

PUBLIC HEARING  
STATE OF CALIFORNIA  
WATER RESOURCES CONTROL BOARD  
DIVISION OF WATER RIGHTS

JOE SERNA JR., CALEPA HEADQUARTERS BUILDING  
1001 I STREET  
COASTAL HEARING ROOM  
SACRAMENTO, CALIFORNIA

MONDAY, NOVEMBER 21, 2005  
10:00 A.M.

JAMES F. PETERS, CSR, RPR  
CERTIFIED SHORTHAND REPORTER  
LICENSE NUMBER 10063

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

APPEARANCES

BOARD MEMBERS

Ms. Tam Doduc, Chairperson

STAFF

Ms. Barbara Leidigh, Staff Counsel

Ms. Jean McCue, Water Resources Control Engineer

Ms. Diane Riddle, Environmental Scientist

ALSO PRESENT

Ms. Cathy Crothers, Department of Water Resources

Ms. DeeAnne M. Gillick, San Joaquin County

Mr. Arthur Godwin, Merced Irrigation District

Mr. John Herrick, South Delta Water Agency

Ms. Erin Mahaney, State Water Resources Control Board,  
Staff Counsel

Mr. Paul Ryan Minasian, San Joaquin River Exchange  
Contractors

Mr. Dante John Nomellini, Central Delta Water Agency

Mr. Tim O'Laughlin, San Joaquin River Group Authority

Mr. Jon Rubin, San Luis and Delta Mendota Water Authority

Mr. Clifford Schulz, State Water Contractors

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

## INDEX

	PAGE
Opening remarks by Chairperson Doduc	1
Rebuttal witness panel called by the South Delta Water Agency(Mr. Alex Hildebrand, Mr. Terry Prichard)	
Direct examination by Mr. Herrick	2
Cross examination by Ms. Crothers	11
Cross examination by Mr. Rubin	26
Cross examination by Mr. Godwin	43
Rebuttal witness panel called by the San Luis and Delta-Mendota Water Authority(Mr. Joseph McGahan)	
Direct examination by Mr. Rubin	50
Cross examination by Mr. Nomellini	64
Cross examination by Mr. Minasian	68
Rebuttal witness panel called by San Joaquin River Exchange Contractors	
Direct examination by Mr. Minasian	71
Cross examination by Mr. Herrick	78
Cross examination by Mr. Crothers	79
Cross examination by Mr. Rubin	83
Adjournment	87
Reporter's Certificate	88

1 PROCEEDINGS

2 CHAIRPERSON DODUC: Good morning. We're back to  
3 resume the hearing on the Delta salinity draft Cease and  
4 Desist Order and the Water Quality Response Plan. I am  
5 Tam Doduc, Chair of the State Water Board. With me are  
6 staff Barbara Leidigh, Jean McCue and Diane Riddle. We'll  
7 continue today with Mr. Herrick finishing up his rebuttal  
8 witnesses, and then move on to Mr. Minasian and Mr. Rubin.

9 MR. RUBIN: Madam Chair, I've coordinated with  
10 Mr. Minasian. And if it's okay with you, we would prefer  
11 that I present on behalf of the San Luis and Delta-Mendota  
12 Water Authority and Westlands a rebuttal case and then  
13 have Mr. Minasian present his case on behalf of the  
14 Exchange Contractors.

15 CHAIRPERSON DODUC: Sounds good.

16 MR. RUBIN: Thank you.

17 CHAIRPERSON DODUC: Mr. Herrick.

18 MR. HERRICK: Thank you, Madam Chairman. This is  
19 John Herrick for the South Delta Water Agency.

20 And as per the Chairman's directions we were able  
21 to divide our rebuttal case, because Mr. Prichard couldn't  
22 be here last time and so we'll proceed with that. We also  
23 have Alex Hildebrand here because there was a potential  
24 for other questions regarding his comments on the 1980  
25 report, and I'll get to that in a minute, copies and stuff

1 like that.

2 DIRECT EXAMINATION

3 OF THE SOUTH DELTA WATER AGENCY PANEL

4 BY MR. JOHN HERRICK, ESQ., representing the South Delta  
5 Water Agency:

6 MR. HERRICK: Mr. Prichard, would you, again,  
7 introduce yourself for the record and to the Board.

8 MR. PRICHARD: My name is Terry Prichard. I'm a  
9 Water Management Specialist for the University of  
10 California at Davis in the Department of Land, Air and  
11 Water Resources.

12 Q And, Mr. Prichard, you originally reviewed the  
13 testimony of Mr. Letey, which was presented by DWR as part  
14 of their case in chief; is that correct?

15 A Yes.

16 Q And you subsequently were made aware that his  
17 testimony was altered through DWR 22 revised; is that  
18 correct?

19 A Yes.

20 Q And that revised testimony changed his earlier  
21 testimony to coincide with his oral presentation at an  
22 earlier hearing date; is that correct?

23 A Yes.

24 Q Mr. Prichard, you were asked to review that testimony  
25 and to evaluate it with regard to the various assumptions

1 and conclusions there in; is that correct?

2 A Yes, I was.

3 Q And do you have any difference of opinion with regard  
4 to the any of those assumptions or conclusions?

5 A Yes, I do.

6 Q Could you briefly list those concerns you have and  
7 then we'll get into the specifics?

8 A The basis for the guidelines as presented by Ayers &  
9 Westcot, which were relied upon are that the one and a  
10 half times the irrigation water salinity equals the  
11 saturated extract salinity. In the material provided by  
12 Dr. Letey, he attempts to show that there are specific  
13 situations in which these relationships may not hold true,  
14 specifically the relationship that 2 times the soil water  
15 would equal that of the extract salinity.

16 And if one takes a look at the variety of  
17 textures, we find that this concentration or this dilution  
18 ratio is on an average of 3, but the range between sandy  
19 soils of about 3.0 and the clay soils, which we're most  
20 concerned with, with these low permeability conditions is  
21 about 1.4. The numerical average across the 6 textures of  
22 soil ranging from sand to clay is about 1.92 or  
23 essentially 2.

24 So one can take an example of sandy loam soil and  
25 come up with a 2.33 as he did. But the guidelines are

1 made to cover an array of soils not just a specific  
2 condition where water penetration is very easy. And so on  
3 his first count of changing this from 2 to 2.3 just the --  
4 on the average of a number of different soils across the  
5 textures, doesn't hold water.

6 Q Mr. Prichard, let me just clarify then. Are you  
7 saying that the assumptions that Mr. Letey used in order  
8 to determine that crop damage would not occur at 0.7  
9 relied upon, in part at least, an assumption dealing with  
10 sandy soils rather than the soil types in the south Delta?

11 A That's correct.

12 Q Thank you.

13 A Secondly, the next relationship, which is the  
14 concentration ratio, whereas you apply a water of a given  
15 salinity and then it concentrates into the soil into --  
16 the soil as the salt water plants respond to the soil  
17 water. So it's a very important relationship to look at.

18 Dr. Letey relied on an unjustifiable method of  
19 attempting to determine what the average root zone  
20 salinity was by weighting it by crop water use. In Ayers  
21 & Westcot as well as in the original salt tolerance work,  
22 which was done by Maas & Hoffman, a numerical average of 5  
23 different points within the root zone was used.

24 Dr. Letey suggested since the upper portion of  
25 the profile uses the greatest portion of water, meaning

1 the top 25 percent would use 40 percent of the water, that  
2 weight the effect on the plant. But, in fact, if one does  
3 that and looks at the soil salinity profile as extracted,  
4 one sees there's no change in concentration from the top  
5 to the bottom of the profile, which is obviously not the  
6 case. So given this untested and unjustifiable method,  
7 one can come up with again about a 2.33.

8           The upshot of all of this is that if you take  
9 2.33 and divide it by 2.33 you get 1. Therefore, the  
10 electrical conductivity of the irrigation water would then  
11 equal that of the saturated paste and which is not  
12 utilized in the guidelines.

13 Q     Mr. Prichard, are there any other areas of concern  
14 that you dispute in Mr. Letey's testimony under DWR-22,  
15 revised?

16 A     There is some -- there is a -- Dr. Letey attempts to  
17 use irrigation -- excuse me, rainfall as it occurs in the  
18 off-season as an improvement on the water since it is a --  
19 let me backup on that. Dr. Letey utilizes effective rain  
20 fall to moderate the salinity in the soil. The problem is  
21 instead of using effective rainfall, he may use total  
22 rainfall or a portion of that. That rainfall which occurs  
23 offseason may in fact produce salinity. But in fact he  
24 doesn't take into consideration such things as the  
25 transpiration of weeds which is a concentrating factor

1 during the offseason, nor if leaching is in fact possible  
2 with high watertables during the winter. So the  
3 utilization of rainfall, as he presents it, is of little  
4 use.

5 Q Mr. Prichard, you state that rainfall could be helpful  
6 in leaching salts out of the soil; is that correct?

7 A Yes, it can, especially if that occurs during the  
8 growing season.

9 Q And depending on how the rainfall occurs and whether  
10 or not it all is leached through the soil, you may not  
11 receive any benefit from that rainfall; is that correct?

12 A That's correct. It depends upon the intensity and the  
13 duration of the rainfall, in addition to the climatic  
14 factors on how much might be available to leach salts.  
15 And, in fact, relatively little salts are leached until  
16 the profile is filled with water to remove salts from the  
17 bottom of the profile, even without a watertable.

18 Q Mr. Prichard, would you say it's reasonable to make an  
19 assumption that a certain percentage of the rainfall will  
20 accomplish leaching or would you disagree with that?

21 A I would disagree with that. It's very condition  
22 specific.

23 Q Mr. Prichard, do you recall the portion of Mr. Letey's  
24 testimony wherein he talked about how the plant would shut  
25 down if the salinity level in the irrigation water was too

1 high?

2 A Yes, I do.

3 Q And do you recall that he used that as part of his  
4 conclusion that applying water in excess of 0.7 EC would  
5 not adversely affect crop yield; is that correct?

6 A Yes, it is.

7 Q Is that a reasonable assumption on his part that if  
8 the crop -- if the plant shuts down, there will be no  
9 effect on crop yield?

10 A Well, it's true since the plant initially uses less  
11 water due to a size reduction, and the osmotic effect of  
12 the increased salinity in the root zone. The problem is  
13 that when the ET is reduced or the evapotranspiration of  
14 the crop water use so does plant size and plant yield. So  
15 therefore, this mechanism for plant survival does not  
16 apply when maximum yield is considered in the context of  
17 applied water salinity.

18 MR. HERRICK: Thank you, Mr. Prichard. Madam  
19 Chairman, as you may recall last time, we had presented a  
20 portion of the California State Water Project supply  
21 contracts. And I said I would make copies this time. We  
22 had put a number on 7 on it, SDWA-7. I have those here  
23 for anybody who wants them. The SDWA-7 was an excerpt  
24 from one chapter that -- which covered one of the  
25 supplier's water quality goals, I'll say, per their

1 contract.

2           Secondly, Mr. Hildebrand talked about the  
3 chlorides arriving in south Delta through the San Joaquin  
4 River, and we referenced the 1980 report authored by the  
5 Bureau and SDWA. My secretary -- I tried to E-mail  
6 everybody that, but the file is too big, so it's in the  
7 mail to everybody. I apologize. We can either reference  
8 it and I made copies of the relevant pages that everybody  
9 can look at. It's a very short excerpt from that.

10           If the Board would rather not introduce that, we  
11 can certainly just rely on Mr. Hildebrand. I believe his  
12 statements were that he not only participated in that  
13 report, but had other experience and background for his  
14 conclusion about where the chlorides were originating  
15 from.

16           CHAIRPERSON DODUC: Is there any objections to  
17 this excerpt being introduced?

18           MR. RUBIN: Madam Chair, John Rubin for San Luis  
19 and Delta Mendota Water Authority and Westlands Water  
20 District.

21           Madam Chair, I would object to the Bulletin  
22 Number 141 being introduced into evidence. I think that  
23 the proper vehicle to get this before the Board is through  
24 official notice. I believe that when Mr. Hildebrand  
25 testified, it went to the fact that simply the provision

1 was contained in. -- the provision that he was  
2 referencing, excuse me, was contained in Bulletin number  
3 141. It appeared from his testimony that he was not  
4 familiar with how the provision operates, how the State  
5 Water Project operates to meet the objective that he  
6 referenced.

7 And, therefore, if I understand the intent here,  
8 it's being offered simply for the fact that it's contained  
9 within the contract. If it's being offered for more than  
10 that, I object. And for that reason I believe official  
11 notice is the proper vehicle.

12 MR. HERRICK: I have no objection to that, your  
13 Honor -- Madam Chairman, sorry. We can do it --

14 CHAIRPERSON DODUC: I'm honorable.

15 MR. HERRICK: Both. We can do that by simply  
16 request for judicial notice so to speak. And the same  
17 thing with the 1980 report, that's in numerous other  
18 records before this Board, but it's just the idea that the  
19 information is there. If somebody wants to look at,  
20 that's fine, but we'll do it through Request For Notice.

21 CHAIRPERSON DODUC: Since this sounds like a  
22 legal process, I'm going to ask legal counsel to advise.

23 SENIOR STAFF COUNSEL LEIDIGH: Generally, for  
24 purposes of maintaining a record, it's easier to have a  
25 copy of the document in the record, even if it is

1 officially noticed. And so I think it's better to have  
2 the copies.

3 Also, the State Board will need 9 copies of each  
4 of those sets of documents, and I don't think we have them  
5 yet.

6 MR. HERRICK: Yeah. Again, I apologize. I asked  
7 my secretary to E-mail to everybody on Friday. When I got  
8 back she said the file is too big for the 1980 report. So  
9 I have plenty of copies here for the Board right now.

10 SENIOR STAFF COUNSEL LEIDIGH: Okay. Can you --  
11 we can't get down there to get them, so if you could bring  
12 them up, please.

13 CHAIRPERSON DODUC: We still need to go to cross  
14 examination of your rebuttal witnesses.

15 MR. HERRICK: Yes.

16 CHAIRPERSON DODUC: Starting with the Division of  
17 Water Rights, prosecution team.

18 STAFF COUNSEL MAHANEY: Erin Mahaney, prosecution  
19 team. We have no questions.

20 CHAIRPERSON DODUC: Central Delta Water Agency.

21 MR. NOMEILLINI: Dante John Nomellini for Central  
22 Delta Water Agency. We have no questions.

23 CHAIRPERSON DODUC: San Joaquin County.

24 MS. GILLICK: DeeAnne Gillick for the County of  
25 San Joaquin. No questions.

1 CHAIRPERSON DODUC: California Sportfishing

2 Protection Alliance is not here.

3 Department of Water Resources.

4 MS. CROTHERS: Good morning. My name is Cathy

5 Crothers. I'm staff counsel for the Department of Water

6 Resources.

7 CROSS EXAMINATION

8 OF THE SOUTH DELTA WATER AGENCY PANEL

9 BY MS. CATHY CROTHERS, STAFF COUNSEL, representing the  
10 Department of Water Resources:

11 MS. CROTHERS: Good morning, Mr. Prichard. I  
12 have some questions regarding some farm management  
13 practices. These are somewhat general, but also were  
14 brought up specifically by Mr. Salmon during his  
15 testimony. And it's in regards to the application of  
16 gypsum to his walnut orchards.

17 He mentioned that gypsum was being applied to Mr.  
18 Salmon's walnut orchard. Are you familiar with that  
19 testimony that Mr. Salmon presented? It was in his  
20 written testimony also.

21 MR. PRICHARD: No, I don't believe I read that.

22 Q All right. In general then I'll just ask this as more  
23 of just a farm practice question. Does gypsum need to be  
24 incorporated in the soil profile to be effective?

25 A It can be incorporated or it can be left on the

1 surface to be moved into the profile with irrigation or  
2 rain water.

3 Q So is it as effective when you put it on the surface?

4 A The physical --

5 SENIOR STAFF COUNSEL LEIDIGH: Ms. Crothers, did  
6 Mr. Prichard testify about gypsum?

7 MS. CROTHERS: Well, these this is a question  
8 regarding soil permeability and his testimony --

9 SENIOR STAFF COUNSEL LEIDIGH: Cross examination  
10 of rebuttal witnesses is limited to the scope of their  
11 rebuttal.

12 MS. CROTHERS: Oh, then I won't ask that. Well,  
13 I was thinking of asking Mr. Hildebrand since he talked  
14 about this last Friday, is that something we should --  
15 would we have a right to pursue right now? I mean, Mr.  
16 Herrick brought Mr. Hildebrand back for some questioning,  
17 I assume.

18 CHAIRPERSON DODUC: He brought him back because  
19 Mr. Hildebrand made a reference to SDWA Exhibit 8, and the  
20 parties did not have a copy of this on Friday. And so he  
21 was wrought back -- remember we went through cross  
22 examination of Mr. Hildebrand on Friday, but he was  
23 brought back with respect to this particular document.

24 MS. CROTHERS: Okay. So our questions would only  
25 be about that water purchase contract Exhibit 8?

1 CHAIRPERSON DODUC: Exhibit 8, yes.

2 MR. HERRICK: Not the water purchase contract.  
3 It's the 1980 report.

4 MS. CROTHERS: Oh, which I haven't really had  
5 time to look at.

6 MR. HERRICK: Madam Chairman, let me just say  
7 that the 1980 report the entity listed as the coauthor  
8 with South Delta is the Bureau's name for a short brief  
9 time period in the early eighties. So it doesn't say the  
10 Bureau, but it was the Bureau. That's not real clear, but  
11 I'm sorry. It says the -- excuse me, it says the Water  
12 and Power Resources Service. That was the Bureau's name  
13 for like 4 years and the early eighties. And the excerpt  
14 deals with the chlorides in the river.

15 MS. CROTHERS: Well, Mr. Prichard, I'll just  
16 maybe go back to some of your testimony that you just  
17 presented.

18 Q And you were talking about your review of Professor  
19 Letey's report and some of the deficiencies you found in  
20 his report. Have you had an opportunity to talk to  
21 Professor Letey about the report?

22 A No.

23 Q You were speaking about some -- the nature of the  
24 differences in soils in the south Delta. Do alkaline  
25 soils exist naturally in the south Delta?

1 A They probably do.

2 Q Are you familiar with the different soil types in the  
3 south Delta?

4 A Yes, I am.

5 Q Are you familiar with the -- well, you were  
6 criticizing Professor Letey's report as to not being  
7 specific to south Delta soils, that it was more of an  
8 average review of irrigation water quality needs. So if  
9 you -- so what is the -- what is the -- if the report is  
10 generally to just review the general objectives that we're  
11 speaking of here, the .7 objective, and the review of what  
12 is the effect of not attaining that objective, which I  
13 guess on all accounts from what you were saying is an  
14 average in of itself, is that -- let me ask this question.  
15 Is the .7 itself basically derived as an average number to  
16 address irrigation needs?

17 A The .7 was -- is a number in the guidelines to protect  
18 or to cause no yield reduction. And a crop, for example,  
19 would be beans. So it is a number that exists in  
20 guidelines, and the guidelines are based on certain  
21 assumptions that happen in soils as the water that is  
22 applied from irrigation water concentrates to the soil  
23 water and then is subsequently diluted in the measurement  
24 of the salinity in the extract.

25 Q So I'm trying to understand this more on a more simple

1 nature that when the .7 is referred to it is there to  
2 protect a more general finding that if you use that  
3 irrigation water quality, you're assuming 100 percent  
4 yield of a salt sensitive crop such as beans?

5 A Yes on an average of soils that exist in nature. If  
6 one were to select a soil, such as a sandy loam soil, one  
7 might find that it's a lot easier to get leaching in  
8 those. So since these concentration values are different  
9 between different soil textures, one has to somewhat take  
10 an average of those to develop guidelines, and that's what  
11 was done.

12 In Dr. Letey's presentation, he selected a soil  
13 texture that has a different than the average  
14 concentration ratio. One could select one on the other  
15 side also on the clay side and come up with a little bit  
16 different number. The purpose of the guidelines is to  
17 take the variability in nature into account.

18 Q So what was the soil type that was the assumption used  
19 in the Letey report?

20 A Well, with a concentration factor of about 2.33 it was  
21 obviously a sandy loam soil.

22 Q Why do you know it's obviously a sandy loam soil?

23 A Because in the array of textures in terms of the  
24 concentration or dilution factor, excuse me, is between 3  
25 at sand, sandy loam is about 2.4, whereas clay soils are

1 about 1.4.

2 Q Would that relate to a leaching fraction of say  
3 approximately 15 percent?

4 MR. HERRICK: Would what relate to a leaching  
5 fraction of 15 percent?

6 MS. CROTHERS: He was talking about the  
7 permeability of the soils and that sandy loam -- sandy  
8 versus clay in that he's assuming that Letey's report  
9 assumed a sandy profile of soil. And I'm just trying to  
10 understand if that's accurate based on what's in this  
11 report?

12 MR. PRICHARD: I don't get the question.

13 MS. CROTHERS: Q If you're assuming that Letey's  
14 report is based on a sandy soils structure, is that the  
15 same as a 15 percent leaching fraction?

16 A A leaching fraction is based on -- its either a  
17 leaching requirement based on the soil salinity and the  
18 tolerance of the crop or a leaching fraction, which is  
19 what is achievable from applying water in excess of the  
20 evapotranspiration rate.

21 Q Isn't it dependent upon the soil type?

22 A It might be easier to attain a higher leaching  
23 fraction in a sandy soil. It's more permeable.

24 Q My understanding of the Letey report was it was based  
25 on an assumption of approximately a 15 percent leaching

1 fraction. I'm not sure what the underlying soil types are  
2 there you're referring to, but I thought he was referring  
3 to it in a more generic sense, and that's why I'm  
4 wondering if you could explain to me in this report where  
5 you determined it was a sandy soil substrate that he's  
6 analyzing?

7 A His calculation for his dilution factor was 2.33. And  
8 that supports a texture that is approximately a sandy loam  
9 soil. The guidelines utilize a dilution factor of 2.0.  
10 1.9 is the average across 6 textures ranging from sand  
11 through clay.

12 So, again, you can take a specific soil with a  
13 specific dilution ratio and then also do some calculations  
14 by weighting the soil salinity profile instead of a direct  
15 arithmetic average, which the guidelines are based on, and  
16 come up with completely different numbers. For example,  
17 instead of a 3 concentration from ECI irrigation water to  
18 soil water and then with a dilution factor of 2, that's 3  
19 divided by 2 or one half the irrigation -- one and  
20 one-half times the irrigation water equals the extract.  
21 These are very important concepts. And if one comes up  
22 with 2.33 divided by 2.33, it becomes 1 rather than 1 and  
23 a half, which is a significant difference in how this is  
24 calculated. Therefore, instead of .7 you get 1.0.

25 Q And that's what Professor Letey did?

1 A Yes, that's exactly what he did.

2 Q Well, you know, partly the problem here -- I'm a  
3 little at a disadvantage, because I'm trying to review  
4 this report. And part of the -- the part that is not  
5 submitted here is the analysis that's the underlying  
6 analysis that you're talking about, that Professor Letey  
7 was reviewing, which was the Ayers & Westcot analysis.  
8 And we don't have that in front of us to understand the  
9 relationship between the Letey report and his reanalysis  
10 of the basis that you're talking about.

11 I mean, so did you -- I don't know if this is  
12 appropriate, but did you review the part that wasn't  
13 included in this part of the Letey report to try to  
14 understand the change in professor Letey's analysis from  
15 where the Ayers & Westcot analysis assumed things? Did  
16 that makes sense?

17 MR. HERRICK: No.

18 MS. CROTHERS: Okay. Professor Letey was really  
19 looking at the foundation for this .7, which was --

20 SENIOR STAFF COUNSEL LEIDIGH: Ms. Crothers.

21 MS. CROTHERS: -- from Ayers & Westcot. And  
22 we're talking about an Ayers & Westcot analysis here, --

23 SENIOR STAFF COUNSEL LEIDIGH: Ms. Crothers.

24 MS. CROTHERS: -- which we don't have in front of  
25 us.

1 SENIOR STAFF COUNSEL LEIDIGH: Why are we asking  
2 questions about something that they haven't testified to.

3 MS. CROTHERS: Well, I find it that -- I'm not  
4 sure that Mr. Prichard is fully looking at the full  
5 picture here that Professor Letey was trying to review.  
6 Professor Letey reviewed an assumption that went back to  
7 Ayers & Westcot. And I'm not sure that his analysis is  
8 capturing that fundamental change.

9 CHAIRPERSON DODUC: You've made your point.  
10 Let's let Mr. Prichard respond to that if he would like  
11 to.

12 MR. PRICHARD: In addition to reviewing Dr.  
13 Letey's exhibit, I also reviewed the references -- all of  
14 the references in which he stated at the end of his  
15 exhibit. So I've also reviewed all of those. I have not  
16 talked to him, nor have I seen his worksheet for  
17 developing his comments. But he provides enough  
18 information in that that one can deduce what I have, and  
19 that's what I used.

20 CHAIRPERSON DODUC: Thank you.

21 Let's move on to your next line of questioning,  
22 Ms. Crothers.

23 MS. CROTHERS: Okay. I just would like to voice  
24 an objection here that I'm thinking that this analysis by  
25 Mr. Prichard doesn't go to the underlying assumption that

1 Professor Letey used in his report. And he's using  
2 conclusions from the Letey report without having the  
3 substantive basis that is the criticism at the Ayers &  
4 Westcot steady state analysis. That was all deleted.

5 CHAIRPERSON DODUC: Your objection is noted and  
6 is in the record.

7 Thank you.

8 MS. CROTHERS: Thank you.

9 MR. HERRICK: Yeah, Madam Chairman. I'm sorry to  
10 delay, but, you know, counsel's lack of understanding of  
11 my client's responses is not the basis for an objection to  
12 his testimony. If she can ask him questions on how he  
13 arrived at his conclusions, which he already gave us, she  
14 can. But there's no objection here.

15 CHAIRPERSON DODUC: Let's move on, please, Ms.  
16 Crothers.

17 MS. CROTHERS: Q Okay. During Professor Letey's  
18 testimony he talked about rainfall. Were you here, Mr.  
19 Prichard, when Professor Letey was testifying?

20 A No, I was not.

21 Q He explained that the effect of rainfall was important  
22 here. And I understand your testimony that you've just  
23 made -- I wanted to clarify. Were you stating that the  
24 rainfall in the south Delta does not have a significant  
25 effect on soil salinity?

1 A No, I did not.

2 Q Could you explain to me again, how rainfall affects  
3 soils in the south Delta?

4 A During -- in season, while the crop is growing,  
5 there's water applied from irrigation that contains salts  
6 and rainfall essentially is free of salts. Therefore,  
7 there's a dilution factor during the season on the -- on  
8 the -- basically it dilutes the salinity of the applied  
9 water by the fraction that occurs from rainfall.

10 For beans, which seem to be the subject, it's a  
11 relatively small amount, because of the time that they're  
12 planted and harvested.

13 Q In Professor Letey's testimony he talks about a  
14 transient state model to simulate the effects of rainfall  
15 with irrigation water. Have you read that --

16 A Yes.

17 Q -- testimony?

18 Professor Letey is suggesting that the rainfall,  
19 no matter what time of the year that it falls, does  
20 improve soil salinities, would you say that's correct?

21 A Only if you can -- if the water that falls from  
22 rainfall is effective, meaning that it enters the soil,  
23 does not evaporate, is not utilized by transpiration of  
24 the weeds during the off season; and that the profile  
25 allows leaching, meaning it's not restrictive in any

1 fashion to the water moving through it; and if there's no  
2 water table, which also prevents a hydraulic gradient to  
3 remove the salty water.

4 Q In Professor Letey's tables where he's looking at the  
5 computed contributions of rainfall to partially mitigate  
6 the effects of salty irrigation water. This is Table 3 in  
7 Professor Letey's testimony DWR-22 revised, REV. Does he  
8 account for a rainfall which is only a partial percent of  
9 the total rainfall? Maybe I could help you. Look on the  
10 bottom of --

11 A It says on page 7 that he attempted to use 25 and 50  
12 and 75 percent of the total precipitation.

13 Q So would you say Professor Letey has accounted for the  
14 fact that some of the rainfall would have been lost due to  
15 those factors like evapotranspiration.

16 A Well, he accounted for it by giving you 3 different  
17 options, because he's unsure of what it really is.

18 Q Well, is that appropriate when you're just doing an  
19 analysis of effects?

20 A Well, you could calculate what the effective rainfall  
21 is.

22 Q Well, when you're trying to analyze the potential  
23 effect of the benefits of rainfall, would it be  
24 appropriate to give a range of potential benefits?

25 A Sure.

1 Q So has he done that?

2 A He has given 3 different possibilities for effective  
3 rainfall out of the total. We don't know which one of  
4 those it might be. And also we still don't know whether  
5 during that period of time if there was not some  
6 additional amount of that water used by transpiration for  
7 the weeds that existed, and if leaching were possible and  
8 if there was a high watertable, leaching may not have been  
9 possible during that period of time. So to take the view  
10 that he accounted for a rainfall and therefore leaching  
11 will occur is not true.

12 Q This report isn't it about a comparison of obtaining a  
13 .7 EC, and the factors that may cause potential impact  
14 when you don't obtain the .7, isn't this a report about  
15 potential harm if .7 isn't attained?

16 A It seems that part of this is a justification for  
17 utilizing 1.0 rather than .7 by taking selective  
18 conditions and portraying them.

19 Q Well, you were saying that this is more -- that he has  
20 not taken selective conditions, that he's failed to take  
21 the count of different soil types, he's used the more  
22 general assumption?

23 A No, that's not true. The guidelines use the general  
24 assumption and he used a specific assumption that has not  
25 the average or -- of the soil textures. He took a

1 specific situation to prove the point.

2 Q Well on table 3, I think he's just making an  
3 assumption that in applying a general range of potential  
4 benefits from rainfall?

5 MR. HERRICK: Is that a question or an argument?

6 MS. CROTHERS: Q Isn't that correct, it's a  
7 question. I mean I'm trying to understand what the  
8 difference is between what Mr. Prichard is saying and what  
9 Professor Letey is saying?

10 A What I'm saying is involved a lot earlier than adding  
11 rainfall to it. It's a violation of the basic assumptions  
12 by using specific cases. So it occurs way before this  
13 adding the effective rainfall to the equation.

14 Q Did the original equation for Ayers & Westcot include  
15 rainfall?

16 A No, it did not.

17 MS. CROTHERS: Thank you. That's all my  
18 questions.

19 CHAIRPERSON DODUC: Thank you, Ms. Crothers.  
20 That is all the parties that presented case in chiefs.

21 Other interested parties that are here, Mr.  
22 Rubin, who else would like to cross examine?

23 Mr. Godwin, okay.

24 Mr. Rubin.

25 MR. RUBIN: Jon Rubin for the San Luis and

1 Delta-Mendota Water Authority, Westlands Water District.

2 I do have a brief question for clarification.

3           If I understand it correctly, the South Delta  
4 Water Agency will seek to have South Delta Water Agency  
5 Exhibit 7 and Exhibit 8 presented to the Board through  
6 official notice; is that correct?

7           MR. HERRICK: That's fine with me. I believe Ms.  
8 Leidigh stated that, for the record, she wanted these  
9 copies. So shall we use these copies as an exhibit and  
10 then provide the full document too. I'm open to that. I  
11 don't care.

12           SENIOR STAFF COUNSEL LEIDIGH: I don't think that  
13 we necessarily need the full document in order to take  
14 these. And so far as filling up the record is concerned,  
15 I think we'd rather have just what is pertinent. Whether  
16 it's official notice or whether it's offered in evidence  
17 as an exhibit, I still think that we need to have copies,  
18 and I think we need to mark them for purposes of the  
19 record as exhibits, whether they're designated as official  
20 notice or not, so we can keep track of them.

21           MR. RUBIN: Mr. Herrick, if the document that I  
22 printed of this version is correct, that was introduced as  
23 South Delta Water Agency Exhibit 48 as part of the  
24 hearings that led to D-1641 and might be made available  
25 through official notice of State Board records that way.

1 MR. HERRICK: What I propose is I will be  
2 offering 7 & 8, which have been provided, as evidence.  
3 And then in the closing brief I'll reference the total  
4 document and give references to where else it occurs that  
5 might be useful to all the parties.

6 CHAIRPERSON DODUC: Mr. Nomellini.

7 MR. NOMEILLINI: I would support putting these in  
8 as exhibits, you know, to make the record more concise.  
9 And the general reference, if somebody wants to refer to  
10 the full document in a previous record, just request  
11 judicial notice when you brief it, so we don't get it all  
12 fouled up unnecessarily.

13 MR. RUBIN: If that's the case, Madam Chair, I do  
14 object to South Delta Water Agency Exhibit 7. I don't  
15 believe the proper foundation was laid to have that  
16 introduced into evidence. I will have some additional  
17 questions for Mr. Hildebrand, I believe, on South Delta  
18 Water Agency Exhibit 8 the June 1980 report.

19 MR. HERRICK: When we offer them, I assume then  
20 we'll have a brief discussion about the admissibility.

21 CHAIRPERSON DODUC: Why don't you proceed with  
22 your cross examination.

23 CROSS EXAMINATION OF

24 THE SOUTH DELTA WATER AGENCY PANEL

25 MR. JON RUBIN, ESQ., representing the San Luis and

1 Delta-Mendota Water Authority and Westlands Water  
2 District:

3 MR. RUBIN: Mr. Hildebrand, just a brief few  
4 questions on this 1980 report. The report that we're  
5 speaking of, South Delta Water Agency Exhibit 8, that's a  
6 report that's entitled effects of the CVP upon the  
7 southern Delta water supply Sacramento-San Joaquin River  
8 Delta, California; is that correct?

9 MR. HILDEBRAND: That's correct.

10 Q And that report, again, was published in June 1980; is  
11 that correct?

12 A That's correct.

13 Q Are you aware of whether the information provided in  
14 that report has been evaluated and updated since its  
15 original publication in 1980?

16 A Well, I'm not sure I understand the question. Of  
17 course, there's been a lot of further technical work, but  
18 I'm not aware of any that would negate the basic  
19 information in that report. I would call attention to one  
20 thing, however. At the time of the report, there were  
21 some abandoned gas wells in the Tuolumne river that were  
22 spouting a whole lot of sodium chloride. And those were  
23 subsequent sealed. And so if you look at the salinity at  
24 the present time and the composition of that salinity --  
25 the chemical composition, it no longer has that sodium

1 chloride compound that came from those wells.

2 Q And, Mr. Hildebrand, do you have a copy of the report  
3 before you?

4 A The full report? No, I don't.

5 Q Yes, sir.

6 A I have some excerpts from it. Mr. Herrick has just  
7 supplied me with a full report so have at it.

8 Q I ask that you turn to page 97 of that report. Do you  
9 have that page before you now, Mr. Hildebrand?

10 A I'm locating page 97. Okay.

11 Q You answered my last question in reference to Tuolumne  
12 gas wells. Do you see those listed on table, I believe  
13 it's, 6-11, that appears on page 97?

14 A Yes.

15 Q And that is one piece of information that has changed  
16 since the report was first prepared -- published; is that  
17 correct?

18 A That's correct.

19 Q Is it proper to assume that other information that's  
20 presented in this report has changed since it was  
21 published in 1980?

22 A Well, not in that degree.

23 Q But are there --

24 A There may have been some changes, yes. The amount of  
25 salt load that's clumped down the Delta-Mendota Canal and

1 to the westside service area has been altered somewhat  
2 depending on the deliveries and that sort of thing.

3 Q And, Mr. Hildebrand, I understand from prior testimony  
4 that you've provided you were involved in the preparation  
5 of this report South Delta Exhibit 8?

6 A Very much.

7 Q And I also understand from the text of the report that  
8 at the time that it was published information that was  
9 presented in this report, which the parties did not  
10 necessarily agree on; is that correct?

11 A Well, that's correct, yes. It was a purely technical  
12 report and developed as touch so that there was neither  
13 side or neither -- no party was saying, you know, this  
14 should be a basis for policy.

15 Q I also understand from a reading of the report that  
16 the purpose of the report was very specific; is that  
17 correct?

18 A Would you say that again.

19 Q I understand from a reading of the report South Delta  
20 Water Agency Exhibit 8, that the purpose of the report was  
21 very specific; is that correct?

22 A Very specific, yes.

23 Q And, again, if my understanding is correct, South  
24 Delta Water Agency Exhibit 8 has a specific purpose of  
25 identifying the effects of the CVP on salinity in the

1 south Delta; is that correct?

2 A That's correct.

3 MR. HERRICK: Just for the record, the report is  
4 the effects of the CVP, not the effects of CVP on  
5 salinity. That was one of the topics.

6 MR. RUBIN: Q Mr. Hildebrand, is the statement  
7 of Mr. Herrick correct?

8 A Yes.

9 Q Mr. Hildebrand, one last question, is it correct that  
10 South Delta Water Agency Exhibit 8 concludes that during  
11 the April through September period salt loads within the  
12 San Joaquin River were unchanged from pre-1950 conditions  
13 to post-1950 conditions in dry years?

14 A That depends on how dry the years were.

15 Q Mr. Hildebrand, I ask that you turn to page 91 of the  
16 report South Delta Water Agency 8. Do you now have that  
17 page before you?

18 A I'm looking for the page.

19 Q The copy that I have is difficult to read the page  
20 numbers and I was able to identify that page by finding  
21 page 92. I don't know if that's of any assistance.

22 A I found page 92.

23 Q Page 91 is the page I'm asking Mr. Hildebrand to turn  
24 to.

25 A What's your question?

1 Q I ask that you -- if you could read -- well, I'll read  
2 it for you if you can confirm the second paragraph  
3 contains probably the 4th sentence reads, "In the  
4 April-September period, salt loads were unchanged from  
5 pre- to post-dry years increased in below normal years,  
6 decreased in above normal years and decreased slightly in  
7 wet years." Do you see that statement?

8 A I see that statement. I think it has to be read in  
9 the context of the rest of the report.

10 Q And, Mr. Hildebrand, I apologize. I indicated one  
11 question was left. I do have one more now.

12 The next page, page 92, contains a table, Table  
13 6-9, it's entitled Chloride Salt Load At Vernalis. Do you  
14 see that table? That table should appear on the next  
15 page.

16 A Yes, I do.

17 Q And, again, in that table data is presented on the  
18 quantity of chlorides at Vernalis based on your type; is  
19 that correct?

20 A That's correct.

21 Q And part of that table contains the quantity of  
22 chloride in tons during the April through September  
23 period; is that correct?

24 A That's correct, but it may be less leading to look at  
25 the total salt load rather than the concentration of the

1 that load.

2 Q And, just for the record, the pre-period is noted at  
3 the bottom of the page and refers to the 1930 through 1949  
4 period and the post-period is 1950 through 1969; is that  
5 correct?

6 A That's correct.

7 Q Thank you.

8 A However, as I say, when I discussed this the other  
9 day, I pointed out that the salt load had both indigenous  
10 an nonindigenous sources, and that the problem arose from  
11 the nonindigenous salt that came down at high  
12 concentrations in the summer months.

13 MR. RUBIN: Thank you, Mr. Hildebrand.

14 Mr. Prichard, I have in questions for you and  
15 need to apologize in advance. Much of what you've  
16 testified to, I don't think I understood. So hopefully  
17 you can help me understand a little bit more. As part of  
18 your original testimony, if you bear with me, a general  
19 question, the intent, as I understood that original  
20 testimony, was to explain the either potential or actual  
21 harm that could be realized by South Delta Water Agency  
22 farmers applying a water quality in their irrigation water  
23 of greater than .7; is that correct

24 MR. PRICHARD: Yeah, I just --

25 SENIOR STAFF COUNSEL LEIDIGH: Mr. Rubin, before

1 we go to this. Is this the scope of his rebuttal or are  
2 you referring to testimony that he put on previously?

3 MR. RUBIN: That was the only question I had. I  
4 just wanted to have -- and I have another question with  
5 regard to his rebuttal and the purpose of his rebuttal.  
6 And that's the only question I had for him.

7 SENIOR STAFF COUNSEL LEIDIGH: Can you stick to  
8 the rebuttal?

9 MR. RUBIN: I just was trying to get an  
10 understanding of his presentation today, but that's -- I  
11 will. I'll try based on my understanding of his rebuttal.

12 Mr. Prichard, the purpose of your testimony today  
13 is to rebut testimony that was presented by Professor  
14 Letey on behalf of the Department of Water Resources; is  
15 that correct

16 MR. PRICHARD: Yes.

17 Q And can you try to explain to me the general concern  
18 that you have with the report prepared and the oral  
19 testimony provided by Mr. Letey?

20 CHAIRPERSON DODUC: You're not asking Mr.  
21 Prichard to repeat his entire rebuttal testimony, are you?

22 MR. RUBIN: No, ma'am.

23 Q Is there a specific -- I'll rephrase my question to be  
24 a little bit more focused. Is there a specific concern  
25 that you have raised with regard to the written and oral

1 testimony of Mr. Letey?

2 A There are 2 primary relationships, which are very  
3 important in determining the effect of irrigation salinity  
4 water qualities on crops. One of those is the  
5 concentration ratio, as the water salinity concentrates  
6 into the soil water.

7 And then secondly how we measure it. We measure  
8 it as a saturated extract, which means there is a dilution  
9 factor from the soil water to the extract. The tolerances  
10 a given in reference to an extract because that's what  
11 most people measure so that you can use it in the  
12 guidelines.

13 Hoffman & Maas did their work and related it to  
14 first soil water and then they related it to soil salinity  
15 using these defined ratios.

16 Dr. Letey attempts to not use these defined  
17 ratios by giving either different methods for calculating  
18 the average zone salinity or by different concentration  
19 factors by selectively taking a soil texture that is very  
20 permeable. So these are the underlying assumptions which  
21 he is violating.

22 Q And based on that answer if I understand your  
23 testimony correctly, the concentration ratio is based upon  
24 the soil types at issue?

25 A The concentration ratio is where the electrical

1 conductivity of the soil of the irrigation water, once  
2 applied to the soil, concentrates.

3 Q And --

4 A And --

5 Q Excuse me.

6 A And Dr. Letey looks at an alternative way of  
7 calculating the root zone average salinity.

8 Q And is it correct that Dr. Letey, according to you,  
9 incorrectly assumed the soil type?

10 A I don't know what he did. I mean, he'll have to  
11 explain that.

12 Q I was under the impression that you testified with  
13 regard to Dr. Letey's report and its improper reliance on  
14 the soil type --

15 A And the question is?

16 Q -- is that correct?

17 A I did testify as to that, because you can look at the  
18 values which he got for a dilution factor and looking at  
19 the array of dilution factors across soil textures see  
20 that it's one of the more coarser soils not one of the  
21 clay soils. Again, the average from sand is about 3 and a  
22 half concentration ratio and it's about 1.4 for clay  
23 soils. The guidelines as well as Hoffman & Maas when they  
24 developed these tolerances utilized 2 as an average. He  
25 uses an average of 2.33.

1 Q Do you know what type of soils within the South Delta  
2 Water Agency beans are grown?

3 A Beans are grown on a variety of soils and probably  
4 more towards the medium texture, towards sandy soils, but  
5 that's not exclusively the case.

6 Q And, again, that is with regard to the growing of  
7 beans within the South Delta Water Agency; is that  
8 correct?

9 A As I know it. I can't say that I'm familiar with all  
10 of the bean lands in the south Delta.

11 Q I'll present a hypothetical to you. If beans were  
12 grown on sandy loam soil within the south Delta, would the  
13 conclusions of Dr. Letey be accurate?

14 A If you violate the basic assumptions by taking  
15 specific cases, then obviously the Ayers & Westcot  
16 guidelines won't be appropriate.

17 Q And this question I'm not sure if -- I'll -- well,  
18 strike that. If I understand your testimony correctly,  
19 clay soils have a lower permeability and therefore the  
20 concentration ratio is lower; is that correct?

21 A You're confusing the concentration ratio and the  
22 dilution ratio.

23 Q Okay. Explain to me the characteristics of clay soils  
24 in terms of a dilution ratio?

25 A Soil salinities are measured as the saturated extract.

1 Saturated extract is all the water that the soil will hold  
2 usually devoid of all air particles. We utilize that  
3 because it's an easy thing to measure. It's very  
4 reproducible across a variety of textures. An extract is  
5 where you take a soil, you mix water into it. This is a  
6 soil extract until it's saturated. Once saturated, you  
7 put it on a vacuum and withdraw approximately about 50  
8 percent of the water and then make a salinity measurement  
9 on the water that came out of the soil extract.

10 After that description, I lost my train of  
11 thought. You'll have to give me the question again.

12 Q I was trying to get a better understanding of the  
13 dilution ratio in terms of clay type soils?

14 A Okay. So all of these soils at -- let's see say if  
15 you took a sand, a silt, a clay, sandy clay, clay, clay  
16 loam and you could calculate what the saturation  
17 percentage moisture was at this extract when you were  
18 withdrawing the fluid to make the ECE determination, then  
19 if you back calculate it to find out what the field  
20 capacity was for that soil, and that field capacity is all  
21 the water will hold against gravity, meaning the pores  
22 have dewatered and air has entered the soil, that's about  
23 the upper limit of what the soil water content would be  
24 after irrigation and after this profile has had a chance  
25 to drain.

1           On the other end of the spectrum is the permanent  
2 wilting point. That's where the plants can't extract  
3 anymore. So the difference between the right after  
4 irrigation field capacity and the permanent wilting point  
5 would be the available water. We don't wait till it gets  
6 to the permanent wilting point, because the plant would be  
7 dead. So we go about halfway, generally, 50 percent of  
8 that available water when we irrigate. That's the low  
9 end. Field capacity is the high end.

10           So plants exist between irrigations, between  
11 field capacity and about half the distance between the  
12 field capacity and the permanent wilting point typically.

13           If one took the mid-point between those 2, which  
14 would be the average water content and soil salinity,  
15 which the plant root would be seen and compared that to  
16 the saturation percentage, one finds that that is the  
17 concentration ratio. And -- or excuse me, the dilution  
18 ratio. And those vary from about 3.0 in sandy soils to  
19 about 1.4 in clay soils. And that if you took a straight  
20 numerical average of all of those -- the array of textures  
21 one would get a 1.92, which is pretty close to 2, which  
22 Hoffman & Maas used in their determination of ECE and the  
23 guidelines utilized.

24           If one were to take a sandy loam between a loam  
25 and a sandy loam, one could get 2.33 as Dr. Letey did.

1 Q And do you know what the weighted average is for lands  
2 within the South Delta Water Agency?

3 A Of?

4 Q The, I believe what you were just referencing, the  
5 dilution ratio?

6 A No, I don't.

7 Q If the dilution ratio was 2.3, then the assumptions of  
8 Professor Letey would be appropriate?

9 A So if it were appropriate for all soils -- if that  
10 2.33 was appropriate for all soils, would he be correct?  
11 Yes. That's an inappropriate conclusion to come to.

12 Q What happens if the weighted average of soils within  
13 the south Delta came to 2.3?

14 A Weighted by what?

15 Q Just the -- well, let me rephrase my question for you.  
16 If the average soil type resulted in a dilution ratio of  
17 2.3, would the conclusions of Professor Letey be  
18 appropriate or accurate in your view?

19 A They wouldn't fit the guidelines. The guidelines are  
20 not 2.33. They're 2. So what's the question?

21 Q The guidelines provide a dilution ratio; is that  
22 correct?

23 A Dilution ratio, dilution factor.

24 Q And the dilution factor or dilution ratio that's  
25 provided in the guidelines is based upon a variety of soil

1 types; is that correct?

2 A Yes, it is.

3 Q If the soil types that are the basis for the  
4 guidelines dilution factor or dilution ratio are different  
5 within a study area, then the guidelines wouldn't apply;  
6 is that correct?

7 A You've got to give me that again.

8 Q If the dilution ratio or the dilution factor for lands  
9 within a study area is different than the dilution ratio  
10 or dilution factor that is assumed in the guidelines, then  
11 the guidelines wouldn't apply to your study area; is that  
12 correct?

13 A Yeah, the guidelines could be modified based on that  
14 change.

15 Q I have one last line of questions. And I was trying  
16 to get to this before. If you are a farmer that has clay  
17 soils, your permeability is low; is that correct?

18 A In contrast to?

19 Q I'll re-ask my --

20 A If one were to look at it -- I'll answer this. If one  
21 were to look at the array of permeabilities of soils, clay  
22 soils generally fit in those of low permeability.

23 Q Do clays have a low sodium absorption ratio?

24 A That's not a reasonable question.

25 Q Can that be answered?

1 A Do clays have a low sodium absorption ratio? They can  
2 have low or they can have high.

3 Q Okay, that's all. Is it possible for a piece of  
4 property or an area to have a water penetration problem?

5 A Sure.

6 Q And is it possible that that water penetration problem  
7 causes reduced yields?

8 A Water penetration problems can cause either an  
9 inadequate amount of water to enter the soil to provide  
10 the plant with water for evapotranspiration. Reduced  
11 evapotranspiration can cause reduced yield, as well as  
12 penetration problems can reduce effective leaching, so  
13 that salinity builds up in the soil.

14 Q And if you're in an area that has a problem with water  
15 penetration, one of the recommended actions is to apply  
16 irrigation water that has a level of salts in the water;  
17 is that correct?

18 A Increase in the ionic concentration of the salinity --  
19 of the irrigation water will promote infiltration, but it  
20 depends upon what salt you might want to use to increase  
21 the ionic concentration as they may contain other harmful  
22 ions such as sodium chloride.

23 So often times just adding more salt to the  
24 situation may improve water infiltration on the short  
25 haul, however it may be an extremely poor management

1 decision.

2 Q If you have a water penetration problem, is one  
3 technique to address that a also a change in the way that  
4 you apply water?

5 A If one applies water not under a surface system, such  
6 as border check flood system and were on to the other  
7 extreme to look at drip irrigation, one might be able to  
8 overcome, on the short haul, some of the infiltration  
9 difficulties. But many times it's proven that in  
10 replacing, say, sprinkler systems with drip irrigation  
11 systems that it eventually creates an additional problem  
12 right by the dripper so that you still have an  
13 infiltration problem after about 10 years.

14 MR. RUBIN: Is the problem -- okay. I have no  
15 further questions.

16 Thank you.

17 CHAIRPERSON DODUC: Thank you, Mr. Rubin.

18 Mr. Godwin.

19 CROSS EXAMINATION

20 OF THE SOUTH DELTA WATER AGENCY PANEL

21 BY MR. ARTHUR GODWIN, ESQ., representing the Merced  
22 Irrigation District:

23 MR. GODWIN: Good morning. Arthur Godwin for the  
24 Merced Irrigation District.

25 These questions are to Mr. Hildebrand regarding

1 South Delta Water Agency Exhibit Number 8. Mr.

2 Hildebrand, who is the principal author of this report?

3 MR. HILDEBRAND: I don't know that you could say  
4 there was a principal author, because it was a joint  
5 effort by representatives of the South Delta Water Agency  
6 and the Bureau of Reclamation.

7 Q Right. I realize that, but who took the lead in  
8 preparing this report? Who is the principal author of  
9 this report?

10 A I think it was probably somewhat equal between the  
11 Bureau representatives and the South Delta  
12 representatives.

13 Q Let me be more specific, which individuals are the  
14 principal authors of this report?

15 A Jason Peltier was I believe a principal contributor  
16 for the Bureau. Let's see it's in the beginning of the  
17 report. Representatives of the Bureau -- well, it lists  
18 the Commissioner, I'm sure he had no direct authorship  
19 there. And the director of the mid-pacific region Billy  
20 Martin. He was tangentially involved. But the other  
21 people listed for the Bureau were actively involved was  
22 Mervinda Haas, Donald Hebert, George Link, Harrold Mayer,  
23 David Schuster, Donald Swain. For the South Delta Water  
24 Agency it was myself and Jerry Orlob.

25 Q Okay. And what about John Wilson?

1 A Pardon me.

2 Q What about John Wilson, he's listed as a participant  
3 as well?

4 A John Wilson -- oh, yes he was the attorney that was  
5 there.

6 Q Okay. But out of all those people who was the  
7 principal author of this report?

8 MR. HERRICK: Madam Chairman, that's been asked 4  
9 times now, and I think here he --

10 MR. GODWIN: But he hasn't answered yet.

11 MR. HERRICK: Well, he hasn't given you an answer  
12 you want, but he's told you who authored it and he's said  
13 it was done equally by both parties.

14 MR. GODWIN: No, he didn't say --

15 CHAIRPERSON DODUC: Thank you. Let's move on,  
16 Mr. Godwin.

17 MR. GODWIN: All right. Looking at Chapter 6,  
18 which is labeled Water Quality Effects of Upstream  
19 Development, this is Chapter 6 of SDWA Exhibit 8.

20 MR. HILDEBRAND: Can you give me a page number?

21 Q Oh, excuse me. That begins on page 69.

22 A Yes.

23 Q Can you recall for me who was the principal author of  
24 this chapter?

25 A Are you talking about Table 5-18.

1 Q No, I'm talking about Chapter 6?

2 A The chapter?

3 Q Water Quality Effect of Upstream Development which  
4 begins on page 69.

5 A Well, Jerry Orlob probably did more than any other one  
6 person on that.

7 Q All right. Thank you. Now, last week when you  
8 testified --

9 SENIOR STAFF COUNSEL LEIDIGH: Mr. Godwin, I'm  
10 just kind of wondering you were asking questions about  
11 Chapter 6?

12 MR. GODWIN: Yes.

13 SENIOR STAFF COUNSEL LEIDIGH: I don't think that  
14 Mr. Prichard testified to anything in Chapter 6.

15 MR. GODWIN: No, I'm talking to Mr. Hildebrand.

16 SENIOR STAFF COUNSEL LEIDIGH: Okay. And did he  
17 testify to anything in Chapter 6?

18 MR. GODWIN: Well, that was my next question.  
19 And this excerpt that they provided is from Chapter 6.

20 SENIOR STAFF COUNSEL LEIDIGH: The excerpt is  
21 pages 91 through 93. Chapter 6 is page --

22 MR. GODWIN: Which are contained in Chapter 6.

23 SENIOR STAFF COUNSEL LEIDIGH: What?

24 MR. GODWIN: Which are contained in Chapter 6.

25 But I believe they're offering the entire report as part

1 of their rebuttal testimony, and I had some questions from  
2 his testimony last week that relate to this. If I could  
3 just continue for just a moment, you'll see.

4 SENIOR STAFF COUNSEL LEIDIGH: The excerpt was  
5 what was marked. So maybe we need some clarification as  
6 to whether we're talking about the excerpt or the entire  
7 report.

8 MR. HERRICK: Madam Chairman, Mr. Hildebrand's  
9 rebuttal testimony was limited to a reference that  
10 pursuant to this report and other background he had,  
11 chlorides coming down the San Joaquin River originated  
12 from drainage on the west side of the San Joaquin valley  
13 and were thus delivered by the DMC and/or the California  
14 Aqueduct in some indirect manner.

15 I'm perfectly willing to have somebody question  
16 Alex Hildebrand on this whole report, but his testimony  
17 was extremely limited.

18 CHAIRPERSON DODUC: It was very limited. And I  
19 recall asking you at the time if his testimony relied on  
20 this exhibit or if it was also based on his own expert  
21 knowledge. And, at that time, as I recall, you said it  
22 could be based on his own expert knowledge.

23 MR. HERRICK: Yes, and I believe he stated that  
24 himself.

25 CHAIRPERSON DODUC: Yes.

1           MR. RUBIN:  Madam Chair, I just wanted to raise  
2 an issue here, if South -- this is why I was asking my  
3 questions, if South Delta Water Agency is intending to  
4 have this report admitted into evidence, I don't think  
5 it's fair to allow them to admit it into evidence without  
6 allowing parties to ask questions regarding the document.

7           If it's a small portion, that's one thing, but  
8 what we'll be faced with is a report in evidence, if  
9 that's where the -- if it's so moved and Madam Chair  
10 grants that, and it seems to have the ability to cross  
11 examine the witness who's offering that, is only the fair  
12 thing to do.

13          CHAIRPERSON DODUC:  I appreciate your objection  
14 Mr. Rubin.  It's already been stated that Mr. Hildebrand  
15 is basing his rebuttal testimony on this portion of it on  
16 his own expert knowledge and not necessarily this  
17 particular document.  Actually, I agree with both your  
18 objections regarding Exhibit 7 and Exhibit 8.  So I am  
19 going to not accept into evidence both exhibits.

20          MR. GODWIN:  Well, I guess I won't ask any more  
21 questions then.

22          CHAIRPERSON DODUC:  Thank you.

23          Mr. Herrick, does that conclude your rebuttal?

24          MR. HERRICK:  Yes, that's all I have.

25          CHAIRPERSON DODUC:  Thank you.

1           Mr. Rubin, are you prepared or do you need some  
2 time to --

3           MR. RUBIN: Madam Chair, I am prepared for our  
4 rebuttal. It might be an appropriate time to give the  
5 court reporter a 5-minute break.

6           CHAIRPERSON DODUC: All right, we'll take a  
7 5-minute break and resume at 11 -- well, 25 a little bit  
8 longer than 5 minutes.

9           (Thereupon a recess was taken.)

10          CHAIRPERSON DODUC: All right. We are resuming.  
11 Mr. Rubin.

12          MR. GODWIN: Excuse me, Madam Chair.

13          CHAIRPERSON DODUC: Yes, Mr. Godwin.

14          MR. GODWIN: Before Mr. Rubin starts, I'd like to  
15 make a motion that the portions of Mr. Hildebrand's  
16 testimony regarding Exhibits 7 and 8 be stricken from the  
17 record.

18          CHAIRPERSON DODUC: The portion of his testimony,  
19 as I understand it, that might have been represented by  
20 Exhibit 8 was also provided based on his expert testimony,  
21 so I want to include that. The portion that is based on  
22 his expert knowledge.

23          However, I will agree with you that his testimony  
24 on Exhibit 7 should not be included.

25          MR. GODWIN: Well, I'm confused, because I don't

1 what portion of his testimony was personal knowledge and  
2 what part was based on Exhibit 8.

3 CHAIRPERSON DODUC: My understanding from both  
4 Mr. Herrick and Mr. Hildebrand is that his testimony on  
5 the information in Exhibit 8 all of it is also based on  
6 his expert knowledge. And on that basis, I am including  
7 that testimony.

8 MR. GODWIN: Okay. Thank you.

9 MR. RUBIN: Good morning, Madam Chair. Jon Rubin  
10 for San Luis and Delta-Mendota Water Authority West Lands  
11 Water District.

12 We have a brief rebuttal and 2 witnesses to my  
13 right to your left McGahan, and to my left and your right  
14 Jim Snow, neither witnesses has been sworn in. And  
15 probably the first step is to do that

16 CHAIRPERSON DODUC: Please stand gentlemen and  
17 raise your right hand.

18 Do you promise to tell the truth in this  
19 proceeding?

20 MR. MCGAHAN: I do.

21 MR. SNOW: Yes.

22 CHAIRPERSON DODUC: Thank you.

23 And please identify yourself for the court  
24 reporter when you start speaking.

25 DIRECT EXAMINATION

1           OF THE SAN LUIS AND DELTA-MENDOTA WATER AUTHORITY  
2 BY MR. JON RUBIN, ESQ., representing the San Luis and  
3 Delta-Mendota Water Authority Westlands Water District:

4           MR. RUBIN: Madam Chair, I will ask some  
5 questions first of Mr. McGahan and the first question is  
6 if you could please state your name.

7           MR. MCGAHAN: My name is Joseph C. McGahan.

8 Q       Mr. McGahan, I have marked and provided copies to the  
9 State Board -- State Water Resources Control Board staff  
10 as well as stakeholders here in the hearing. Exhibit 2,  
11 South Delta Water Agency Exhibit 2, is South Delta Water  
12 Agency Exhibit 2 a true and correct copy of your resume?

13 A       San Luis and Delta-Mendota Water Authority Exhibit 2?

14 Q       Yes, sir.

15 A       Yes, it is.

16 Q       And did you prepare that Exhibit, South Delta Water  
17 Agency Exhibit 2?

18 A       Yes.

19           MR. HERRICK: I object to Mr. Rubin's use of the  
20 word South Delta Water Agency.

21           MR. RUBIN: Oh, excuse me. I apologize. I've  
22 been cross examining the witnesses too frequently.

23           CHAIRPERSON DODUC: I was wondering what happened  
24 during the break.

25           (Laughter.)

1 MR. RUBIN: That could get me fired. I  
2 apologize. My references were to the San Luis and Delta-  
3 Mendota Water Authority Exhibit 2. And again San Luis and  
4 Delta-Mendota Water Authority Exhibit 2 is a copy of your  
5 resume?

6 MR. MCGAHAN: Yes.

7 Q And is San Luis and Delta-Mendota Water Authority  
8 Exhibit 2 was that prepared by you?

9 A Yes, it was.

10 Q Mr. McGahan, did you prepare written testimony to  
11 present today?

12 A Yes, I did.

13 Q Is a true and correct copy of the testimony that you  
14 prepared with attachments marked as San Luis and Delta-  
15 Mendota Water Authority Exhibit 1?

16 A Yes.

17 Q And to the best of your knowledge, are the statements  
18 in San Luis and Delta-Mendota Water Authority Exhibit 1  
19 true and correct?

20 A Yes.

21 Q Can you please provide a summary to the Board of San  
22 Luis and Delta-Mendota Water Authority Exhibit 1?

23 A Okay. I'm here today representing the San Luis and  
24 Delta-Mendota Water Authority and its members. I'm a  
25 consulting engineer in Hanford, California with Summers

1 Engineering.

2           The Water Authority is a joint powers agency made  
3 up of 32 public agencies that receive central valley  
4 project water pumped from the Tracy Pumping Plant and  
5 delivered through the Delta Mendota and San Luis unit  
6 facilities. The purpose of my testimony today is to  
7 provide evidence of the many actions being taken by the  
8 Water Authority and its members to address drainage  
9 management and to improve water quality in the San Joaquin  
10 River and Delta. I have attached a map of the Water  
11 Authority as Attachment 1 to my testimony.

12           CHAIRPERSON DODUC: Please hold on a second.

13           Mr. Nomellini.

14           MR. NOMELLINI: Yeah, I'd like to object to  
15 proceeding with the testimony of this witness with regard  
16 to the exhibit. It doesn't appear to me that it rebuts  
17 anything that went on in the direct. The testimony in the  
18 record is that the Grasslands Bypass has reduced the total  
19 loads of salt to the San Joaquin River. But I don't know  
20 that there's any issue that -- of the existence of the  
21 Grasslands Bypass or anything like that that this is  
22 really rebutting.

23           CHAIRPERSON DODUC: Mr. Rubin.

24           MR. RUBIN: Madam Chair, there's 2 areas of  
25 evidence that was presented in which this testimony is

1 intended to rebut. The first area is the level of  
2 activities that the United States Bureau of Reclamation  
3 and its contractors are taking. There were parties that  
4 alleged, asserted that the federal side, CVP, has done  
5 little, if anything, to address salinity in the San  
6 Joaquin River.

7           Mr. McGahan's testimony, as an offer of proof,  
8 will show that they have done extensive amounts. I do  
9 understand Mr. Nomellini's position that there is evidence  
10 in the record with regard to some of these activities. We  
11 did not have the opportunity to present them. The San  
12 Luis and Delta-Mendota Water Authority is actively  
13 involved in those. And I think it's only fair that we  
14 have the opportunity to present rebuttal testimony  
15 ourselves.

16           Also, Madam Chair, there has been a number of  
17 suggestions both directly and indirectly that would put a  
18 significant burden on the authority members. And this  
19 testimony also rebuts that testimony.

20           What Mr. McGahan will show is if the burden is  
21 placed purely on the westside of the San Joaquin River,  
22 that would be, at least in our mind, unfair given the  
23 scope of activities that the Authority members are  
24 involved in.

25           CHAIRPERSON DODUC: You may proceed. I agree.

1 MR. RUBIN: Thank you.

2 MR. McGAHAN: There are 4 different areas I'd  
3 like to briefly discuss regarding projects that are  
4 ongoing by the Water Authority and their members to manage  
5 drainage discharges to the San Joaquin River. Those are  
6 the Grasslands Bypass Project, Watershed Coalitions,  
7 development of best management practices and participation  
8 in the San Joaquin River Water Quality Management Group.

9 First, quickly for the Grasslands Bypass Project.  
10 It was implemented in 1996 to manage discharges of  
11 subsurface drainage water that historically went into  
12 wetlands channels, mud and salt slough in the San Joaquin  
13 River. I provided a list of the agencies that are  
14 participating in that.

15 In 2004, the drainage volume was reduced by 48  
16 percent from pre-project conditions, which I identify as  
17 1995 and the salt load has been reduced by 51 percent.  
18 That 51 percent reduction results in approximately 116,000  
19 tons of salt that have been reduced into the San Joaquin  
20 River from pre-project conditions in 1995.

21 The local agencies and the farmers in the  
22 Grassland area have achieved this reduction by  
23 implementation of management practices, which include  
24 improved irrigation methods to reduce subsurface drainage,  
25 recirculation projects to mix subsurface drainage water

1 with their water supply and drainage reuse where  
2 subsurface drainage water is used on salt-tolerant crops,  
3 again to reduce discharges to the San Joaquin River.

4 Finally, research is ongoing to develop treatment  
5 that will actually remove the salt from the drainage water  
6 and subsurface drainage and to receive -- and to achieve a  
7 0 discharge to the San Joaquin River by 2010.

8 The final stages of the reduction of the  
9 discharges from the Grassland Bypass Project are being  
10 developed through the Westside Regional Drainage Plan.  
11 This is a locally developed plan to reduce, manage,  
12 dispose of ag drainage developed by local stakeholders in  
13 the area.

14 Through implementation of the Westside Regional  
15 Drainage Plan, we expect to continue drainage service to  
16 the lands, that is they will have the ability to have  
17 subsurface drainage and to maintain the salt balance so  
18 that ag productivity is not impaired.

19 The Bureau of Reclamation's feature reevaluation  
20 process -- San Luis Drainage Feature Reevaluation Process  
21 for providing drainage service incorporates elements  
22 similar to that in the Westside plan. I've attached a  
23 more detailed discussion of the bypass project to my  
24 testimony as Attachment 2.

25 The second area I'd like to discuss is watershed

1 coalitions. You're all familiar with the irrigated lands  
2 program. The Westside/San Joaquin River Watershed  
3 Coalition and the Westlands Stormwater Coalition were  
4 formed to act as coalition groups under this irrigated  
5 lands program.

6           The Westside Coalition program includes  
7 approximately 500,000 acres of water districts and wetland  
8 areas on the west side. Irrigated water from irrigated  
9 lands within this area ultimately drain to the San Joaquin  
10 River. The ag waiver program requires watershed  
11 coalitions to monitor water quality in the watershed,  
12 synthesize and report on ongoing water quality and  
13 irrigation practices and to implement actions and projects  
14 to comply with water quality objectives in the San Joaquin  
15 River and tributaries.

16           The Ag waiver is also envisioned as a tool that  
17 will be used to comply with the salt and boron TMDL and  
18 other regulatory programs of the regional board. The  
19 Westlands Stormwater Coalition includes approximately  
20 600,000 acres within the Westlands Water District, also a  
21 water authority member, and was formed to comply with the  
22 Irrigated Lands Program.

23           There are no subsurface ag discharges to the San  
24 Joaquin River from these lands within the Westlands  
25 Stormwater Coalition.

1           The third area is the development of the best  
2 management practices. I've attached to my testimony a  
3 list of ongoing projects that water authority members and  
4 their parties and other parties have to implement best  
5 management practices to achieve these drainage and water  
6 quality improvements. We currently have ongoing 39  
7 different projects to develop a wide range of practices.

8           They include construction of regional tailwater  
9 systems, installation of improved irrigation systems,  
10 development of management practices that can be  
11 implemented to comply with the irrigated lands waiver  
12 program and existing and proposed TMDL's; such as the  
13 exhibiting selenium TMDL and the proposed salt and boron  
14 and dissolved oxygen TMDL's and future pesticide TMDL's  
15 which are currently being developed.

16           The projects also include the upstream dissolved  
17 oxygen monitoring studies being sponsored by water  
18 authority members. This study was requested by the  
19 California-Bay Delta Authority to help determine causes of  
20 load dissolved oxygen in the Stockton deepwater ship  
21 channel.

22           These lists of projects I've mentioned have a  
23 value of over \$40 million and are scheduled for completion  
24 within the next 4-year period.

25           The next area I'd like to quickly talk about is

1 the San Joaquin River Water Quality Management Group. I  
2 have provided technical information to the group and have  
3 reviewed their final report dated August of 2005. This  
4 group is an informal stakeholder group comprised of DWR  
5 Bureau of Reclamation, Department of Fish and Game, Fish  
6 and Wildlife Service, and local water agencies and was  
7 formed to develop a management plan to achieve the  
8 Vernalis salinity objective and also to provide a plan to  
9 address dissolved oxygen water quality issues in the deep  
10 water ship channel.

11 The group looked at the both flow related and  
12 discharge related actions that could be implemented. The  
13 final report from the group recommends support of the  
14 westside regional drainage plan, the key to achieving the  
15 0 discharge from the Grassland drainage area and  
16 recommended that plan as one of the primary tools to  
17 ensure compliance with the Vernalis salinity objective.

18 Quickly I have reviewed the Department of Water  
19 Resources' testimony and their report entitled Report on  
20 San Joaquin Drainage Programs. I fully support the  
21 statements in this report as it relates to the values  
22 related to the Grasslands Bypass Project.

23 In conclusion, the water authority members that  
24 irrigate using CVP water pumped at Tracy are fully engaged  
25 in the regional board and State board's regulatory

1 processes addressing salinity and discharges from  
2 irrigated agriculture. They are aggressively developing  
3 projects with the Bureau of Reclamation, DWR, the State  
4 Board and through local initiatives.

5           These have resulted and will continue to result  
6 in decreased salinity inputs from their areas and  
7 therefore improvements in water quality in the San Joaquin  
8 River and the Delta. This includes compliance with the  
9 Vernalis salinity objectives in all months of all water  
10 year types.

11           Thank you.

12           MR. RUBIN: Madam Chair, that concludes the  
13 summary by Mr. McGahan. I do want to make one point of  
14 clarification. Mr. McGahan, referenced a report by DWR.  
15 I believe that's 18B. It's the report that was prepared  
16 by Jose Faria. And just for the record, I wanted to make  
17 sure that was clear.

18           It's my preference, Madam Chair, to move to Mr.  
19 Snow if that's okay.

20           CHAIRPERSON DODUC: Um-hmm, please do so.

21           MR. RUBIN: Mr. Snow, can you please, for the  
22 record, state your name?

23           MR. SNOW: James R. Snow.

24 Q       And, Mr. Snow, can you please state the place of your  
25 employment?

1 A Westlands Water District.

2 Q And can you please State for the record the position  
3 that you hold at Westlands?

4 A Yeah. I'm currently Deputy General Manager for Water  
5 Policy.

6 Q And can you please briefly describe Westlands Water  
7 District?

8 A Yeah, our district comprises about 600,000 acres in  
9 the San Joaquin valley. And we currently irrigate about  
10 560,000 acres, with a total trickle down economy activity  
11 in the valley, as a result of crops grown of about \$5  
12 billion.

13 Q And, Mr. Snow, do you have before you San Luis and  
14 Delta-Mendota Water Authority Exhibit 1?

15 A You mean 3?

16 Yes, I do.

17 Q And if I could ask you to turn to San Luis and  
18 Delta-Mendota Water Authority Exhibit 1, Attachment 1,  
19 which contains a map. Do you see that exhibit?

20 A Yes.

21 Q And is that a map of the members of the San Luis and  
22 Delta-Mendota Water Authority?

23 A Yes, it is.

24 Q And is Westlands Water District depicted on that map?

25 A Yes.

1 Q And for those who have color copies, can you identify  
2 the color of Westlands?

3 A Yeah, it's the green area to the right side of the  
4 graph.

5 Q Thank you, Mr. Snow. And just another point of  
6 clarification for the Board and for the staff members.  
7 Mr. Snow does not have any written testimony and he will  
8 be presenting his orally through response to questions  
9 that I present.

10 Mr. Snow, did you prepare your resume, which I've  
11 marked for identification purposes as San Luis and  
12 Delta-Mendota Water Authority Exhibit 3?

13 A Yes.

14 Q Is San Luis and Delta-Mendota Water Authority Exhibit  
15 3 a true and correct copy of your Statement of  
16 Qualifications?

17 A Yes, it is.

18 Q Mr. Snow, prior to today, did you review Central Delta  
19 Water Agency Exhibit 10, which is written testimony of Tom  
20 Zuckerman, which was presented at this hearing?

21 A Yes, I have.

22 Q Mr. Snow, were you present at the hearing on the day  
23 Mr. Zuckerman presented testimony orally?

24 A Yes, I was.

25 Q Mr. Snow, are you aware that Mr. Zuckerman recommended

1 that cease and desist orders issued as a result of this  
2 hearing should contain a prohibition on deliveries of  
3 water to those areas on the west side of the San Joaquin  
4 River which directly or indirectly contribute to the  
5 degradation of water quality?

6 A Yes.

7 Q And is it your understanding that that condition would  
8 apply at any time when the south Delta standards were  
9 exceeded?

10 A Yes.

11 Q Do you have an opinion on the effect, if any, Mr.  
12 Zuckerman's recommendation would have on salinity  
13 conditions in the south Delta?

14 A Yes, I do. My testimony today pertains to his  
15 recommendation on page 5 of his written testimony, in  
16 which he states that the cease and desist order should  
17 contain a prohibition of deliveries of water to those  
18 areas on the west side of the San Joaquin River, which  
19 directly or indirectly contribute to the degradation of  
20 the quality of the river when any southern Delta standard  
21 is exceeded.

22 And it's my opinion that this reduction in  
23 exports, if it had any effect at all, would most likely  
24 result in a worsening of the salinity conditions in the  
25 southern Delta area. And this is due to the fact that the

1 CVP/SWP exports tend to bring fresher from the Sacramento  
2 River and northern Delta into the southern Delta channels.  
3 And this quality is better than would exist if the  
4 projects were not operating.

5 Q And, Mr. Snow, is the basis for your opinion your more  
6 than 30 years of experience with State Water Project and  
7 Central Valley Project operations and your review of  
8 testimony provided by the Department of Water Resources?

9 A Yeah, particularly the hydrology and water quality  
10 modeling that DWR did.

11 Q Thank you. And just 2 more questions. Do you have an  
12 opinion on the effect, if any, Mr. Zuckerman's  
13 recommendation would have on those areas of the west side  
14 of the San Joaquin River, which would not receive water as  
15 a result of the prohibition?

16 A Yes. If exports were halted for about 6 months as is  
17 recommended by Mr. Zuckerman, I can't tell you precisely  
18 the impact to our district, since the USBR reaction to the  
19 reduction is kind of uncertain. However, the loss of  
20 exported water would no doubt result in a significant  
21 impact to our 600 family farmers.

22 In addition, since there are significant acres of  
23 permanent crops grown, the damages would likely be  
24 multiplied beyond just the crop loss in that year when the  
25 water is not pumped.

1 Q And, Mr. Snow, the basis for your opinion on impacts  
2 to Westlands is based on your 6 or more years of  
3 employment at Westlands Water District?

4 A Yes.

5 MR. RUBIN: With that, Madam Chair, I have no  
6 further questions and make the witnesses available for  
7 cross examination.

8 CHAIRPERSON DODUC: Thank you.

9 We'll start with the Division of Water Rights  
10 prosecution team, Ms. Mahaney.

11 STAFF COUNSEL MAHANEY: Erin Mahaney prosecution  
12 team. We have no questions.

13 CHAIRPERSON DODUC: Thank you. Central Delta  
14 Water Agency.

15 CROSS EXAMINATION

16 OF THE SAN LUIS AND DELTA MENDOTA WATER AUTHORITY  
17 BY MR. DANTE JOHN NOMEILLINI, ESQ., representing the  
18 Central Delta Water Agency:

19 MR. NOMEILLINI: Dante John Nomellini for Central  
20 Delta Water Agency.

21 Mr. McGahan, you mentioned in your rebuttal  
22 testimony efforts directed at compliance with the Vernalis  
23 station water quality objectives; is that correct?

24 MR. MCGAHAN: That's correct.

25 Q Do you know of any efforts by your group that are

1 targeted at compliance with the water quality objectives  
2 at Brandt Bridge?

3 A As I mentioned, my testimony deals with the Vernalis  
4 objectives. It's my understanding that if the Vernalis  
5 objectives are improved or met that it will improve  
6 conditions at Brandt Bridge, but our studies did not go  
7 downstream to Brandt Bridge.

8 Q Is it your understanding that compliance at Brandt  
9 Bridge would require a better water quality at Vernalis  
10 than the standards provide?

11 MR. RUBIN: Madam Chair, I'm going to object to  
12 the question. I believe it exceeds the scope of the  
13 testimony provided.

14 CHAIRPERSON DODUC: I agree. Please move on to  
15 your next question.

16 MR. NOMELLINI: Do you know of any targeted  
17 effort towards compliance with water quality objectives at  
18 Middle River and Old River?

19 MR. RUBIN: Madam Chair, again, I'm going to  
20 object to the question because it exceeds the scope of the  
21 testimony provided.

22 CHAIRPERSON DODUC: Mr. Nomellini, please keep to  
23 the scope of the rebuttal testimony that was provided.

24 MR. NOMELLINI: I think this is. We made it  
25 clear that he dealt with Vernalis. We made it clear he's

1 not dealing with any effort whatsoever at Brandt Bridge.

2 CHAIRPERSON DODUC: That is correct.

3 MR. NOMELLINI: I wanted to confirm that the  
4 other 2 interior Delta stations as well are not targeted.

5 CHAIRPERSON DODUC: And he's already testified to  
6 that, so please move on.

7 MR. NOMELLINI: Okay.

8 Mr. Snow, do you agree that a water right permit  
9 holder should comply with the terms of the permit for the  
10 water right holder in order to continue diverting water?

11 MR. RUBIN: Madam Chair, I'm going to have to  
12 object again on the same basis, it exceeds the scope of  
13 the testimony provided.

14 CHAIRPERSON DODUC: Mr. Nomellini.

15 MR. NOMELLINI: Well, it doesn't, because he  
16 testified with regard to the impacts associated with  
17 discontinuation with the water. And he's rebutting  
18 testimony that suggests that we need to have a stringent  
19 standard in terms of compliance with the permit terms that  
20 would relate to the particular impacts. So this is a fair  
21 question on cross examination.

22 MR. RUBIN: I could respond if you'd like.

23 CHAIRPERSON DODUC: No, let's not. Please move  
24 to your next line of questioning.

25 MR. NOMELLINI: Mr. Snow, do you agree that

1 diversions from the Delta to the west side of the valley  
2 carry salt?

3 MR. RUBIN: Madam Chair, I'm going to object to  
4 the question as outside the scope of the testimony  
5 provided. And I can explain if you'd like.

6 CHAIRPERSON DODUC: Explain.

7 MR. RUBIN: I asked Mr. Snow questions and Mr.  
8 Snow's answers were directed at the effect of a condition  
9 that was recommended by Tom Zuckerman in his testimony and  
10 that was the limited scope of his testimony.

11 CHAIRPERSON DODUC: All right. I will agree with  
12 that.

13 MR. NOMEILLINI: No further questions.

14 CHAIRPERSON DODUC: Thank you, Mr. Nomellini.  
15 South Delta Water Agency.

16 MR. HERRICK: No questions, Madam Chairman.

17 CHAIRPERSON DODUC: San Joaquin County.

18 MS. GILLICK: DeeAnne Gillick, no questions.

19 CHAIRPERSON DODUC: CSPA is still not here.  
20 Department of Water Resources?

21 MS. CROTHERS: DWR has no questions.

22 CHAIRPERSON DODUC: Any other parties have cross  
23 examination questions?

24 Mr. Minasian.

25 Anyone else?

1 All right, Mr. Minasian it is.

2 CROSS EXAMINATION

3 OF THE SAN LUIS AND DELTA MENDOTA WATER AUTHORITY

4 BY MR. PAUL MINASIAN, ESQ., representing the San Joaquin  
5 River Exchange Contractors:

6 MR. MINASIAN: Mr. McGahan, you testified to the  
7 Bureau's reevaluation study. Are you aware of the  
8 estimated costs of the facilities and the alternatives  
9 that the Bureau presents in that study?

10 MR. MCGAHAN: I don't have the numbers in front  
11 of me. I have read the numbers. I'm aware of them.

12 Q Would it be correct to say the general range is \$500  
13 million to \$700 million?

14 A I don't recall the exact numbers.

15 Q Okay. You are aware of the west side regional  
16 drainage plan developed by the group that you are the  
17 coordinator of, are you not?

18 A Yes. I'm not coordinator for all that group, but part  
19 of them, yes, sir.

20 Q What is the rough capital and operation and  
21 maintenance estimate of that project?

22 A The rough capital cost is a little over \$100 million.  
23 And the -- I don't recall the operation and maintenance  
24 costs off the top of my head.

25 Q Could you describe generally what that project

1 consists of in terms of physical facilities?

2 A It's main components include irrigation improvement  
3 projects to reduce the amount of subsurface drainage  
4 that's produced, basically source control. It includes  
5 conservation practice on irrigation facilities, such as  
6 lining those facilities to prevent any seepage out of  
7 those facilities into the subsurface groundwater. It  
8 includes shallow groundwater pumping, which is intended  
9 again to reduce the pressure, reduce the amount of  
10 subsurface drainage that comes to the surface. And then  
11 it includes the reuse project -- an expansion of the reuse  
12 project that I mentioned as part of the Grassland Bypass  
13 Project basically take -- to irrigate salt tolerant crops  
14 with subsurface drainage water and to reduce its volume  
15 and to reduce discharge to the San Joaquin River.

16 Q Let's focus for a moment on pumping of shallow  
17 groundwater to reduce pressures. Why is that an important  
18 element of the project?

19 A Anything that will reduce the amount of subsurface  
20 drainage or will lower the perched watertable is obviously  
21 a key component of our project as we're trying to provide  
22 drainage service while at the same time in our plan to  
23 eliminate discharge to the San Joaquin River. So it has  
24 been determined by the parties the Westside Plan that that  
25 is a good component.

1 Q Are the parties generally in agreement and the  
2 regulatory agencies, the Bureau and State Water Project  
3 and DWR, in agreement with the measures that need to be  
4 taken in the Westside Regional Plan?

5 A I think there's general agreement, yes.

6 Q What's lacking?

7 A Lacking is the funding to implement the project.

8 MR. MINASIAN: Thank you.

9 CHAIRPERSON DODUC: Thank you, Mr. Minasian.

10 Anything else, Mr. Rubin.

11 MR. RUBIN: I have no redirect. With that, I  
12 will ask that -- or will move for San Luis and Delta  
13 Mendota Water Authority Exhibit 1, Exhibit 2 and Exhibit  
14 3, which are respectively the testimony of Josephy C.  
15 McGahan, resume of Josephy C. McGahan and resume of James  
16 R. Snow be admitted in evidence.

17 CHAIRPERSON DODUC: Any objections?

18 MR. HERRICK: Thank you, Madam Chair. John  
19 Herrick South Delta Water Agency. I would just renew the  
20 earlier objection. It's clear that Mr. McGahan's  
21 testimony would be a case in chief and went towards  
22 rebutting no information.

23 CHAIRPERSON DODUC: I've already ruled on that.  
24 The exhibits will be accepted into the record.

25 Thank you.

1 MR. RUBIN: Thank you, ma'am.

2 CHAIRPERSON DODUC: Mr. Minasian, how much time  
3 do you anticipate needing?

4 MR. MINASIAN: Direct would be approximately 5  
5 minutes and Mr. McGahan will be the witness. The cross  
6 examination I have no idea.

7 CHAIRPERSON DODUC: All right. We'll proceed  
8 forward then.

9 Thank you.

10 DIRECT EXAMINATION

11 OF THE SAN JOAQUIN RIVER EXCHANGE CONTRACTORS

12 BY MR. PAUL MINASIAN, ESQ., representing the San Joaquin  
13 River Exchange Contractors:

14 MR. MINASIAN: I've already supplied to the Board  
15 staff copies -- my name is Paul Minasian for the San  
16 Joaquin River Exchange Contractors. I've supplied the  
17 Board with what I believe to be 9 copies of San Joaquin  
18 River Exchange Contractor Exhibit number 1. Mr. McGahan's  
19 qualifications have been previously provided by Mr. Rubin.

20 Mr. McGahan, let me ask you a series of questions  
21 related to the subject that came up on presentation of  
22 DWR's case relating to the California Aqueduct. In your  
23 role as drainage coordinator and as a civil engineer  
24 working in the field of drainage, have you become aware of  
25 the importance of groundwater pressures and groundwater

1 levels in the area of the San Luis Delta-Mendota Water  
2 Users, Firebaugh Canal Water District and Camp 13, a  
3 portion of Central California Irrigation District?

4 MR. MCGAHAN: Yes, I have.

5 Q And are you aware of whether or not there have been  
6 studies performed in regard to leakage from the California  
7 Aqueduct, which is operated by DWR for the benefit of both  
8 deliveries of Bureau water and DWR water eventually  
9 reaching southern California?

10 A I'm aware of studies.

11 Q Do all concrete line canals leak?

12 A Yes, they leak some.

13 Q Is Exhibit 1 a copy of a recent study performed by  
14 Bureau of Reclamation personnel, which you are aware of  
15 which describes the effects of the leakage?

16 A Yes.

17 Q And would you generally tell us the quantity or the  
18 range of quantities of leakage which is occurring on an  
19 annual basis in the approximate 10 miles which were  
20 studied and estimated in that report?

21 A The report gave a range of different amounts that  
22 might be seeping out of the California Aqueduct in the  
23 area that abuts the Grassland Drainage area, approximately  
24 a 10-mile area. Those numbers range from 290 acre feet  
25 per year -- excuse me.

1 Q 290 per month, isn't it?

2 A It's a range. There's several ranges here. One is  
3 200 -- a very low number, 290 acre feet per year to a high  
4 of 3,500 acre feet per year, that was one estimate. A  
5 second estimate was approximately 7,100 acre feet per year  
6 and a third estimate was approximately 5,730 acre feet per  
7 year.

8 Q What is the quality of the water that is leaking as it  
9 reaches the groundwater aquifer under the canal?

10 A It would be the same quality as in the San Luis Canal  
11 at that location.

12 Q Okay. And is that approximately 4.5 to 5 EC at the  
13 maximum?

14 A That would be approximately 400 micromohs is the units  
15 I would use.

16 Q Okay. And did the study done by the Bureau -- and  
17 what's the date of the study?

18 A The date of this memorandum is June 28th, 2002.

19 Q And the 290 acre foot figure you gave to us that was  
20 290 per mile, was it not?

21 A That's correct, 290 acre feet per year per mile of  
22 canal.

23 Q And how many miles are we dealing with?

24 A Ten miles approximately.

25 Q Okay. So is it fair to say that the range of the

1 report is somewhere between 3,000 acre feet and 5,000 to  
2 7,000 acre feet?

3 A That's correct. I should correct my earlier  
4 testimony. It's around the 3,000 to the 5,000 to 7,000.

5 Q Were you involved in digesting and studying this  
6 report when it was prepared by the Bureau?

7 A Yes.

8 Q And did it portray the groundwater elevations  
9 underneath the California Aqueduct which is operated by  
10 DWR and could you describe what the ground water profile  
11 looks like under the aqueduct after 40 years of operation?

12 A The report discusses actual borings that were  
13 undertaken on both sides of the canal, monitoring wells  
14 were installed and water levels were measured. The report  
15 determined that the water levels were slightly higher  
16 underneath the canal than in both sides of the canal or  
17 adjoining areas.

18 Q Would it be safe to say that the report reflects a  
19 mound of varying heights?

20 A Yes, you could call it a mound.

21 Q And there's actually a diagram on what page of the  
22 report is it, can you tell?

23 A It's figure 4 of the report. It's not numbered.

24 Q And in one of the profiles in which they had  
25 monitoring wells, did the mound actually come up to

1 approximately one-third of the height of the invert of the  
2 canal itself?

3 A In one of the profiles I would say the water level is  
4 above the invert. I'd say a little less than a third, but  
5 it's above the invert of the canal.

6 Q Now, the water quality was sampled in this mound, was  
7 it not?

8 A That's correct.

9 Q And did the water quality resemble the quality of the  
10 water within the aqueduct itself in terms of salts?

11 A Yes. It was similar a little bit saltier than the  
12 water in the aqueduct.

13 Q Now, you've studied in great detail the areas that  
14 we'll describe as down slope on this 10-mile area of the  
15 aqueduct, have you not?

16 A That's correct.

17 Q What's the total amount of drainage leaving those  
18 areas through the Grassland Bypass Project in the last  
19 couple of years?

20 A Approximately 30,000 acre feet per year.

21 Q How would you describe a figure that may vary between  
22 3,000 and 7,000 acre feet in this 10-mile stretch, in  
23 terms of whether it's significant in contributing or  
24 causing discharges that equal 30,000 acre feet?

25 A Well, certainly those quantities of water 3,000 to

1 7,000 acre feet would be very significant in our ability  
2 to try to manage those discharges to the river from the  
3 Grassland Drainage Area. They're 10 percent plus of the  
4 total amount.

5 Q Does the water travel down slope, migrate physically  
6 particle by particle?

7 A Yes.

8 Q Is that the most significant effect or is there any  
9 other effect that would be significant?

10 A There's also a pressure caused by if water in one area  
11 is higher than in another, basically there's a hydraulic  
12 pressure that runs through the soil profile.

13 Q And how does that pressure react to tile drainage  
14 systems as an example that might be 7 or 8 miles down  
15 slope in Firebaugh or Camp 13?

16 A Well, as it reaches that far, it would cause pressure  
17 basically try to force that subsurface drainage water  
18 upward. And in our area we have drainage systems, so it  
19 would force that water into our drainage systems, which is  
20 what we collect and discharge to the river and try to  
21 manage.

22 Q And is your management both in terms of the quantity  
23 of water and in terms of the loads within the drainage  
24 water?

25 A Yes, our regulation is under a selenium load

1 regulation, so we're limited on the amount of selenium  
2 load which is a combination of volume of water and  
3 concentration of selenium in that water.

4 Q And is that selenium load by period of time or is it  
5 on an annual basis?

6 A It's a monthly load limit.

7 Q So if the pressures in a given month are transmitted  
8 down slope, and the tile drainage water rises up and it  
9 contains selenium, either originating upslope or right  
10 under the ground, how do you manage that?

11 A In my earlier testimony, I talked about ways that the  
12 Grassland drainage area is managing that through improved  
13 irrigation methods, through water conservation practices,  
14 through recirculation of the drainage water into water  
15 supplies and through reuse of drainage water.

16 MR. MINASIAN: I'd like to offer Exchange  
17 Contractor Exhibit 1 and submit Mr. McGahan to cross  
18 examination.

19 CHAIRPERSON DODUC: Thank you. Division of Water  
20 Rights Prosecution Team.

21 STAFF COUNSEL MAHANEY: No questions.

22 CHAIRPERSON DODUC: Central Delta Water Agency?

23 MR. NOMELLINI: No questions.

24 CHAIRPERSON DODUC: Mr. Herrick.

25 CROSS EXAMINATION

1       OF THE SAN JOAQUIN RIVER EXCHANGE CONTRACTORS' PANEL  
2 BY MR. JOHN HERRICK, ESQ., representing the South Delta  
3 Water Agency:

4           MR. HERRICK: Thank you, Madam Chairman. John  
5 Herrick for the South Delta Water Agency. I just have a  
6 couple questions. Mr. McGahan, should we conclude from  
7 your testimony that the operation of the State Water  
8 Project's California Aqueduct does affect the salinity  
9 entering the San Joaquin River.

10          MR. MCGAHAN: I was asked to, you know, report on  
11 this -- to talk about this technical memorandum. I didn't  
12 prepare the technical memorandum, and it's a long ways  
13 from this to that. What I think is the case is that any  
14 waters that leak out of the aqueduct that go into our  
15 drainage system it is a problem for us to try to manage  
16 that water as it's -- internally as we try to get to 0  
17 discharge.

18 Q       Okay. Your testimony talked about how the hydraulic  
19 gradient affected the subsurface groundwater entering your  
20 drains; is that correct?

21 A       Yes.

22 Q       And that affects -- by you, I mean that area's  
23 operation of its drain and its drainage eventually into  
24 the river; is that correct?

25 A       That's correct.

1 Q Does that hydraulic gradient also affect subsurface  
2 drainage directly to the river?

3 A I can't answer that.

4 Q Is DWR undertaking, to your knowledge, any activities  
5 to lessen the effects of this mounding under the  
6 California Aqueduct?

7 A Not to my knowledge, no.

8 Q Do you know if DWR is taking any efforts to dilute  
9 flows -- drainage flows that go into the San Joaquin  
10 river?

11 A I'm not aware of any.

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

14 CHAIRPERSON DODUC: Thank you, Mr. Herrick.

15 Ms. Gillick.

16 MS. GILLICK: No questions.

17 CHAIRPERSON DODUC: CSPA is still not here.

18 Ms. Crothers?

19 CROSS EXAMINATION

20 OF THE SAN JOAQUIN RIVER EXCHANGE CONTRACTORS PANEL

21 BY MS. CATHY CROTHERS, STAFF COUNSEL, representing the  
22 Department of Water Resources:

23 MS. CROTHERS: My name is Cathy Crothers,  
24 attorney for the Department of Water Resources.

25 I just have a few questions for Mr. McGahan

1 regarding the report. I've just had this morning to look  
2 it over, so excuse me if some of these questions may be a  
3 little rough, but I'll try.

4 Mr. McGahan, how many years do you estimate it  
5 would take for the leakage from the California Aqueduct to  
6 reach the San Joaquin River?

7 MR. MCGAHAN: I think the important question is  
8 that it doesn't really matter when a particular particle  
9 of water reaches the San Joaquin River, it's -- you know,  
10 it's the water we're discharging. I don't know how long  
11 it would take a particular particle to reach the San  
12 Joaquin River.

13 Q I think you testified that water quality out of the  
14 aqueduct is it -- did you say that the water quality out  
15 of the aqueduct in this area near Grasslands is  
16 approximately 300 to 400 TDS?

17 A No. I testified approximately 400 micromohs per  
18 centimeter, so that would be electric connectivity. I  
19 notice in further looking at this graph and in -- it talks  
20 about that the electrical connectivity at the time these  
21 tests were done were 490 micromohs per centimeter.

22 Q And that's the water quality into the California  
23 Aqueduct?

24 A That's correct.

25 Q What 490 -- excuse me. I want to clarify. That's 490

1 EC in the California Aqueduct?

2 A Yes.

3 Q Thank you. Then what is, more or less, the equivalent  
4 water quality out of the ag drainage that would be being  
5 discharged in the Grassland area?

6 A The quality is approximately 5,000 micromohs per  
7 centimeter that's discharged from the Grassland drainage  
8 area.

9 Q That's 5,000 EC?

10 A Yes.

11 Q Thank you. Would you say then that the water from the  
12 California Aqueduct would improve the water quality in  
13 some degree that's being discharged from the Grassland  
14 area?

15 A If you assume that there was complete mixing of this  
16 water, there would certainly be an improvement in water  
17 quality. But the issue is the volume of water that's  
18 discharged charged from our Grassland drainage area.

19 For example, our selenium concentration that's  
20 discharged is approximately 60 parts per billion. The  
21 standard is 5 parts per billion. So even if we reduce the  
22 selenium concentration by an amount, it would never be  
23 enough to meet the water quality objectives that we're  
24 facing.

25 Q You were speaking of the selenium discharges. And can

1 you explain how it is that the water quality -- the water  
2 from the California Aqueduct adds to the selenium water  
3 quality problem?

4 A The way it adds to the selenium water quality problem  
5 is it forces additional water.

6 Q Excuse me. I meant the selenium. Weren't you  
7 discussing selenium?

8 A I've been discussing both.

9 Q Okay, I thought you just mentioned selenium water  
10 quality. The water quality problem related to selenium  
11 discharge. And so I was asking what effect the water  
12 quality from the California Aqueduct adds to the problem  
13 of selenium discharge?

14 A It's related to the volume of water not the quality.  
15 And as additional volume is added to this bathtub of  
16 perched watertable we have, the water it forces out is  
17 high in selenium. So it forces more selenium ladened  
18 water out of this bathtub, because it's adding water to  
19 the bathtub and that's a problem for us to deal with.

20 Q So the problem is really not the increased in the  
21 selenium, but it's just the increase in the amount of  
22 discharge?

23 A Yes.

24 MS. CROTHERS: I think that's all the questions I  
25 have.

1 Thank you.

2 CHAIRPERSON DODUC: Thank you, Ms. Crothers.

3 Any other parties wish to cross examine?

4 Mr. Rubin.

5 Anyone else?

6 Mr. Rubin.

7 CROSS EXAMINATION

8 OF THE SAN JOAQUIN RIVER EXCHANGE CONTRACTORS PANEL

9 BY MR. JON RUBIN, ESQ., representing the San Luis and  
10 Delta-Mendota Water Authority:

11 MR. RUBIN: Thank you. Jon Rubin for San Luis  
12 and Delta Mendota Water Authority. I just have one  
13 question. Point of clarification, you were asked a number  
14 of questions this morning and your answers were in the  
15 context of we have to deal with our -- the amount of water  
16 that our system deals with, along those lines. And my  
17 question is just to clarify, are you speaking in terms of  
18 what the Grasslands Bypass Project has to deal with when  
19 you were characterizing that?

20 MR. MCGAHAN: In this particular testimony  
21 related to this?

22 Q Yes, sir.

23 A Yes, I was referring to the members of the Grassland  
24 Bypass Project.

25 MR. RUBIN: Thank you.

1 CHAIRPERSON DODUC: Mr. Minasian.

2 MR. MINASIAN: Submit the Exhibit.

3 CHAIRPERSON DODUC: Any objections?

4 Seeing none, the exhibit is accepted into the  
5 record.

6 MR. MINASIAN: Thank you.

7 CHAIRPERSON DODUC: All right. My understanding  
8 is that the transcript will be available in roughly a week  
9 and not 2 to 3 days as I first said.

10 (Laughter.)

11 CHAIRPERSON DODUC: So briefs are do 10 calendar  
12 days from when the which transcript is available.

13 I am not going to impose a page limit, sorry  
14 staff. But I will ask that you please be brief in your  
15 briefs concise and efficient in addressing the key hearing  
16 issues. And, in particular, I know that there are those  
17 who will be advocating certain actions and certain  
18 inactions, I guess, by the Board. I am specifically  
19 interested in how your recommendations furthers the  
20 protection of water resources and the public trust.

21 And, let's see, I'm supposed to read a fixed  
22 statement now. The Board will take this matter under  
23 submission. All persons who participate in this hearing  
24 will be sent notice of the Board's proposed decision on  
25 this matter at any forthcoming board meeting at which this

1 matter will be considered.

2 After the Board adopts an order on this matter,  
3 any person who believes the order is in error has 30 days  
4 within which to submit a written petition for  
5 consideration by the Board.

6 Did you have something you to say, Mr. Rubin.

7 MR. RUBIN: Just to avoid potential confusion, is  
8 it possible to have the State Water Resources Control  
9 Board place on its website for this hearing the official  
10 date upon which the transcript is ready so that there's no  
11 ambiguity as to the date upon which the closing briefs are  
12 due.

13 CHAIRPERSON DODUC: We will do so.

14 Anything else?

15 Mr. O'Laughlin. By the way, everyone should  
16 thank Mr. O'Laughlin.

17 (Laughter.)

18 MR. O'LAUGHLIN: Yeah, you should.

19 CHAIRPERSON DODUC: The fact that we didn't have  
20 to begin at 5 a.m. this morning and go into the wee hours  
21 of the night is probably due to Mr. O'Laughlin or his  
22 agency not presenting a case in chief.

23 MR. O'LAUGHLIN: Well, thank you, Madam Chairman.

24 CHAIRPERSON DODUC: We would have been happy to  
25 listen to your entire case.

1 MR. O'LAUGHLIN: Well, considering the short  
2 shrift it got at the salt and boron TMDL, I don't know if  
3 that's true.

4 But be that as it may, we've always had this  
5 timing problem. And the 10 days is a timing problem  
6 because there's a couple things that are going on. I  
7 think it would be appropriate if we just set a date  
8 hopefully before Christmas some time, where we could have  
9 a set date, because there's 2 things that go on in the  
10 water world, and I'm sure you're aware of both of them.

11 One is we have Thanksgiving coming up and then we  
12 have the Aqua Convention that's coming up. And if we get  
13 a transcript within that time period, it's going to be  
14 hard to work on it and crank something out. So I was  
15 hoping if we could just set a date -- your board meeting  
16 is not going to take place in December, maybe. Move it  
17 into January if we could set a time certain as like  
18 December 23rd that we submit them by or December 22nd, and  
19 then that gives us adequate time to get it in and out. It  
20 doesn't affect your time schedule either, and it's not  
21 like anybody is going to read them before Christmas  
22 anyway, probably. I'm not being mean. I'm just trying to  
23 be practical here.

24 CHAIRPERSON DODUC: Well, you know, the  
25 Thanksgiving thing doesn't work with me, because when I

1 was on the staff of the Bay-Delta team here Tom Howard  
2 made me work over Thanksgiving on a Bay Delta issue.

3 MR. O'LAUGHLIN: Now, you should fire him.

4 (Laughter.)

5 CHAIRPERSON DODUC: Yeah, so the Thanksgiving  
6 thing does not work. But we will talk to the court  
7 reporter and we will post a date by which briefs are do on  
8 our web page. All right, with that, thank you all for  
9 your cooperation, for your time, for your interest in this  
10 matter. This hearing is adjourned.

11 (Thereupon the State Water Resources Control  
12 Board, Division of Water Rights Delta Salinity  
13 hearing recessed at 12:20 p.m.)

14

15

16

17

18

19

20

21

22

23

24

25

## 1 CERTIFICATE OF REPORTER

2 I, JAMES F. PETERS, a Certified Shorthand  
3 Reporter of the State of California, and Registered  
4 Professional Reporter, do hereby certify:

5 That I am a disinterested person herein; that the  
6 foregoing California State Water Resources Control Board,  
7 Division of Water Rights public hearing was reported in  
8 shorthand by me, James F. Peters, a Certified Shorthand  
9 Reporter of the State of California, and thereafter  
10 transcribed into typewriting.

11 I further certify that I am not of counsel or  
12 attorney for any of the parties to said hearing nor in any  
13 way interested in the outcome of said hearing.

14 IN WITNESS WHEREOF, I have hereunto set my hand  
15 this 5th day of December, 2005.

16  
17  
18  
19  
20  
21  
22  
23 JAMES F. PETERS, CSR, RPR  
24 Certified Shorthand Reporter  
25 License No. 10063