

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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DEPOSITION OF JOHN O'HAGAN
Volume I

November 19, 2015

Reported By: KATHRYN DAVIS, CSR No. 3808

kathryndavis & associates
deposition reporting

WSID CDO/BBID ACL
WSID0153

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APPEARANCES CONTINUED

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NICHOLAS BONSIGNORE, P.E.
WAGNER & BONSIGNORE

TULLY & YOUNG
GREG YOUNG, P.E.

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I N D E X O F E X H I B I T S

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1 BE IT REMEMBERED, that on Thursday, November 19,
2 2015, commencing at the hour of 12:13 p.m, thereof, at
3 the 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 EXAMINATION BY MS. SPALETTA

14 Q BY MS. SPALETTA: Good afternoon, Mr. O'Hagan.
15 My name is Jennifer Spaletti. I'm the attorney for the
16 Central Delta Water Agency.

17 You are here for a deposition today in two
18 pending enforcement actions against West Side Irrigation
19 District and Byron-Bethany Irrigation District.

20 Do you understand that?

21 A Yes.

22 Q Before we get started, we need to go around the
23 room and have everyone introduce themselves. We'll
24 start with counsel that is sitting next to you and go
25 around.

1 MR. CARRIGAN: Cris Carrigan for the witness,
2 John O'Hagan.

3 ANDREW TAURIAINEN: Andrew Tauriainen, Office of
4 Enforcement, Prosecution Team.

5 MR. BONSIGNORE: Nick Bonsignore, Wagner &
6 Bonsignore. We are engineer consultants to BBID and
7 West Side Irrigation District.

8 MR. YOUNG: Greg Young with Tully & Young,
9 consultants to Somach for BBID.

10 MS. ZOLEZZI: Jeanne Zolezzi, counsel for the
11 West Side, Banta-Carbona and Patterson Irrigation
12 Districts.

13 MR. RUIZ: Dean Ruiz, South Delta Water Agency.

14 MS. MCGINNIS: Robin McGinnis, counsel for
15 California Department of Water Resources. And at 2:00
16 p.m, I will be relieved by my coworker, James Mizell.

17 MR. DONLON: Robert Donlon, Ellison Schneider &
18 Harris, counsel for San Francisco Public Utilities.

19 MR. KNAPP: I'm Jonathan Knapp, counsel for City
20 and County of San Francisco.

21 MR. O'LAUGHLIN: Tim O'Laughlin, San Joaquin
22 Tributaries Authorities.

23 MR. KELLY: Dan Kelly for the Byron-Bethany
24 Irrigation District.

25 MS. BERNADETT: Lauren Bernadett, also with

1 Byron-Bethany Irrigation District.

2 MS. MORRIS: Stefanie Morris, general counsel,
3 State Water Contractors.

4 MR. HENNEMAN: Ken Henneman, consultant to BBID.
5 (Whereupon, the witness was sworn.)

6 Q BY MS. SPALETTA: All right. So we are going to
7 take your deposition today. I want to make sure that
8 you understand what a deposition is.

9 Have you ever had your deposition taken before,
10 Mr. O'Hagan?

11 A Yes.

12 Q How many times?

13 A One.

14 Q Was that in a personal capacity or in a
15 professional capacity?

16 A Professional.

17 Q And what was the subject matter of the
18 deposition?

19 A Water right fees.

20 Q Was that in the water right fees litigation?

21 A Yes.

22 Q You've had a little bit of experience with
23 depositions, so I'll just go over the rules of the
24 deposition generally. The court reporter is taking down
25 everything that we say to create a written record. So

1 it is very important that when I ask questions, when
2 your attorney objects and when you answer, that we do it
3 slow enough, that there is a break in between, so the
4 court reporter can get down the testimony correctly. So
5 I'll do that and I would like you to make an effort to
6 do that as well.

7 The second thing is that it is important that
8 you are able to provide complete and accurate testimony
9 today. Is there any reason you cannot provide complete
10 and accurate testimony today?

11 A No.

12 Q We are going to be asking you about things that
13 have occurred over the course of several years, and so
14 it will be important that you tell me whether or not you
15 can't remember something.

16 I don't want you to guess or speculate in
17 response to a question. I only want you to tell me what
18 you actually know or can reasonably estimate based on
19 your memory. And if you can't do that, it is okay for
20 you to just let me know that you can't.

21 Do you understand that?

22 A Yes.

23 Q If at any time you need a break, go ahead and
24 ask and we'll take a break. My preference is that you
25 don't ask for a break while a question is pending; that

1 you answer the question and then take a break.

2 Do you understand that?

3 A Yes.

4 Q So let's go ahead and get started with learning
5 more about your education. Where did you go to college?

6 A Cal State Sacramento.

7 Q What degree did you obtain?

8 A Bachelor of Science.

9 Q In what subject?

10 A Civil Engineering.

11 Q What year was that?

12 A 1980.

13 Q Do you have any other education?

14 A No.

15 Q And do you have any certifications?

16 A I'm a registered civil engineer with the
17 State of California.

18 Q Any other specialized education or training?

19 A No.

20 Q What was your first job after getting your
21 Bachelor's of Science in Civil Engineering?

22 A I worked for a construction firm in Woodland.

23 Q What did you do there?

24 A We constructed steel buildings and grain
25 bins, grain elevators. And I also helped in

1 designing the foundations for those.

2 Q How long did you work there?

3 A I worked a couple of years while I was in
4 college during the summer. And then after college,
5 I worked a year or two. I can't remember exactly.

6 Q What was your next job?

7 A With the State Water Resources Control Board.

8 Q What was your first position?

9 A Water resource control engineer.

10 Q What were your responsibilities as a water
11 resource control engineer?

12 A I was an inspector for licensing.

13 Q During what time period did you have that job?

14 A I started with the State Water Resources
15 Control Board in 1981.

16 Q How long were you a water resources control
17 engineer?

18 A I'm still a water resource control engineer,
19 although at a different level than when I started.

20 Q How long did you have the job at the first
21 level? It is okay to approximate.

22 A In 1993, I became a senior engineer.

23 Q How did your job responsibilities change when
24 you became a senior engineer?

25 A I became responsible for supervising the work

1 of five staff.

2 Q What type of work were the staff doing?

3 A That was under complaints and compliance, and
4 then enforcement.

5 Q How long did you have that position?

6 A Until 2003, when I became program manager.

7 Q For which program?

8 A At that time I think it was the licensing --
9 permitting, licensing and enforcement.

10 Q How long did you have that position?

11 A Until 2014.

12 Q And then what happened in 2014?

13 A I became a principal engineer and the
14 assistant deputy director for water rights.

15 Q What is a principal engineer?

16 A A principal engineer is a managing level of
17 engineering responsible for programs in a division.

18 Q So in prior depositions, we've heard the terms
19 "staff" and "upper management." Do you understand in
20 your upper position you are part of upper management at
21 the State Board?

22 A Yes.

23 Q And when did you become part of upper
24 management?

25 A I would say assistant deputy director.

1 Q So that would have been in 2014?

2 A Yes.

3 Q What month was that?

4 A April.

5 Q What is your professional experience with water
6 availability analysis?

7 A I am a registered civil engineer, so I'm well
8 versed in hydraulics, hydrology, reservoir routing.
9 My job provided me additional experience on
10 determining water supplies for licensing purposes
11 because in that job, you make determinations of
12 water beneficial use.

13 Q Have you ever conducted a water availability
14 analysis?

15 A For an application are you talking about?

16 Q Ever, in any context.

17 A Well, I helped direct the water availability
18 analysis for the current drought.

19 Q So in 2014 and 2015, you helped direct the water
20 availability analysis at the State Board for purposes of
21 curtailments?

22 A Correct.

23 Q Did you have any experience conducting water
24 availability analysis prior to that experience?

25 A No.

1 Q When did you start working on the water
2 availability analysis in 2014?

3 A December 2013 or in January 2014.

4 Q How did you start?

5 A I was assigned a task by my director.

6 Q Who assigned the task to you?

7 A At that time, it was Jim Kassel.

8 Q Jim Kassel?

9 A Yes.

10 Q What did Mr. Kassel tell you to do?

11 A We were in a drought condition, so we were to
12 do a water availability analysis on the available
13 supply and demand under water rights.

14 Q For the entire state or for a certain region?

15 A Where conditions were considered supply was
16 going to be short.

17 Q And where was that?

18 A It started out in the Sacramento/San Joaquin
19 and then other watersheds were included. We looked
20 at many watersheds.

21 Q Did Mr. Kassel give you any other direction on
22 how to accomplish the task?

23 A We agreed on methodology.

24 Q So you and Mr. Kassel agreed on the methodology?

25 A Yes, I believe, as I recall.

1 Q Was there anyone else involved in that decision?

2 A I don't recall.

3 Q Is there something that would jog your memory?

4 A I don't know. Mr. Kassel maybe.

5 Q Where is Mr. Kassel?

6 A He retired.

7 Q Is he still in the Sacramento area?

8 A I believe so.

9 Q Do you know how to get in touch with him?

10 A Look it up in the phone book.

11 Q You don't have his contact information?

12 A I don't have it here, no.

13 Q Okay. So let's talk about how you and Mr.

14 Kassel came to an agreement on the methodology to use.

15 Can you describe, generally, for me what you discussed

16 and how those discussions led to an agreement on

17 methodology.

18 MR. CARRIGAN: Misstates testimony.

19 Q BY MS. SPALETTA: Did I misstate your testimony,

20 Mr. O'Hagan?

21 A Could you repeat the question?

22 MS. SPALETTA: I'll have the court reporter

23 repeat it.

24 (Whereupon, the record was read.)

25 THE WITNESS: I think it is misstated on the

1 "agreement."

2 Q BY MS. SPALETTA: That could be my fault. I
3 thought I heard you say that you and Mr. Kassel agreed
4 on a methodology to use. Is that wrong or is that the
5 case?

6 A We ended up with a methodology. I'll put it
7 another way.

8 Q Was it a methodology that you thought was proper
9 to use?

10 A Yes.

11 Q Was it a methodology that Mr. Kassel thought was
12 proper to use?

13 MR. CARRIGAN: Objection. Asks for the state of
14 mind of Mr. Kassel. You could ask Mr. Kassel that.

15 Q BY MS. SPALETTA: I'll rephrase the question.
16 Did you understand that Mr. Kassel thought that
17 the methodology was appropriate to use?

18 A Yes.

19 Q Did you or Mr. Kassel need to seek the approval
20 of anyone else in order to use the methodology?

21 MR. CARRIGAN: Calls for legal conclusion.

22 Q BY MS. SPALETTA: I'm not asking whether there
23 was a law that required you to or not to. I'm just
24 asking, in the course of your job, did you understand
25 that you had to get an approval from someone else?

1 MR. CARRIGAN: Same objections, but go ahead.
2 You can answer.

3 THE WITNESS: To my knowledge, I can't speak to
4 what approval Mr. Kassel got.

5 Q BY MS. SPALETTA: But you did not seek any other
6 approvals; is that correct?

7 A I worked for Mr. Kassel.

8 Q So what was the methodology that you ended up
9 using in 2014?

10 A We mirrored the methodology used during the
11 1976/77 drought.

12 Q And what was that method?

13 A That was a method of identifying supply of
14 water versus the demand of water under water right
15 priorities.

16 Q Was there anything else to it?

17 A What do you mean?

18 Q You said that you mirrored the methodology that
19 was used in the 1976/77 drought. And you told me that
20 the methodology included an identification of supply and
21 identification of demand under water right priorities.

22 Was there anything more to the methodology?

23 A There was a graphic representation of those
24 for the 1977 drought. And we produced similar maps
25 based on the material we used.

1 Q Let me back up. How did you learn about the
2 methodology that was used in the 76/77 drought?

3 A We looked through our records for other
4 examples on how to perform those.

5 Q When you say "our records," you mean the State
6 Board's records?

7 A Yes.

8 Q Was there a particular report or file that
9 contained the information that you ended up finding
10 useful regarding the methodology?

11 A There was a report done for the 1977 drought.

12 Q And was that an after-the-fact report or was it
13 a report that was prepared contemporaneously with the
14 development of the supply and demand analysis in 76/77?

15 A I don't know.

16 Q Do you know who conducted the water availability
17 analysis in 76/77 at the State Board?

18 A No.

19 Q How did the 76/77 drought analysis identify
20 supply in the Sacramento/San Joaquin basin?

21 A I don't recall.

22 Q How did you identify supply in 2014 for the
23 purposes of your water availability analysis work?

24 A Could you repeat the question?

25 MS. SPALETTA: I'll ask the reporter to read it

1 back.

2 (Whereupon, the record was read.)

3 MR. CARRIGAN: I'm going to object on the basis
4 that it misstates testimony.

5 Q BY MS. SPALETTA: I'll break the question down
6 so hopefully it is a little bit clearer.

7 You've testified that you performed a water
8 availability analysis during 2014 and 2015. You've
9 testified that you based the methodology for the 2014
10 analysis on what was done in 1976 and 1977. You've
11 testified as to what the components were of the 76/77
12 drought analysis. And you've testified that one of
13 those components was to identify supply.

14 So now my question is -- before I go on, did I
15 misstate any of your testimony?

16 A I want to make sure -- the analysis, the
17 actual analysis, wasn't performed by me.

18 Q Who performed the actual water availability
19 analysis in 2014?

20 A My staff.

21 Q Who?

22 A 2014 -- for which watershed?

23 Q Let's start with the Sacramento watershed.

24 A For the Sacramento watershed, the analysis
25 was by Aaron Miller.

1 Q And for the San Joaquin watershed in 2014, who
2 performed the analysis?

3 A Jeff Yeazell and Brian Coats.

4 Q In 2014?

5 A Brian Coats maybe. That is what I'm not sure
6 of, if Jeff Yeazell had started by then. So --
7 yeah, Brian Coats.

8 MR. CARRIGAN: Let me just admonish you. Don't
9 speculate or guess. If you remember, say you can
10 remember. If you are just estimating, tell them that
11 you are estimating. They are asking for very specific
12 date information so --

13 THE WITNESS: Thank you.

14 Q BY MS. SPALETTA: And for the region known as
15 the Delta, do you know what I mean when I say the
16 "region known as the Delta"?

17 A Yes.

18 Q For the region known as the Delta, was there a
19 separate water availability analysis done in 2014?

20 A For the Delta exclusively?

21 Q Yes.

22 A As I recall, no.

23 Q So was the Delta included in one of the other
24 watersheds in 2014?

25 A Yes. It was included in both analyses.

1 Q And those would have been the analyses performed
2 by Aaron Miller and, to the best of your recollection,
3 Mr. Coats?

4 A Yes.

5 Q Did you supervise the water availability
6 analysis that Aaron Miller performed in 2014?

7 A Yes.

8 Q And did you supervise the water availability
9 analysis that Brian Coats performed in 2014?

10 A Yes.

11 Q And did you review and approve the results of
12 the water availability analysis that those two
13 individuals performed in 2014?

14 MR. CARRIGAN: Vague. Calls for a legal
15 conclusion.

16 Q BY MS. SPALETTA: Do you understand?

17 MR. CARRIGAN: You can answer if you understand
18 the question.

19 Q BY MS. SPALETTA: Do you understand the
20 question, Mr. O'Hagan?

21 A What do you mean by "approved"?

22 Q Well, did you end up using that water
23 availability analysis in 2014 to do anything or was it
24 just performed by your staff?

25 A In 2014 those two analyses were used, but the

1 decision on curtailment was done based on a combined
2 version of the two watersheds.

3 Q So did anyone approve the water availability
4 analysis work that was performed by Aaron Miller and
5 Brian Coats prior to those curtailment decisions?

6 MR. CARRIGAN: Vague.

7 Q BY MS. SPALETTA: I don't want it to be
8 confusing. I'm just trying to figure out where the buck
9 stopped. So, the water availability analysis was
10 performed and some combination of it was used to issue a
11 curtailment decision.

12 We've had prior testimony in this case where
13 people testified that they didn't make final decisions
14 regarding it. So I'm trying to figure out if those
15 final decisions regarding the water availability
16 analysis now was made by you or someone else.

17 A But you are using the word "approved."

18 MR. CARRIGAN: I also think it assumes facts not
19 in evidence. I am not sure what you mean. What is it
20 that you are asking? You ask the questions and I make
21 the objections, and I'll just keep making them until I
22 understand what you are asking.

23 MR. O'LAUGHLIN: There we go.

24 MS. SPALETTA: You can make the objections and I
25 get to ask the questions. Let me ask a different

1 question that maybe will make this easier.

2 Q Did anyone at the State Water Resources Control
3 Board review and approve the water availability analysis
4 that was performed by Aaron Miller or Brian Coats during
5 2014?

6 MS. MORRIS: Objection. Compound. Vague.

7 MR. CARRIGAN: I'll join.

8 Q BY MS. SPALETTA: You can answer.

9 A The methodology -- it was my decision on the
10 methodology that we use in 2014 that was eventually
11 used for that determination.

12 Q Was it also your decision regarding the
13 methodology for 2015?

14 A Yes.

15 Q So then going back to my original question,
16 which was regarding the supply side of the water
17 availability analysis. What method was used to identify
18 supply in 2014?

19 A I'm trying to recall. That is my problem.
20 For 2015 I know. But I'm not 100 percent sure on
21 2014. If they were the same, which I believe they
22 were -- how is that --

23 Q Let's start with what you do remember. What was
24 the method used to identify supply for 2015?

25 A It was full natural flow from the Department

1 of Water Resources.

2 Q Why was that method selected?

3 A Because it was -- at the time we thought the
4 most reliable information that provided a reasonable
5 forecast of available supplies.

6 Q Did you seek concurrence from anyone above you
7 regarding the decision to utilize full natural flow for
8 the supply method in 2015?

9 A Could you restate the question? Seek
10 approval? What do you mean?

11 Q I asked if you sought concurrence. You've
12 already told me that there wasn't an approval per se,
13 other than your deciding that was the one to use.

14 So I'm asking if you sought concurrence from
15 anyone else above you at the State Board regarding your
16 decision to use full natural flow for the supply side of
17 the analysis in 2015.

18 A I didn't seek approval from anybody. I
19 shared the methodology, I would think.

20 Q Did anyone express concerns about the selection
21 of the methodology?

22 MR. CARRIGAN: Vague and overbroad.

23 You can answer if you think you know.

24 THE WITNESS: Would you be specific on anybody?

25 Q BY MS. SPALETTA: Sure. Did Barbara Evoy

1 express any concerns?

2 A No.

3 Q Did Tom Howard express any concerns?

4 MR. CARRIGAN: Assumes facts not in evidence.

5 Q BY MS. SPALETTA: You can answer.

6 MR. CARRIGAN: If you have an answer, I mean --

7 THE WITNESS: What was the question again? I'm
8 sorry.

9 Q BY MS. SPALETTA: We should take a break to
10 explain the way objections work. Your counsel, or other
11 counsel in the room, may object to the form of the
12 question. And then we'll pause and allow you to answer.
13 The only time that you don't need to answer a question
14 is if your counsel directs you not to answer.

15 A Okay.

16 Q So we can just assume that unless you have been
17 directed to not answer, that you should just take a
18 moment to think about the question and answer it if you
19 can.

20 A Well, I was thinking about it now.

21 MR. CARRIGAN: And you can always ask the court
22 reporter to repeat the question.

23 MS. SPALETTA: Which we will do now.

24 THE WITNESS: Thank you.

25 (Whereupon, the record was read.)

1 THE WITNESS: Not that I recall.

2 Q BY MS. SPALETTA: Did any members of the State
3 Board express any concerns about the method?

4 MR. CARRIGAN: Assumes facts not in evidence.

5 THE WITNESS: Not to my knowledge.

6 Q BY MS. SPALETTA: Did you ever discuss the
7 method for 2015 with any member of the State Board?

8 A Not to my recall.

9 Q Were there any stakeholders that expressed
10 concerns regarding the method?

11 A Yes.

12 Q Which stakeholders expressed concerns?

13 A I would think there were several sitting
14 around this table.

15 Q You are very popular. Do you remember
16 specifically which ones?

17 A Jeanne Zolezzi.

18 Q So Jeanne Zolezzi from West Side Irrigation
19 District?

20 A I don't know who she was specifically
21 representing when she expressed her concerns.

22 Q Do you remember with specificity which concerns
23 she expressed?

24 A No.

25 Q Do you recall that Ms. Zolezzi expressed a

1 concern that the full natural flow method did not
2 capture all of the water that was actually available in
3 the channel at her client's point of diversion?

4 A I recall that.

5 Q And what did you do to address that concern?

6 A If it was her concern, I believe we made some
7 adjustments to our available supply using a 2007
8 Department of Water Resources' report.

9 Q Did you ever discuss with Ms. Zolezzi how you
10 had addressed her concern to determine whether or not
11 she was satisfied with the adjustment that you made?

12 A I don't recall.

13 Q Did you do anything else to address Ms.
14 Zolezzi's concerns?

15 A I don't recall it was her concerns.

16 Q Do you recall concerns raised by the Delta
17 agencies and others that the full natural flow analysis
18 did not account for the fresh water pool in the Delta
19 channel?

20 MS. MORRIS: Objection. Vague.

21 MR. CARRIGAN: I'm join.

22 THE WITNESS: By the "Delta pool," what do you
23 mean?

24 Q BY MS. SPALETTA: I'm happy to clarify.

25 We discussed in the prior deposition in this

1 case the concept of fresh water entering the Delta and
2 remaining in the Delta for a period of time where it
3 moves back and forth as a result of tidal action. Is
4 that something that you are familiar with?

5 A I'm familiar with the concept, yes.

6 Q And do you agree that that is what happens when
7 fresh water enters the Delta channels?

8 A Possibly.

9 Q What do you mean "possibly"?

10 A What part of the Delta channels are you
11 referring to?

12 Q Well, let's break that down. The Delta is
13 actually defined by statute in California as the Legal
14 Delta, correct?

15 A Correct.

16 Q And are you familiar with the area covered by
17 the Legal Delta?

18 A Yes.

19 Q And is it your understanding that all of the
20 channels within the Legal Delta are influenced by the
21 tide?

22 A They could be, in some parts of the year.

23 Q Is it your understanding that parts of the Delta
24 are not influenced by the tide at certain times of the
25 year?

1 A Based on flows, yes, because of tides and
2 volume of water.

3 Q Can you give me an example of what you are
4 talking about?

5 A In high runoff seasons, the tidal influence
6 may not go up as far. So some areas of the Delta
7 may not be affected in some parts.

8 Q But what about in the low runoff condition?

9 MR. CARRIGAN: Incomplete hypothetical. You can
10 answer if you can.

11 MS. MORRIS: Assumes facts not in evidence.

12 Q BY MS. SPALETTA: You can answer.

13 A Low conditions have a different area of
14 influence.

15 Q As a result of the tidal influence in the Delta
16 channel, is it your understanding that fresh water that
17 flows into the Delta moves back and forth in those
18 channels for a period of time?

19 A It may.

20 Q Do you have a name for that phenomena? What do
21 you call it?

22 A I don't have a name for it.

23 Q So you don't have a name for it, but we have
24 nicknamed it the "Delta fresh water pool" for purposes
25 of shorthand during these depositions. So when I say

1 "Delta pool" or "Delta fresh water pool," I'm talking
2 about the fresh water that comes into the Delta channels
3 and moves back and forth because of tidal influence.

4 Does that make sense to you?

5 A Okay.

6 Q So going back to my questions. Do you recall
7 concerns raised by the stakeholders during 2015 that the
8 full natural flow method of looking at supply did not
9 account for the Delta pool?

10 A Yes.

11 Q Did you agree with that concern?

12 A No.

13 Q Why not?

14 A Because I don't believe that the seawater is
15 subject to water right appropriation.

16 Q So your answer said you don't agree that
17 seawater is subject to water right appropriation. Is it
18 your understanding that the water in the Delta channels
19 that moves back and forth with the tide is seawater?

20 A It is a mix grade.

21 Q Go ahead. It is a mixture is your answer?

22 A (Witness nods.)

23 Q So is it a mixture of seawater that has moved in
24 with the tide, as well as fresh water that is in the
25 channels?

1 MR. CARRIGAN: Vague.

2 THE WITNESS: It would be a mixture.

3 Q BY MS. SPALETTA: So is it your understanding,
4 then, that fresh water that enters the Delta pool
5 becomes unavailable for appropriation as soon as it
6 mixes with seawater?

7 MR. CARRIGAN: Calls for a legal conclusion.

8 Q BY MS. SPALETTA: Or is your understanding
9 something different?

10 MR. CARRIGAN: Same objection.

11 THE WITNESS: I'm saying that the seawater is
12 not subject to appropriation. The appropriations that
13 are done in the Delta are done for the natural flows
14 that are entering the Delta because of water quality
15 concerns, that they wouldn't be able to use the salt
16 water without the fresh water there.

17 Q BY MS. SPALETTA: There was a lot in that
18 answer. We'll have to break that down. What is your
19 understanding, regarding seawater and whether or not it
20 can be appropriated, based on?

21 MR. CARRIGAN: Is that a question?

22 Q BY MS. SPALETTA: Yes.

23 A Could you repeat?

24 MS. MCGINNIS: Objection. Also calls for
25 legal conclusion.

1 Q BY MS. SPALETTA: I'll restate the question so
2 it will be simpler. You testified that you did not
3 agree that the Delta pool should be considered in the
4 supply analysis because seawater is not subject to water
5 right appropriation.

6 I'm asking what that understanding is based on.

7 A My knowledge of water right appropriations.

8 Q And is that the work that you did in your prior
9 positions at the State Board?

10 A Yes.

11 Q What specific files did you work on where you
12 gained that understanding?

13 A I would believe the most recent one would be
14 the CalAm's desalination project.

15 Q What was it about the CalAm's desalination
16 project that helped build this understanding you now
17 have?

18 A Whether their slant wells would need a
19 appropriative water right because of the source that
20 they would be tapping.

21 Q And what was the source?

22 A Well, the source would slant wells to the
23 ocean.

24 Q So were they pulling water out of the ocean with
25 these slant wells?

1 A That was the intent, yes.

2 Q And what was the determination regarding whether
3 or not they needed a permit for that activity?

4 A There was a position sent by the division
5 regarding the matter.

6 Q I'm sorry. I didn't understand your answer.

7 A A memorandum or a letter sent in response to
8 that question, a report.

9 Q Who prepared this report?

10 A Division of Water Rights.

11 Q Who precisely at the division?

12 A I don't recall.

13 Q Was the conclusion that they did not need an
14 appropriative permit?

15 A For the seawater, yes. They did not need it.

16 Q So this report by the Division of Water Rights
17 concluded that they did not need an appropriative permit
18 to take ocean water via slant wells. Did I state that
19 accurately?

20 A Did not need a permit for diversion of
21 seawater, yes.

22 Q Did they need any other approval from the State
23 Water Resources Control Board to take the seawater?

24 MR. CARRIGAN: Overbroad. Calls for a legal
25 conclusion.

1 THE WITNESS: I don't think there was a request
2 for other information that upheld our position.

3 Q BY MS. SPALETTA: Other than this CalAM desal
4 project, is there anything else that you've worked on
5 that has informed your opinion that seawater is not
6 subject to appropriation?

7 A I can't name specific examples.

8 Q Is there anyone at the State Board who has told
9 you that that is the rule, other than your counsel?

10 A I can't recall.

11 Q Is there anything that would refresh your
12 memory?

13 A No.

14 Q This report that you've referred to from the
15 Division of Water Rights for the CalAM project, is that
16 a publicly available document?

17 A Yes.

18 Q And where would it I find it?

19 A I'd have to go back and find their files.

20 Q Now let's go back to the discussion we were
21 having about the Delta pool. You've explained to me
22 that the fresh water that enters the Delta channel mixes
23 with seawater. So there is some kind of mixture in
24 those channels at any given time, correct?

25 MR. CARRIGAN: Misstates testimony. Overbroad.

1 THE WITNESS: I said at certain times of the
2 years that they were mixed. And when you keep say
3 "Delta channels," you are inclusive of all Delta
4 channels so -- water will mix, yes.

5 Q BY MS. SPALETTA: Are you aware of any time in
6 history that the water in the channels of the Legal
7 Delta has not contained a mixture of fresh water and
8 seawater?

9 MR. CARRIGAN: Overbroad. Asked and answered.

10 THE WITNESS: I can't speak to that. No, I
11 don't know.

12 Q BY MS. SPALETTA: There are a variety of
13 riparian rights in the Delta, correct?

14 A There are riparian claims, yes.

15 Q And there are pre-1914 claims in the Delta as
16 well, correct?

17 A Correct.

18 Q And BBID, which is one of the parties in this
19 case, has a pre-1914 right to divert in the Delta,
20 correct?

21 A They have a pre-14 to divert in the Delta.

22 Q Is it your understanding that historically the
23 water that BBID has diverted, under its pre-1914 claimed
24 right, has always included a mixture of fresh water and
25 seawater?

1 A It is not my understanding of that, no.

2 Q What is your understanding?

3 A My understanding is they are diverting from a
4 channel that is tributary to the San Joaquin River.

5 Q What channel is that?

6 A Well, now it is part of the -- used to be a
7 different channel. I'm trying to remember the name
8 of it.

9 Q Was it the Italian Slough?

10 A Yes. Thanks.

11 Q So historically, when the pre-1914 right was
12 developed, and prior to the construction of the State
13 Water Project, BBID diverted from Italian Slough; is
14 that correct?

15 A To my knowledge, yes.

16 Q Is Italian Slough tidally influenced?

17 A I do not know but it is in the Legal Delta.

18 Q So you don't know whether Italian Slough is
19 tidally influenced?

20 A Not where their point of diversion was
21 because I'm not sure where their point of diversion
22 was.

23 Q I want you to assume that it was tidally
24 influenced.

25 A And I said it probably was.

1 Q If BBID's point of diversion was on Italian
2 Slough, which was tidally influenced, would BBID have
3 historically diverted a combination or mixture of fresh
4 water and seawater?

5 MR. CARRIGAN: Incomplete hypothetical. Assumes
6 facts not in evidence.

7 THE WITNESS: Depending on season, time,
8 flows -- everything like that, in some times of the year
9 it would be a mixture of water.

10 Q BY MS. SPALETTA: And based on your prior
11 testimony, I thought you testified that the State Water
12 Resources Control Board would not have authority to
13 oversee water for permitting purposes.

14 A Ocean water or seawater -- not brackish
15 water.

16 Q What is the difference?

17 A What is the difference?

18 Q Yes.

19 A Ocean is ocean. Brackish is a mixture of
20 water.

21 Q A mixture of what water?

22 A Seawater and fresh flow.

23 MS. SPALETTA: Can the court reporter please
24 read back the complete last two answers of the
25 witness?

1 (Whereupon, the record was read.)

2 Q BY MS. SPALETTA: Is it your understanding that
3 the State Water Resources Control Board does not have
4 permitting authority over brackish water?

5 MR. CARRIGAN: Calls for legal conclusion.

6 THE WITNESS: No. I had stated that they don't
7 have permitting authority over seawater.

8 Q BY MS. SPALETTA: So is it your understanding
9 that the State Board does have permitting authority over
10 brackish water, which is the mixture of fresh water and
11 seawater?

12 MR. CARRIGAN: Same objection.

13 THE WITNESS: Yes.

14 Q BY MS. SPALETTA: What is that understanding
15 based on?

16 A Well, we have issued permits for sources that
17 would be deemed brackish.

18 Q What is an example of those permits?

19 A Napa Slough permits. I don't know exact
20 numbers.

21 Q So the Napa Slough area is an example of where
22 those permits have been issued?

23 A Yes.

24 Q Did the supply methodology for 2015 include
25 brackish water?

1 A It included fresh water supply from the
2 tributaries coming in.

3 Q So I'm asking a yes or no question. I'd
4 appreciate a yes or no answer. Did the water supply
5 analysis for 2015 include brackish water?

6 MR. CARRIGAN: Asked and answered. Go ahead.

7 THE WITNESS: Yes, to the portion that dealt
8 with fresh flow.

9 Q BY MS. SPALETTA: What about the portion of the
10 brackish water that didn't come from fresh flow?

11 A Where is that coming from?

12 Q I thought you just described that it was a
13 mixture of seawater and fresh flow that created brackish
14 water, and that the State Board has taken the position
15 that it has permitting authority over that mixture of
16 brackish water. An example of that would be permits
17 issued on Napa Slough?

18 A Right.

19 Q Did I misunderstand that?

20 A Right. But you were asking me on our
21 analysis, did we consider brackish water. And I'm
22 saying the portion that is natural flow, yes.

23 Q I guess I'm just having a hard time
24 understanding how the combination of seawater and fresh
25 water that creates brackish water is good enough for a

1 permit, but that same combination is not good enough to
2 include in a supply analysis. Is there something I'm
3 missing about the difference?

4 A The amount that was available under the
5 permits -- the post-1914 water rights are specific
6 to source and tributary. And they identify supplies
7 that are from the tributaries.

8 As far as our analysis is concerned, we were
9 only using full natural flow and then the
10 adjustments that we made to the full natural flow.

11 Q Is it your understanding that BBID claims that
12 pre-1914 right to divert only natural flow?

13 A Their claim is to the tributary of the San
14 Joaquin, I believe.

15 Q So they based their claim on diversion at a
16 particular location --

17 A Yes.

18 Q -- not on the diversion of a particular type of
19 molecule of water in the stream at that location,
20 correct?

21 A I believe their statement identifies a
22 location and a source.

23 Q Before we leave this topic, I want to make sure
24 that there is nothing else that you can recall, as you
25 sit here today, other than your work on the CalAM desal

1 project that has influenced your understanding of how to
2 treat seawater.

3 A Just also my years of experience here. You
4 asked me for a specific case. I gave you one.

5 Q Are there any State Water Resources Control
6 Board decisions that you are relying on?

7 A I can't think of any right now.

8 Q We have been going for about an hour. Do you
9 need a break?

10 MR. CARRIGAN: Let's take a couple of minutes.

11 THE WITNESS: Couple of minutes. Thanks.

12 (Whereupon, a recess was then taken.)

13 MS. SPALETTA: Back on the record.

14 Q All right. Going back to our discussion about
15 the supply side of the water availability analysis. You
16 indicated that you used two things so far: One is the
17 full natural flow data from DWR; and the second was the
18 adjustments which came from the 2007 DWR report.

19 Were there any other components of supply that
20 were included in the analysis?

21 A Yes. We made an adjustment for Delta
22 diverters.

23 Q Can you please explain that.

24 A An adjustment of 40 percent was made for
25 Delta diverters.

1 Q And was that an adjustment to add back in
2 40 percent of the Delta diversions as return flow,
3 essentially, adding them back into the supply side?

4 A Yeah. As adding 40 percent into the supply
5 side, yes.

6 Q And why was that done?

7 A That was done based on stakeholders' comments
8 that we received.

9 Q From who?

10 A I don't recall.

11 Q Is there any written record of that?

12 A There may be, yes.

13 Q Where would I find that?

14 A In our files.

15 Q Could you be any more specific?

16 MR. CARRIGAN: It seemed like a very broad
17 question, so I'll object as very broad. "Stakeholders"
18 seems like it is very broad.

19 MS. SPALETTA: I agree.

20 Q I'm asking if you could be any more specific
21 about narrowing down the source of that information.

22 A It may be in our drought work file that you
23 have been provided.

24 Q Where did the 40 percent figure come from? Did
25 that come from a specific stakeholder or did you or your

1 staff obtain the actual 40 percent value from another
2 source?

3 MR. CARRIGAN: Calls for speculation.

4 THE WITNESS: I believe it came from South Delta
5 and Central Delta Water Agency's counsels in
6 stakeholders meetings.

7 Q BY MS. SPALETTA: Do you know for certain where
8 it came from?

9 A No.

10 Q Did you make the decision to include the
11 40 percent or was that a decision made by someone else?

12 A I directed staff to incorporate that into the
13 analysis.

14 Q Did you direct them as to the value or just the
15 concept -- the specific 40 percent number or just the
16 concept that they needed to include something?

17 A I believe the 40 percent because the staff --
18 had those -- were attending the same meetings I was.

19 Q Were there any other return flows that were
20 included in the supply analysis?

21 A Other than the 2007 report and the Delta, no,
22 not to my knowledge.

23 Q Let's talk about the 2007 report. What type of
24 water was added based on the 2007 report?

25 A My staff did that. I didn't review that

1 report for the types of additions to the flow.

2 Q Do you understand that it included some
3 component of return flow?

4 A I believe it included percentages of return
5 flow in the San Joaquin River.

6 Q Was there any other return flow added to the
7 supply side?

8 A Not to my knowledge.

9 Q What about for the Sacramento basin? Was there
10 any return flow included for the Sacramento basin?

11 MR. CARRIGAN: Vague.

12 THE WITNESS: I'm not familiar enough with the
13 report on that.

14 Q BY MS. SPALETTA: You are not familiar enough
15 with the 2007 DWR report?

16 A Yeah, I don't recall how much was in that
17 report for the Sacramento side.

18 Q Was it your understanding that there was some
19 component of Sacramento River return flow that was
20 included in the supply side analysis?

21 A I didn't have an understanding how much it
22 would be. I asked staff to incorporate the
23 information that the Department of Water Resources
24 found for the 1977 year of drought.

25 Q Would it surprise you if they incorporated zero

1 return flow for the Sacramento Valley?

2 MR. CARRIGAN: Argumentative.

3 THE WITNESS: No, not really. Because some of
4 the return flow in the Sacramento River is from Central
5 Valley Project operations and also State Water Project
6 operations that may lay claim to some of that return
7 flow.

8 Q BY MS. SPALETTA: Let's talk about that return
9 flow from project operations. So we are clear, we are
10 talking about when the State or Federal Project delivers
11 stored water to a water user in the Sacramento Valley,
12 and they apply it to their land, and then there is some
13 tailwater that leaves their land and makes it way back
14 into the river.

15 That is what we are talking about, right?

16 A Yes, under contract use.

17 Q So the origin of the water was stored water?

18 A Contract supply.

19 Q Is it your understanding that appropriators in
20 the Delta are not entitled to appropriate the return
21 flows from the delivery of stored water?

22 MR. CARRIGAN: Calls for a legal conclusion.

23 MS. MORRIS: Join.

24 THE WITNESS: No.

25 Q BY MS. SPALETTA: So what is your understanding

1 on that topic?

2 MR. CARRIGAN: Same objection.

3 THE WITNESS: My understanding would be that
4 some water users in the Sacramento watershed may not
5 have rights to use that water if the Bureau is still
6 claiming -- the Colusa Basin Drain would be a good
7 example of that.

8 Q BY MS. SPALETTA: Why is that a good example?

9 A Because the water diverted in that watershed
10 is mostly generated under contract. Return flows
11 from that contract go into the Colusa Basin Drain.
12 And then I believe there's a Board's decision that
13 identified that some of that water is still under
14 control of the Bureau.

15 Q Are you sure about that?

16 MR. CARRIGAN: I believe his testimony was that
17 he believed that was the case.

18 THE WITNESS: Right, yes.

19 Q BY MS. SPALETTA: Do you know which Board
20 decision that is?

21 A No.

22 Q Is that an issue that you confirmed or had a
23 staff member confirm in the course of preparing the
24 supply side of the analysis?

25 MR. CARRIGAN: Vague.

1 THE WITNESS: Not to my knowledge.

2 Q BY MS. SPALETTA: Why not?

3 MR. CARRIGAN: I'll object again on vague. It
4 is Vague and ambiguous. Compound.

5 Q BY MS. SPALETTA: It is the afternoon, so I
6 don't always ask the best questions. It is okay to say
7 that you don't understand and I will try to make the
8 question better.

9 I'm just visualizing in my mind water flowing
10 back into the Sacramento River after it has been applied
11 to lands that receive this contract water. And visually
12 in my mind, it looks like that water becomes part of the
13 supply that is available in the river.

14 I'm trying to understand how you treated that
15 supply for the purposes of the water availability
16 analysis.

17 MS. MORRIS: Objection. Calls for legal
18 conclusion.

19 MR. CARRIGAN: Incomplete hypothetical. Join
20 counsel on that legal analysis opinion.

21 Q BY MS. SPALETTA: Can you explain to me how you
22 treated that water that was return flow from stored
23 water that was applied in the Sacramento valley?

24 MR. CARRIGAN: Asked and answered.

25 THE WITNESS: We used full natural flow water,

1 and then the adjustments that we have discussed for the
2 Delta, and then also for the 2007 report as our water
3 supply.

4 Q BY MS. SPALETTA: So to the extent that the
5 return flows from stored water were not included in the
6 2007 report, then they were not included in the supply
7 side of your analysis?

8 MR. CARRIGAN: Misstates testimony.

9 Q BY MS. SPALETTA: Is that correct?

10 MR. CARRIGAN: Asked and answered.

11 THE WITNESS: The supply, again, was the 2007
12 report adjustments and the adjustments for the Delta
13 onto the full natural flows from the Department of Water
14 Resources.

15 Q BY MS. SPALETTA: So since you are not answering
16 yes or no to my yes or no question, I take it I'm going
17 to have to pull out the 2007 report, and we'll have to
18 go through it to see if these return flows from stored
19 water are in it. Is that where we are going?

20 A Again, I can't recall the 2007 report numbers
21 for each watershed.

22 Q Okay. By including whatever it was that was in
23 the 2007 report, was it your intention that any return
24 flows from stored water would become part of the supply
25 analysis?

1 MR. CARRIGAN: Overbroad.

2 THE WITNESS: My intent was to make additional
3 flows if the report supported it for the 1977 -- 1976/77
4 drought in the DWR report. If it did not support that,
5 then it would add zero.

6 MR. SPALETTA: Off the record.

7 (Whereupon, discussion held off the record.)

8 Q BY MS. SPALETTA: We are back on the record
9 after a short break. I'd like to talk to you about
10 whether or not the supply analysis included any
11 discharges from wastewater treatment. Did the supply
12 analysis include discharges from wastewater treatment?

13 A No.

14 Q Why not?

15 A It did not.

16 Q Was there a reason why it did not?

17 A It did not, no. It did not include those
18 flows.

19 Q Did you ever think about whether or not they
20 should be included?

21 A No, because we were also looking at live
22 stream along the river.

23 Q What does that mean?

24 A Before making a decision on curtailment, we
25 also looked at the stream flow along the river, the

1 actual stream flows along the river, and looked at
2 the demands that would be downstream of those
3 points. And any supply that was there, especially
4 on the San Joaquin, was still insufficient in 2015
5 to make the demand.

6 Q Did you also look at the live stream flows on
7 the Sacramento?

8 A I believe so.

9 Q And what about in the Delta channels that are
10 essentially downstream of Vernalis and downstream of
11 where, I guess, we would say Freeport. Did you look at
12 any live stream flow measurements in the Delta channels,
13 in the center of the Delta?

14 MR. CARRIGAN: Compound. Vague.

15 THE WITNESS: We looked at Vernalis flows which
16 are right upstream. And then -- I'm trying to think of
17 the name of the station downstream -- Mossdale Bridge.
18 I think it is the Mossdale Bridge gauge that is
19 downstream. It starts with an "M."

20 Q BY MS. SPALETTA: Any others?

21 A Not downstream of that point, no.

22 Q What about on the Sacramento side?

23 A Sacramento side, we looked at Freeport as the
24 lowest point.

25 Q For example, the City of Stockton wastewater

1 treatment plant discharges into the Delta channels near
2 the City of Stockton. Would the stream flow
3 measurements that you looked at have captured the effect
4 of the discharges from the City of Stockton?

5 A No.

6 Q Same for the City of Lodi. Would you have been
7 able to capture those discharges?

8 A Not with those two gauges.

9 Q And what about for any other city who discharges
10 into the Delta channels in between Vernalis and
11 Freeport?

12 A No. But the Delta -- the Bureau's Delta
13 outflow calculations does include some of those
14 discharges on flow that is available, and we did
15 look at those.

16 Q What did you look at?

17 A The Delta outflow calculation that the Bureau
18 does.

19 Q How did you use the Bureau's outflow
20 calculation?

21 A Mostly to compare our demand to the net Delta
22 consumptive use.

23 Q When you say "our demand," do you mean the
24 demand that was computed by your staff?

25 A For the Delta, yes.

1 Q And how did they compare?

2 A I believe in 2014, we even compared our demand
3 for the Delta riparians to the 1977 demand that was come
4 up with for the Delta. And our demand was well within
5 reason. In some months, we were much lower than the net
6 Delta consumptive use number. Of course, that number
7 includes natural depletions.

8 Q So in your answer, you mentioned two different
9 things. You mentioned the 1977 data and you mentioned
10 the net Delta consumptive use computation that is part
11 of the Bureau's outflow calculations. I have a hard
12 enough time keeping any one of them straight.

13 So let's try to separate the two and talk about
14 just how you used the Bureau's outflow calculations
15 first. Can you describe that to me again?

16 A The Bureau's outflow calculations has sources
17 entering the Delta, which includes the treatment
18 plant discharged from the Sacramento side, I
19 believe. The Delta outflow also has total Delta
20 consumptive use.

21 So I was looking at that and comparing it to
22 our calculations of Delta demands, just to make sure
23 that we are within a reasonable close proximity to
24 those numbers.

25 Q Okay. So it sounds like you used the Bureau's

1 outflow calculations for two purposes. One of them was
2 to look at the supply side, which is the sources of
3 water entering the Delta. And the second purpose was to
4 look on the demand side at a comparison of what you had
5 computed for demand with what the net Delta consumptive
6 use number was. Is that accurate?

7 A We looked at it mostly for comparison of
8 demand. The fact that it had the treatment plant
9 contribution there, we were looking to see that
10 magnitude. Is it something to be concerned with?
11 And it was a significantly small number.

12 Q I want to go back to the supply side. So I take
13 it that the Bureau's outflow calculation includes in it
14 a measurement of the amount of water entering the Delta.
15 Is that accurate?

16 A It includes Sacramento and San Joaquin, yes.

17 Q And then you've testified it would also take
18 into account treatment plant discharges?

19 A It has a treatment plant listed there, yes.

20 Q And how did those supply numbers in the Bureau's
21 outflow calculation compare to the supply numbers that
22 you were coming up with?

23 A Again, it wasn't to compare supply. The only
24 purpose of that was to compare demand. But I was
25 showing that we were looking at that contribution

1 that was noted in there, as far as how large the
2 treatment plant contribution was. And it was
3 relatively small.

4 Q What do you mean by "relatively small"? Can you
5 give me --

6 A The significance of the size would not make
7 up the difference in demand, as far as an additional
8 supply.

9 Q Was it more than 200 CSF?

10 A It was, depending on the month. But it is
11 pretty average -- 180 -- less than 200, I would say.

12 Q But more than 100?

13 A Yes.

14 MR. CARRIGAN: Calls for speculation.

15 THE WITNESS: I'd have to look at it again.

16 Q BY MS. SPALETTA: As you sit here today, based
17 on your memory, your understanding is that treatment
18 plant supply component is somewhere between 100 and 200
19 CSF?

20 A For the ones that are on the Delta outflow
21 calculation, yes, as far as I recall. But the point
22 is -- I'm just saying that we were looking at that
23 as part of the supply, you know, but not in the
24 overall analysis. It is like looking at the live
25 stream comparison to our analysis to do a check.

1 Q Do you know what the size is of BBID's water
2 right that was curtailed?

3 A I'd have to look at the documents.

4 Q Do you know if it is something less than 100
5 CSF?

6 A I'd have to look at the documents.

7 Q If the Bureau's outflow calculation included a
8 number representing inflow into the Delta, why didn't
9 you use that for the supply side of your water
10 availability analysis?

11 MR. CARRIGAN: Incomplete hypothetical. Assumes
12 facts not in evidence.

13 THE WITNESS: The reason that we didn't use the
14 stream flow is because it includes releases from
15 storage.

16 Q BY MS. SPALETTA: Could you have just backed
17 those out?

18 MR. CARRIGAN: Same objections.

19 THE WITNESS: Backing the whole quantity out
20 would have lessened the available supply to the Delta.

21 Q BY MS. SPALETTA: Did you try that and come to
22 that conclusion?

23 A In some months, the supply versus the
24 Delta -- what do I call it -- the combined project
25 stored releases, we did compare those.

1 Q Did that result in some kind of written report?

2 A No.

3 Q Is that just something that you did or someone
4 else did?

5 A I was doing it. I believe I found some
6 information the other day that -- I found the other
7 day that our counsel has provided you with.

8 Q Yes. We do have some documents with your
9 handwritten notes, so we'll go over those soon.

10 So the projects this summer were releasing
11 stored water that flowed into the Delta in part to meet
12 water quality objectives, correct?

13 A Correct.

14 Q Were those flows considered in your water
15 availability analysis?

16 A No.

17 Q Why not?

18 A It is stored water.

19 Q At some point, is that stored water abandoned?

20 MS. MORRIS: Objection. Calls for a legal
21 opinion.

22 MR. CARRIGAN: Join.

23 Q BY MS. SPALETTA: I'm asking only for your
24 understanding.

25 A Some of the uses for the stored water

1 includes salinity control, so we did not consider
2 storage releases available under our analysis.

3 Q Is it your understanding that at some point
4 those storage releases for salinity control are
5 abandoned after they meet their regulatory purpose?

6 MS. MORRIS: Objection. Calls for a legal
7 conclusion.

8 MR. CARRIGAN: Calls for a legal conclusion.

9 THE WITNESS: I don't know if the flow is
10 abandoned.

11 Q BY MS. SPALETTA: The projects also released
12 stored water for fishery flow objectives. Is that your
13 understanding?

14 A Yes.

15 Q And was any of that water included in the water
16 availability analysis?

17 A No.

18 Q Why not?

19 A If it was stored water, it is not part of --
20 if it is stored releases, it is not part of the full
21 natural flow that we utilized.

22 Q For pre-1914 appropriative diverters, is it your
23 understanding that they can divert more than just
24 natural flow?

25 MR. CARRIGAN: Calls for a legal conclusion.

1 THE WITNESS: Yes.

2 Q BY MS. SPALETTA: And one of the types of water
3 that they can divert is abandoned water released from
4 storage?

5 MR. CARRIGAN: Same objection.

6 Q BY MS. SPALETTA: Correct?

7 A Yes. Abandoned releases from storage would
8 become available for appropriation.

9 Q Was there any effort to determine how much water
10 released from storage was abandoned and available during
11 2015?

12 MR. CARRIGAN: Assumes facts not in evidence.
13 Incomplete hypothetical.

14 THE WITNESS: Would you repeat the question?
15 (Whereupon, the record was read.)

16 THE WITNESS: No.

17 Q BY MS. SPALETTA: Why not?

18 MR. CARRIGAN: Same objection.

19 THE WITNESS: To determine abandonment, it would
20 be very difficult.

21 Q BY MS. SPALETTA: How much water are we talking
22 about?

23 MR. CARRIGAN: Vague.

24 Q BY MS. SPALETTA: Do you have an understanding,
25 you know, during the summer of 2015 how much stored

1 water was being released into the Delta for water
2 quality or fishery objectives?

3 MR. CARRIGAN: Compound. Vague.

4 MS. MORRIS: Calls for speculation.

5 THE WITNESS: I wouldn't know. It varies month
6 to month, but it was quite large. It was a large
7 percentage of the Sacramento River component flows.

8 Q BY MS. SPALETTA: So was anyone able to divert
9 that water in 2015?

10 MR. CARRIGAN: Vague. Calls for speculation.

11 THE WITNESS: The Delta, North Delta Water
12 Agency has a contract with the State Water Project.
13 They are allowed to divert under contract water. And
14 then all the contractors -- and then the Bureau could
15 export its storage releases under the provisions of the
16 temporary urgency change orders that the Board had
17 issued.

18 Q BY MS. SPALETTA: Would that account for all of
19 the releases from storage during 2015 or was there
20 additional water released from storage that would not
21 have been used in those two areas?

22 MR. CARRIGAN: Speculation. Vague. Calls for
23 speculation.

24 THE WITNESS: My opinion, it would also be used
25 for Delta outflow criteria to meet water quality

1 standards.

2 Q BY MS. SPALETTA: Can you think of any
3 circumstance in which the water released by the projects
4 to meet water quality or fishery flow objectives would
5 be abandoned and available for diversion by
6 appropriators in the Delta?

7 MR. CARRIGAN: Calls for speculation. Calls for
8 legal conclusion. Overbroad.

9 MS. MORRIS: Join.

10 THE WITNESS: I guess -- available to whom?

11 MS. SPALETTA: A pre-1914 appropriator, such as
12 BBID.

13 MR. CARRIGAN: Let's add in incomplete
14 hypothetical and reassert the previous objections.

15 THE WITNESS: Sorry. Could you repeat the
16 question?

17 (Whereupon, the record was read.)

18 THE WITNESS: If the Delta was in excess
19 conditions, then I believe that would become a point in
20 which water may be in excess of the need to the Bureau.

21 Q BY MS. SPALETTA: Why does that matter?

22 A Because their conditions are being satisfied.

23 Q Whose conditions?

24 A The conditions for salinity and fishery
25 protections for the Bureau's operation.

1 Q Okay. I want to talk about timing. Did the
2 supply analysis that you and your staff performed this
3 year take into account travel time, for instance, for
4 full natural flow down the river?

5 MR. CARRIGAN: 2015?

6 Q BY MS. SPALETTA: 2015.

7 A No.

8 Q Why not?

9 A We did not do that.

10 Q What was the reason for not doing that?

11 A Didn't consider it.

12 Q Do you know what the travel time is for water on
13 the Sacramento River between Redding and Clifton Court?

14 A Yes.

15 Q What is it?

16 A I believe it is five days.

17 Q Does it depend on flow or is it always five
18 days?

19 A I would think it depends on flows, but the
20 basis for my understanding is in the Term 91
21 calculation.

22 Q And then once that water reaches the channels of
23 the Delta that are influenced by tide that we have
24 talked about previously, how long does it stay there?

25 MR. CARRIGAN: Calls for speculation.

1 THE WITNESS: I don't know.

2 Q BY MS. SPALETTA: Have you ever heard the term
3 "residence time" for water in the Delta?

4 A No.

5 Q You don't know what that means?

6 A No.

7 Q Are you familiar with the term "regulatory
8 storage"?

9 A Yes.

10 Q What does that mean?

11 A "Regulatory storage" is recognized in the
12 code of regulations for licensing purposes. And it
13 allows, for licensing purposes, a means by which the
14 Board can separate water that is collected to
15 storage and/or directly diverted.

16 Q So for purposes of what was happening in 2015
17 after post-1914 water rights were curtailed, did you
18 understand that there were some reservoir operators with
19 post-1914 water rights who were actually holding full
20 natural flow in regulatory storage for up to 30 days
21 before releasing it down the river?

22 MR. CARRIGAN: Vague. Compound.

23 THE WITNESS: Could you repeat the question?

24 MS. SPALETTA: I'll ask the court reporter to
25 read it back.

1 (Whereupon, the record was read.)

2 THE WITNESS: I don't recall that.

3 Q BY MS. SPALETTA: Is it possible that that
4 occurred?

5 MR. CARRIGAN: Calls for speculation.

6 THE WITNESS: It could have occurred but, again,
7 the 30-day rule applies to licensing as far as the
8 regulation is concerned that allows a distinction of
9 regulatory storage versus storage. You know, direct
10 diversion versus storage.

11 Q BY MS. SPALETTA: Setting aside the licensing
12 regulations and just thinking about reality and what
13 actually happened in 2015, were you aware that on some
14 of the tributaries there were entities who operated
15 storage facilities who were holding water behind those
16 storage facilities for up to 30 days, even after their
17 water right had been curtailed?

18 MR. CARRIGAN: Assumes facts not in evidence.
19 Calls for speculation.

20 THE WITNESS: I don't recall that specific
21 example that you are talking about.

22 Q BY MS. SPALETTA: Okay.

23 A I know people had stored water in their
24 reservoirs and were utilizing that as allowed under
25 the notices.

1 Q So you weren't aware of PG&E, for example,
2 holding natural flow in its reservoirs for up to 30 days
3 before releasing it?

4 MR. CARRIGAN: Asked and answered.
5 Argumentative.

6 THE WITNESS: I don't recall that, but there may
7 have been some information or record that I received
8 something about that. I don't know what year that was.

9 Q BY MS. SPALETTA: Did the supply analysis for
10 2015 take into account any holding of natural flows in
11 storage for up to 30 days upstream on the tributaries?

12 A The supply analysis did not.

13 Q You testified that you were aware that some
14 people were withholding water in storage pursuant to
15 notices. Did I hear that correctly?

16 A I'm aware that reservoir operators could hold
17 water that they had previously collected to storage
18 and continue to withdraw that for beneficial use
19 after notice was issued.

20 Q So you are just talking about water that had
21 been collected to storage prior to curtailment?

22 A Correct.

23 Q So when you say "notice," you are talking about
24 the curtailment notice?

25 A Yes.

1 Q At some point in 2015, did you make the decision
2 to separate the upper San Joaquin from the rest of the
3 San Joaquin basin for purposes of the supply and demand
4 analysis?

5 A Yes.

6 Q And what was the basis for that decision?

7 A The basis of that decision was to address
8 stakeholders' concerns on the San Joaquin side about
9 their claimed rights to use -- to get some
10 Sacramento water.

11 Q I don't understand that answer. Sorry.

12 A The Delta stakeholders expressed concerns --
13 on the San Joaquin side -- that we, in 2014, were
14 only looking at supply from the San Joaquin side for
15 their uses.

16 So in 2015, we did a proration of flows for
17 the Delta. And in that, we also wanted to identify
18 a point in which Sacramento water, to our best
19 understanding, would not get farther up. And that
20 is the point in which that cutoff was made for the
21 upstream curtailment of just the San Joaquin side.

22 Q So after that, wasn't there another decision to
23 further separate the supply and demand analysis on the
24 San Joaquin, so that the portion of the San Joaquin
25 upstream of the confluence with the Merced was separated

1 off into its own analysis?

2 A We had done tributary analysis in 2014 as
3 well.

4 Q Did you do that in 2015, too?

5 A Yes.

6 Q Wasn't one of the reasons for that the fact that
7 the demand associated with the portion of the San
8 Joaquin River watershed, upstream of the confluence with
9 the Merced, was so much larger than the available
10 supply, that there was no way that the supply was
11 actually going to get past the confluence?

12 A That is what we did the analysis to check.

13 Q Did you do that same analysis for every other
14 tributary of the San Joaquin?

15 A We did not do all tributaries of the San
16 Joaquin. We did some major tributaries.

17 Q Did you do the Stanislaus?

18 A I believe so.

19 Q And the Tuolumne?

20 A Yes.

21 Q Okay.

22 A And the Merced.

23 Q And the Merced. And then on the Sacramento
24 side, which tributaries did you do?

25 A I believe we did the Yuba, American, Feather.

1 Q So on the San Joaquin side, the post-14
2 curtailment for 2015 was issued on April 23rd; is that
3 correct?

4 A The April 23rd notice was issued for post-14s
5 on the San Joaquin upstream of Mossdale Bridge, but
6 it did not include the Delta.

7 Q And when you made that curtailment decision,
8 were you relying on the San Joaquin basin analysis as a
9 whole or were you relying on the individual tributary
10 analysis?

11 MR. CARRIGAN: Assumes facts not in evidence.
12 Misstates testimony.

13 THE WITNESS: The decision for that was based on
14 the San Joaquin as a whole upstream of that Mossdale
15 Bridge point.

16 Q BY MS. SPALETTA: Let's see if I can locate --

17 A I believe it is -- April 23rd is the notice.

18 MR. O'LAUGHLIN: Exhibit 43, Jennifer, isn't it?
19 I think it is Exhibit 43.

20 MR. CARRIGAN: She is going to direct you
21 potentially to some of the exhibits in the binder.
22 We'll wait for her to do that.

23 Q BY MS. SPALETTA: Let's look at Exhibit 43. Do
24 you see Exhibit 43?

25 A Yes.

1 Q And it is on the bottom right-hand corner dated
2 April 21st, 2015?

3 A Yes.

4 Q And this was the graph that your staff prepared
5 under your direction, correct?

6 A Yes.

7 Q And was this the graph that you presented to Tom
8 Howard?

9 MR. CARRIGAN: Assumes facts not in evidence.

10 THE WITNESS: I don't recall if I presented the
11 graph to Mr. Howard.

12 Q BY MS. SPALETTA: Did Mr. Howard ultimately
13 issue the curtailment letter on April 23rd?

14 A Yes. Mr. Howard is the one who issues the
15 curtailment notices.

16 Q What information did you provide Mr. Howard
17 prior to his issuance of the notice?

18 MR. CARRIGAN: Assumes facts not in evidence.

19 Q BY MS. SPALETTA: If any.

20 A I would usually provide him a copy of graphs
21 like this. I just can't speak if I gave him this
22 one on this occasion.

23 Q But it was your standard practice to provide a
24 similar graph to Mr. Howard prior to his making the
25 curtailment notice decision?

1 A With my recommendation, yes.

2 Q So did you recommend to him to issue the
3 post-1914 curtailments on April 23rd?

4 A Yes.

5 Q And was that recommendation based on the
6 information depicted on the graph that we have marked as
7 Exhibit 43?

8 MR. CARRIGAN: Asked and answered. The witness
9 testified he can't recall if this was the graph.

10 Q BY MS. SPALETTA: My question is a little
11 different. My question is whether his recommendation
12 was based on the information depicted on what we have
13 marked as Exhibit 43.

14 A Again, with my staff's recommendation, yes.

15 Q And so on this particular graph, which is
16 Exhibit 43, we see demand broken up into three different
17 colors: riparian demand in yellow; pre-1914 demand in
18 the light orange; and post-1914 demand in the dark
19 orange. Is that what you see?

20 A Yes.

21 Q The tributary analysis that you just described
22 to me for the Stanislaus, Tuolumne and Merced, were they
23 done before or after the April 23rd curtailment?

24 A I don't recall.

25 Q Did you make any effort to ensure that any

1 demands on the Stanislaus tributary, for example, which
2 exceeded the available supply on the Stanislaus were
3 removed as part of the supply and demand analysis?

4 MR. CARRIGAN: Overbroad. Incomplete
5 hypothetical.

6 THE WITNESS: That would be my staff's work on
7 that.

8 Q BY MS. SPALETTA: Do you recall any discussions
9 regarding whether that should be done?

10 MR. CARRIGAN: Vague.

11 THE WITNESS: I don't recall.

12 Q BY MS. SPALETTA: Do you recall any discussions
13 about the possibility of creating a Delta-only supply
14 and demand analysis to account for that possibility?

15 MR. CARRIGAN: Vague.

16 THE WITNESS: I believe we did do a Delta demand
17 analysis compared to available flow -- actual flow and
18 available flow.

19 Q BY MS. SPALETTA: In 2015?

20 A Yes.

21 Q And was that something that was saved on your
22 system?

23 A I don't know. It would be done by Jeff
24 Yeazell.

25 Q Do you recall about when it was done?

1 A I can't recall the date.

2 Q Do you recall reviewing it?

3 MR. CARRIGAN: Assumes facts not in evidence.
4 Misstates testimony.

5 THE WITNESS: No.

6 Q BY MS. SPALETTA: I think your testimony -- and
7 I must have heard it wrong -- was that you discussed it.
8 But as you sit here, do you know whether or not Jeff
9 Yeazell actually performed that analysis for the Delta?

10 A He prepared an analysis, I think, to check
11 something. And I think it was after the curtailment,
12 but I think it would be in the information we provided.

13 Q I want to switch over and talk supply side for a
14 few minutes -- I'm sorry -- demand side.

15 A Are we done with the exhibit?

16 Q For now. We are going to talk demand side.
17 What was the methodology for demand in the water
18 availability analysis for 2015?

19 A We utilized the Department of Water Resources
20 unimpaired flow calculations that they provide via
21 CIWQS.

22 Q I'm talking about demand.

23 A Oh, I'm sorry. I apologize.

24 Q That is okay. It is getting late.

25 A Could you repeat the question?

1 MS. SPALETTA: Would you read back my question?

2 (Whereupon, the record was read.)

3 THE WITNESS: We utilized the reported demands
4 submitted by water right holders under their Statements
5 of Water Diversion and Use and also under their
6 permittee and licensee reports.

7 Q BY MS. SPALETTA: Were there any adjustments
8 made to what was reported?

9 A Yes. There were several checks and balances
10 and adjustments for non-consumptive use -- power was
11 not included. The staff was instructed not to
12 include any direct diversions for power, to allow
13 those to remain there but their demand would be
14 zero.

15 Q Did you provide that instruction?

16 A Yes.

17 Q Did you also decide that the demand information
18 would come from the statements and reports of permittees
19 and licensees?

20 A Yes.

21 Q Was that the same method that was used in 76/77?

22 A No.

23 Q How did the method differ?

24 A They didn't have that information in 76 and
25 77.

1 Q What did they use in 76/77?

2 A They used, to the best of my knowledge, a
3 curve of demand based on July or June being the
4 highest month. And then they proportioned that to
5 make a bell curve, and utilized a duty figure in
6 acreage for irrigation.

7 Q Why didn't you use the same method they used in
8 76 and 77?

9 A We had reports of actual water use for
10 stakeholders -- some under penalty of perjury.

11 Q The reports that are submitted by statement
12 holders, they also identify the place of use by a
13 specific parcel number, if I recall correctly; is that
14 correct?

15 A Reports that they filed?

16 Q The original statements.

17 A There is a field that they could put in a
18 parcel number, yes, but that is usually for the
19 point of diversion.

20 Q Didn't they also have to identify the location
21 of the place of use and include a map?

22 A That is correct, for new statements. I can't
23 speak to the older statements. I think they could
24 do a sketch.

25 Q Was there any effort made by you or your staff

1 to verify that information provided by statement holders
2 was not duplicative for the same properties?

3 MR. CARRIGAN: Overbroad. Vague.

4 THE WITNESS: We did -- I did ask staff to look
5 at co-owned reports of individuals who owned several
6 water rights to see if there was a repetitive report of
7 the same numbers, and then to identify that under the
8 junior-most right, and make the other ones zero demand.
9 And there was also an adjustment for a reasonableness on
10 acreage with a duty number for irrigation.

11 Q BY MS. SPALETTA: Was that eight acre-feet per
12 acre?

13 A I don't recall the exact number. I asked
14 staff to put in a check for an amount of water.
15 Eight acre-feet might have been used because of
16 rice, so it could have been that.

17 Q So who made the selection on what number would
18 be used?

19 A I don't know.

20 Q You don't remember if it was you or someone
21 else?

22 A No.

23 Q Is that something that you checked in the work
24 that was done by your staff?

25 A No. I did not -- I did not go over that

1 worksheet myself.

2 Q When you say "that worksheet," do you mean the
3 spreadsheet?

4 A Yeah. The spreadsheet with all the demand
5 data and adjustments.

6 Q Have you ever looked at one of those
7 spreadsheets?

8 A I've looked at it.

9 Q Have you ever made any changes to one of them?

10 A No.

11 Q Do you know how to navigate through it?

12 A Absolutely not. That is why I have staff.

13 Q I'm going to represent to you that one of your
14 staff previously testified that the number that they did
15 use for cap on diversions was eight acre-feet per acre.

16 A Okay.

17 Q And they used it for statement reporters for the
18 entire San Joaquin and Sacramento and Delta.

19 A (Witness nods.)

20 Q Does that make sense to you, to use the eight
21 acre-feet per acre for the Delta?

22 A I would see how many statement holders it
23 eliminated or reduced before I would see if that
24 made sense.

25 Q Have you ever discussed with your staff what

1 that number was?

2 A Not that I can recollect.

3 Q But you previously testified that you think the
4 eight acre-feet per acre came from rice?

5 A Just if eight acre-feet was the number, then
6 that would be a reasonable high number for rice
7 application.

8 Q What about for the crops that are grown in the
9 Delta? Does that seem reasonable to you?

10 MR. CARRIGAN: Calls for speculation.

11 THE WITNESS: It may be reasonable if you
12 include the fact that the Delta diversions are diverting
13 much more water for other -- salinity, you know.

14 Q BY MS. SPALETTA: Let's look back at the chart
15 that we were looking at before, Exhibit 43.

16 A Exhibit 43?

17 Q Yes.

18 A Okay.

19 Q We previously discussed the fact that the
20 post-1914 curtailment occurred on April 23rd. If I'm
21 reading this chart correctly, the blue line for daily
22 full natural flow was below the pre-1914 demand on
23 March 1st.

24 MR. CARRIGAN: The document speaks for itself.

25 Q BY MS. SPALETTA: Is that right?

1 A That is what it shows.

2 Q So why weren't the post-1914 rights curtailed as
3 of March 1st?

4 MR. CARRIGAN: Calls for speculation and
5 incomplete hypothetical.

6 THE WITNESS: We did not curtail them at that
7 time.

8 Q BY MS. SPALETTA: I think you previously
9 testified that the curtailments that occurred on
10 April 23rd were based on your recommendation to Mr.
11 Howard.

12 A Uh-huh.

13 Q What was your reason for not making that
14 recommendation earlier?

15 MR. CARRIGAN: Assumes facts not in evidence.

16 Q BY MS. SPALETTA: Well, I'll ask the question.
17 Did you make the recommendation to curtail earlier?

18 A Curtail which level of rights?

19 Q Post-1914.

20 A I made the recommendation to curtail on the
21 April 23rd day.

22 Q Did you make a recommendation to curtail any
23 earlier?

24 MR. CARRIGAN: Vague.

25 THE WITNESS: I cannot recall. But there may

1 have been several other times, especially in 2014, in
2 which we were going to initiate curtailment but then it
3 rained, so that held off the curtailment.

4 So I would think if you had the record, you
5 would see some on/off, on/off because of storms that
6 came in after our analysis was done. So we wanted to
7 make sure we did not do it early.

8 Q BY MS. SPALETTA: So during this time period
9 between March 1st and April 23rd, is it your
10 understanding that those with post-1914 water rights
11 were continuing to divert?

12 A Yes.

13 Q And so on the San Joaquin River system, for
14 example, the Bureau of Reclamation has diversion
15 facilities on San Joaquin River that was continuing to
16 divert to storage during that time period, correct?

17 MR. CARRIGAN: Calls for speculation.

18 THE WITNESS: Are you referring to Friant?

19 Q BY MS. SPALETTA: Correct.

20 A Yes. They were -- they had rights to
21 continue to divert.

22 Q And the water that they were diverting to
23 storage was not making its way to the Delta during that
24 time period, March 1st through April 23rd?

25 MR. CARRIGAN: Assumes facts not in evidence.

1 Incomplete hypothetical.

2 THE WITNESS: If they were diverting, they were
3 taking water at that time without having a curtailment
4 issue to stop them.

5 Q BY MS. SPALETTA: Based on your analysis of
6 supply, was there actually water available for the
7 Bureau to divert under its post-1914 water right between
8 March 1st and April 23rd?

9 MR. CARRIGAN: The document speaks for itself.

10 THE WITNESS: I recall, yes. Full natural flow
11 was greater than actual stream flow at Friant Dam.

12 Q BY MS. SPALETTA: Explain that to me.

13 A Full natural flow is a stream flow adjusted
14 by diversion. So at the San Joaquin gauge, which I
15 believe is at Friant -- my staff did these
16 calculations again -- but I believe you'll see on
17 the handout that I think you were provided with just
18 recently that the full natural flow was much greater
19 because of the upstream parties diverting water than
20 the natural flow.

21 So we had -- we were seeing, under full
22 natural flow, more water than was actually coming
23 below the river.

24 Q You'll have to break that one down for me.
25 Would it help to look at your notes?

1 MR. CARRIGAN: Wait. There is no question.

2 Q BY MS. SPALETTA: Would it help to look at the
3 handwritten numbers that you produced? Do you think
4 that would be helpful?

5 MR. CARRIGAN: It is up to you.

6 MS. SPALETTA: Let's go ahead and do that.

7 MR. KELLY: Good time for a break?

8 MS. SPALETTA: Yeah, we can take a five-minute
9 break.

10 (Whereupon, Exhibits No. 68-69
11 marked for identification.)

12 (Whereupon, a recess was then taken.)

13 MS. SPALETTA: We are ready to go back on the
14 record. We took a short break.

15 During the break, we marked two documents as
16 Exhibits 68 and 69. These are documents that were
17 emailed to us, I believe, yesterday by Mr. Tauriainen.

18 Is that correct?

19 ANDREW TAURIAINEN: Yes. You say it very well.
20 Thank you.

21 Q BY MS. SPALETTA: I have been practicing.

22 Exhibit 68 is a three-page document with
23 handwritten notations. It has a date in the footer of
24 the first page of May 1st of 2015.

25 Exhibit 69 is a one-page document, a map, with

1 handwritten notations with a date in the bottom of the
2 footer of June 23rd, 2015.

3 Q Mr. O'Hagan, do you recognize Exhibit 68?

4 A Yes.

5 Q What is it?

6 A It is a printout of the DWR gauging locations
7 for stream flows.

8 Q And it has various notations on it. Whose
9 handwriting is that, do you know?

10 A Well, the gauge numbers are by the Department
11 of Water Resources but the pencilled-in numbers are
12 by me.

13 Q And when did you prepare this document?

14 A I'm looking at the last date of entry because
15 I was entering dates and flows in there. And I'm
16 trying to find it. Just a minute.

17 I would assume -- I don't know the date that
18 I prepared it.

19 Q Is it something that you prepared at one time or
20 is it a document that you added to over a period of
21 time?

22 A I believe I was looking at flows at different
23 times because I don't know why I would have two.

24 Q When you say "why I would have two," are you
25 referring to --

1 A Two exhibits of the same thing.

2 Q Are you referring to both Exhibits 68 and 69?

3 A Yes. Sorry.

4 Q Why did you prepare this document? I am talking
5 about Exhibit 68.

6 A These were my checks of existing actual flows
7 at certain locations in the San Joaquin.

8 Q Why did you want to check actual flows at
9 certain locations in the San Joaquin?

10 A To see how our analysis compared to actual
11 stream flows to address any abnormal increases in
12 flows due to possible return flows or accretions.

13 Q And what did you learn based on that comparison?

14 A Based on these comparisons, I believe that I
15 had some calculations that we were talking about at
16 Friant on Exhibit 68, that we were talking about
17 actual inflow into Friant versus full natural flow
18 into Friant.

19 And at the lower right-hand corner of Exhibit
20 68, it shows what I showed as actual inflow into
21 Friant at 75 CFS, full natural flow at 1,760 CSF.

22 Q And what did that tell you?

23 A That our full natural flow at the time was
24 greater than the stream flow.

25 Q What was causing that?

1 A Diversions upstream.

2 Q By who?

3 A I don't know. Whoever is diverting water
4 upstream.

5 Q And what is the date of the measurements that
6 you've denoted at the bottom right-hand corner of
7 Exhibit 68?

8 A The exhibit has several different numbers.
9 And the dates, they are in succession. I believe
10 the first numbers would be 430, but I don't know the
11 date of this Friant. I'd have to compare it to the
12 Friant flows that are on the map.

13 But if you look at the exhibit on page 2 at
14 Vernalis, you'll see the dates that I was looking
15 at: 4/30, 5/28, 6/2 and 6/10. So I think the dates
16 for the first page would be consistent with that as
17 they are listed in succession.

18 Q So all of those dates were after the post-1914
19 curtailment, correct?

20 A For the upper San Joaquin. Are you referring
21 to that curtailment?

22 Q Right.

23 A Correct.

24 Q The third page of Exhibit 68, what does it
25 depict?

1 A That is my little schematic trying to look at
2 potential accretions and/or return flows from
3 sources and to identify portions of flows. I do
4 this often to pictorialize what I'm trying to -- the
5 concept. I'm trying to see where flow is accreting
6 and everything.

7 But on this map, you can see that the flow at
8 Vernalis is only at 282 CFS. So I was trying to see
9 where is that water coming from. And the obvious
10 site, it is mostly from the Stanislaus at that time.

11 Q What did you do with the information that you
12 gathered on Exhibit 68?

13 A Again, this was my check for making sure that
14 our analysis was consistent based on the best
15 available information that we had.

16 Q And did you use this information to make a
17 recommendation regarding curtailment?

18 A I used this information in making a total
19 information on curtailments but not for the
20 post-1914 curtailments.

21 Q Which curtailment recommendation did you use
22 this information for?

23 A Based on the dates, I would think I was
24 looking at the potential curtailments for the
25 pre-1914 water rights.

1 Q On the San Joaquin system?

2 A Well, this would be for perhaps both.

3 Q I'm sorry?

4 A But this is the San Joaquin side, correct.

5 Q Did you do a similar analysis on the Sacramento
6 side?

7 A I did, but I don't know if I kept that one.
8 This one was hanging on a wall that I had, you know.
9 This was the only one that I had, so I gave it to
10 Andrew.

11 Q And what is Exhibit 69?

12 A It is the same thing. It is just a different
13 date of data. I believe the date on this one is
14 6/12 at certain gauging locations for the San
15 Joaquin watershed downstream of, I guess, Newman
16 gauge.

17 Q Where did you get the data?

18 A The Department of Water Resources realtime
19 stream gauge data. So this would be time-sensitive
20 on the date. It is not a mean average flow.

21 Q Now looking at Exhibit 69, what do each of the
22 three dots represent?

23 A The blue dots are, I believe, the stream
24 gauge locations.

25 Q And I notice that there aren't any handwritten

1 notations next to the blue dots in the Delta. Do you
2 see that?

3 A Yes.

4 Q Why not?

5 A Because we were looking at -- I mean, at
6 least I was looking at the supply coming into the
7 Delta, which would be the 183 CSF on 6/12. That is
8 the stream flow record for that data, that record,
9 at that time that I wrote it down.

10 Q Did you use this information to adjust the
11 supply and demand graphs that we have discussed,
12 including the one that we marked as Exhibit 43?

13 A No.

14 Q Why not?

15 A This was a check for me.

16 Q Did you share this information with anyone else?

17 A I believe I shared it with Ms. Zolezzi at a
18 meeting.

19 Q Anyone else?

20 A Maybe my staff, my just showing them, but I
21 can't recall.

22 Q Do you know who the Exchange Contractors are?

23 A Yes.

24 Q Who are they?

25 A They are the San Joaquin River Exchange

1 Contractors, central California. I know who they
2 are. I just can't name them right now, to be
3 honest.

4 Q Where are they located?

5 A They are located on the San Joaquin River
6 downstream of Friant.

7 Q And were the demands of the Exchange Contractors
8 included in the demand side of the San Joaquin River
9 basin supply and demand analysis?

10 A Yes.

11 Q How was their demand characterized?

12 A As riparian.

13 Q Why?

14 A Because they claimed riparian and pre-14.

15 Q So if they claimed both, why was it classified
16 as riparian?

17 A Riparian is higher in priority in most cases
18 than pre-14.

19 Q What was the purpose, though, of classifying it
20 all as riparian?

21 A To identify a priority for those claims.

22 Q Did the Exchange Contractors take delivery of
23 water pursuant to their riparian right this summer,
24 2015, if you know?

25 A Did they take --

1 Q Did they receive water pursuant to their
2 riparian rights during the summer of 2015.

3 A I don't know. I'd have to look at their
4 individual reports.

5 Q Do the Exchange Contractors receive stored water
6 from the Bureau of Reclamation pursuant to contract?

7 A They are contracted to the Bureau, yes.

8 Q Did they actually receive stored water from the
9 Bureau of Reclamation during 2015?

10 A I believe so.

11 Q Was there any effort made to reduce the riparian
12 demand of the Exchange Contractors in your supply and
13 demand analysis to account for the delivery of stored
14 water to those contractors?

15 A No, because their demand is based on what
16 they reported under their Statement of Water
17 Diversion Use.

18 Q Just take an example. July 2015. If all of the
19 water that the Exchange Contractors received was stored
20 water pursuant to their contract with the Bureau, would
21 you agree with me that they didn't actually have any
22 riparian demand on the system during July of 2015?

23 MR. CARRIGAN: Incomplete hypothetical. Assumes
24 facts not in evidence. Calls for legal conclusion.

25 THE WITNESS: They reported what they diverted

1 in 2015 on a monthly basis, if they were subject to the
2 Informational Order. So we would have that information
3 that you would also have. So you would see if they
4 reported.

5 As you know, the 2015 monthly reporting required
6 them to separate what was diverted under their claimed
7 right versus contract. And we used that data and made
8 adjustments. So if the Exchange Contractors were
9 subject to that, then we used what they reported.

10 Q BY MS. SPALETTA: How would I find the report
11 that the Exchange Contractors filed that showed how much
12 water they took under contract?

13 A Look under their statement.

14 Q So if we would pull that up on the computer
15 under their statement, it would have what they reported
16 under the Information Order?

17 A On the worksheet that was done by Jeff, I
18 believe it has the adjustment, the 2015 data.

19 Q I'll just represent to you that what Jeff
20 described to us in his worksheet were columns for
21 pre-1914 and riparian, but he didn't have a column for
22 delivery of stored water.

23 A Oh, okay. I misunderstood.

24 Q So how would I find out how much stored water
25 the Exchange Contractors received under contract during

1 2015 that you say they reported?

2 A I'm saying if they claimed that, they would
3 have -- they should have reported it under the
4 Informational Order requirements.

5 Q And how would I find that information?

6 A Because our spreadsheet only worried about
7 their prior rights diversion. We did not include it
8 in that worksheet that I was just mentioning. That
9 would have to be under their individual ones or you
10 could get what they diverted from the Bureau.

11 Q Did you or your staff do anything to confirm
12 that what the Exchange Contractors were reporting on
13 their Information Order jived with what the Bureau was
14 delivering to them under contract?

15 A No.

16 Q Those were some pretty big numbers, right? We
17 are talking about more than half a million acre-feet of
18 water?

19 A I can't speak to their specific amounts.

20 Q Did you not look at what their total demand was
21 this summer?

22 A To a specific diverter, no.

23 Q Okay. I'm not sure I got an answer to this
24 question. If I wanted to look at the actual Information
25 Order monthly reports that the Exchange Contractors

1 submitted to the State Board, would I be able to pull
2 those up online under their statement number or is that
3 report not yet available?

4 A I'd have to get back to you because I do not
5 know what is in Jeff's spreadsheet, you know. As I
6 said, I don't get into that spreadsheet. My
7 understanding, it has some adjustments for 2015
8 diversions in there. So my assumption would be what
9 they reported under their existing right would be
10 there.

11 What they reported under the contract would
12 not. So I'd have to see if we have that reported
13 demand data available. I believe we have it posted
14 for you, but I don't know where it is at.

15 Q Well, what about not a summary of that
16 information, but the actual monthly information order
17 report that was submitted by the Exchange Contractors.
18 Is that available online?

19 A The Informational Order has components with
20 it, and I believe all of that is available online.
21 What I call their evidence supporting their claim of
22 right is available to you by statement number, and
23 that would be a download. It is so big that you'd
24 have to request a copy through a download. I
25 believe you've requested a copy of that.

1 Q I'm not talking about the information supporting
2 the right. I'm talking about the actual monthly report
3 of how much they took under their riparian right, their
4 pre-1914 right, and their contract right.

5 A Again, it is what they reported they did but
6 I believe that is available also. I just don't know
7 where.

8 MS. SPALETTA: Let's mark our next exhibit
9 which will be Exhibit 70.

10 (Whereupon, Exhibit No. 70 was
11 marked for identification.)

12 Q BY MS. SPALETTA: Before we get into Exhibit 70,
13 I just have one follow-up question to what we were
14 talking about before regarding the Exchange Contractors.

15 When you made that curtailment recommendation on
16 the San Joaquin River for April 23rd, did you have the
17 Information Order report from the Exchange Contractors
18 by that time to consider?

19 A I'm not sure.

20 Q Did you or your staff make any effort to contact
21 the Exchange Contractors to get some confirmation about
22 what the numbers would look like for 2015 prior to
23 making that curtailment recommendation?

24 A For 2015?

25 Q Yes.

1 A No.

2 Q Why not?

3 A We were utilizing the 2014 data and we needed
4 to look ahead, not behind. And the Informational
5 Order would only come in for past months, so we
6 needed to look ahead. So the only data that we had
7 that looked ahead was the reported data that we had
8 already.

9 Q And the only data that you had was the reported
10 data you had already?

11 A The 2014 reported data for permittees and
12 licensee reports, and the average for 2010 and 2013
13 for the statement holders. The monthly
14 informational data coming in, you know, is due six
15 days after the previous month.

16 But in order to make a decision on whether
17 there was adequate supply and would that supply
18 increase, we needed to base our decision on what we
19 see going forward on available supply, as well as
20 what we think the demand is going to be looking
21 forward.

22 Q You also had available to you the entire file
23 for the CDP water rights, correct?

24 A The Bureau's file?

25 Q Yes.

1 A The Bureau's file is a permit that had
2 already been curtailed.

3 Q But as a condition of issuing the Bureau's
4 permit --

5 A Excuse me. It had not been curtailed.

6 Q But as a condition to the State Board issuing
7 the Bureau's permits for the Central Valley Project,
8 they had to satisfy the water right of the Exchange
9 Contractors through the contract, correct?

10 A Yes.

11 Q And that was documented in the State Board's
12 files, right?

13 A Well, you'd have to ask the contractors if
14 they were satisfied.

15 Q Well, the fact that the Exchange Contractors
16 were going to be receiving stored water pursuant to
17 their contractual arrangement with the Bureau is
18 something that you and the rest of your staff were aware
19 of at the time you completed the water supply and demand
20 analysis, right?

21 A We were aware that contractors received
22 stored water supplies, yes.

23 Q Okay. We marked Exhibit 70. This is one of the
24 emails that was produced to us as part of the Public
25 Records Act request.

1 A Okay.

2 Q It is actually a string of emails all on the
3 same date, which is June 12th, 2015, regarding
4 discussions with David Guy and Mark VanCamp regarding
5 the Sacramento demand.

6 Take a minute and review these emails, and then
7 I'll ask you a couple of questions about them.

8 A (Witness reading.)

9 Q Are you still reviewing the emails?

10 A Yes. (Witness reading.)

11 Q Are you still reading, Mr. O'Hagan?

12 A Yes. (Witness reading.)

13 Q The email I provided you, which was Exhibit 70,
14 is a series of communications, it appears to me, that
15 address a 138,380 acre-foot reduction in diversion for
16 two districts in the Sacramento Valley.

17 Do you agree with that?

18 A The document says what it says.

19 Q Do you remember what was happening regarding
20 this reduction in demand?

21 A No. That is why I kept trying to read it. I
22 do not recall this.

23 Q The two districts that are identified are the
24 Joint Water Districts Board and Western Canal Water
25 District. Do you understand those two districts to

1 receive stored water pursuant to contract in the
2 Sacramento valley?

3 A Again, I'm not familiar with this enough to
4 pull it out right now.

5 Q Do you remember there being an issue about
6 properly accounting for the diversions for the
7 Sacramento Valley Exchange -- or settlement contractors?
8 Excuse me.

9 A I do not recall this email.

10 Q Do you remember any issue regarding it at all?

11 A I do recall some of the information with MBK
12 checking our data, finding some errors, and us
13 making adjustments to those errors. They were very
14 helpful in finding problems with the reported
15 divergent demands.

16 Q Did they check just the demand data or did they
17 look at the spreadsheet that included supply and demand?

18 A You would have to check with them, but I
19 believe they thoroughly went through the entire
20 data.

21 Q How did they get a copy of the spreadsheet and
22 the data?

23 A The same way everyone else did. It is
24 posted.

25 Q When was it posted?

1 A I don't recall.

2 Q How would I find that out?

3 A I don't know.

4 Q Did you direct that it be posted?

5 A Yes.

6 Q Do you remember if it was posted prior to the
7 April 23rd curtailment notice?

8 A I don't recall.

9 Q What would you need to refresh your
10 recollection?

11 A I'd have to ask Brian Coats because he posted
12 it.

13 Q You said MBK was helpful. How were they
14 helpful?

15 A In that just like all other stakeholders, we
16 had stakeholder meetings. They made suggestions to
17 our improving our transparency, improving our data.
18 And we took heed to all those recommendations as we
19 got them, as we thought they were appropriate.

20 Q Did you implement each of the recommendations
21 made by MBK or only some of them?

22 A Only some.

23 Q Which ones did you implement?

24 A Well, it appears that we made this
25 adjustment.

1 Q The demand adjustment?

2 A I believe so.

3 Q Any others that you can remember?

4 A We did do an analysis to see the Sacramento
5 River with just the portion of the North Delta
6 demand included in it on our analysis. And I
7 believe that is posted to see what would happen to
8 the date.

9 Q And that was at the request of MBK?

10 A That was suggested and we checked, so I
11 directed staff to do an analysis with Sacramento
12 River watershed with just the North Delta, similar
13 to what we had done in 2014.

14 Q And as a result of that analysis, what did you
15 learn?

16 A That the date of whether it was for the
17 post-14 curtailment, whether that date made a
18 difference. And I think we still selected the date
19 we did based on all of the information.

20 Q So did it make a difference?

21 A We issued the curtailment analysis --
22 curtailment notice for the Sacramento and the entire
23 San Joaquin valley for post-14 water rights on
24 May 1st.

25 Q And which analysis was used to support that

1 curtailment of May 1st?

2 A I believe both analyses support that.

3 Q When you say "both," which are you referring to?

4 A With the North Delta, only because that is
5 also posted, and then also the prorated Delta.

6 Q Are you referring to the Sacramento basin
7 prorated Delta?

8 A Yes, because MBK is concerned with the
9 Sacramento River watershed.

10 Q If you look at what we marked as Exhibit 10,
11 please, in the binder. Do you see Exhibit 10, Mr.
12 O'Hagan?

13 A Yes.

14 Q Exhibit 10 is a graph entitled, "2015 Sacramento
15 River Basin Supply/Demand" and it has a date of
16 April 29, 2015. Is this the graph depicting the
17 analysis that was used to support the May 1st
18 curtailment notice?

19 MR. CARRIGAN: The document speaks for itself.

20 Q BY MS. SPALETTA: Well, the document doesn't say
21 it. That is why I'm asking it.

22 A I am trying to see from the document whether it
23 includes the entire Legal Delta.

24 Q I believe there is a notation in the top right
25 to that effect.

1 MR. CARRIGAN: The question calls for
2 speculation, given the time the witness has taken to
3 review the document.

4 THE WITNESS: Yes, I don't recall.

5 Q BY MS. SPALETTA: If I had to ask you which
6 supply and demand analysis chart you used to form a
7 recommendation regarding the May 1st, 2015 curtailment,
8 how would you answer that question?

9 A The May 1st -- the notice was based on the
10 analysis done with this notice, with this
11 adjustment, and also the San Joaquin Delta demand in
12 there. So I think it is a combination of both.

13 But this justifies the curtailment of the
14 Sacramento side because I think, if I'm reading this
15 correctly, it is a prorated Delta portion here.

16 Q When you say "this," do you mean Exhibit 10?

17 A Yes.

18 Q And was there something else that supported the
19 curtailment on the Sacramento side, other than
20 Exhibit 10?

21 MR. CARRIGAN: Overbroad. Vague.

22 THE WITNESS: The conditions in the San Joaquin
23 Delta as well. So I mean, this is a proration of the
24 Sacramento side Delta, I believe.

25 Q BY MS. SPALETTA: How is it that the San Joaquin

1 conditions also supported the curtailment?

2 A Because we had not curtailed by May 1 the San
3 Joaquin -- the South and Central Delta flows below
4 Mossdale Bridge. So there was a portion of the
5 Delta not under curtailment, that in the previous
6 year we had curtailed as part of the San Joaquin.

7 Q And that portion of the Delta, was it included
8 in the supply and demand analysis that is depicted on
9 Exhibit 10?

10 MR. CARRIGAN: The Document speaks for itself.

11 MS. SPALETTA: Well, the document doesn't say
12 one way or the other, which is why I asked the question.

13 MR. CARRIGAN: I understand what you are trying
14 to accomplish. I'm just reasserting by objection. You
15 can ask whatever question you want.

16 THE WITNESS: And I think this document, what is
17 included in demand is stated on the thing, so that is
18 why I'm --

19 Q BY MS. SPALETTA: Are you not sure?

20 A I am not sure about this document. What it
21 says is the demand -- the staff prepared it, so that
22 is what is in the demand.

23 Q Did you look at the demand summaries from Mr.
24 Yeazell's Excel spreadsheets in conjunction with these
25 graphs?

1 A I received some demand summaries throughout
2 the year, I believe.

3 Q Was that something that you reviewed, though,
4 before making your curtailment recommendations to Mr.
5 Howard?

6 A I looked at all information that we had for
7 the curtailment analysis. As I said, we did the
8 North Delta, the Sacramento River with North Delta
9 only, the combined Delta with the Sacramento River,
10 and then the prorated share Delta, splitting the
11 Delta into proration shares and applying it to each
12 tributary. So we did many different scenarios, and
13 all of them were being done at the same time.

14 Q Was a particular one relied on to support the
15 main first curtailment notice?

16 A I would say a combination of many of those
17 was based on my recommendation. I looked at the
18 North Delta alone, and then I looked at this graph,
19 and then the other information.

20 Q There was another curtailment notice that came
21 out on June 12th for some pre-1914 rights. Are you
22 familiar with that notice?

23 A Yes.

24 Q And that was signed by Tom Howard, right?

25 A All the notices were signed by Mr. Howard.

1 Q Did you make a recommendation to Mr. Howard to
2 curtail that resulted in the June 12th curtailment
3 notice?

4 A Yes.

5 Q And what was your recommendation based on?

6 A My recommendation was based on another
7 analysis.

8 Q Let's turn to Exhibit 28. Exhibit 28 is another
9 graph of the "2015 Sacramento River Basin Senior Supply/
10 Demand Analysis with Proportional Delta Demand."

11 Do you recognize this graph?

12 A Yes.

13 Q Is this the graph that supported your June 12th
14 curtailment recommendation to Mr. Howard?

15 A The date of the graph is 11/13.

16 Q Yes. Unfortunately, the graphs in the
17 spreadsheet, when we print them, they put the current
18 date on it. We went through this graph with Mr. Yeazell
19 and I'll represent to you that he told us it was based
20 on a June 10th analysis, which is approximately where
21 the daily full natural flow line ends.

22 A Is there a corresponding other analysis graph
23 that was done at the same time?

24 Q For the North Delta?

25 A No. This is just the Sacramento River basin

1 senior supply.

2 Q Well, who did you understand was curtailed in
3 the June 12th notice?

4 A Well --

5 Q Do you remember or do I need to show you the
6 notice?

7 A Show me the notice, please.

8 Q This is not a memory exam so --

9 A That is why I'm failing miserably.

10 Q No, you are not. That is fine.

11 MR. KELLY: It is Exhibit 20.

12 MR. CARRIGAN: Do you want to go off the record?

13 MS. SPALETTA: Yes. We'll go off the record and
14 let the witness look at the exhibit.

15 (Whereupon, a recess was then taken.)

16 MS. SPALETTA: We are back on the record.

17 Q Mr. O'Hagan, you are looking at Exhibit 20. The
18 purpose of that was, we were trying to figure out which
19 curtailment analysis related to the June 12th notice.
20 So Exhibit 20 is the June 12th notice, correct?

21 A Yes.

22 Q And who was curtailed by the June 12th notice?

23 A The pre-1914 appropriative claimants with a
24 1903 later date. And they were for the entire
25 Sacramento/San Joaquin watershed and Delta.

1 Q So which supply and demand analysis supported
2 the curtailment recommendation that resulted in the
3 June 12th notice?

4 A You'd asked me if Exhibit 10 was the
5 supporting analysis for that. And my answer is no,
6 because that is only on the Sacramento.

7 Q So you are saying there was one other one that
8 would have related to the San Joaquin?

9 A As I said, we continuously did separate
10 analysis. And then we also did a combined analysis
11 and tributary analysis all during these processes.
12 So I believe there is a combined Sacramento/San
13 Joaquin and Delta analysis that is posted on our
14 website.

15 Q Do you know which supply and demand analysis was
16 used to determine lack of water availability for the
17 Byron-Bethany Irrigation District?

18 A It would be the -- Byron-Bethany was in the
19 Delta and they were a pre-14 user, but their pre-14
20 dates, I believe -- 1914, so they would have
21 received the April notice.

22 Q Which April notice?

23 A Excuse me. The June 12th notice. I'm sorry.
24 It's getting late.

25 Q That is okay. Which supply and demand analysis

1 relates to BBID?

2 A All of them went into decision-making.

3 Q And what about for West Side Irrigation
4 District?

5 A West Side received the May 1st notice because
6 they were in the Delta downstream of Mossdale
7 Bridge, so they received a May 1st notice.

8 Q And which supply and demand analysis supported
9 your curtailment recommendation for the May 1st notice?

10 A Again, it would be a combination one but I
11 can't aim at a particular one.

12 Q I haven't asked you any questions specific to
13 the two pending enforcement actions yet today. What
14 actions have you taken with regard to the West Side
15 enforcement action?

16 MR. CARRIGAN: Overbroad. Vague and ambiguous.

17 THE WITNESS: I signed those enforcement
18 actions.

19 Q BY MS. SPALETTA: Do you consider yourself part
20 of the Prosecution Team for the West Side Irrigation
21 District's enforcement action?

22 A Since I signed it, I would be part of the
23 Prosecution Team because I'm signing the order.

24 Q And what work did you do to support the findings
25 for the order that you signed?

1 A My staff worked on that.

2 Q Did you make any particular water availability
3 analysis related to the West Side enforcement action?

4 A I did not.

5 Q Did you oversee a particular water supply
6 availability analysis done by a member of your staff for
7 the West Side enforcement action?

8 A No.

9 Q If I asked you the same questions for the BBID
10 enforcement action, would your answers be the same?

11 A Yes.

12 MS. SPALETTA: I'm going to mark another
13 document as an exhibit. I think this will be 71.

14 (Whereupon, Exhibit No. 71 was
15 marked for identification.)

16 Q BY MS. SPALETTA: Exhibit 71 is a chain of
17 emails, the last one is dated August 12th. And the one
18 before that is dated May 20th, 2015. These emails were
19 actually the result of an email that I sent to you when
20 you were out, which resulted in a response from Cathy
21 Mrowka and Brian Coats.

22 The email I would like you to pay attention to
23 is the one from Brian Coats to Cathy Work dated May 20th
24 where it says:

25 "The most recent Sacramento graph has the

1 corrected pre-1914 and riparian demands
2 according to what they reported on the
3 Information Order. The prior graph had a user's
4 pre-1914 demand rolled into the riparian demand
5 if they had reported under both claims; similar
6 to the Delta situation. After John learned of
7 that, he had us revert back to the separated
8 demands from the Informational Order for all
9 areas outside the Delta which results in a
10 smaller riparian demand."

11 Do you remember providing that direction to
12 Brian?

13 A I don't remember that but I'm sure it is
14 correct.

15 Q I'm trying to understand why there would be a
16 difference in treatment in the Delta versus the other
17 areas of the Sacramento valley on this issue.

18 A I believe because the Delta stakeholders said
19 that if we curtailed their pre-14, they would switch
20 to riparian. Whereas we didn't have that input in
21 the other areas.

22 Q Did you just not have any input in the other
23 areas or did they tell you specifically that that would
24 not be the case?

25 MR. CARRIGAN: Vague. Overbroad.

1 THE WITNESS: We had the information from the
2 Delta. We didn't have information from the other areas.

3 Q BY MS. SPALETTA: Did you ask the other areas?

4 A No.

5 Q Why not?

6 A I don't think we asked the Delta folks for
7 that information either.

8 Q It was just told to you?

9 A Yes.

10 Q Okay. Can you think of a logical reason why it
11 should be different in the two different areas from a
12 water supply and demand analysis standpoint?

13 MR. CARRIGAN: Vague and overbroad.

14 THE WITNESS: It would definitely make a
15 difference on priority as water moves downstream for the
16 Delta folks to be under riparian for natural flow.

17 Q BY MS. SPALETTA: What about in the Sacramento
18 valley? Would it have also made a difference there?

19 A If we had information suggesting that people
20 were going to do that, we would have done the same
21 thing.

22 Q Would you look at Exhibit 58, please.

23 A (Witness reading.)

24 Q Are you done reviewing the document, Mr.
25 O'Hagan?

1 A Yes.

2 Q This document, this string of emails, was
3 forwarded to you by Barbara Evoy on June 23, 2015,
4 discussing RTDOT discussion on Delta outflow and
5 conservation of storage. What is RTDOT?

6 A I don't know. I always call it RT "Dot."

7 Q What is it, generally?

8 A To be honest, I don't know.

9 Q Who participates in it?

10 A I believe Bay Delta staff.

11 Q And the message from Barbara to you was, "FYI,
12 see NDOI discussion." What is NDOI?

13 A Net Delta outflow index.

14 Q And do you know why the NDOI discussion was
15 important in this email?

16 MS. MORRIS: Objection. Calls for speculation.

17 MR. CARRIGAN: Join.

18 THE WITNESS: No.

19 Q BY MS. SPALETTA: Did you use the information in
20 this email as part of your work on the water
21 availability analysis during 2015?

22 A No.

23 Q Did you recall any discussion with other people
24 in your office regarding how to treat net Delta outflow?

25 A No.

1 MS. SPALETTA: I'll mark our next as
2 Exhibit 72.

3 (Whereupon, Exhibit No. 72 was
4 marked for identification.)

5 Q BY MS. SPALETTA: Exhibit 72 is a email dated
6 April 1st, 2015 to Tom Howard from Barbara Evoy with a
7 cc to you and Les Grober discussing the tidal influence
8 zone. Do you remember this discussion?

9 A No.

10 Q What division does Les Grober work in at the
11 Water Board?

12 A He is also an assistant deputy director.

13 Q Of which unit?

14 A Special Projects Bay Delta and Public Trust.

15 Q Does he work in the Hearings Unit?

16 A And also Hearings, yes.

17 Q Was he involved with you in the discussion
18 regarding your water availability analysis as it relates
19 to the Delta?

20 A Yes. He -- it was included in some
21 discussions.

22 Q Which discussions was Les Grober included in?

23 A The discussion of dealing with how far tidal
24 water went upstream, I believe.

25 Q And why was he involved in those discussions?

1 A He is knowledgeable.

2 Q Did you rely on what he told you to help make
3 the decision?

4 A He gave us information along with Michael
5 George, yes.

6 Q Do you remember specifically what Les Grober --
7 the information that Les Grober gave you that you relied
8 on?

9 A I believe that is the information why we used
10 Mossdale Bridge as the first curtailment, to confirm
11 that.

12 Q Do you remember anything else about your
13 discussions with Les Grober?

14 A No.

15 MS. SPALETTA: We'll mark our next exhibit in
16 order as 73.

17 (Whereupon, Exhibit No. 73 was
18 marked for identification.)

19 Q BY MS. SPALETTA: Exhibit 73 is a printout of
20 two emails from May 1st, 2015 discussing the
21 recommendations by Mark VanCamp from MBK Engineers. The
22 email at top is from you to Tom Howard and others at the
23 Water Board.

24 Do you have a memory of this email?

25 A No.

1 Q One of the things discussed in the email is the
2 elimination of demand on Cache and Putah Creek which
3 both have flows. Do you remember that recommendation by
4 Mr. VanCamp?

5 A Vaguely.

6 Q And was that actually done in your analysis
7 based on his recommendation?

8 A I don't recall right now.

9 Q At the end of your email, you were also
10 including a quote from Mr. VanCamp that says:

11 "Also, fortunately, based upon a review of your
12 database, many of the pre-1914 claims are using
13 previously stored water pursuant to settlement
14 agreements with Reclamation or the Department of
15 Water Resources."

16 I think previously you told me you didn't
17 remember whether you'd looked at the stored water issue
18 for the Sacramento Valley settlement agreement. Does
19 this help refresh your recollection?

20 A No.

21 MS. SPALETTA: It is about 3:40 and I
22 understand that Mr. Knapp, representing the City and
23 County of San Francisco, has a couple of questions
24 for you. We were hoping to get you out of here by
25 4:00 and finish up tomorrow morning.

1 So I'll go ahead and turn the questions over
2 to Mr. Knapp.

3 THE WITNESS: Thank you.

4 EXAMINATION BY MR. KNAPP

5 Q BY MR. KNAPP: I just have a few questions.

6 Mr. O'Hagan, you testified earlier today that it
7 was your decision at the Division of Water Rights to use
8 the water availability analysis developed by Brian Coats
9 and Aaron Miller; is that correct?

10 A What was the last of that?

11 Q Developed by Brian Coats and Aaron Miller.

12 A For 2014.

13 Q And I believe you also testified that it was
14 your decision to use the water supply availability
15 analysis in 2015 as well?

16 A Yes.

17 Q You mentioned that you received some stakeholder
18 input regarding the water availability analysis. Was
19 there any public process for soliciting input from all
20 of the potentially-affected stakeholders?

21 MR. CARRIGAN: I would say vague and ambiguous.

22 THE WITNESS: Not to my recall.

23 Q BY MR. KNAPP: To be more specific, were there
24 any workshops conducted at the State Water Board where
25 formal comments could be received on the water

1 methodology, on the water availability methodology?

2 A In 2014, there was a Board Workshop regarding
3 the emergency regulations for curtailment. I
4 believe that was in June or July of 2014.

5 Q To be clear, my recollection of that workshop
6 was that it concerned the language of regulatory
7 requirements, and there was a lot of discussion about
8 due process concerns. Is it your recollection that --
9 well, I'll just ask that question.

10 Do you agree that that workshop, held in 2014 on
11 the emergency regulations, that it was primarily
12 concerned with the language of the regulations?

13 MR. CARRIGAN: Calls for speculation.

14 MR. KNAPP: I'm just asking what his
15 recollection is.

16 THE WITNESS: My recollection was --

17 MR. CARRIGAN: Are you asking what his
18 impression of it was?

19 THE WITNESS: No.

20 MR. CARRIGAN: You ask your question and I'll
21 just assert my objections.

22 Q BY MR. KNAPP: What your recollection was of
23 that.

24 A My recollection, which is not very good, is that
25 there was a proposal for using an alternate method of

1 curtailment. It was couched as Term 96, or something
2 like that, based on modeling in lieu of the methodology
3 that we were using with supply and demand.

4 Q Well, in 2015 was there any workshops conducted
5 to solicit input on the methodology that the Division of
6 Water Rights was proposing to use and ultimately used to
7 conduct its water supply availability analysis?

8 A No, because I believe the Board's decision in
9 the previous year, based on that information, was
10 that we were going to stick with the current
11 methodology in lieu of the proposed modeling type of
12 curtailment.

13 Q To be clear. So you are referring to the
14 emergency regulations that were enacted in 2014?

15 A There was a issue discussed, as I recall,
16 about what methodology to do curtailments in 2014 in
17 June, I believe. I can't recall the date. It would
18 be on our website.

19 Q Did the State Water Board rely on the emergency
20 regulations this year to conduct the curtailments?

21 A No. The emergency regulations that were
22 finally adopted just pertained to informational
23 orders. So yes, we are utilizing the Informational
24 Order portion of that reg.

25 Q With respect to the portion of that reg that

1 dealt with curtailment, is that portion still in effect?

2 A No. But you asked was there any public
3 noticing and opportunity for comment, and that was
4 the opportunity in 2014.

5 Q Okay. And the curtailment portion of that
6 regulation, has that since been repealed?

7 A It was not adopted, so we are utilizing the
8 same methodology that we did in 2014.

9 Q Okay. Well, so following up on that question.
10 So the emergency regulation provided -- well, I'll ask
11 you the question.

12 Is it your position that the methodology that
13 the Water Board used in 2015 is supported by the
14 emergency regulation that has now since been repealed
15 that was operative in 2014 dealing with curtailment?

16 MR. CARRIGAN: Calls for a legal conclusion.

17 THE WITNESS: It is not a methodology that has
18 been adopted by the Board, if that is what you are
19 asking.

20 Q BY MR. KNAPP: Okay. To be clear, there is no
21 decision by the Board that adopted the methodology that
22 the Division of Water Rights used in 2014 or 2015 to
23 determine water supply availability?

24 A Correct.

25 Q Is there any statutory authority, that you are

1 aware of, that authorizes the Division of Water Rights
2 to use the methodology that you've used in 2014 and 2015
3 for curtailment?

4 MR. CARRIGAN: Calls for legal conclusion.

5 MR. KNAPP: I'm just asking if he is aware.

6 MR. CARRIGAN: Same objection.

7 THE WITNESS: I'm not aware.

8 Q BY MR. KNAPP: Okay. So I've asked you about
9 public process. Was there any public process in 2015
10 for receiving public input on the methodology that the
11 State Water Board used to determine water supply
12 availability?

13 MR. CARRIGAN: Calls for speculation.

14 THE WITNESS: There is always opportunity for
15 public to comment, and that is what we constantly
16 received.

17 Q BY MR. KNAPP: Just to be clear, though, there
18 were no workshops held, there was no formal opportunity
19 to comment in 2015 on water supply availability
20 analysis; is that correct?

21 MR. CARRIGAN: Calls for speculation.

22 THE WITNESS: I don't recall.

23 Q BY MR. KNAPP: Well, okay. Was there any public
24 process for responding to comments from stakeholders in
25 2015 on the water methodology analysis used by the Board

1 as the basis for curtailment?

2 A I don't recall.

3 Q If there had been a public process, would you
4 have been involved? Given that you've stated that it
5 was your decision to use the methodology, would you have
6 been involved in the workshop if one had been conducted?

7 A Myself or my staff.

8 Q But you don't recall if you attended any
9 workshop?

10 A I do not recall a specific workshop or Board
11 item in which the methodology came up in 2015.

12 Q In developing the methodology for water supply
13 availability, were there any regulatory or statutory
14 requirements that you needed to adhere to?

15 MR. CARRIGAN: Calls for a legal conclusion.

16 THE WITNESS: Not to my knowledge.

17 Q BY MR. KNAPP: So it was your discretion that it
18 was completely unfettered?

19 MR. CARRIGAN: Same objection. Argumentative.

20 THE WITNESS: What does "unfettered" mean?

21 MR. CARRIGAN: Have you finished with your
22 question, counsel?

23 MR. KNAPP: I was just asking if there was
24 bounds, any parameters, for his discretion in developing
25 the water supply availability methodology.

1 MR. CARRIGAN: Calls for a legal conclusion.

2 THE WITNESS: "Unfettered," what do you mean
3 "unfettered"? I don't know what that means.

4 Q BY MR. KNAPP: Was there any constraint imposed
5 under your discretion to decide what to include or what
6 not to include in the water availability analysis that
7 you conducted?

8 MR. CARRIGAN: Calls for a legal conclusion.

9 THE WITNESS: Not to my knowledge. But we were
10 only utilizing supply and demand to make sure that we
11 honored the water right priority system.

12 Q BY MR. KNAPP: You testified that you don't
13 recall whether there was any public process in 2015 for
14 either soliciting input or responding to input, in a
15 formal workshop setting, regarding the State Water
16 Board's water availability analysis and the methodology
17 that you had in mind.

18 Have I restated that correctly?

19 A That is correct. But I believe that
20 stakeholders had an opportunity to comment on the
21 Board's Dry Year Report that was done in January, I
22 believe, of 2015.

23 Q And did the Dry Year Report, did that explain
24 the assumptions that the Division of Water Rights was
25 relying upon as the basis for its methodology for its

1 water availability analysis?

2 A Yes.

3 Q Did the Dry Year Report also explain its
4 statutory authority for the Division of Water Rights'
5 use of the methodology underlying the water availability
6 analysis that it used for curtailment in 2015?

7 MR. CARRIGAN: The report speaks for itself and
8 is the best evidence of its content.

9 THE WITNESS: And I don't recall if it includes
10 legal authority for the methodology.

11 (Whereupon, Exhibit No. 74 was
12 marked for identification.)

13 Q BY MR. KNAPP: Mr. O'Hagan, I just circulated
14 the Drought Workshop Agenda held on February 18th and
15 19th.

16 Is this the workshop that you are referring to
17 in 2014 when I believe you said that the Division of
18 Water Rights solicited input on the methodology that
19 they used for their water availability analysis in 2014?

20 A I did not say it was a workshop. I said it
21 was an opportunity for comments, for public
22 comments.

23 Q So was this the opportunity for public comments,
24 preparation for this workshop or for the Drought
25 Workshop of 2014?

1 MS. MORRIS: Could you reread the question?

2 (Whereupon, the record was read.)

3 THE WITNESS: This looks like it was an
4 opportunity for comments. I don't recall this but, yes,
5 it gives the public opportunity to comment on
6 curtailments on the second page.

7 Q BY MR. KNAPP: Do you understand that there was
8 an opportunity for stakeholders to specifically comment
9 on the methodology used to determine water availability?

10 A Again, the workshop notice would speak for
11 itself.

12 Q In order to comment on the methodology, would
13 you agree that in order to comment on the methodology,
14 that the stakeholders would have had to understand what
15 that methodology consisted of prior to being able to
16 intelligently comment upon it?

17 A Again, they are water right holders, so they
18 should understand their priorities of rights and
19 that they are subject to it. So I would think they
20 would be aware of how lower water supplies may
21 affect their rights to use water.

22 Q I guess my question is this: Today there have
23 been a lot of questions about what the State Board's
24 methodology was based upon. And that is because the
25 regulating community never understood and still doesn't

1 understand completely what it is based upon.

2 So I guess my question to you now is prior, you
3 said there was an opportunity for public comment in 2014
4 about the basis for the State Water Board's methodology
5 for determining water supply availability.

6 In order for the regulating community to have
7 been able to comment, they would have had to understand
8 what the underlying assumptions were for that
9 methodology.

10 So I'm just asking you: In 2014, prior to this
11 workshop, did the State Water Board publish its
12 methodology and/or explain the assumptions that it was
13 relying upon?

14 A Not to my knowledge.

15 Q Thank you.

16 And then to date, as of today, has the State
17 Board published and/or explained its methodology for the
18 underlying assumptions that it relied upon for
19 determining water supply availability in 2014 or 2015?

20 A We have continually posted the information on
21 our website. And as I mentioned earlier, the Board
22 did a drought report. Again, that is available on
23 our website and, I believe, we received comments on
24 that. That is different than the workshop that you
25 were discussing earlier.

1 Q So it is your testimony that the drought -- that
2 the Dry Year Report, that that explains the methodology
3 that the State Board relied upon for determining water
4 supply availability?

5 A It identifies the information we used. Our
6 data posted on the graph on the website tries to
7 show the information and explain the information we
8 do in pictorial. Plus, we have the actual data
9 posted for stakeholders to download. And that is
10 what a lot of consultants have done. They've torn
11 through that data.

12 Q And I guess only a few more questions and I'll
13 wrap this up.

14 So you've explained that you responded to some
15 of those stakeholders' concerns regarding the data. Has
16 there been any public process for publishing what you
17 have responded to and what you haven't responded to?

18 MR. CARRIGAN: Vague. Asked and answered.

19 THE WITNESS: Any item that goes before the
20 Board would follow the general Board policies on
21 receiving and responding to comments. So, again, I'm
22 not conducting the workshop.

23 So if that was there, plus the item that I was
24 talking about that dealt with an alternate proposal,
25 that would also be on the Board's website.

1 MR. KNAPP: Thank you.

2 MR. O'LAUGHLIN: Can we go off the record to
3 discuss the schedule for tomorrow?

4 MS. SPALETTA: Before we go off the record, can
5 we simply state that we are ending the deposition for
6 the day. We will be continuing it tomorrow morning at a
7 time to be agreed upon off the record.

8 MR. O'LAUGHLIN: Sure.

9 MR. CARRIGAN: So stipulated.

10

11 (The deposition adjourned at 4:04 p.m.)

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15 _____
16 THE WITNESS

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DATE SIGNED

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DISPOSITION OF ORIGINAL TRANSCRIPT

Date _____

Check One

_____ 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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November 19, 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 19, 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 I

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