BEFORE THE

CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

IN RE THE MATTERS OF:

SWRCB Enforcement Action ENF01951; ENF01949

WEST SIDE IRRIGATION DISTRICT CEASE AND DESIST ORDER HEARING,

and

BYRON-BETHANY IRRIGATION DISTRICT ADMINISTRATIVE CIVIL LIABILITY HEARING.

DEPOSITION OF THOMAS HOWARD

VOLUME I

November 19, 2015

Reported by: THRESHA SPENCER, CSR No. 11788



WSID CDO/BBID ACL WSID0155

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23		
24		202
25		000

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1
            BE IT REMEMBERED, that on Thursday, November 19,
 2
     2015, commencing at the hour of 8:07 a.m. thereof, at the
     Law Offices of Somach, Simmons & Dunn, 500 Capitol Mall,
 3
     Suite 1000, Sacramento, California, before me, THRESHA
 4
     SPENCER, a Certified Shorthand Reporter in the State of
 5
     California, duly authorized to administer oaths and
 6
 7
     affirmations, there personally appeared
 8
                           THOMAS HOWARD,
 9
     called as witness herein, who, having been duly sworn, was
10
     thereupon examined and interrogated as hereinafter set
11
     forth.
12
                               --000--
13
                       EXAMINATION BY MR. KELLY
             BY MR. KELLY: Good morning, Mr. Howard. You're
14
     here to have your deposition taken -- actually, can you
15
16
     state and spell your last name and your first name also for
     the record, please.
17
18
     Α
             Thomas Howard, T-h-o-m-a-s, H-o-w-a-r-d.
19
     Q
             And have you ever had your deposition taken before?
20
     Α
             Yes.
21
             And how many times have you had your deposition
22
     taken?
23
     Α
             Once.
24
     Q
             Once before. And about how long ago was that?
             I don't know, about 2002, 2001, something like that.
25
     Α
```

1 Was it work related or personal? 2 Α Work related. Work related. And what did that involve, that 3 Q 4 deposition? A I think it was the D-1641. It was a Delta issue of 5 6 some kind. 7 Q Let's get appearances on the record. So we have 8 Mr. Howard. 9 MR. HILDRETH: Russel Hildreth from the Attorney 10 General's Office for the witness. MS. AUE: Marianna Aue from the State Water 11 Resources Control Board. 12 13 MR. WEAVER: Nathan Weaver, State Water Resources Control Board. 14 MR. TAURIAINEN: Andrew Tauriainen, Office of 15 16 Enforcement, State Water Board, for the Prosecution Team. MS. AKROYD: Rebecca Akroyd, Kronick Moskovitz, 17 18 Westlands Water District. 19 MS. SPALETTA: Jennifer Spaletta, Spaletta Law, for 20 Central Delta Water Agency. MS. ZOLEZZI: Jeanne Zolezzi for the West Side, 2.1 Patterson, and Banta-Carbona Irrigation District. 22 MS. McGINNIS: Robin McGinnis, Counsel for 23 24 California Department of Water Resources. MR. DONLAN: Robert Donlan, Ellison, Schneider & 25

- 1 | Harris, outside counsel for the City and County of San
- 2 | Francisco.
- 3 MR. KNAPP: Jonathan Knapp for the City and County
- 4 of San Francisco.
- 5 MR. O'LAUGHLIN: Tim O'Laughlin for the San Joaquin
- 6 Tributaries Authority.
- 7 MR. KELLY: Dan Kelly with Somach, Simmons & Dunn,
- 8 | for Byron-Bethany Irrigation District.
- 9 Q BY MR. KELLY: Mr. Howard, you said you had your
- 10 deposition taken, it was a little more than ten years ago,
- 11 | and so I'm going to refresh your memory a little bit about
- 12 | the rules of depositions and kind of what we're going to do
- 13 here.
- 14 You realize that the testimony you're giving today
- 15 | is being given under oath?
- 16 | A Yes.
- 17 Q And that by giving this testimony, you realize that
- 18 | this testimony could be used in an adjudicative proceeding,
- 19 | including before the State Water Board and in a court of
- 20 | law?
- 21 | A Yes.
- 22 | Q Is there any reason that you can't provide truthful
- 23 | testimony today?
- 24 A No.
- 25 | Q Okay. I'm going to ask -- you'll be questioned by

several attorneys today. I'm going to go first on behalf of Byron-Bethany. You'll get questions by counsel for the West Side Irrigation District and Central and South Delta. Other parties may have an opportunity to question you if they have questions.

2.1

I'll ask you a question, and I'm going to ask you to wait until I'm finished with the question before you answer. There's a court reporter here taking down all of the testimony, and it's important that we keep our conversation separated so that she can capture what each of us is saying and what everyone in the room is saying.

I'm entitled to your answers, to your truthful answers. I'm only entitled to what you know, and so I'm going to ask you not to speculate unless you feel like you need to speculate to provide information.

Your counsel will object, other attorneys may object. Unless your counsel tells you that you are not to answer, you're to provide an answer to all of the questions I've asked.

And so some people might raise an objection that a question is vague. That doesn't mean you don't have to answer that question. If you need clarification on what you think might be vague, then just let me know, and I'll try to clarify and make the question more understandable.

Does all that make sense?

1 Α Yes. 2 I'd like to start a little bit with your background 3 and your education starting with college. Did you go to college? 4 5 Α Yes. 6 Where did you attend college? Q 7 Α University of California, Berkeley. 8 Q And did you receive a degree from U.C. Berkeley? 9 Α Yes. 10 And what was that degree? 0 It was a bachelor of arts in chemistry. 11 Α 12 Did you -- do you have any postgraduate experience? Q 13 Α Yes. And what is that? 14 0 A master's degree from California Institute of 15 Α Technology in chemistry, a master's degree in chemical 16 engineering from University of California, Davis. 17 18 Did you obtain your master's from the California 19 Institute of Technology prior to obtaining your master's from U.C. Davis? 20 2.1 Α Yes. Any other educational experience besides the degrees 22 23 you mentioned? 24 Α No. 25 Q And your work experience, did you work while you

were in college? 1 2 Α Yes. Did you work when you were at U.C. Berkeley? 3 Α 4 Yes. 5 Was that just general college student type employment or was there any employment that was related to 6 7 your major? 8 Α I was doing research up at Lawrence Berkeley 9 Laboratories in chemistry. 10 So it was research related to your major? 0 11 Α Yes. 12 Q Any other substantive work experience while you were 13 at U.C. Berkeley? 14 I was a janitor for my freshman year at the 15 dormitory. Those are the life -- that is the life education 16 0 part of college, I'm sure. 17 18 How about when you were at California Institute of 19 Technology? 20 Α No. 21 Okay. And at U.C. Davis? 22 Α No. 23 What was your first -- when did you graduate from 24 U.C. Davis? When did you obtain your master's from U.C. Davis, roughly? 25

1 1984. Α 2 Q '84. And did you immediately become employed following your -- the receipt of your degree from U.C. 3 Davis? 4 Well, there were a few days of break, but 5 essentially. 6 7 0 And where did you become employed? 8 Α The State Water Resources Control Board. 9 And have you been at the State Water Resources 10 Control Board since 1984? 11 A Yes. 12 Q And when you began with the State Water Board in 13 1984, what was your position there? Water Resource Control Engineer. 14 And, roughly, how many years were you in that 15 16 position? Two, probably. Two. 17 A 18 And what did you do as a Water Resource Control 19 Engineer? I did petitions of regional water quality, regional 20 Α 21 water board decisions. So it was in water quality? 22 0 23 Α Yes. 24 And then after you were a Water Resource Control 25 Engineer, what did you do after those couple of years?

- 1 | A Well, I think I was about six years doing petitions,
- 2 | but the reason I said two years is because there's Range A
- 3 | and Range B, so I moved from Range A to Range B, but I was
- 4 | still a Water Resource Control Engineer.
- 5 | Q Okay. And then after you were a Water Resource
- 6 | Control Engineer, what did you do?
- 7 | A I became a Senior Water Resource Control Engineer
- 8 | working in the Nonpoint Source Unit, supervising the
- 9 | Nonpoint Source Unit.
- 10 Q And, roughly, how many years were you there, did you
- 11 | do that?
- 12 A Three.
- 13 Q So then, roughly, with the Water Resource Control
- 14 | Engineer and then the Senior, you're about into the mid-90s
- 15 | then? Does that sound right?
- 16 | A '92, I believe, I -- yes.
- 17 | Q And then what did you do following your work as a
- 18 | Senior Water Resource Engineer? What was your next
- 19 | position?
- 20 A I moved out of water quality and into water rights.
- 21 | Q Okay.
- 22 A Still as a Senior Water Resource Control Engineer.
- 23 Q Okay. And what did you do as a Senior Water
- 24 Resource Control Engineer in the Division of Water Rights?
- 25 | A Bay Delta work. The D-1630 was the decision that I

- 1 | worked on when I first arrived.
- 2 | Q And what was D-1630?
- 3 | A It was a Bay Delta order of -- related to operation
- 4 of the Central Valley Project, State Water Project, and a
- 5 number of other issues.
- 6 Q And in your work on D-1630, was your work on that
- 7 | more related to water quality or water rights?
- 8 A Both.
- 9 Q Both, okay. And how long were you a Senior Water
- 10 Resource Control Engineer within the Division of Water
- 11 | Rights?
- 12 A One to two years.
- 13 Q Okay. And then what came next?
- 14 | A Supervising WXC Engineer.
- 15 | Q Okay. And what did you do in that position?
- 16 | A Principally, Bay Delta, plus, I think, complaints --
- 17 | water right complaints.
- 18 | O Did you oversee a staff of people at that point
- 19 | within the Division of Water Rights?
- 20 A Yes.
- 21 | O And the Division of Water Rights is separated into,
- 22 | I believe, what they call units?
- 23 A Yes.
- 24 | Q Is that correct? And so did you supervise a unit at
- 25 | that point or as a senior Water Resource Control Engineer?

- 1 Or what did you say, a deputy -- what did you say that you
- 2 | were after you were the Senior Water Resource Control
- 3 | Engineer?
- 4 A Supervising.
- 5 | Q Was that the head of a unit at that point or were
- 6 | you still under somebody else's supervision?
- 7 A As a Senior Water Resource Control Engineer, I
- 8 | headed up a unit. That's the first line supervisor
- 9 | classification. A Supervising Water Resource Control
- 10 | Engineer is the second line supervising, so there were three
- 11 | units that worked for me at that time.
- 12 Q Okay. And how long were you in that position as a
- 13 | supervising engineer?
- 14 A Two, three years.
- 15 Q And what did you do after you were a Supervising
- 16 | Water Resource Control Engineer?
- 17 A Assistant Division Chief, Water Rights.
- 18 O And in the -- what does the Assistant Chief of the
- 19 | Division of Water Rights do?
- 20 A Well, they have at least two supervising engineers
- 21 | who report to them, two to three, and I had a portfolio of
- 22 | activities, complaints, Bay Delta licensing. I think those
- 23 | were the principal ones.
- 24 Q Okay. The binder before you there is a binder that
- 25 | is filled with exhibits that have been marked throughout the

- depositions in this proceeding, so there are exhibits there
- 2 | that were marked during Brian Coats' deposition and Kathy
- 3 | Mrowka's deposition and Jeff Yeazell's deposition.
- And I want you to take a look at, as we talk through
- 5 | the rest of this, take a look at that binder and,
- 6 | specifically, at tab -- Exhibit No. 16, if you will, please.
- 7 Do you recognize Exhibit 16?
- 8 A Yes.
- 9 Q And your signature is on Exhibit 16?
- 10 A Yes.
- 11 Q And so this -- my understanding is that this
- 12 reflects the organization of the State Water Board and the
- 13 | identification of individuals within certain positions as of
- 14 November the 1st of 2015.
- 15 Is that your understanding as well?
- 16 | A Yes.
- 17 Q And when you were the Assistant Chief of the
- 18 Division of Water Rights, was the structure of the State
- 19 | Water Board at least roughly similar to what we see here
- 20 today?
- 21 | A There was no Division of Drinking Water.
- 22 | Q Okay. That's essentially the center branch of this
- 23 organizational chart?
- 24 A Yes.
- 25 | Q How about the Division of Water Rights, is that

- 1 | roughly similar to where it was when you were there, when
- 2 | you were the Chief -- Assistant Chief?
- 3 Let me ask you this, Mr. Howard. Where is the
- 4 | Assistant -- is the Assistant Division Chief, the spot that
- 5 | you were in, on this chart anywhere?
- 6 A Yes. There are two Assistant Division Chiefs, as
- 7 | there were then. John O'Hagan and Les Grober are the two
- 8 | Assistant Division Chiefs.
- 9 Q Okay. And under John O'Hagan, his classification,
- 10 at least on this chart says, Assistant Deputy Director. Is
- 11 | that the same -- internally, is it the same as being the
- 12 | Assistant Division Chief?
- 13 A The names were changed back seven or eight years ago
- 14 | from Division Chief to Deputy Director and Assistant Deputy
- 15 | Director.
- 16 | Q Okay. So when you were the Assistant Division
- 17 | Chief, who was the Deputy Director of the Division of Water
- 18 Rights?
- 19 A Harry Schuller. But he wasn't the Deputy Director,
- 20 he was the Division Chief. We didn't use the term "Deputy
- 21 | Director."
- 22 | Q So that's just as a result of a name change, but he
- 23 | would have been in that yellow box, essentially?
- 24 A Yes.
- 25 | Q Okay. And then after your tenure as the Assistant

- 1 Division Chief, where were you then at the State Water
- 2 | Board?
- 3 | A Deputy Director.
- 4 | Q Deputy Director -- Division Chief. Or was the name
- 5 | change made before you went into that spot?
- 6 A It's what would now be called the Chief Deputy
- 7 Director.
- 8 | Q The Chief Deputy Director, so that's where Caren
- 9 | Trgovcich is today?
- 10 A And Jonathan Bishop.
- 11 | Q Jonathan Bishop. And, roughly, what year did you
- 12 | become the Chief Deputy Director?
- 13 A About 2004/2005, something like that.
- 14 Q And did you become the Executive Director
- 15 | immediately from the Chief Deputy Director position or was
- 16 | there any intermediate positions that you held?
- 17 A No. I was the Assistant Division Chief, and then I
- 18 | became the Deputy Director.
- 19 Q When did you become the Executive Director?
- 20 A The Executive Director, that was four years ago,
- 21 approximately.
- 22 | Q Okay. And in your tenure with the State Water
- 23 | Board, how much have you been involved in the administration
- 24 of water rights?
- 25 | A Well, I've been involved in water rights since I

was -- I moved there back in '92. I think for two or 1 2 three years when I was the Assistant Division Chief, water 3 rights -- I mean, not the Assistant Division Chief -- the 4 Deputy Director, water rights was under the other Deputy Director, Harry Schuller. 5 So from '92 to the present, with the exception of 6 7 that two- or three-year period, I was always involved in the 8 water rights program. 9 Okay. So do you think you have a pretty good grasp of water rights in California? 10 11 Α Yes. 12 In your tenure at the State Water Board, have you, 13 aside from 2014 and 2015, were you ever involved in conducting any kind of water availability analysis to 14 determine whether there was water sufficient to satisfy 15 16 water rights? Well, that's -- in doing Bay Delta activity work, we 17 18 used to do modeling to see whether or not the State Water 19 Project and the Central Valley Project were able to meet 20 water quality objectives. But, other than that work, no. 2.1 Did you ever have occasion to work on new applications to appropriate water? 22 23 Α No. 24 Mr. Howard, I'd like to show you -- have this 25 marked, just to show this to you.

1 (Whereupon, Exhibit No. 64 was 2 marked for identification.) BY MR. KELLY: Before you is Exhibit 64, and I don't 3 Q have copies for everyone else, I apologize. It is 4 Mr. Howard's deposition notice, which everyone should have a 5 copy of already. 6 7 Mr. Howard, have you seen Exhibit 64 before? 8 Α I saw the first page of it. 9 Okay. Did you read the entire thing at any point? 10 I think I might have skimmed it; I can't really say Α 11 I read it. 12 Okay. Did you review Attachment A to it? Q 13 Α Not carefully, no. I skimmed it. Okay. Did you do anything to locate any of the 14 documents or writings that are identified in Exhibit A, in 15 16 Attachment A? I asked my attorney to handle that. 17 Α 18 Okay. Other than asking your attorney to handle it, 19 did you do anything to search for the records identified in Attachment A? 20 2.1 Α No. Mr. Howard, what is your understanding of the phrase 22 "water availability" as it relates to water supply for water 23 24 right holders? 25 Α Well, it seems self-explanatory. If water is

- 1 available for appropriation, what you try to determine is
- 2 | called water availability.
- 3 Q And how do you determine -- in your experience at
- 4 | the Water Board, how do you determine whether or not there's
- 5 | water available for somebody to divert?
- 6 A Well, I can't say that I have any experience at the
- 7 | Water Board on determining water availability.
- 8 Q So you were not involved in water availability
- 9 determinations in 2014 or 2015?
- 10 A Well, I certainly had some discussions with John
- 11 | O'Hagan about water availability, but I didn't actually do
- 12 any calculations, any -- nor get into the details of it.
- 13 | Q Do you understand what's involved in making that
- 14 | determination?
- 15 A Probably not.
- 16 | Q Okay. In prior depositions, I've heard people refer
- 17 | to people within the Water Board different ways. One of the
- 18 | things I heard a lot from Mr. Coats was he would always
- 19 | refer to "upper management" in making decisions about water
- 20 availability, and then other people refer to some people as
- 21 | "staff" versus "management."
- 22 What is your understanding of who are staff at the
- 23 | State Water Board?
- 24 A Non-supervisors.
- 25 | Q Mr. Coats, as staff, would be -- I'm sorry?

- 1 A Clarification.
- 2 Q Yes.
- 3 A Everybody who works for the Board, including myself,
- 4 | are staff.
- 5 Q Okay.
- 6 A So, in one level, I would say staff means everyone.
- 7 Q Okay.
- 8 | A In other contexts, staff means only non-supervisors.
- 9 | So I refer to myself as a staff at the Water Board.
- 10 Q Okay. And are other people referred to in certain
- 11 | contexts as management and upper management?
- 12 A Yes.
- 13 | Q And can you explain that a little bit to me?
- 14 A Well, I think people would probably assume
- 15 | management meant anyone who was a supervisor. And upper
- 16 | management is, depending on who is saying it, it probably
- 17 | could mean anybody from the second-level supervisor to the
- 18 | Executive Director.
- 19 Q And so you said, generally, that everybody who works
- 20 | at the Board that's not a Board Member is staff, but in
- 21 | certain contexts folks are referred to as management. In
- 22 | what kind of context would people be referred to as
- 23 | management versus staff?
- 24 A Well, when you talk about -- I am talking about the
- 25 | staff should work on this or something like this, I'm

- 1 generally thinking in terms of non-management, 2 non-supervisory folks. Other than that, yeah. So when it comes to the water availability 3 0 determinations this year in 2015, was that work undertaken 4 by staff, by management, or by management and staff, do you 5 know? 6 7 Α I would say that the work was done by staff, and 8 that there was some discussion with management about some issues associated with the work. 9 10 What kinds of issues were discussed with management? Well, the one that I recall most distinctly is how 11 Α to deal with Delta demands. 12
- Q And what do you recall about that conversation?

 I'm trying to put together water availability

 analyses in the Sacramento and San Joaquin Valley, but you

 have to make some determination about Delta demands and

 where those demands are assigned, whether to the Sacramento

 Basin or the San Joaquin Basin.

 And what was the ultimate decision that resulted
 - from those conversations?

 A I believe that staff did the water availability analysis in two ways: One way, they assigned the northern
- 23 Delta area to the Sac Basin, and the rest of the Delta to
- 24 | the San Joaquin Basin.

20

2.1

22

25 And then they did it a second way where they

assigned, based on unimpaired flow percentages at any 1 2 particular time, that that was how the Delta demand was 3 allocated based upon those percentages. And who made the ultimate decision on which methods 4 would be used to determine Delta demand and Delta supplies? 5 Well, like I say, it was done two different ways, so 6 7 I can't say that there was a final decision because we did 8 the work two different ways. But then we applied those to 9 the water availability -- my staff applied those to determine water availability in both instances to see if 10 there was a difference and what that difference was. 11 And so, ultimately, curtailments were issued this 12 13 year, correct? 14 Α Right. And when curtailments were issued, who made the 15 16 decision on which of those two methods to use to issue curtailments, if you know? 17 18 Α I did. And what did you base your decision on? 19 20 MR. HILDRETH: Now you're getting into delivery of 21 process. I don't think he's going to answer that. You can ask him who he talked to, who he got information from, but 22 he's not going to reveal his thought process. 23 24 BY MR. KELLY: So you've instructed the witness not 25 to answer?

```
1
             MR. HILDRETH:
                           Yes.
 2
             MS. SPALETTA: This is Jennifer Spaletta --
             MR. KELLY: Should we go off the record?
 3
 4
             MR. HILDRETH: No. He's going to --
                           In answer to your question, I
 5
             THE WITNESS:
     instructed staff to choose the alternative in any particular
 6
 7
     instance that was most beneficial to the water right
 8
    holders; that is, the alternative that would be
 9
    most likely -- that would have the lowest demand assigned to
10
     the upstream parties.
11
             So, for the Sacramento Basin, you would use just the
    North Delta demand. For the San Joaquin Basin, you would
12
13
    use the unimpaired flows because that would provide the
     smaller demand number for those two watersheds -- the
14
     smaller Delta demand number for those two watersheds.
15
             BY MR. KELLY: Mr. Howard, in your understanding of
16
     the administration of water rights in California, when a
17
18
    water right holder decides whether or not to divert water
19
     any given day, what is your opinion on the obligation of
2.0
     that individual water right holder to make a water
2.1
     availability determination prior to diverting water?
             I don't think I have an opinion on that.
22
    Α
             Do you know whether a water right holder is under an
23
24
     obligation to conduct a water availability analysis prior to
25
    diverting water?
```

- 1 A That depends on the circumstances, I imagine.
- 2 | Q How is that?
- 3 | A Well, in a stream system, water could be stored
- 4 | water that is passing by, and they don't have the right to
- 5 stored water.
- 6 So there would be some -- of course there would be,
- 7 | presumably, some way to inform them that it was stored
- 8 | water, but I don't know. Each watershed could be different.
- 9 Q So let's take -- let's take Byron-Bethany Irrigation
- 10 District. You know where their water diversions are
- 11 | located?
- 12 A Not precisely, no.
- 13 | Q Do you know where Clifton Court Forebay is?
- 14 | A Yes.
- 15 | Q Do you know where the intake channel for the State
- 16 | Water Project is off of Clifton Court?
- 17 | A Yes.
- 18 Q So if I were to tell you that BBID, and when I say
- 19 | "BBID," I'm referring to Byron-Bethany Irrigation District,
- 20 | that their diversions are in the vicinity of Clifton Court
- 21 | Forebay, which you understand is in the South Delta,
- 22 | correct?
- 23 A Yes.
- 24 Q So if BBID is going to go out and divert water on
- 25 | any given day, do they have to conduct a water availability

analysis to determine whether or not to turn on the pumps, 1 2 do you know? I can't say that I know. 3 Α In your opinion, should they? 4 0 MR. HILDRETH: Asked and answered. 5 6 BY MR. KELLY: You can answer. 0 7 MR. HILDRETH: If you have an opinion. 8 THE WITNESS: I think that, in some circumstances, it is difficult to determine for the person who is looking 9 at a body of water to know whether or not that is stored 10 water that is not available for appropriation or whether it 11 is natural water that is available for appropriation. 12 Ιt 13 looks the same. BY MR. KELLY: And so how does a water diverter know 14 that? What should they do? 15 Well, I would imagine they should contact the people 16 Α who are making storage releases and ask them, would be one 17 18 option. 19 Anything else? 20 Well, that was the purpose of sending out our 21 notices was to inform people that, according to the calculations that my staff did, that there wasn't water 22 23 available for appropriation. 24 And so in the administration of water rights in your 25 position as the Executive Director of the State Water Board,

1 should water right holders generally believe that they can 2 divert water unless the State Water Board or some other competent authority tells them there's no water to divert? 3 4 MS. McGINNIS: Objection. Calls for a legal 5 conclusion. 6 MR. HILDRETH: Calls for speculation. 7 You can answer. 8 THE WITNESS: Could you repeat the question? 9 MR. KELLY: Can you read the question back, please. 10 (Whereupon, the record was read.) THE WITNESS: I would think that they would have an 11 obligation themselves to try to answer that question. 12 13 BY MR. KELLY: And if they answered that question in the affirmative, it would be okay for them to divert? 14 MS. McGINNIS: Objection. Calls for a legal 15 16 conclusion. MR. HILDRETH: He's asking you to speculate. I 17 18 mean, there's no circumstances, there's --19 BY MR. KELLY: Let's be clear. I'm not asking you 20 to speculate, Mr. Howard. I said that I'm only entitled to 2.1 the answers and what you know as part of your experience with the State Water Board. I don't want you to speculate. 22 So if you have to speculate, I want you to tell me that 23 24 you'll have to speculate. And so none of my questions are 25 actually asking you for speculation.

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1
             I'm simply -- well, can you read the question back,
 2
    please.
             (Whereupon, the record was read.)
 3
             THE WITNESS: Well, that gets back to the question
 4
    of whether or not they have any independent obligation to
 5
     try to determine if there is water availability.
 6
 7
             BY MR. KELLY: Mr. Howard, do you know what the --
 8
    you said that you were not involved in actually doing the
 9
     calculations this year on water availability; is that
10
    correct?
11
             Well, the decision regarding Delta demand was -- got
    Α
    wrapped up in calculations, so partly true, I suppose. I
12
13
     gave that general direction to use both methods, but I did
14
    not actually look at any spreadsheets, any individual data.
             Did you participate in making any decisions with
15
16
     respect to what was to be included in any of the
    spreadsheets?
17
18
            MR. HILDRETH: Did he give direction?
19
            BY MR. KELLY: Was he involved in any decision
20
    making on what was to be included in any of the
2.1
    spreadsheets?
22
             MR. HILDRETH: Yes or no.
             THE WITNESS: Well, any direction. Well, yes.
23
24
            BY MR. KELLY: Okay. And so tell me about that.
25
    What were you -- what were you -- and, Mr. Howard, what I'm
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1 tying to do, I want to understand what your involvement was 2 in the water availability determinations and the curtailment decisions, because I simply don't know that. 3 And so, you know, we've heard a lot from other 4 witnesses about what they did and didn't do and how 5 direction came from upper management, but it's really not 6 7 clear how those decisions were conveyed down to kind of what 8 we refer to as staff level people, like Yeazell and Brian 9 Coats, so I'm trying to make a determination who made those 10 decisions. 11 And so when I'm asking you if you had participation in making decisions on what was to be included in the 12 13 spreadsheets, you know, were you involved in the decisions on what to include in water supply? 14

My understanding is that staff was preparing a water supply curve and a water demand curve. For water demands, they were taking information out of our files and double-checking it, and my direction to them was try to be, you know, make this as right as you can. And I also directed them to work with NCWA, because NCWA was providing some input to us on the -- on whether they thought our information was correct.

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So other than telling them on the demand side to, you know, take as much time, clean up the data sets, make it as accurate as you could, I don't recall giving any other

- direction other than this Delta issue again. 1 2 Okay. I'm sorry. Go ahead. On the supply side, again, my direction was do the 3 best you can with the data that's out there. And my 4 understanding was they were going to be looking at certain 5 gauge stations to develop their supply curves, but that was 6 7 the extent of my knowledge of how they developed those 8 supply curves. 9 Okay. Do you recall whether or not John O'Hagan came to you with any questions in order to get your 10 assistant or guidance in making judgment calls? 11 Well, I do remember the Delta one, but I've already 12
 - Q And the Delta one was just deciding, essentially, what river system to assign the Delta demand to?
- 16 A And what to do regarding in-Delta curtailments.

13

14

15

talked about that.

- Q And so tell me about that, about your conversations with John O'Hagan about in-Delta curtailments.
- 19 A Well, I believe my direction was you can only
 20 curtail down to a level that is no lower than what is done
 21 on both sides -- on all the watersheds of the Delta.
- So if one watershed is at 1905 and one watershed is at 1902, Delta demands can't be lower than the 1905 -- well, the curtailments can't be lower than that. And so, basically, the idea was to give the benefit of the doubt to

- 1 | the Sacramento Basin diverters, the San Joaquin diverters,
- 2 | and the Delta diverters.
- 3 | Q And did you and John discuss a rationale for doing
- 4 | that?
- 5 A Well, I think the rationale was to give the benefit
- 6 of the doubt to each of the -- to all of the people that we
- 7 | were sending curtailment notices to.
- 8 | Q Did you discuss a factual basis for doing that?
- 9 A It seemed as though the factual basis was either one
- 10 of those two methods could be used and logically be used,
- 11 | and so since there wasn't necessarily a right way, choose
- 12 | the way that gave the benefit of the doubt to the people
- 13 | diverting water.
- 14 Q Were you involved at all in discussions on bringing
- 15 enforcement actions this year for diversions that occurred
- 16 | after the notices went out?
- 17 A I had a general direction to John that if we found
- 18 people diverting what he thought was an unlawful way, that
- 19 | we should take enforcement action. And that was the extent
- 20 of it, as far as I recall.
- 21 | O And did you discuss with him or anyone else whether
- 22 or not diversions were unlawful only after the notices went
- 23 | out?
- MR. HILDRETH: Wait. I'm hesitating because of your
- 25 | "with him or anyone else" part, so maybe you can define that

a little more. 1 2 BY MR. KELLY: With anyone else at the State Water Resources Control Board. 3 MR. HILDRETH: Get those names out. 4 BY MR. KELLY: With anyone at the State Water 5 Resources Control Board. 6 7 Α Can you repeat the question? 8 (Whereupon, the record was read.) THE WITNESS: I don't know whether or not I 9 discussed that issue. The notices were the vehicle we used 10 to decide whether to do inspections. We didn't do 11 inspections to see whether diversions were occurring on 12 13 people that we didn't send notices to. BY MR. KELLY: Can you take a look at Exhibit 30 for 14 me in the binder? Do you understand what the graph, that is 15 16 Exhibit 30, is? Well, it's very busy, and at one time when I looked 17 18 at this before, I understood it. Right now glancing at it, 19 it would take me a while to sort it back out again. 20 Okay. Let's maybe talk through it a little bit and 2.1 see if we can get a common understanding what it is. I agree that it's a little bit busy. 22 The bar graph, for lack of a better term, part of it 23 24 shows "Post-1914 Demands," which is kind of a reddish-orange 25 color, and below that an orange color shows "Pre-14 Demand"

and below that in yellow shows "Riparian Demand"; is that 1 2 accurate? 3 Α Yes. And then there are a series of dashed lines. 4 two uppermost dashed lines, my understanding, were just 5 shown on this graph for reference to other years and weren't 6 7 really relevant for 2015; is that your understanding as 8 well? 9 Α Yes. 10 And then the three lower dash lines show a 50 percent full natural flow forecast -- I think I've been 11 12 told that's purple. I'm colorblind, Mr. Howard, so I have a 13 very tough time figuring out what colors these are. But I've been told that's a charcoal, the 50 percent full 14 natural flow forecast. And then the pink dashed line is a 15 90 percent full natural flow forecast, and then below that, 16 I don't know what color that is. There's a line marked 17 18 "99 percent full natural flow forecast." 19 What is your understanding of what those lines 2.0 depict, if you know? 2.1 Well, it's a bit confusing. I mean, clearly, you Α know, the purpose is 90 percent full natural forecast means 22 23 that 90 percent of the years we expected to be wetter, so 24 that's a conservative. 99 percent is 99 percent of the 25 years we expect it to be wetter and 50 percent the same.

1 But the fact that the starting dots begin at 2 different locations on the same day would be confusing to I would think they would all start at the place where 3 the 99 percent full natural flow forecast is. You would 4 think that you would start at some date that is where you 5 have actual flow and then you'd forecast out from there, but 6 7 those don't seem to be the -- the starting dots don't seem 8 to be at the right location. 9 0 Okav. 10 But, otherwise, that's my understanding, yes. Α And were those forecast lines, if you know, were 11 0 those used in making water right curtailment decisions? 12 13 Α I don't believe so. What is your understanding -- well, let me ask you 14 this, Mr. Howard. 15 16 Α I thought that the blue line was used for that purpose, the daily full natural flow. 17 18 What is your understanding of what the blue --19 you're talking about the solid blue line that's marked "Daily FNF"? 20 2.1 Α Yes. What is your understanding of what that line 22 23 depicts? 24 Well, at some location it reflects the full natural flow in the system. 25

1 Do you know if that's actual reported full natural 2 flow versus forecasted or -- if you know? My understanding is that it would be actual 3 Α information, actual data, not forecasted data. 4 Okay. And the State Water Board, both the 5 Prosecution Team and then the State Water Board, kind of 6 7 writ large, produced a number of documents pursuant to a 8 Public Records Act request. And I'll just say, in my review of those documents, it appears to me that you met with John 9 O'Hagan and others, not infrequently, to make decisions on 10 whether to implement curtailments. In some instances in 11 those emails you said, "Go ahead and start curtailments" or 12 13 sometimes you met with Caren Trgovcich and decided to implement curtailments. 14 When you did that and when you made decisions on 15 whether to authorize curtailments to get issued, did you 16 review anything prior to making those decisions? Was it 17 18 this chart or was it just conversations? Can you tell me 19 about how that process went? 20 Α It was charts similar to this, conversations with 21 John. Mostly the conversation went with direction to John that if he thinks that the curtailments are warranted based 22 on his analysis of the supply and demand curves, that he 23 24 should initiate curtailments. 25 Q Okay. And so -- and if -- how often would you meet

with Mr. O'Hagan to talk about that? 1 2 I don't think there was -- when you say "how often," I don't think there was a regularly-scheduled meeting or 3 4 anything of that nature. I would imagine over the year period I met with him maybe half a dozen times to talk about 5 the -- you know, these plots plus things like the Delta 6 7 issues and --8 Would there be -- so you're talking about face-to-face meetings? 9 10 Α Yes. And then would there also be discussions via email 11 0 about those same issues outside of the face-to-face 12 13 meetings? 14 Yeah, I'm sure there were. 15 And when you thought about whether or not to 16 authorize curtailments, did you review these charts or spreadsheets in any detail or did you kind of rely more on 17 18 John O'Hagan's recommendation, what he told you? 19 I certainly looked at them but, generally, you know, 20 it was direction that when it was warranted, they should be issued. 2.1 And is it your understanding that when full natural 22 flow dropped below a certain demand, that that was when 23 24 staff thought curtailments were warranted? 25 MR. HILDRETH: Calls for speculation as to what

staff thought. 1 2 THE WITNESS: My understanding is that when the supply and demand curves crossed, that -- for various water 3 4 right priorities, that that was when curtailments were warranted. 5 BY MR. KELLY: And that's -- is it your 6 7 understanding that when the full natural flow dropped below 8 the demand, that there was insufficient water to satisfy the 9 water rights above the full natural flow? 10 Well, I'm not 100 percent sure what full natural flow is. I spoke of it in terms of the available supply. 11 When the supply was not adequate to meet the demands, that 12 13 there wasn't enough water for all the parties in the system. So your understanding of full natural flow in the 14 context of the water availability analysis that was done 15 16 this year was a representation of available supply? No. My understanding was that when available supply 17 Α 18 was not -- when there wasn't an available supply to meet all 19 the demands, that curtailments were -- should occur. I'm 20 not -- I don't know what specifically full natural flow is. 2.1 Do you know whether full natural flow was the measure of available supply this year? 22 Well, I thought I sort of just went over that. But 23 24 again, my answer was I focused on the idea of supply, how 25 much water is there that's in the system. I'm not quite

sure how John calculates full natural flow, so I can't 1 2 honestly say that I know for sure that they're both the same 3 thing. Yeah, no. I'm asking you in making your decisions, 4 though, was it your understanding that, on Exhibit 30, that 5 the full natural flow line depicted available supply? 6 7 Let's back up a little bit. Let's back up. 8 At some point a decision had to be made whether to curtail a water right, correct? 9 10 Α Yes. 11 And, in doing that, the State Water Board had to assess whether or not there was sufficient water supply to 12 13 satisfy any given right or group of rights; is that 14 accurate? 15 Α Yes. And, in doing that, did you direct staff to 16 determine supply and demand? 17 18 Α I can't recall whether I directly told staff to 19 determine supply and demand. I mean, certainly it was 20 something that was discussed but wasn't necessarily -- it's 21 not clear to me that I said, "You have to go out and develop supply and demand." It just seemed like that was the 22 obvious thing that needed to be done. 23 24 So was it your understanding then that the work they 25 did and the graphs that they produced depicted supply and

1 demand? 2 Α Yes. 3 And, in looking at this graph then, what do you think would show the supply? 4 Well, if you're asking what I think, I think it 5 probably is the line referred to as full natural flow. 6 7 However, I don't know how that full natural flow was 8 calculated specifically, and so I'm a little reluctant to 9 say that I, you know, that that's precisely the supply. Yeah. Mr. Howard, recognizing that you signed the 10 curtailment notices which had a bunch of findings in 11 there -- or maybe not findings, but had information in there 12 13 about the available supply, I just want to know what your understanding was of what this depicted in undertaking your 14 issuance of those curtailment notices. Did you understand 15 that this showed the supply and demand? 16 MR. HILDRETH: Asked and answered. 17 18 Do you have anything different to say than what 19 you've already said? THE WITNESS: No, I don't think so. 20 2.1 BY MR. KELLY: So, on Exhibit 30, if you look at the months of -- at the bottom of Exhibit 30, there's 22 essentially a timeline at the bottom, right? It starts on 23 24 March the 1st, 2015, and at least the last date marked on it 25 is September the 1st, 2015, correct?

1 Α Yes. 2 And earlier in time is to the left, and the kind of reddish-orange block of "Post-14 Demand" extends in the 3 month of March up to 50,000 time-averaged cubic feet per 4 second, correct, roughly? 5 Yes, roughly. 6 Α 7 In the month of March, the daily full natural flow 8 is roughly between 8,000 and 16,000 CFS -- time average CFS, 9 is that correct, roughly where that blue line appears in the 10 demand? 11 MR. HILDRETH: The document speaks for itself. 12 THE WITNESS: It fluctuates, but it is in that area. 13 BY MR. KELLY: And so is it your understanding then that there was insufficient water during the month of March 14 for any of the water rights that would appear in the demand 15 above that blue line? 16 That would be my understanding. 17 Α And would the same be true for the month of April? 18 Q 19 Α Yes. 20 And, according to this graph, curtailments started 0 on May the 1st, 2015, where the solid red vertical line is? 2.1 22 That's what it says, yes. Α Is that your understanding, that May 1st was the 23 24 first curtailment? I don't recall the date that the first curtailment 25 Α

1 was, but that's what the plot indicates. 2 If in March and April there were no curtailments, do you know whether or not the water diverted above that blue 3 line would have been diverted without a basis of right? 4 MR. HILDRETH: Calls for speculation. Incomplete 5 hypothetical. 6 7 Yes or no. 8 THE WITNESS: Do I know? Would you repeat the 9 question? BY MR. KELLY: Let me rephrase it instead of just 10 reading it back. 11 12 In the month of March -- and so we don't have to 13 guess -- let's say any of the water right holders that fall in the upper portion of the demand in the month of March, 14 let's say 20,000 CFS and up, so we're north of the blue 15 16 line. Is it your understanding that this graph shows that there was insufficient water for those folks to divert in 17 March of 2015? 18 19 It would indicate -- it seems to me it would 20 indicate there probably wasn't for some parties, but I would 21 imagine that a lot of that supply -- a lot of that demand is project demand, Central Valley and State Water Project 22 23 Demand. 24 What do you mean that the demand is State Water and 25 Central Valley Project demand?

1 Well, the State Water Project and the Central Valley 2 Project have a large number of contractors. They deliver water to them. They have to deliver it one way or another, 3 whether from storage or from bypassing natural flow to them, 4 and so I would imagine that if you looked at a lot of that 5 demand, a lot of it would be water that's being provided by 6 7 the projects. 8 So is it your understanding that the demand included contract demands? 9 10 It includes all the parties who have contracts. I think they all have their own independent water rights too. 11 12 So it's your understanding that the Metropolitan 13 Water District of Southern California has its own water rights that the Department of Water Resources satisfies when 14 it delivers water? 15 16 Α No, that's not my understanding. And so you don't know whether a contract demand is 17 18 included in this chart or do you know? 19 Α Well --20 So let me --0 2.1 Α This is the full demand in the system, most of that demand in the Sacramento Basin is from parties who have 22 23 either senior water rights or they have contracts with the 24 Department and the Bureau. 25 And so I would imagine that a lot of that demand is

being satisfied by settlement contractor -- is settlement 1 2 contractor and Feather River contractors demand, and that it would be provided either by diverting natural flow or by 3 stored water releases from the projects. 4 Do you know whether settlement contract water or 5 Feather River water or exchange contractor water was 6 7 delivered solely from stored water this year? 8 Α Oh, I don't know how much was stored and how much 9 was natural flow. And so your understanding is that -- that this 10 11 demand includes -- I'm trying to understand your answer. 12 Is your understanding that the post-14 demand or 13 that any of the demand includes the portion of Sacramento River settlement contract water not satisfied from storage 14 or is it all of the Sac River settlement contractor demand? 15 16 Α Demand is just how much water people intend to divert. I'm not commenting on what right they're diverting 17 18 under. 19 And, Mr. Howard, if you don't know, that's fine. 20 That's what I'm trying to understand is if you know --2.1 Α Uh-huh. -- whether or not the contract demands are included 22 23 in here that are separate and apart from the satisfaction of 24 water rights from natural flow. I'm just trying to get what 25 your understanding is.

1 My understanding would be that this is the full Α 2 demand in the system. The State Water Project demand, the Central Valley Project demand, all the parties who are 3 diverting under contracts under their natural -- under their 4 own water rights --5 6 0 Okay. 7 Α -- that these are the actual demands that are being 8 put on the system, people are diverting that water. They 9 might be diverting it to storage, they might be diverting it 10 for consumptive use, but these are the demands in the 11 system. And some of those demands might be met from 12 13 projects' stored water? If they had a contract and there wasn't natural flow 14 available to them, then under the contract they're 15 16 required -- the projects were required to deliver stored water to them. 17 18 But only if there wasn't sufficient natural flow; is 19 that your understanding? Well, this year -- my recollection is that the 20 Α 21 settlement contractors got a 75 percent allocation and the Feather River contractors got a 50 percent allocation, and 22 23 so those are actual demands placed on the system, and I 24 don't know whether at any particular time they were 25 diverting stored water or whether they were diverting under

- 1 | their own rights, but the demands are what they are.
- 2 | Q Do you think that whether their demands were being
- 3 | met by stored water versus natural flow would be an
- 4 | important piece of information in determining availability
- 5 | of supplies for other water right holders?
- 6 A Could you repeat the question?
- 7 Q Yes. Do you think that it would be important to
- 8 | know whether or not the Sacramento River settlement
- 9 | contractors were receiving the entire 75 percent from stored
- 10 | water versus from natural flow in determining whether there
- 11 | was sufficient water available for other water right
- 12 | holders?
- 13 A Yes.
- 14 | Q Is the same true then for the water supply to the
- 15 exchange contractors? Would it be important to know if the
- 16 exchange contractor demand was being met from stored water
- 17 | versus from natural flow?
- 18 | A Off the top of my head, I don't.
- 19 Q Do you know where the -- do you know who the
- 20 | exchange contractors are?
- 21 | A Yes.
- 22 | Q What is your understanding of who the exchange
- 23 | contractors are?
- 24 A San Joaquin River contractors, people who used to
- 25 | get water out of the San Joaquin River, and they exchange

- 1 | those rights for deliveries from the Delta.
- 2 | Q When you say "from the Delta," is that from the
- 3 | Central Valley Project supplies upstream, north of the
- 4 Delta?
- 5 A Probably, yes.
- 6 | Q You said "from the Delta." Is it from the CVP?
- 7 | A Yeah. Well, the CVP diverts the water, yes.
- 8 | Q And do you know where the exchange contractors
- 9 | receive their water supply from this year?
- 10 | A I think they got some from the Sacramento -- from
- 11 | the Delta, and I think they might have made a call on some
- 12 of the water out of Friant.
- 13 | Q And the call they made on the water out of Friant,
- 14 | was that stored water, do you know?
- 15 A I don't know.
- 16 Q The water that the exchange contractors got from the
- 17 Delta, do you know whether or not that water was stored
- 18 | water?
- 19 A No, I do not.
- 20 | Q Do you think, in determining available supply for
- 21 other water right holders, it would be important to know
- 22 | whether or not that water was stored water or whether it was
- 23 | satisfied from natural flow?
- In other words, Mr. Howard, let's say the exchange
- 25 | contractors had a demand from Friant of let's just say it

was 300,000 acre feet over the summer. Do you think it 1 2 would be important to know, in conducting a water supply -water available analysis, whether or not that 300,000 acre 3 feet came out of storage in Friant versus the natural flow 4 of the San Joaquin River system? 5 Α I don't know. 6 7 Did you have any discussion about anything like that 8 with Mr. O'Hagan? 9 Regarding Friant? 10 Regarding the segregation of supplies met from stored water versus supplies met through natural flow? 11 12 My understanding was that, and I imagine this came Α 13 from a discussion with John, is that as we curtailed parties who had contract water, that the assumption was that at that 14 point they were being served with stored water from the 15 16 projects. But only after the curtailments were issued? 17 18 Α And that was -- once a curtailment was issued to a 19 party, a contractor, Feather or settlement, the demand had to be satisfied out of stored water, and so then we shifted 20 2.1 where that water was being accounted from. MR. KELLY: Mark this next in order, please. 22 23 Exhibit 65. 24 (Whereupon, Exhibit No. 65 was marked for identification.) 25

- 1 Q BY MR. KELLY: Mr. Howard, one thing I forgot to
- 2 | tell you. If at any time you need a break for any reason,
- 3 | just let me know and we'll take a break.
- 4 A Sure.
- 5 Q Mr. Howard, do you know what Exhibit 65 is? Have
- 6 | you seen it before? Do you need some time to review it?
- 7 A Well, yes. I would like to read it.
- 8 | 0 Sure.
- 9 A (Witness reviewing.)
- 10 Q Just let me know when you're finished.
- 11 | A Okay.
- 12 Q And so Exhibit 65 contains two emails, one from Joe
- 13 | Schofield, that's S-c-h-o-f-i-e-l-d. He's with the
- 14 | Sacramento Municipal Utilities District, and that email is
- 15 | to you on May the 7th, and below that is an email of
- 16 | 15 minutes earlier from you to him, copying John O'Hagan and
- 17 | another email address; is that's correct?
- 18 A Yes.
- 19 Q And the other email address next to Mr. O'Hagan is
- 20 WB-EXEC-BoardMembers; is that correct?
- 21 | A Yes.
- 22 | Q And do you know who that email address, who gets
- 23 emails that go to that address?
- 24 A The board members.
- 25 | Q And that would be the five members of the State

- Water Resources Control Board? 1 2 Plus Michael Lauffer, myself, John Bishop, and Caren 3 Trqovcich. 4 Who is John Bishop? He's the Chief Deputy Director -- one of the two 5 Α Chief Deputy Directors. 6 7 He and Caren Trgovcich? 0 8 Α Yes. 9 And I looked at this email, and it appeared to me to be your -- I don't know if "authorization" is the right word 10 to use, and so you can correct me if I'm wrong. But your 11 12 authorization for SMUD to continue to divert water to 13 storage even after their water rights were curtailed; is 14 that correct? 15 Α Yes. And so from what I see here, you indicated that 16 SMUD's water rights were curtailed on May the 1st of 2015; 17 18 is that correct? And it looks like this email involves 19 water right licenses for the diversion of water for the post-14 diversion of water into Ice House Reservoir and 2.0 2.1 Union Valley Reservoir, and then some tributaries. Is that your understanding as well? 22 23 Α Yes.
- 24 Q And then so, through this authorization, did you
- 25 | tell the Sacramento Municipal Utilities District that,

- 1 | notwithstanding there was insufficient water to satisfy
- 2 | their water rights, that they could continue to divert water
- 3 | to storage?
- 4 A Yes.
- 5 | Q And why did you allow SMUD to divert water even
- 6 | after they had been curtailed?
- 7 A I think we made it clear to parties that if there
- 8 | were voluntary agreements that had no adverse effect on fish
- 9 and wildlife or other legal users of water, that we would
- 10 | allow continued diversion.
- 11 | Q And were there -- if you know, were there other
- 12 legal users of water that were senior to SMUD downstream of
- 13 | SMUD that could have taken that water that you let SMUD
- 14 | divert?
- 15 A We did -- my staff, as I recall, kind of
- 16 | stretching -- well, that was an issue that was looked at by
- 17 | my staff, I believe.
- 18 | O Do you know how long SMUD diverted water after
- 19 | having received the authorization from you on May the 7th to
- 20 divert even when curtailments were in place?
- 21 | A No.
- 22 | Q Do you know whether SMUD diverted water between June
- 23 | the 13th and June the 25th of 2015?
- 24 A No.
- 25 | Q If SMUD diverted water during that time period,

1 isn't that water that the Byron-Bethany Irrigation District 2 could have been entitled to? MR. HILDRETH: Calls for speculation. Calls for a 3 legal conclusion. 4 If you know. 5 THE WITNESS: I believe no. 6 7 BY MR. KELLY: How do you believe no? Why do you 8 believe no? 9 As far as I know, the releases from the American 10 River are -- would have been the same regardless of whether SMUD was taking water or not, that the only party who could 11 be injured would be the downstream reservoir operators. 12 13 Well, the downstream reservoir operators were curtailed at that same time, weren't they? Weren't 14 post-1914 curtailments issued the same day for the entire 15 Sacramento River Watershed? 16 Yes, they would have been curtailed as well. 17 Α 18 So the Bureau of Reclamation could not have captured 19 the water that SMUD wouldn't have captured either, correct? The water that SMUD diverted, if all post-1914 water rights 2.0 were curtailed, would have had to have remained in the 2.1 system and bypassed by any post-1914 water right holder; 22 23 isn't that correct? 24 Well, I think it says here that the Bureau has 25 confirmed that its releases at Folsom Dam will always exceed

1 the full natural flow into Folsom. And so, therefore, they 2 were bypassing downstream more than the full natural flow into the reservoir as of this date. 3 4 Do you know whether downstream water right holders are entitled to divert the releases from Folsom that the 5 Bureau of Reclamation makes? 6 7 MR. HILDRETH: Calls for a legal conclusion. 8 0 BY MR. KELLY: I'm asking about your knowledge. 9 approved this based on that representation, correct, Mr. Howard? Is that yes or no? 10 11 I approved it under the idea that there would be no Α injury. You're asking now whether it's possible that BBID 12 13 was injured. I would have to -- off the top of my head, I would have to think about that more often. I don't know the 14 15 answer to that question. 16 That's fine. I'm trying to understand what the rationale for granting the exception was, and you said that 17 18 because you were assured that the Bureau would release more 19 water all the time that was -- more water than was flowing 2.0 into Folsom, and, based on that, you determined that there 2.1 was no injury to any legal users of water; is that correct? 22 MR. HILDRETH: Asked and answered. Do you have anything to add to what you already 23 24 said? 25 THE WITNESS: No. Like I said, my opinion was this

was a situation where no one could be injured. 1 2 BY MR. KELLY: And would BBID be entitled to divert the quantity of water that SMUD, as a junior, diverted into 3 storage outside of the curtailment period? 4 MR. HILDRETH: Calls for speculation. 5 MS. McGINNIS: Calls for a legal conclusion. 6 7 BY MR. KELLY: Mr. Howard, didn't SMUD's diversion 8 of water when curtailments were in place, wasn't that a 9 diversion of storage when no water was available to divert 10 for them? 11 MR. HILDRETH: Calls for speculation. 12 MS. SPALETTA: Calls for a legal conclusion. 13 Q BY MR. KELLY: You can answer. If we sent them a curtailment notice, then it was 14 our opinion that there wasn't water available for them to 15 16 appropriate. Q But you told them that they could divert anyway, 17 18 correct? 19 With the understanding -- my understanding, anyway, 20 that there would be no injury to any legal user of water, 21 yes. And if a downstream water right holder was actually 22 deprived of water as a result of this decision, then there 23 24 would have been injury, correct? 25 MR. HILDRETH: Calls for speculation. Calls for a

1 legal conclusion. 2 THE WITNESS: I don't know. Again, I would have to 3 spend more time thinking about it. BY MR. KELLY: Let's take a five-minute break. 4 (A recess was taken.) 5 MR. KELLY: Back on the record. 6 7 MR. HILDRETH: He has a clarification on Exhibit 65. BY MR. KELLY: Okay. 8 Q 9 My recollection, and I think it is reflected in here, is that Folsom was going to release more than the full 10 natural flow in the system, which means that their releases 11 would be -- would also include any -- since we use full 12 13 natural flow in the calculation of whether or not water is available, then the full natural flow in that watershed was 14 being -- more than that was being passed by the Bureau out 15 of the American River, that that's why parties downstream 16 wouldn't be injured because their curtailments were 17 18 predicated on that same full natural flow calculation, and that flow natural flow is being passed during the period in 19 2.0 which SMUD would have been diverting. 2.1 So is it your testimony then that the downstream water right holders then were entitled to have their rights 22 satisfied through the project releases? 23 24 They're entitled to have their demands satisfied by 25 full natural flow in the system.

1 But the full natural flows were -- part of the full 2 natural flow is being diverted by SMUD when curtailments 3 were in place, correct? But the entire full natural flow is being passed 4 by -- and more by Folsom Reservoir. In other words, their 5 releases, if we calculate what the full natural flow in the 6 7 system is, their releases are greater than that in that we 8 use that full natural flow calculation for the curtailment. So there -- I can't see how there could possibly be injury 9 10 to any party. 11 But that's only if the downstream water users were having their rights satisfied through stored project water, 12 13 right? They're being satisfied through the full 14 No. natural flows. That's what the calculation is. 15 16 But where is the physical water coming from? But it doesn't matter what color the molecules are 17 18 that are passing through Folsom as long as the calculation 19 for downstream parties who were being curtailed is based on 20 full natural flow, and as long as the period in which this curtailment is -- or this -- SMUD is diverting, that that 2.1 full natural flow is being bypassed by them. And that's the 22 full natural flow, from my understanding, of what's in the 23 24 entire watershed, not just the flow into Folsom. So all of the water that SMUD diverted when 25 Q

1 curtailments were in place, who made that water up? 2 Physically, where did that water come from that they stored? If you know. 3 MR. HILDRETH: 4 THE WITNESS: Who made it up? BY MR. KELLY: Yeah. 5 0 Well, it was released out of Folsom Reservoir. 6 Α 7 It was released out of Folsom, so part of it was 8 bypassed full natural flow and part of it was stored water? 9 I would imagine that's potentially the case. 10 It has to be the case, doesn't it, if they're 11 releasing more water than is coming in, and you based your 12 decision on the fact that they were releasing more to 13 satisfy downstream rights, doesn't a portion of that have to come from stored water? 14 MR. HILDRETH: It calls for speculation. 15 16 THE WITNESS: Well, I believe so. BY MR. KELLY: Mathematically, it has to, doesn't 17 0 18 it? 19 Α Yeah. Let's mark this next in order. Exhibit 66. 20 Q 21 (Whereupon, Exhibit No. 66 was marked for identification.) 22 23 MS. SPALETTA: Are there enough copies to have one 24 that the three of us could share? 25 MR. KELLY: Let's go off the record.

(Off-the-record discussion.) 1 2 Q BY MR. KELLY: Let's go back on the record. Mr. Howard, do you recognize Exhibit -- what's been 3 marked as Exhibit 66? Let me know when you're finished 4 reviewing it. 5 (Witness reviewing.) Okay. 6 Α 7 Do you know what the content of the emails in this 8 exhibit are about? 9 Α Yes. What is your understanding of what this is about? 10 I think East Bay MUD wanted to cut their releases in 11 Α 12 order to hold water for temperature control later in the 13 year. And isn't this their request to maintain the water 14 and storage that they collected while the curtailments were 15 16 in place? 17 Α Yes. 18 And so is it your understanding that the East Bay 19 Municipal Utilities District, or East Bay MUD, that they 20 collected water to storage after they were curtailed? 2.1 Α Well, I don't know if they did it after they were curtailed or if they did it after this discussion, but -- so 22 I can't say exactly when they did it. 23 24 Well, let's look at the second page of the exhibit, 25 John O'Hagan's email to you on June the 9th at 12:20 p.m.

1 It says here that, "Richard also informed me that their 2 request is only for water previously collected after the curtailment notice and not for any potential future 3 collection that may become available." 4 Does that refresh your recollection of whether they 5 diverted water after their curtailments were issued to 6 7 storage? Mr. Howard? 8 Α Yes. That's what it sounds like. 9 And this was in early June, correct? 0 10 Α Yes. 11 And the curtailment -- the pre-1914 curtailments, 0 including the curtailment of BBID's water rights, went into 12 13 place three days after this email, correct? I don't know what day that happened. 14 You don't know whether or not the pre-1914 15 curtailments that you issued were issued on June the 12th? 16 I don't recall the date specifically. 17 Α 18 And if East Bay MUD had diverted water to storage while their rights were curtailed, do you have any idea who 19 2.0 would be entitled to the water that they stored? 2.1 MR. HILDRETH: Calls for speculation. 22 Q BY MR. KELLY: I'm only asking if you know. Would be entitled to the water. I would imagine it 23 24 would be senior water right holders. 25 Q So pre-14 water right holders would be entitled to

1 it? 2 Α Well --Let me ask you this, Mr. Howard. I want you to 3 assume that post-1914 water right curtailments went into 4 place on May the 1st of 2015. So as of the date of this 5 email, no one with a post-1914 water right was authorized to 6 7 divert. And I want you to assume that the pre-1914 8 curtailments that were issued this year didn't go into effect until June the 12th. 9 10 So if senior water right holders would have been entitled to the water that East Bay MUD diverted during 11 12 curtailments, wouldn't that water then have gone to pre-1914 13 water right holders since they were the only water right holders -- appropriative water right holders that had not 14 yet been curtailed? 15 16 Α The reason this is a complicated question is because you're asking -- I'm not quite sure if you're asking are 17 18 they entitled to the molecules or are they entitled to 19 water. 20 You know, the full natural flow calculation is 2.1 unchanged by East Bay MUD's operation, or so I would believe. The party that gets injured by East Bay MUD 22 storing water is -- are the projects, the Central Valley 23 24 Project and the State Water Project, because they're the 25 guarantors in the system.

1 And so the calculation -- the fact that East Bay MUD 2 stored water makes the calculation, at least I assume if it is a full natural flow calculation, unchanged. And so you 3 have the water right holders that were curtailing are not 4 affected by what East Bay MUD did because the projects are 5 the ones who are releasing extra water in order to make that 6 7 up. 8 So, resultantly, when we found out about this, my answer is the injured party here is the projects. If they 9 10 agree to make up that water and make other water right holders in the system whole as a result, that they -- that 11 12 East Bay MUD, if they can get an agreement with the 13 projects, can go ahead and do that. It is the same situation as the American River. 14 Again, if you've got these parties who, you know, are 15 guaranteeing the system and someone is injuring them, that 16 doesn't mean that other water right holders get injured. 17 18 means that the projects have to release stored water -- more 19 stored water for the benefit of the other water right 20 holders in the system. 2.1 So you referred to the projects as the quarantors of something, and then you again stated that the projects 22 quarantee that folks downstream -- that water holders 23 24 downstream will be satisfied. What do you mean by that? 25 Α I mean, that they're required to release water to

meet standards, and parties, if they aren't curtailed, take 1 2 that water. And so when the projects release water to meet 3 standards, are you talking about regular regulatory 4 requirements imposed on the projects? 5 Α Yes. 6 7 And when the projects release that water to meet 8 regulatory requirements, and once it meets that regulatory 9 purpose, is that water then available for appropriation by 10 other water right holders? 11 MS. McGINNIS: Objection. Calls for a legal 12 conclusion. 13 BY MR. KELLY: I'm asking you, Mr. Howard, because you just said that everybody would be kept whole because the 14 projects are the guarantors, that folks downstream would 15 have sufficient water to divert, and that they meet 16 regulatory requirements and that people can divert their 17 18 water. 19 I'm asking you if, by that, you meant that once the 20 projects release water to meet those regulatory requirements 2.1 and it's met those requirements, whether or not then the 22 other people in the Delta can divert that water? 23 MS. McGINNIS: Same objection. 24 THE WITNESS: Those regulatory requirements are way 25 off in the West Delta. I don't know that anyone could

Q BY MR. KELLY: So how are the projects then quaranteeing anything if nobody can divert that water?

divert that water.

2.1

- 4 A Well, again, we get to the question of people are being curtailed based on a full natural flow calculation.
- Q Are people being curtailed based on actual water availability, do you know?
 - A Well, that's what is meant to be the supply curve, apparently, for the calculation. Again, you know, what we're doing is calculating whether water is available to parties in the system. It's a complicated question because the projects are always pouring water into the system. They aren't entitled to that stored water.

And so, you know, but then if what we're doing is basing the curtailments on the full natural flow calculation, if somebody takes water in the system who shouldn't be taking it, then what that means is that the projects make it up. It doesn't affect other water right holders; it only affects the State Water Project and the Central Valley Project.

Q So, Mr. Howard, you've said a couple of different things here, and I want to make sure that the record is clear.

You said that you authorized SMUD to divert water into storage in the face of curtailments, and that what East

Bay MUD had proposed was acceptable even after having stored water in light of curtailments because the projects were the guarantors of meeting downstream obligations.

2.1

You said that a part of the component of water that came out of Folsom and went downstream had to be stored water to meet those downstream requirements because they were discharging -- they were releasing more than they were storing. And now you just told me that folks downstream are not entitled to any stored water.

And so I don't understand how the projects guarantee anything if the releases come from stored water and they're not entitled to it, but they're supposed to be the guarantors that folks downstream will have their obligations met. How can both be true?

A Well, I can see that I'm not being particularly clear, but I am trying to be clear.

We have a calculation here of full natural flow, and we are curtailing people based on that calculation. We are not, you know, trying to mark stored water molecules and track them through the system. We're saying -- we're doing a calculation based on a supply curve.

To the extent that somebody who doesn't -- who, in our opinion, there's water not available to them, they divert, that water is made up by the projects. They are injuring the projects. There is no one else in the system

who is curtailed earlier because of that. No one. BBID
isn't curtailed a day earlier then because someone else in
the system took water that shouldn't have.

2.1

You know, there were probably a number of parties who -- maybe there wasn't available to them, we didn't know, and they were taking water, and we might have sent them a curtailment notice and they might have ignored us, but none of those activities hurt BBID. Because BBID, we were looking at full natural flows in the system, and that's the basis for deciding whether or not there was water available for BBID. That's what established the date they were curtailed.

The party that got injured by anyone who was diverting, whether it was stored water release or direct diversion, are the projects, because they needed to make that water up in order to make sure that Delta standards were met.

So when parties like Folsom or East Bay MUD or, for that matter, the San Joaquin tributary agencies came and said, "We have an agreement. We want to, you know, continue to divert."

My answer was always the same to all of them. "The party that you're going to injure is the State Water Project and the Central Valley Project. Go to them and ask them if they say that's okay."

1 In two cases, the SMUD case, and apparently the 2 Mokelumne case, I don't recall Mokelumne very well, the project said, "Okay, we will provide that. We will make up 3 that water. We agree to do that." I asked the San Joaquin 4 tributaries agency to do the same thing because they were 5 asking -- making the same request. 6 7 In that case, there was no approval from the State 8 Water Project or the Central Valley Project for that, and so 9 the result was I did not approve the voluntary agreement that the San Joaquin tributary agencies were requesting. 10 And so the water that East Bay MUD diverted into 11 0 storage during the curtailment period, where would that 12 13 water have ended up, do you know? 14 Α The Delta. How about the water that SMUD diverted during the 15 16 curtailment period, where would that water have ended up? Folsom. 17 Α 18 Could it have been stored in Folsom? Q 19 Α Folsom was curtailed. 20 Yes, it was. Could it have been stored in Folsom? 0 2.1 No new water storage, no. Α So where would the water have ended up? 22 Q 23 Α The Delta. 24 And what happens, Mr. Howard, when fresh water 25 enters the Delta, do you know?

- 1 | A Well, it becomes tidal flow.
- 2 | Q Fresh water becomes tidal flow?
- 3 | A Well, it is certainly affected by the tides.
- 4 0 So tell me what that means.
- 5 | A Well, you seem to be asking where do water molecules
- 6 | go when they enter the Delta.
- 7 | Q That's not what I'm asking. I'm asking you to
- 8 | explain to me -- you just said that water becomes tidal
- 9 | flow. I'm asking you to explain what that means.
- 10 A I was inserting -- obviously, I answered the wrong
- 11 | question. I thought you were asking a water molecule has
- 12 entered the Delta, what happens to it?
- 13 Q Mr. Howard, you said that water becomes tidal flow.
- 14 I'm asking you what that means.
- 15 A Well, all I can do is say what I meant. It becomes
- 16 | a molecule moving back and forth with the tides in the
- 17 | Delta.
- 18 | Q Is it part of the available supply for diverters in
- 19 | the Delta, do you know?
- 20 A Yes.
- 21 | O And are you familiar with the -- with the Delta?
- 22 MS. McGINNIS: Objection. Vague and ambiguous.
- 23 | THE WITNESS: Well, somewhat.
- 24 | Q BY MR. KELLY: Are you familiar with -- is the Delta
- 25 | defined legally?

There are legal Delta boundaries, yes. 1 Α 2 Q Do you know where those legal Delta boundaries are? 3 Α Not precisely. Do you know roughly where those legal boundaries 4 Q 5 are? 6 Α Roughly. 7 Does the State Water Board refer to the Delta -- is 8 there a common understanding of what is meant by the term "the Delta" at the State Water Board? 9 There is an understanding that there is a legal 10 11 Delta. When you talk about "Delta water quality standards," 12 13 I think you used that term when you were talking about the 14 projects. What do you mean by Delta water quality standards? 15 Well, we've established standards for protection of 16 Α municipal supply, agricultural supply, and fish and wildlife 17 18 in the Delta with compliance points at various locations. 19 So you just used the words "the Delta." What is the 20 Delta in the context you just used that term? 21 Α Well, like I say, there's a legal Delta and then 22 there is probably what would be called more the physical 23 Delta, which, you know, I suppose a geomorphologist would be 24 able to define what that is better than me. 25 But when I say "the Delta," it means some

combination of the legal boundaries of the Delta plus the 1 2 tidal areas that define -- in many cases, define the Delta. 3 And when you said that water that East Bay MUD diverted into storage would have ended up in the Delta and 4 that water that SMUD diverted would have ended up in the 5 Delta, what did you mean by "the Delta"? 6 Well, it would have flowed towards the legal 7 Α 8 boundaries of the Delta. Would it have flowed into the Delta? 9 10 Α Yes. 11 And so do you understand the Delta is a series of watercourses? Is the term "the Delta" ever used to refer to 12 13 a series of watercourses that are within the legal boundaries of the Delta? 14 I'm sorry. Could you repeat the question? 15 Α 16 0 Can you read it back? (Whereupon, the record was read.) 17 18 THE WITNESS: I'm sure people use it that way. 19 0 BY MR. KELLY: Do you ever use it that way? When I refer to "the Delta," I'm not sure I'm 20 Α 2.1 referring to always just the watercourses. So Delta water quality standards, does that refer to 22 something other than the water in the Delta? 23 24 Α That refers to the water in the Delta. 25 Q And so was there any consideration this year given

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to the fact that when full natural flow figures drop below
 1
 2
     demand, that there was still a quantity of water present in
     the Delta?
 3
 4
             MR. HILDRETH: If you know.
             THE WITNESS: Could you repeat the question?
 5
             (Whereupon, the record was read.)
 6
 7
             THE WITNESS: I assume that question -- I assume.
 8
            MR. HILDRETH: Don't assume anything.
 9
             THE WITNESS: Yes.
10
            MR. HILDRETH: Make him ask another question.
11
            THE WITNESS: Could you clarify that question?
12
             BY MR. KELLY: Mr. Howard, is it your understanding,
    0
13
    based on the information provided to you from staff, that
14
    there was a lack of availability of water the same day for
    water right holders up at the City of Redding as there was
15
16
     for water holders in the Delta?
             MR. HILDRETH: Objection. Vague. I don't know what
17
18
    you mean by "the same day."
             THE WITNESS: Well, I think the answer to your
19
2.0
     question is no, because we -- my understanding is staff
2.1
     looked at various segments, and we did some curtailments in
    upstream areas that we didn't do farther downstream, and
22
     so -- so I think -- my answer would be no.
23
24
             BY MR. KELLY: Can you look at Exhibit 20 in that
25
    binder, please, Mr. Howard. And, if you can, first, the
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- bold all caps near the top of the page that begins "Notice
- 2 of Unavailability."
- $3 \mid A$ Yes.
- 4 Q And do you recognize this document?
- 5 A Yes.
- 6 Q And you signed this document, correct?
- 7 A Yes.
- 8 Q And the date of this document is June the 12th,
- 9 2015?
- 10 A Yes.
- 11 | Q Does that refresh your recollection of whether or
- 12 | not pre-1914 water right holders were curtailed on June the
- 13 | 12th of 2015?
- 14 A That is the date.
- 15 | Q And doesn't this curtailment notice say that all
- 16 | pre-1914 water right holders with a claim after 1903 in the
- 17 | Sacramento/San Joaquin Watersheds and Delta are being
- 18 | curtailed?
- 19 A Yes.
- 20 | Q So wasn't every -- weren't all water right holders
- 21 | in the entire Sacramento/San Joaquin Watershed and Delta
- 22 | curtailed on the same day?
- 23 A Well, your question before was, was Redding
- 24 | curtailed.
- 25 | Q I'm asking you if they were all curtailed on the

1 same day. 2 Α Yes. Priority date of 1903. 3 Q In the entire watershed, correct? Same day? 4 Α Yes. And so a water right holder with a priority date of 5 1910 in Redding ran out of water the same day that a water 6 7 right holder with a priority date of 1908 ran out of water in the Delta? 8 9 Α Yes. 10 And so do you know whether or not the State Water 11 Board considered the actual availability of water for any 12 water right holder in implementing curtailments? 13 MR. HILDRETH: Yes or no. 14 MR. KELLY: Did the record pick up counsel's 15 statement? 16 MR. O'LAUGHLIN: You know, that's really uncalled for, I've got to say that. You can't answer for the 17 18 witness, and you can't --19 MR. HILDRETH: I'm giving him direction, not 20 answering for him. 2.1 MR. O'LAUGHLIN: Yes, you are. You said right on the record "yes or no." 22 23 MR. HILDRETH: Yes, I did. 24 MR. O'LAUGHLIN: The witness is entitled to answer in any way he sees fit, Counsel, and you can't do that, and 25

1 you know it. Don't do it. 2 MR. HILDRETH: It is a yes-or-no question, so he can 3 answer yes or no. 4 MR. O'LAUGHLIN: It is a yes-or-no question and he has been told that, but you can't direct him, and I would 5 admonish you not to do it again or we'll seek a protective 6 7 order. 8 MR. HILDRETH: Good. You go ahead and do that. 9 MR. O'LAUGHLIN: That is uncalled for and unprofessional and unethical. Don't give me that look. 10 That's just crap. You know it. 11 12 THE WITNESS: Could you repeat the question? 13 (Whereupon, the record was read.) 14 THE WITNESS: Do I know? I'm sorry. That's an odd 15 question. Can you read it one more time? (Whereupon, the record was read.) 16 17 THE WITNESS: Yes. 18 BY MR. KELLY: So what did the State Water Board do 19 to determine the actual availability of water at BBID's point of diversion? 2.0 2.1 MR. HILDRETH: Calls for speculation. BY MR. KELLY: The witness just said yes, that they 22 did determine the actual availability of water for 23 24 individual diverters. I'm asking him what they did to make that determination, what they considered. 25

- I thought you had said for any diverter. 1 Α And what diverters did the State Water Board make a 2 determination that there was actually water available, if it 3 wasn't all of them? 4 Okay. I'm going to have to hear that question 5 6 again. 7 (Whereupon, the record was read.) 8 THE WITNESS: We made determinations of when water 9 was not available to all the people that we sent notices to. 10 BY MR. KELLY: Did you determine whether or not water was actually available at any particular point of 11 12 diversion? 13 Well, I think the method -- you would have to talk to John O'Hagan specifically about the details of the 14 methodology. 15 16 So is the answer that you don't know?

17

18

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Α

0

20 A My staff.

or rely on?

- 21 Q Did you rely on anything other than staff?
- 22 A Well, I do think I reviewed these documents -- other

Okay. In preparing Exhibit 20, what did you review

23 documents regarding supply/demand curves.

I don't know.

- 24 | Q Can you tell me what other documents you reviewed in
- 25 | preparing Exhibit 20?

- 1 A Well, I can't say specifically. They were the
- 2 | documents that were posted on the Board's website that laid
- 3 out supply and demand of -- in the watershed.
- 4 | Q So did you go to the State Water Board's website and
- 5 look at the documents there or did somebody provide them to
- 6 | you?
- 7 A I've done both. I don't know particularly in this
- 8 | instance which.
- 9 Q Do you know whether -- let's back up. Let's go back
- 10 | to the Delta.
- Based on your experience, when full natural flow
- 12 | numbers drop, and let's assume that up at -- do you know
- 13 where Bend Bridge is, below Shasta?
- 14 | A I know around where it is; I don't know its specific
- 15 | location.
- 16 | Q So let's just pick Redding. Let's say a full
- 17 | natural flow dropped to zero in the Sacramento River at
- 18 | Redding, okay? Do you know whether or not there would be
- 19 | water in the Delta?
- 20 A Yes.
- 21 | O And do you know where that water would have come
- 22 | from?
- 23 A Well, it would have come from a combination of sea
- 24 | water and stored water from projects.
- 25 | Q How about prior to the projects in the 1930s, let's

- 1 | say. Do you know whether the projects were constructed in
- 2 | the early 1930s?
- 3 A They were not.
- 4 | Q They were not. And so, in 1931, was Shasta there,
- 5 | Shasta Reservoir there?
- 6 A No.
- 7 Q Was Oroville there?
- 8 A No.
- 9 Q Folsom?
- 10 A No.
- 11 | Q Do you know whether there were any significant
- 12 | storage projects in the Sacramento Watershed in the 1930s?
- 13 A I don't know what the storage projects that there
- 14 | were in the 1930s.
- 15 Q So, in the 1930s, if full natural flow in the
- 16 | Sacramento River up near where Redding is dropped to zero,
- 17 | would there have been water in the Delta?
- 18 | A Yes.
- 19 O And where would that water have come from?
- 20 A Well, it would have come from the ocean and it might
- 21 | have come from the San Joaquin River or from the eastside
- 22 tributaries.
- 23 | Q Would it have come from the Sacramento River earlier
- 24 | in the year, if you know?
- 25 | A There would be tidal water that would still be

- 1 there, yes. And so do you have -- have you ever done any work 2 associated with the residence time of water in the Delta? 3 Α 4 No. Have you ever seen any work related to the residence 5 time of water in the Delta? 6 7 Α Yes. Some. 8 And so do you know whether, in June of any given year, that there's water in the Delta that flowed into the 9 10 Delta from the Sacramento River earlier that year? "Earlier" being? 11 Α 12 January or February. 13 Α I don't know. Do you think that that would be important in 14 determining whether or not there was water available for 15 people in the Delta to divert later in the year? 16 I don't know. 17 Α 18 Why don't you know? 0 19 I'm not quite sure how to answer a question like 20 that. 2.1 Let me ask you this question. Again, let's take a
- pre-project scenario in a drought year in 1931. And flows
 stop -- there are no flows into the Delta, let's say, after
 June 1st, that all inflow into the Delta from Sacramento
 River from the eastside streams from the San Joaquin River

1 dropped to zero June the 1st. 2 Do you have any opinion on what the condition of the Delta would be on that day? Have you ever seen modeling 3 4 that looks at that question? 5 Α No. Would you anticipate that there would be any fresh 6 water in the Delta? 8 Α If flows -- pressure flows continued from June 1st and then stopped on June 1st, there would have to be some 9 10 water molecules that were still in the Delta, yes. And would those -- if there was fresh water 11 available, in your opinion, would that have been water 12 13 available for water right holders to divert? MR. HILDRETH: Calls for a legal conclusion. 14 BY MR. KELLY: Well, Mr. Howard, you issued 15 16 curtailments based on a lack of availability, and so I want to know whether or not if there was fresh water present in 17 18 the Delta when flows stopped, if water would have been 19 available? 20 Α I'd have to look at some modeling to try to 2.1 understand it better. I don't know the answer to your question. 22 O Okay. So let's look at Exhibit 19 in your binder. 23 24 Have you ever seen Exhibit 19 before? And, for the record, 25 Exhibit 19 is a complaint that the State Water Contractors

- filed with the State Water Resources Control Board with respect to in-Delta diversions.
- Toppede et in beled diversions.
- 3 A I've seen some of the plots, I believe. I'm not
- 4 | sure I've looked at or seen the full document.
- 5 | Q When you said that you've seen some of the plots,
- 6 | what are you referring to?
- 7 A I believe someone came and did a -- talked to us
- 8 about this before the complaint was filed, and some of these
- 9 | plots were shown to me.
- 10 Q Do you recall who would have come to meet with you
- 11 | and discuss this prior to it being filed?
- 12 A No, I don't remember.
- 13 Q Do you remember if it was Stefanie Morris?
- 14 A I don't remember.
- 15 | Q Roger Patterson?
- 16 A I don't remember who was there at the time.
- 17 | Q Can you turn to page -- actually, it is an
- 18 attachment. It is Attachment 5 to the State Water
- 19 | Contractors Complaint. And, Mr. Howard, I apologize, these
- 20 | don't appear to be paginated in order, but it is a
- 21 | memorandum from people at CH2M Hill to Terry Erlewin at the
- 22 | State Water Contractors. And the title of the memorandum is
- 23 | "2012 to 2015 Delta Salinity Conditions Under a Without
- 24 | Project Scenario."
- 25 Can you tell me when you locate that?

Yes, I found it. 1 Α 2 Okay. And what CH2M Hill did, and I will tell you that I've read this memo too many times now, is they -- and 3 it is depicted, Mr. Howard, in the -- in the graph -- it is 4 depicted graphically what they did, you know, in the last 30 5 or 40 pages, is they ran a modeling scenario that looked at 6 7 the Delta conditions in 2012, '13, '14, and '15, and what 8 the water quality would look like in both a "with" and 9 "without project" scenario. And I'd like for you to take a look at -- I'd like 10 for you to take a look at page 52 of Attachment 5, if you 11 will. And on the left hand of page 52 is a "with project" 12 13 depiction of the Delta on May the 16, 2015, and on the right-hand side is a "without project" depiction on May the 14 16th, 2015. 15 16 Do you see that? 17 Α Yes. 18 And it appears that portions of the Delta, the 19 westernmost portions of the Delta, and actually a little bit north in the Delta, in a "without project" scenario would be 20 21 of poorer quality or more saline than a "with project" condition, right? 22 23 Α Yes. 24 And, practically speaking, that makes sense because 25 the projects are required to release water to keep the Delta

more fresh than it would otherwise be; is that correct? 1 2 Α Yes. 3 Is that why we see better water quality with the 4 project? 5 Α Yes. 6 And then if you turn to page 53, this shows a "with" 0 7 and "without project" scenario on June the 13th of 2015. 8 Do you see that? 9 Yes. Α 10 And June the 13th is the day after their curtailments were issued, right? They were the day after 11 12 the pre-1914 curtailments were issued; isn't that right? 13 Α Yes. And this depicts that the salinity intrusion into 14 the western Delta, based on this model, would be much more 15 16 severe without the project than with the project, right? 17 Α Yes. 18 And I think you explained earlier that you 19 understood that BBID's diversion point was in the South 20 Delta, right? 21 Α Yes. And are you able to locate, even generally, where 22 that would be on these pictures of the Delta? 23 24 Α Generally. 25 Q And on June the 13th of 2015, at least according to

this model that was submitted by the State Water 1 2 Contractors, that shows that there would still be fresh water in the location of BBID's point of diversion; isn't 3 4 that right? MR. HILDRETH: Calls for speculation. 5 THE WITNESS: Certainly in the southern Delta there 6 is some fresh water, yes. 8 0 BY MR. KELLY: And then if you take a look at page 54, page 54 shows a "with" and "without project" condition 9 on July the 11th, 2015, correct? 10 11 Α Yes. And the "without project" condition, again, we see 12 13 more significant saline intrusion, according to this model, 14 right? 15 Α Yes. But in the southern and eastern portions of the 16 Delta and some of the northern regions of the Delta, there 17 18 still is some fresh water present in the Delta; isn't that 19 correct? 20 Α It depends on what you define as "fresh." If a Delta water diverter determined that water of a 2.1 22 certain water quality was sufficient for the purposes they 23 needed, wouldn't it be fresh enough for them? 24 MR. HILDRETH: Calls for speculation. 25 THE WITNESS: I don't know what they think they

1 need. 2 BY MR. KELLY: Do you know -- do you have any knowledge of what an acceptable level of salinity would be 3 to irrigate agriculture in the Delta? 4 South Delta, the objective ranges between about 450 5 parts per million to 700 parts per million. 6 7 And what is that based on, do you know? 0 8 Α Crops grown in the southern Delta. 9 And if a Delta diverter grew crops that were more 10 tolerant to salt than the crops you're referring to, might the acceptable level of salinity increase? 11 More tolerant salt crops would tolerate higher salt 12 A 13 levels, yes. So then according to at least this depiction in the 14 South Delta, even on July the 11th, there might have been 15 16 water of sufficient quality in a "without project" condition for folks to irrigate with, right? 17 18 MR. HILDRETH: Calls for speculation. 19 THE WITNESS: I don't know what they would need 20 other than what our objectives are. BY MR. KELLY: So if a -- if a diverter determined 2.1 0 22 that water with a salt concentration of 1,000 parts per million was an acceptable level of water quality, then there 23 24 would have been water of sufficient quality in portions of 25 the South Delta, correct?

1 MR. HILDRETH: Calls for speculation. 2 THE WITNESS: Well, the plot seems to show, you know, assuming the plot is accurate, that there would be 3 4 parts of the South Delta that are 2,000 to 3,000 parts that are at 1,000 to 2,000. 5 BY MR. KELLY: By the middle of the July, correct? 6 O 7 Α Yes. 8 By the middle of June when curtailments were in place, the water in the Delta was -- in the south Delta, 9 particularly, was below 1,000 parts per million, right? 10 11 Α Yes. And if I told you, Mr. Howard, that in the model 12 13 used to generate this information that the modelers 14 zeroed-out Delta inflow on May the 1st so there was no inflow to the Delta from the Sacramento, San Joaquin, or 15 16 eastside streams as of May 1st, 2015, would that surprise you? Would you consider that a conservative assumption to 17 18 make in running this model? 19 Α I'm sorry, no. 20 No inflow into the Delta as of May 1st? 0 2.1 Α And that's the "without project" scenario. In a "without project" scenario that they assume 22 that there was zero Delta inflow as of May 1st, do you think 23 24 that would be a conservative assumption to make in running a 25 model?

- In a year like this year, probably wouldn't be that 1 2 off, but, yes, it would be as conservative as you could make 3 it. Yeah. And the State Water Board's full natural flow 4 figures certainly didn't show that there was zero water in 5 the system as of May 1st, does it? 6 7 Α No. 8 And so do you think that information like this, that the modeling that was done here that shows that there was 9 water of sufficient quality in the Delta in June in a 10 "without project" condition would be relevant in making 11 water availability determinations for those diverters? 12 13 MR. HILDRETH: Calls for speculation. 14 BY MR. KELLY: Mr. Howard, would it have been good to know that in a "without project" condition that the Delta 15 would look like this when you were deciding whether or not 16 to curtail in-Delta diverters? 17 18 Α Not based on the methodology that was used, no. 19 Do you think that the methology that was used was
- 21 A It was different. I don't think that "accuracy" is

more accurate than this methodology?

- 22 | the right word to use.
- 23 Q Did the methology that the State Water Board did
- 24 | look at all at the actual water available in the Delta?
- 25 | A Yes.

20

How did it do that? 1 2 Α Well, using the supply/demand curves that we had 3 previously discussed. The supply/demand curves were global supply demand 4 curves for the entire watershed, though, weren't they? 5 Well, I don't know exactly how supply was -- what 6 7 locations the supply was determined from. There were -- so 8 when you say "it's the whole area," you know, I think they 9 broke it down into subsets of areas as opposed to some sort of single method, but... 10 Do you know what your staff used in determining what 11 the full natural flow was? 12 13 Α Gauge data, but I don't know where these gauges are. Do you know where full natural flow stations are? 14 0 15 Α No. Do you know whether your staff gave any 16 consideration to Delta inflow in generating the supply and 17 18 demand curves? 19 I don't know where the gauges were that they were 20 looking at. 2.1 Are the -- and I don't want you to speculate. Are 0 the depictions that you see graphically in this Attachment 5 22 generally what you would expect the Delta to do in a "with" 23 24 or "without project" scenario? MR. HILDRETH: Calls for speculation. 25

1 BY MR. KELLY: Mr. Howard? 2 Only to the extent that I would expect more salinity intrusion with a "without project" scenario. 3 And, Mr. Howard, when we talked earlier this 4 morning, you had explained that, early on in your career at 5 the Water Board, you worked on D-1630, that is a 6 7 Delta-related decision, and so you've worked and been 8 involved quite a bit on issues related to the Delta, haven't 9 you? 10 Α Yes. 11 And even in a "without project" condition, there's a fresh water component to the Delta even after flows into the 12 13 Delta cease, isn't there? MR. HILDRETH: Vague as to time. 14 THE WITNESS: You know, you would have to know 15 16 something about the previous conditions, you know, how -when you say "cease," they could be very low for a long 17 18 time, so how -- you know, that's not clear enough to really 19 say precisely. 20 BY MR. KELLY: Sure. And so this attachment, and 2.1 the modeling that was done here, ran that model -- and again, this was submitted by the State Water Contractors, 22 right, that received water -- they received water from the 23 24 projects, right? And this is a complaint where they're 25 trying to allege that the folks in the Delta at certain

- 1 | times of the year are unlawfully diverting water. Isn't
- 2 | that your understanding of what this is?
- 3 A Yes.
- 4 Q And, in support of that, they ran this model, and
- 5 | they started this model in January of 2012. Is that the
- 6 | first year of the drought, do you know?
- 7 A Yes.
- 8 Q And so they ran this consecutively from January of
- 9 2012 through the end of August of 2015, and so when you're
- 10 | saying that you would need to know what the conditions were
- 11 | prior, you could go through this and look at every month for
- 12 | the prior three years and watch how the Delta becomes -- in
- 13 | a "without project" condition becomes more saline and then
- 14 gets fresh water flows and becomes fresh, and you can
- 15 | actually look at that. And so, if you'd like, you can pick
- 16 | any point in time here, and you can see what the previous
- 17 | condition of the Delta was if you'd like to be able to
- 18 | answer that question.
- 19 A Which question is it we're asking again?
- 20 0 Whether or not there would be fresh water that
- 21 | remained in the Delta in June of this year even if inflows
- 22 | went to zero.
- 23 MR. HILDRETH: Calls for speculation. It's an
- 24 | incomplete hypothetical.
- 25 | Q BY MR. KELLY: It's the hypothetical that is

- 1 Attachment A. Would you like to take some time to review
- 2 | it?
- 3 A All of Attachment A?
- 4 | Q If you would like.
- 5 | A Well, you know, you're going to show me some model
- 6 | studies. I can't say whether or not I have confidence in
- 7 | the models or the people who necessarily ran the model
- 8 | studies, so I can't, you know, testify as to what this shows
- 9 but, you know, presumably -- presumably. You're asking
- 10 | whether or not there is fresh water in the Delta during
- 11 | times of year, and the answer is yes, there is.
- 12 Q And was that fact given any consideration when you
- 13 | issued your curtailments of water right holders in the
- 14 | Delta?
- 15 A Well, as I said before, the -- we use a different
- 16 | method to determine water availability.
- 17 | Q So is your answer no?
- 18 A What is the question again?
- 19 | Q The question is whether you considered the fact that
- 20 | there was fresh water present in the Delta when flows
- 21 | stopped when you implemented your curtailments this year?
- 22 A No, we used a different methodology.
- 23 | O So you didn't consider that there was fresh water
- 24 | available?
- 25 A We used a different methodology.

1 And so, in your view, in administering water rights 2 and issuing curtailments this year, who, if anyone, was entitled to the fresh water that was present in the Delta? 3 4 MR. HILDRETH: Calls for a legal conclusion. THE WITNESS: I don't -- my perspective, it's no 5 different than saying who was entitled to the fresh water in 6 7 the Sacramento River. We curtailed those people as well, 8 the curves would be nice bright blue for them as well. 9 BY MR. KELLY: But you considered availability in the Sacramento River through the full natural flow figure. 10 You told me that you didn't consider this fresh water pool 11 12 of water. Isn't that different? 13 MR. HILDRETH: Misstates his testimony. 14 THE WITNESS: Can you repeat the question? (Whereupon, the record was read.) 15 THE WITNESS: Yes, we used a different methology. 16 BY MR. KELLY: And so who, if anyone, in your 17 0 18 opinion, was entitled to divert the water that was present 19 in the Delta once curtailment is issued? MR. HILDRETH: Calls for a legal conclusion. Calls 20 2.1 for speculation. THE WITNESS: Well, we issued curtailment notices 22 because we thought there was -- my staff thought that there 23 24 was no water available to them for appropriation. 25 Q BY MR. KELLY: Without considering the pool of fresh

water that was present in the Delta, correct? 1 2 MR. HILDRETH: Asked and answered. THE WITNESS: Considering not -- what we were 3 4 considering was whether or not there was stored water being released into the Delta. 5 Q BY MR. KELLY: So is it your testimony then that if 6 there was stored water released in the Delta, that nobody in 8 the Delta could divert? 9 Α No. Q Okay. So then explain that to me. You just said 10 that the consideration for curtailments was whether there 11 was stored water releasing into the Delta. 12 13 Α No. It was whether or not there was enough full natural flow to meet the demands of senior water right 14 holders in the watershed. 15 16 Q Without considering the fresh water pool in the Delta? 17 18 MR. HILDRETH: Asked and answered. THE WITNESS: I did answer that. 19 20 BY MR. KELLY: Can you answer it, please. 2.1 A Oh, I thought I just did. Yes, we used a different 22 methodology. Without considering the presence of fresh water in 23 24 the Delta; is that correct? 25 MR. HILDRETH: Asked and answered.

1 THE WITNESS: Yes. 2 BY MR. KELLY: Were you involved at all in the discussions with respect to the 25 percent voluntary 3 4 reduction that the in-Delta riparian water right holders did this year? 5 6 Α Yes. 7 What is your understanding of how that voluntary 8 reduction program worked? 9 Well, not much more than the way you just defined it. The parties would agree to -- riparians only would 10 agree to reduce diversions by approximately 25 percent, and 11 we would not curtail those riparians beyond that. 12 13 Even if later in the year there was insufficient water available to satisfy their water rights? 14 If that was the case -- if that became the case, 15 then that became a limitation on all curtailments in the 16 watershed, in my opinion. All water right holders have to 17 18 be treated equivalently. 19 Well, only riparians were offered the 25 percent 20 reduction, right? Appropriators were not offered that deal, 21 were they? 22 Α No. And so it is not true that you treated all water 23 24 right holders the same, correct? 25 A Well, I treated all water right holders with

equivalent rights equivalently. 1 2 And what is your understanding of where that 3 25 percent of saved water went? 4 Ultimately, I imagine it got backed up into project reservoirs. 5 So it got back -- how did it get backed up into 6 project reservoirs? 8 Α Well, if Delta diversions were reduced, then the projects would potentially have to release less water for 9 salinity control. 10 And if full natural flow in the South Delta was 11 0 insufficient in July to meet the reduced riparian demand, 12 13 how would that supply get made up? MR. HILDRETH: Calls for speculation. 14 BY MR. KELLY: Well, when you approved it, how did 15 16 you anticipate that that supply would get made up? 17 Α Can you repeat the question? 18 (Whereupon, the record was read.) 19 THE WITNESS: I'm going to have to take a 20 five-minute break. I'm starting to get foggy. 2.1 (A recess was taken.) BY MR. KELLY: I believe when we took a break that 22 23 there was a question pending. Mr. Howard, would you like 24 that question read back? 25 Α Sure.

1 (Whereupon, the record was read.) 2 THE WITNESS: Ultimately, the guarantor in the 3 system are the projects, the state and federal water 4 projects. BY MR. KELLY: So the riparian water right holders 5 would then be diverting, I guess, stored water if there was 6 7 insufficient natural flow? 8 Α Yes. 9 A little while ago we were talking about salinity in the South Delta in a "with" and "without project" condition, 10 11 and you made the comment that the projects are required to release water to meet -- to keep the Delta fresh, I believe, 12 13 or to meet salinity standards or something like that. 14 Do you recall saying that? 15 Α Yes. 16 I'm sorry? 17 Α Yes. 18 And when you were referring to those standards, were 19 you referring to water quality in the South Delta or were 20 you referring to X2? 2.1 Α Principally, I was referring to X2 plus, you know, Emmaton, Jersey Point, Contra Costa standards. They 22 23 generally don't try to operate the State Water Project and 24 the Central Valley Project to meet water quality objectives 25 in the South Delta, though their operations do benefit

salinity conditions in the South Delta. 1 2 Do the operations of other diverters in the South Delta benefit salinity in the South Delta? 3 MR. HILDRETH: Calls for speculation. 4 THE WITNESS: I don't know what all the operations 5 6 are. 7 BY MR. KELLY: In a pre-project condition like in 8 1931, if flows into the Delta stopped and BBID diverted all 9 of the summer of 1931 and measured water quality and had water of sufficient quality available to divert, would that 10 suggest that the method the State Water Board used this year 11 12 didn't capture the true picture of the water availability in 13 the Delta? MR. HILDRETH: Calls for speculation. It's an 14 15 incomplete hypothetical. THE WITNESS: I can only speak to the methodology 16 that we did use. We didn't use another one. 17 18 BY MR. KELLY: Do you know whether the method -- the 19 methodology that the State Water Board chose to use this 20 year resulted in people in the Delta being prevented from 2.1 diverting water they would otherwise be entitled to divert? We wouldn't have sent curtailment notices if we 22 Α thought that they were entitled to divert. 23 24 And so -- but if there was modeling that shows that 25 in a "without project" condition this year there would have

1 been water of sufficient quality in the South Delta to 2 divert for the entire month of June, wouldn't that demonstrate that there was sufficient water for them and 3 they shouldn't have been curtailed on June the 12th? 4 MR. HILDRETH: Calls for speculation. It is an 5 6 incomplete hypothetical. 7 THE WITNESS: Not under the methodology that we 8 used. 9 BY MR. KELLY: So it's just the methodology, is that 10 what you're saying? 11 Α We selected a methodology to employ, and we exercised it. 12 13 Do you know whether any curtailments were issued in order to protect water stored in reservoirs? 14 Would you repeat the question? 15 Α 16 Yeah. And I'll be more specific. Do you know whether curtailments were issued this year in order to 17 18 protect water stored in the State Water Project and Central Valley Project? 19 I would say that we issued curtailment notices 20 Α because we determined there was not water available for the 2.1 water right holder. Considering the fact that the State 22 23 Water Project and the Central Valley Project are guarantors 24 of the system, the consequence of that is that there would 25 be reduced need to release storage, but that was not the

- 1 basis for deciding to do it.
- 2 | Q When you say -- a minute ago when you answered my
- 3 | question, we were talking about the methodology the State
- 4 | Water Board used versus the type of analysis that I was
- 5 discussing that would consider fresh water. You said, "We
- 6 | selected a methodology and we used it. " Can you tell me who
- 7 | the "we" is in that sentence?
- 8 A I'm not sure that there was a -- certainly we, the
- 9 staff of the State Water Board, had discussions about what
- 10 | methods we were going to use to develop supply and demand
- 11 | curves, so "we" would be the staff of the State Water
- 12 Resources Control Board.
- 13 Q And when were those decisions made?
- 14 A Gee, 2014.
- 15 Q And was that methodology ever discussed with any of
- 16 | the board members?
- 17 A We certainly did information items in front of the
- 18 | Board at workshops and described methodology, and the Board
- 19 | took comments on it, so yes, it was described in front of
- 20 the State Water board members.
- 21 | Q Did you ever have any conversations with State Water
- 22 | board members outside of the workshops about the methology?
- 23 A I can't recall.
- 24 Q And, Mr. Howard, I'm asking that because there are
- 25 | numerous emails that we've been provided that reflect

conversations with at least Felicia Marcus, some with Dee 1 2 Dee D'Adamo with respect to water availability and curtailments, and I don't want to go through them and mark 3 them and have them all exhibits. 4 And so I'm wondering whether or not that actually 5 refreshes your recollection as to whether or not any of this 6 7 was discussed either in person or via email with any board 8 members? 9 Yeah. We certainly discussed the issue of us 10 issuing curtailment notices and the issue of water availability. I don't recall whether we discussed the 11 precise methodology and -- outside of a board meeting with 12 13 the board members. Did any board members ever give the okay to do 14 curtailments outside of a public workshop or public meeting? 15 16 Α I don't recall. I certainly notified the board members every time I was going to issue a curtailment 17 18 notice, but I don't recall whether they ever replied back 19 or -- I don't have any recollection of saying, "Do I have permission to issue curtailment notices?" 2.0 2.1 Okay. For example, can you look at Exhibit 49 in your binder. And 49 -- Exhibit 49 is a chain of emails that 22 we discussed with Ms. Mrowka earlier this week, and it 23 24 appears to be a lead-up to the June 12th notice because the 25 conversations go into late May.

1 And Jeff Yeazell -- do you know who Jeff Yeazell is? 2 Α No, I don't know. He's a staff member of Kathy Mrowka's. Jeff Yeazell 3 is the individual who we understand kind of operated the 4 spreadsheet for Mr. Coats and for Mr. O'Hagan. 5 On the second page of Exhibit 49, Mr. Yeazell writes 6 7 to Kathy Mrowka, "Based on the email chain and talking with 8 Brian, it sounds like Tom wants to move forward with 9 curtailing pre-1914 in the San Joaquin Basin along with 10 those in the Sac Basin/Delta." And then on page -- and that 11 was on May the 22nd. 12 And then the first email in that chain is from 13 Barbara Evoy to a couple of other staff members at the Board, and it says, "We are working on timing right this 14 minute. We proposed sending out curtailments on Friday but 15 16 need to get the Board to nod first." Do you have any idea what is meant by "need to get 17 the Board to nod first"? 18 19 MR. HILDRETH: Calls for speculation. 20 THE WITNESS: I would say, you know, as he says, it 2.1 does call for speculation as to what Barbara meant. BY MR. KELLY: I'm asking --22 I have no recollection of me talking to the board 23 24 members and saying, "Please, you know, agree to curtailments." 25

1 And I'm not asking specifically if they agreed to 2 any particular curtailment. I'm asking if there was interaction with the Board with respect to curtailments 3 outside of the workshops and public meetings. 4 MR. HILDRETH: Asked and answered. 5 THE WITNESS: I know there was some discussions with 6 7 the board members. I don't recall anything in particular. 8 Certainly there was a lot of press and whatnot about 9 curtailments, and so I talk to the board members all the 10 time, so I'm quite certain we discussed curtailments as part of those discussions. 11 BY MR. KELLY: Can you look at Exhibit 51, please, 12 13 in the binder. That's an email from Ms. Mrowka to another staff member at the State Water Board on June the 2nd 14 indicating that John, and I'm assuming, and we'll ask 15 16 Mr. O'Hagan later today, that it refers to John O'Hagan. "That John just returned from briefly Felicia, he said 17 18 Thursday for curtailment." Do you know if you attended a briefing with Felicia 19 on June 2nd to discuss curtailments? 2.0 2.1 Α No, I don't recall. So it's your -- it's your testimony and recollection 22 that there were some meetings and briefings with some board 23 24 members, but you don't recall any particular meetings? 25 Α No, none.

1 Mr. Howard, do you remember meeting with 2 representatives of the Byron-Bethany Irrigation District prior to curtailments issuing with respect to the Mountain 3 House Community Services District? 4 T do. 5 Α 6 And the community of Mountain House? 0 7 Α Yes. 8 And do you recall that there was -- that there was 9 a -- who attended that meeting, if you recall? 10 I think it was the Byron-Bethany general manager Α and -- whose name I don't recall. 11 12 That's Rick Gilmore. Q 13 Α And yourself. And who was there from the State Water Board, do you 14 15 remember? 16 Α Just me, as I recall. John O'Hagan, do you recall if he was there? 17 0 18 Α You know, I don't. 19 And do you remember -- do you remember a discussion of what we were going to do about the community of Mountain 20 House if the State Water Board curtailed BBID? 2.1 22 Α T do. And there was some discussion of the need for BBID 23 24 to provide sufficient water to the community of Mountain 25 House so that at least the fire protection systems remained

1 operable. And when I say "fire protection system," I mean 2 fire hydrants and things like that. Do you recall that at all? 3 I don't recall the fire protection part of it. I 4 Α know that we talked about health and safety for -- is there 5 enough water for Mountain House to ensure human health and 6 7 safety. 8 And do you recall, in having that discussion, that Mr. Gilmore explained to you that he had no control over the 9 10 use of water in Mountain House because BBID was merely a wholesaler, and that in order to not jeopardize the fire 11 protection system, that BBID would simply need to supply 12 13 them with whatever the demand was within Mountain House to not jeopardize that fire protection testimony? Do you 14 recall? 15 16 Α I don't recall that. Like I said, I just remember a general discussion of human health and safety for BBID, but 17 18 I don't remember a fire protection discussion. 19 I'm going to ask, and it sounds like you don't recall. So you don't recall telling Mr. Gilmore that they 20 2.1 would expect BBID to provide that water to Mountain House and that the State Water Board would take an enforcement 22 action either through the Division of Water Rights or the 23 24 Division of Drinking Water to resolve that issue with the 25 community of Mountain House. Do you recall that?

1 I recall saying that we expect human health and 2 safety to be protected, that, therefore, we didn't expect that your curtailment notice would result in no water being 3 delivered to Mountain House. I think I also said that, you 4 know, it was important to get the notification back from, 5 you know, BBID, that that's what they were doing. Because 6 7 if people were making human health and safety deliveries, we needed to know that. 8 9 And I remember saying that our practice from the 10 previous year, which I assumed would go on, was that we took enforcement action against -- using our drinking water 11 12 authority against any community that was -- did not have a 13 reliable supply of water as evidenced by the fact that they were under a curtailment notice. 14 And so for somebody like BBID, who is a wholesaler 15 16 to a community services district and doesn't control demand, can adopt rules on limiting outdoor irrigation, would the 17 18 State Water Board or would you have expected BBID to estimate, at 55 gallons per day per person, the population 19 20 of Mountain House and then only deliver that amount of water 2.1 per day, or would you expect BBID to provide Mountain House the water that it demanded to protect public safety and keep 22 the fire hydrants charged and then let the State Water Board 23 24 deal with Mountain House? 25 Α My recollection is that in the notice we told people

- 1 | that we expected them to keep their deliveries to, you know,
- 2 | 55 gallons per day, was what I recall. You know, I don't
- 3 | have a recollection of talking about, you know, what
- 4 | precisely was going to be the volume of water that would be
- 5 | delivered from BBID to Mountain House.
- 6 Q So, as we sit here today then, how would a water
- 7 diverter like BBID do that with the community of Mountain
- 8 | House, do you know? Do you know what the Mountain House
- 9 | Community Services District is?
- 10 A No.
- 11 | Q Do you know what a community services district is?
- 12 | A Only generally.
- 13 Q And so if I told you that the Mountain House
- 14 | Community Services District is the public agency that
- 15 | provides the potable water supply to Mountain House, would
- 16 | you have any reason to disagree with that?
- 17 | A No.
- 18 | O And if I told you that BBID provides raw water to
- 19 | the Mountain House Community Services District in order for
- 20 | Mountain House to do that, would you have any reason to not
- 21 | believe that?
- 22 | A No.
- 23 | Q And so given the State Water Board's position that
- 24 | folks could deliver health and safety water up to 55 gallons
- 25 | per person per day, I believe, even in light of

1 curtailments, how would you expect BBID to administer that 2 exception as it relates to the delivery of water to Mountain 3 House? MR. HILDRETH: Calls for speculation. 4 THE WITNESS: I don't know how I would expect them 5 to do it. I would assume that the two organizations have 6 7 some sort of relationship and that that would be subject of 8 discussion between them. 9 BY MR. KELLY: And so if the community of Mountain 10 House -- let's just say that they refused to reduce their usage, would the State Water Board then expect BBID to cut 11 12 them off? 13 MR. HILDRETH: Calls for speculation. 14 THE WITNESS: We were trying to be sure that we used enforcement discretion regarding health and safety, so --15 16 and, you know, we understand that there are all kinds of potential permutations associated with that. I guess what 17 18 we assumed -- what I would assume is that we would be 19 hearing back from the diverter as to what they were intending to do in order to deal with human health and 2.0 2.1 safety issues. 22 BY MR. KELLY: Would you be surprised to learn that the enforcement action against BBID includes all the water 23 24 diverted and delivered to the community of Mountain House? 25 Α Would I be surprised? I was not aware of that, no.

1 If it was included, would that be inconsistent with 2 the conversations that you had with the Byron-Bethany Irrigation District? 3 It generally would assuming that, you know, we 4 received notification that this water was being delivered 5 for human health and safety. I would have assumed that my 6 7 staff would not be taking enforcement action about that 8 against them. 9 Okay. Mr. Howard, you were provided an exhibit, I think, a few minutes ago now -- oh, here it is next order 10 would be Exhibit 67. 11 12 (Whereupon, Exhibit No. 67 was 13 marked for identification.) 14 BY MR. KELLY: Mr. Howard, have you seen Exhibit 67 before? Do you know what that is? 15 16 Α Temporary Urgency Change Petition Order for the State Water Project and the Central Valley Project. 17 18 And this order was issued and signed by you, right? Q 19 Α It was. In July? 20 Q 2.1 Α Yes. Of 2015, July the 3rd, I think; is that correct? 22 Q 23 Α Yes. 24 And do you recall what resulted in the issuance of this order? 25

1 MR. HILDRETH: That's vague and ambiguous. I don't know what you mean by "resulted in the" -- I don't know if 2 you mean before or after. 3 BY MR. KELLY: Could anything after the order was 4 issued have resulted in the order, Mr. Howard, do you know? 5 After the order resulted? 6 Α 7 Your counsel wasn't sure if I meant something had 8 happened before or after the order, and I'm asking you if 9 there was anything that could have happened after the order 10 resulted from the order? 11 MR. HILDRETH: Resulted from the order, is that what 12 you mean? 13 BY MR. KELLY: Mr. Howard, was there a petition filed with the State Water Resources Control Board that 14 precipitated the issuance of this order? 15 16 Α Yes. And can you tell me who filed that petition? 17 18 Well, I don't -- I assume it would have to have been Α the State Water Project and the Central Valley Project, but 19 I don't recall actually looking at a petition. 20 2.1 So you don't recall what the state and federal projects sought relief from through their petitions? 22 Well, we received a number -- a large -- I've been 23 24 getting a lot of petitions. Glancing at the order, I recall 25 what we granted. I don't actually recall reading the

- 1 | petition itself from the projects.
- 2 Q And do you recall whether or not the petition that
- 3 | was filed that resulted in this order, whether that was the
- 4 | subject of a board workshop?
- 5 A Board workshop?
- 6 | Q If you don't know or recall, that's fine. I'm just
- 7 | curious. I recall there was at least one or two workshops
- 8 over the summer with respect to some of these TUCP, I just
- 9 didn't know if this was one of the ones that had an
- 10 | associated workshop?
- 11 A And I don't recall either. We did a couple of
- 12 | workshops with the board members to let people comment on
- 13 | that.
- 14 Q Can you please turn to page 22 -- actually, make it
- 15 page 21, please, of Exhibit 67. And at the bottom of that
- 16 | page is paragraph 5.3 entitled, "No Injury to any other
- 17 | Lawful User of Water."
- 18 Do you see that?
- 19 A Yes.
- 20 Q And you having issued this order and signed it, I
- 21 | assumed that you read and you understand what's in it?
- 22 A I did at the time.
- 23 Q Okay. And on page 22, still as part of paragraph
- 24 | 5.3, the first full paragraph that begins, "To the extent,"
- 25 | can you just read that to yourself and let me know when

you're done. 1 2 (Witness reviewing.) Okay. So this order was issued in July of 2015, and at 3 that time the post-1914 water rights of both the CVP and the 4 State Water Project were curtailed, weren't they? 5 6 Α Yes. 7 And so I guess I'm confused about the paragraph that 8 you just read, and I want you to help me understand it. 9 In that paragraph you say, "To the extent that the projects divert natural or abandoned flows during the 10 effective period of this order, other lawful users of water 11 will not be injured by the proposed changes because the 12 13 projects will continue to meet modified Delta outflow and Sacramento River flow and salinity requirements, and 14 adequate flows are expected to remain in the system to meet 15 the demand of other lawful users of water." 16 And so my confusion about that is, the projects are 17 18 post-1914 water right holders. At this time there were 19 pre-14 curtailments in place, and so I don't understand how the projects could have diverted any natural or abandoned 20 2.1 flows under this order because senior water right holders were being curtailed at that same time. So how -- what was 22 your understanding of what that meant? 23 24 We curtail people based on a calculation of supply 25 and demand, and so the dates that they receive a curtailment

is not necessarily dependent on how each of the projects 1 2 operate at any particular instance. The projects being the guarantors of the system, you know, ensure that there's 3 always adequate water in the Feather River and the 4 Sacramento River, for every party who has a valid right to 5 divert, and so they aren't injured. 6 7 Parties in the Delta are not affected because they, 8 you know, the calculation is unchanged by the way the projects operate. And so, as far as we were concerned, 9 10 nobody was injured. The reality was, at least my recollection, during this time they were releasing stored 11 water anyway, but, you know, and so I'm not quite sure why 12 13 we put that paragraph in any way, but I still think there is no injury as long as we are using a calculation for supply 14 15 and demand in the system. 16 What I -- and I appreciate that explanation, but what I asked was how the projects could be authorized to 17 18 divert natural or abandoned flows under their post-14 rights 19 when pre-14 curtailments were in place? 20 Well, again, my opinion is that they didn't, but I Α 21 don't know that for certain that every particular project facilitated. And again, it's this special role that the 22 project holds as guarantors of the system that they are, at 23 24 this time of the year, they're pouring stored water into the 25 Delta in order to meet Delta standards. And so how any

particular individual element of the project is working is 1 2 not so critical. Also, no other lawful user is injured because of that type of operation. 3 So you've got this couple of facilities that 4 operate -- that have a very special place in the system 5 because of their responsibility to guarantee the system with 6 7 stored waters. 8 Well, to the extent that the projects diverted 9 natural or abandoned flows in July, that water should have been provided to the folks with senior rights that were 10 curtailed, shouldn't it have been? 11 Those curtailments are exactly the same regardless 12 Α 13 of how the projects are operating each of their individual 14 units. Mr. Howard, in this order you gave the projects the 15 16 green light to capture any natural or abandoned flows that might be in the system because you made the finding that 17 18 other legal users of water wouldn't be injured; isn't that 19 correct? 20 MS. McGINNIS: Objection. Mischaracterizes that 2.1 document. THE WITNESS: I don't know that I concluded that, 22 23 but that was the assumption. 24 Q BY MR. KELLY: Isn't that what that says? 25 MR. HILDRETH: The document speaks for itself.

1 BY MR. KELLY: Well, you --2 I mean, I'll read it again if you want, but again, there's not -- we said that because there's no injury to 3 4 other parties. Okay. I have two other questions, and then I'll be 5 6 wrapped up. 7 Could you look at page 27 of that same exhibit, that 8 same order. Ordering paragraph 4, and then, in particular, 9 sub C and D. This appears to be you directing Reclamation and DWR to develop water balance estimates for, among other 10 things, deliveries, CVP and State Water Project deliveries 11 to the various contractors that receive water from the 12 13 projects; is that what that is? 14 Α Yes. And so that included settlement contractors, it 15 16 included exchange contractors and folks that receive water under settlement contracts on the Feather River; is that 17 18 right? 19 Α Yes. 20 And so do you understand that the Bureau of 2.1 Reclamation and the Department of Water Resources provided those delivery quantities back to the State Water Board and 22 23 informed you of what they actually delivered under those 24 contracts? 25 Α I don't know.

1 One last question, Mr. Howard. Were you operating 2 under any delegated authority in issuing the curtailments in 2015? 3 4 I'm sorry, I --MS. AUE: I'm sorry. I was trying to whisper to 5 him, not to the --6 7 MR. HILDRETH: She said, "Objection. Legal 8 conclusion, " so I'll just say it. 9 BY MR. KELLY: Okay. Do you know if you were operating under any delegated authority in issuing 10 curtailments this year? 11 12 I know that there is a delegation document; I've 13 read it in the past. I don't recall exactly all of the things that are delegated to the Executive Director. 14 Issuing curtailments, did you think that you were 15 operating under delegated authority? 16 The only comment I guess I have is I was -- I was 17 A 18 not aware. I was not aware whether or not there was a 19 specific delegated authority for curtailments. MR. KELLY: Okay. That's it. I have no more 20 21 questions. MR. O'LAUGHLIN: We're going to continue this until 22 23 next Wednesday. 24 MR. KELLY: Let's go off the record. 25 (The deposition concluded at 11:34 a.m.)

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1	DEPONENT'S CHANGES OR CORRECTIONS	
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7	DEPOSITION OF: THOMAS HOWARD	
8	CASE: In re: Byron-Bethany Irrigation District	
9	DATE OF DEPO: November 19, 2015	
10	Page Line CHANGE/ADD/DELETE	
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1	REPORTER'S CERTIFICATE
2	State of California)) ss.
3) ss. County of Sacramento)
4	I certify that the witness in the foregoing
5	deposition,
6	THOMAS HOWARD,
7	was by me duly sworn to testify in the within-entitled
8	cause; that said deposition was taken at the time and place
9	therein named; that the testimony of said witness was
10	reported by me, a duly Certified Shorthand Reporter
11	of the State of California authorized to administer oaths
12	and affirmations, and said testimony was thereafter
13	transcribed into typewriting.
14	I further certify that I am not of counsel or
15	attorney for either or any of the parties to said
16	deposition, nor in any way interested in the outcome of the
17	cause named in said deposition.
18	IN WITNESS WHEREOF, I have hereunto set my hand this
19	day of November 23, 2015.
20	
21	THRESHA SPENCER
22	Certified Shorthand Reporter Certificate No. 11788
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1	DISPOSITION OF ORIGINAL TRANSCRIPT
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9	statutory allowable time within which to read and sign the
10	deposition, and the witness failed to appear for such
11	reading and signing.
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14	signed the deposition and has made any changes indicated
15	therein.
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1	KATHRYN DAVIS & ASSOCIATES	
2	Certified Shorthand Reporters 555 University Avenue, Suite 160 Sacramento, California 95825 (916) 567-4211	
3		
4	November 23, 2015	
5	THOMAS HOWARD, Witness Department of Justice, Office of the Attorney General	
6	Attn: Russell B. Hildreth, Attorney 1300 I Street	
7	Sacramento, California 94244-2550	
8	Re: West Side Irrigation District Cease and Desist Order and Byron-Bethany Irrigation District Civil Hearing	
9	Date Taken: November 19, 2015	
11	Dear Mr. Howard:	
12	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.	
13		
14 15	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.	
16	If you are represented by an attorney, you may read his or her copy of the transcript. If you read your attorney's	
17	copy of the transcript. If you read your according so copy of the transcript, please send us a photocopy of the Signature Line and Deponent's Change Sheet.	
18	If you choose not to read your deposition, please sign here	
19	and return this letter to our office.	
20	Signature Date	
21		
22	Sincerely,	
23	THRESHA SPENCER, CSR No. 11788	
24	cc: Ms. Spaletta; Mr. Kelly; Ms. Zolezzi; Ms. Akroyd;	
25	Mr. O'Laughlin; Mr. Tauriainen; Mr. Knapp; Mr. Donlan; Ms. McGinnis; Ms. Sheehan; Ms. Morris; Mr. Ruiz	

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1	DEPONENT'S CHANGES OR CORRECTIONS	
2		
3	Note: If you are adding to your testimony, print the exact	
4	words you want to add. If you are deleting from your	
5	testimony, print the exact words you want to delete.	
6	Specify with "add" or "delete" and sign this form.	
7	DEPOSITION OF: THOMAS HOWARD	
8	CASE: In re: Byron-Bethany Irrigation District	
9	DATE OF DEPO: November 19, 2015	
10	Page Line CHANGE/ADD/DELETE	
11	24 20 change "delivery of process" to "deliberative process"	
12	89 15 change "use" to "used"	
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25	Deponent's Signature Date 1/8/16	