony, print the exact words you want to add. If you are deleting from your testimony, print the exact words you want to delete. Specify with "add" or "delete" and sign this form.

DEPOSITION OF: John O'Hagan (Volume II)

CASE: In re: Byron-Bethany Irrigation District

DATE OF DEPO: November 20, 2015

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REPORTER'S CERTIFICATE

State of California        )  
                                  ) ss.  
County of Sacramento     )

I certify that the witness in the foregoing deposition,

JOHN O'HAGAN,

was by me duly sworn to testify in the within-entitled cause; that said deposition was taken at the time and place therein named; that the testimony of said witness was reported by me, a duly Certified Shorthand Reporter Of the State of California authorized to administer oaths and affirmations, and said testimony was thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for either or any of the parties to said deposition, nor in any way interested in the outcome of the cause named in said deposition.

IN WITNESS WHEREOF, I have hereunto set my hand this 24th day of November 2015.

\_\_\_\_\_  
KATHRYN DAVIS  
Certified Shorthand Reporter  
Certificate No. 3808

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DISPOSITION OF ORIGINAL TRANSCRIPT

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\_\_\_\_\_ Signature waived.

\_\_\_\_\_ I certify that the witness was given the statutory allowable time within which to read and sign the deposition, and the witness failed to appear for such reading and signing.

\_\_\_\_\_ I certify that the witness has read and signed the deposition and has made any changes indicated therein.

By \_\_\_\_\_  
KATHRYN DAVIS & ASSOCIATES

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KATHRYN DAVIS & ASSOCIATES  
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555 University Avenue, Suite 160  
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(916) 567-4211

November 24, 2015

State Water Resources Control Board  
Office of Enforcement  
Attn: CHRISTIAN CARRIGAN  
1001 I Street, 16th Floor  
Sacramento, California 95814

Re: West Side Irrigation District Cease and Desist  
Order & Byron-Bethany Irrigation District Civil Hearing

Date Taken: November 20, 2015

Dear Mr. John O'Hagan:

Your deposition transcript is now available for review  
And signature, and will be available for the next 30  
days. This review is optional. An appointment is  
required to review your transcript. Please bring this  
letter with you.

You may wish to discuss with your attorney whether  
he/she requires that it be read, corrected, and signed,  
before it is filed with the Court.

If you are represented by an attorney, you may read his  
or her copy of the transcript. If you read your  
attorney's copy of the transcript, please send us a  
photocopy of the Signature Line and Deponent's Change  
Sheet.

If you choose not to read your deposition, please sign  
here and return this letter to our office.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Sincerely,

KATHRYN DAVIS, CSR No. 3808

cc: Ms. Spaletta; Mr. Kelly; Ms. Zolezzi; Ms. Leeper;  
Mr. Ruiz; Mr. O'Laughlin; Mr. Tauriainen; Ms. McGinnis;  
Ms. Morris; Mr. Knapp; Mr. Donlon

DEPOSITION OF JOHN O'HAGAN, VOLUME II

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