

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

STATE WATER RESOURCES CONTROL BOARD

PUBLIC HEARING ON AMENDED JOINT PETITION OF THE  
IMPERIAL IRRIGATION DISTRICT AND THE SAN DIEGO COUNTY WATER  
AUTHORITY FOR APPROVAL OF A LONG-TERM TRANSFER OF CONSERVED  
WATER PURSUANT TO AN AGREEMENT BETWEEN IID AND SDCWA, AND  
APPROVAL OF CHANGES IN POINT OF DIVERSION, PLACE OF USE AND  
PURPOSE OF USE UNDER PERMIT NO. 7643 (APPLICATION 7482).

THURSDAY, MAY 30, 2002  
8:40 A.M.

BONDERSON BUILDING  
SACRAMENTO, CALIFORNIA

REPORTED BY: KATHY L. SWINHART  
CSR 10150

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

APPEARANCES

STATE WATER RESOURCES CONTROL BOARD:

ARTHUR G. BAGGETT, JR., CHAIR

STAFF:

TOM PELTIER  
ANDREW FECKO

COUNSEL:

DANA DIFFERDING

---oOo---

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

REPRESENTATIVES

FOR IMPERIAL IRRIGATION DISTRICT:

ALLEN MATKINS LECK GAMBLE & MALLORY  
501 West Broadway, 9th Floor  
San Diego, California 92101-3577  
BY: DAVID L. OSIAS, ESQ.  
and  
MARK HATTAM, ESQ.

FOR SAN DIEGO COUNTY WATER AUTHORITY:

HATCH AND PARENT  
21 East Carillo Street  
Santa Barbara, California 93102-0720  
BY: SCOTT SLATER, ESQ.  
and  
STEPHANIE HASTINGS, ESQ.

FOR COACHELLA VALLEY WATER DISTRICT:

BOLD, POLISNER, MADDOW, NELSON & JUDSON  
500 Ygnacio Valley Road, Suite 325  
Walnut Creek, California 94596  
BY: ROBERT MADDOW, ESQ. - SPECIAL COUNSEL  
  
REDWINE AND SHERRILL  
1950 Market Street  
Riverside, California 92501  
BY: GERALD SHOAF, ESQ.  
and  
STEVEN B. ABBOTT, ESQ.

FOR METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA:

ELLISON, SCHNEIDER & HARRIS  
2015 H Street  
Sacramento, California 95814-3109  
BY: ANNE SCHNEIDER, ESQ.  
and  
ROBERT E. DONLAN, ESQ.

FOR WILLIAM DU BOIS:

WILLIAM DU BOIS  
3939 Walnut Avenue, #144  
Carmichael, California 95608

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

REPRESENTATIVES (CONT.)

FOR CALIFORNIA FARM BUREAU FEDERATION:

HENRY E. RODEGERDTS, ESQ.  
2300 River Plaza Drive  
Sacramento, California 95833

FOR LARRY GILBERT:

LARRY GILBERT  
945 East Worthington Road  
Imperial, California 92251

FOR COUNTY OF IMPERIAL:

ANTONIO ROSSMANN, ESQ.  
380 Hayes Street  
San Francisco, California 94102

FOR DEFENDERS OF WILDLIFE:

BRENDAN FLETCHER  
926 J Street, Suite 522  
Sacramento, California 95814  
and  
KIMBERLEY W. DELFINO

FOR COLORADO RIVER INDIAN TRIBES:

OFFICE OF THE ATTORNEY GENERAL  
ROUTE 1, Box 23-B  
Parker, Arizona 85344  
BY: ERIC SHEPARD, ESQ.  
and  
LOLA RAINEY, ESQ.

FOR SALTON SEA AUTHORITY:

TOM KIRK  
78-401 Highway 111, Suite T  
La Quinta, California 92253  
  
BEST BEST & KRIEGER  
74-760 Highway 111, Suite 200  
Indian Wells, California 92210  
BY: ROBERT W. HARGREAVES, ESQ.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

REPRESENTATIVES (CONT.)

FOR NATIONAL WILDLIFE FEDERATION:

KEVIN DOYLE  
3500 Fifth Avenue, Suite 101  
San Diego, California 92103

FOR NATIONAL AUDUBON SOCIETY - CALIFORNIA:

LAW OFFICES OF WILLIAM YATES  
8002 California Avenue  
Fair Oaks, California 95628  
BY: WILLIAM YATES, ESQ.  
and  
KEITH G. WAGNER, ESQ.

FOR PLANNING AND CONSERVATION LEAGUE:

KAREN DOUGLAS  
926 J Street, Suite 612  
Sacramento, California 95814

FOR REGIONAL WATER QUALITY CONTROL BOARD - REGION 7:

PHILIP GRUENBERG

COUNSEL:

LORI OKUN  
1001 I Street  
Sacramento, California 95814

SIERRA CLUB CALIFORNIA:

JIM METROPULOS  
1414 K Street, Suite 500  
Sacramento, California 95814

---oOo---

1	INDEX	
2		PAGE
3	RESUMPTION OF HEARING:	2756
4	AFTERNOON SESSION:	2886
5	REBUTTAL	
6	REGIONAL WATER QUALITY CONTROL BOARD - REGION 7:	
7	IMPERIAL IRRIGATION DISTRICT:	
8	JESSE SILVA:	
	DIRECT EXAMINATION	
9	BY MR. OSIAS	2756
	RODNEY SMITH:	
10	DIRECT EXAMINATION	
	BY MR. OSIAS	2783
11	CROSS-EXAMINATION OF PANEL OF TWO:	
	BY MR. SLATER	2806
12	BY MR. KIRK	2820
	BY MS. DOUGLAS	2838
13	BY MR. FLETCHER	2849
	BY MR. ROSSMANN	2856
14	BY MR. RODEGERDTS	2862
	BY MR. DU BOIS	2872
15	BY MR. GILBERT	2874
	BY STAFF	2878
16	REDIRECT EXAMINATION:	
	BY MR. OSIAS	2879
17	RE-CROSS-EXAMINATION:	
	BY MR. ROSSMANN	2881
18		
	LAURA HARNISH:	
19	DIRECT EXAMINATION	
	BY MR. OSIAS	2886
20	HARRY OHLENDORF:	
	DIRECT EXAMINATION	
21	BY MR. OSIAS	2900
	JOHN DICKEY:	
22	DIRECT EXAMINATION	
	BY MR. OSIAS	2906
23	CROSS-EXAMINATION OF PANEL OF THREE:	
	BY MR. KIRK	2942
24	BY MS. DOUGLAS	2981
	BY MR. FLETCHER	2995
25	BY MR. ROSSMANN	2998

1	INDEX (CONT.)	
2		PAGE
3	IMPERIAL IRRIGATION DISTRICT: (CONT.)	
4	CROSS-EXAMINATION OF PANEL OF THREE: (CONT.)	
	BY STAFF	3016
5	BY THE BOARD	3023
	REDIRECT EXAMINATION:	
6	BY MR. OSIAS	3031
	RECROSS-EXAMINATION:	
7	BY MR. SLATER	3043
	BY MR. KIRK	3046
8	BY MS. DOUGLAS	3055
	BY MR. FLETCHER	3057
9	BY MR. ROSSMANN	3058
	BY MR. GILBERT	3067
10	BY THE BOARD	3069

11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

---oOo---



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

SACRAMENTO, CALIFORNIA

THURSDAY, MAY 30, 2002, 8:40 A.M.

---o0o---

CHAIRMAN BAGGETT: Let's go back on the record.  
We're back with rebuttal testimony by Imperial Irrigation  
District.

---o0o---

DIRECT EXAMINATION OF IMPERIAL IRRIGATION DISTRICT  
BY MR. OSIAS

MR. OSIAS: Good morning, Mr. Chairman. For our  
first rebuttal panel, we have Mr. Jesse Silva, the general  
manager of Imperial Irrigation District, and Dr. Rodney  
Smith, an economist that had been engaged by them. Both  
have testified already in Phase I, Dr. Smith in both Phase I  
and Phase II. They're both --

UNIDENTIFIED SPEAKER: Is the mic on?

MR. OSIAS: There is no mic.

CHAIRMAN BAGGETT: We can -- here.

(Discussion held off the record.)

MR. OSIAS: And it appears to be on.

As I was saying, both witnesses have testified in  
Phase I, and Dr. Smith in Phase I and Phase II. Both were  
sworn. They're still under oath. I'd like to start with  
Mr. Silva.

Good morning, Mr. Silva.

1 MR. SILVA: Good morning.

2 MR. OSIAS: In -- in both cross-examination of you  
3 and in the presentation of cases in Phase II regarding the  
4 benefits of the current elevation of the Sea, the subject of  
5 Salton Sea flooding came up. And we used in cross some  
6 photographs that were illustrative of conditions at the  
7 Salton Sea with respect to flooding and elevation. We  
8 marked them Exhibit 67.

9 Do you have that in front of you?

10 MR. SILVA: Yes, I do.

11 MR. OSIAS: Okay. We also submitted as rebuttal  
12 Exhibit eighty -- pardon me -- 85, a memorandum from Michael  
13 Remington.

14 Do you have that also in front of you?

15 MR. SILVA: Yes.

16 MR. OSIAS: Okay. Could you tell us who Michael  
17 Remington is.

18 MR. SILVA: Michael Remington is employed by IID.  
19 He's in charge of our environmental compliance section.

20 MR. OSIAS: And did he put this memo together at  
21 your instruction?

22 MR. SILVA: Yes.

23 MR. OSIAS: Okay. And by use of 84 and perhaps  
24 flipping through Exhibit 67 -- which I'll note we've  
25 page-numbered Exhibit 67 so we can refer to pictures. Could

1       you tell us what's depicted very briefly and whether in fact  
2       it's an illustration of a historic condition that's no  
3       longer or whether it's still representative of conditions at  
4       the Sea. Okay?

5               MR. SILVA: Yes. Exhibit 67 on page 1, I believe,  
6       this is at Salton Sea Beach showing the building immediately  
7       to the left that's still there. And you notice the power  
8       line there, we just went out there three months ago and took  
9       the transformer off of there because it was serving this  
10      area. It doesn't no longer serve that area. We had to go  
11      out there with boats and get a picture of it with our -- our  
12      IID news section. So that is still there. And this is  
13      private property in Salton Sea Beach.

14             MR. OSIAS: Okay. And for ease, perhaps although I  
15      ask you to use words, we've also put up behind you Exhibit  
16      89, which for those who can't see it, is an aerial photo of  
17      the Salton Sea, and then it has some elevation lines. But  
18      you could use that, if you would, to also perhaps generally  
19      indicate where these pictures are on that photograph.

20             MR. SILVA: These pictures, excuse me, that you just  
21      showed are in this area in here.

22             MR. OSIAS: You're pointing to sort of the middle  
23      west side of the Sea.

24             MR. SILVA: That's correct.

25             MR. OSIAS: Okay. And so I guess the answer to the

1 question I had asked at the beginning, the fact that you had  
2 to go out three months ago and remove this telephone pole,  
3 suggests that these conditions are still current.

4 MR. SILVA: Yes, that's still current.

5 MR. OSIAS: Okay. And if you could just use the  
6 page numbers and go quickly through them and give us a  
7 narrative --

8 MR. SILVA: Page 2 -- yes, page 2 is in the same  
9 general area. That building is an old marina building.  
10 That's been demolished. We purchased that property and to  
11 prevent liability we demolished that site.

12 Page 3 shows -- it's an old photograph at Bombay  
13 Beach. Bombay Beach is on the opposite side of the Sea.

14 MR. OSIAS: So sort of in the middle east side.

15 MR. SILVA: East side. That is an old photograph,  
16 but those -- those facilities are still there. A dike has  
17 been constructed, but those -- that area is still flooded.

18 MR. OSIAS: So even though it's an old photograph,  
19 that's still an illustrative picture of current conditions?

20 MR. SILVA: Yes.

21 MR. OSIAS: Thank you.

22 MR. SILVA: Page 4 is in the same -- back to the  
23 west side of the Salton Sea. That condition no longer  
24 exists. If you look at the middle of the picture where  
25 there's kind of a dike crossing, we built that up. And so

1 on the -- on the -- those houses there, they're now -- that  
2 area has been drained. We put in a tile line and are  
3 pumping that water back into the Salton Sea. So those  
4 houses are still there, but the water is no longer there.

5 MR. OSIAS: Okay.

6 MR. SILVA: It looks more like on picture number 5  
7 now. It looks something like this. We were able to pump  
8 the water down, but some of it still seeps --

9 MR. OSIAS: Now, is that white stuff, is that snow?

10 MR. SILVA: No, that's salt residue from the  
11 evaporation of the water once we pumped it down.

12 MR. OSIAS: Okay.

13 MR. SILVA: The next page, page 6, is on the inside  
14 of the dike now. That building is still there, and you can  
15 see in the back there's kind of a dike. That's the one that  
16 we built.

17 MR. OSIAS: Why did you build the dike, if this is  
18 already flooded?

19 MR. SILVA: The dike protects the property on the  
20 back side of the dike, in other words, the previous  
21 pictures.

22 MR. OSIAS: Okay.

23 MR. SILVA: We had residents there that were right  
24 in that area. The streets were getting flooded, and so we  
25 went out there and bought some property, then diked it off

1 so it would no longer flood their homes.

2 MR. OSIAS: That's to protect the sensitive  
3 receptors who live near the Sea, right?

4 MR. SILVA: Yes.

5 Page -- page 7, that's located at Desert Shores,  
6 which is back --

7 MR. OSIAS: So now we're looking on the west side --

8 MR. SILVA: West side.

9 MR. OSIAS: -- sort of perhaps 20 percent down the  
10 west side from the north end.

11 MR. SILVA: That's correct.

12 MR. OSIAS: Okay.

13 MR. SILVA: This is Marina Mobile Estates. This was  
14 during the highest elevations of the Salton Sea. You can  
15 see the water breaking over a little retaining wall they had  
16 built there. There were -- we call them fingers. There  
17 were, like, marinas where people had mobile homes and so  
18 forth.

19 Page 7 and 8, for instance, is the same general  
20 area. You can see the water breaking over the -- their  
21 patios.

22 MR. OSIAS: Before we move on, then, just to remind  
23 you, is -- now is -- two questions: One, it looks like  
24 there's wave action in 7.

25 MR. SILVA: Yes.

1 MR. OSIAS: What causes that?

2 MR. SILVA: This is during wind blowing out of the  
3 northwest, west and north. And you can see the white caps  
4 on both 7 and 8, and that's what's causing that water to  
5 break over that retaining wall.

6 MR. OSIAS: Okay. So at a static elevation, it  
7 might not be technically flooding the home, but wind caused  
8 it. Is that --

9 MR. SILVA: Well, we had other problems, though.  
10 The Sea was so high that their septic system was no longer  
11 working. It isn't a septic system. It was regular sewer  
12 lines. There was so much water that they could no longer  
13 drain their sewer from their homes.

14 MR. OSIAS: So it's not just physical inundation  
15 that caused problems.

16 MR. SILVA: No, it was -- there was subsurface  
17 inundation that they were no longer able to live there.

18 MR. OSIAS: And is the Sea still at an elevation  
19 that this is an existing problem?

20 MR. SILVA: We -- at this particular location, we  
21 had to buy all those people out. We spent about two and a  
22 half million dollars to remove all of the mobile homes, move  
23 people out, pay them relocation fees because we just could  
24 not fix the problem. There were too many problems to fix.  
25 We would have to elevate this -- these areas where those

1 mobile homes went about four or five feet, and it was more  
2 expensive to do that, so we chose to buy them out and remove  
3 them.

4 And so the dikes or the areas are still there, but  
5 we no longer have any homes on them. They belong to IID  
6 now.

7 MR. OSIAS: Okay. So the home isn't suffering the  
8 same problem, but the elevation is still relatively the  
9 same.

10 MR. SILVA: That's correct.

11 MR. OSIAS: I think you were up to 9.

12 MR. SILVA: Number 9, I'm not sure where that one  
13 is, but it's indicative of those areas that are behind or  
14 in -- on the land side of the dikes where you have standing  
15 water. And it's -- as long as -- you can see it's starting  
16 to evaporate. You see some salt there.

17 MR. OSIAS: Now, maybe just again for illustrative  
18 purposes, both in the lower left-hand corner and about the  
19 middle of the right edge of the photograph, you see white  
20 areas. Is that white because of salt from receding water?

21 MR. SILVA: Yes. And also -- it's white also  
22 because of some barnacles. They have salt and barnacles  
23 together.

24 MR. OSIAS: Okay. And I see on the roots the same  
25 white sort of substance.



1 MR. SILVA: That is strictly salt, yes.

2 MR. OSIAS: Okay.

3 MR. SILVA: Number 10 is back at that same location,  
4 Marina Mobile Estates. We ended up -- while we were moving  
5 the people out, you could see sand bags to protect from  
6 those high winds and high water.

7 And you can see number 11, the -- our people  
8 installing those sand bags to keep the -- keep the Sea out.

9 MR. OSIAS: Okay. And now turning to Exhibit 68 --  
10 and maybe, Dr. Smith, while you're sitting there, you could  
11 put 89A up, the next photograph.

12 We also talked about the -- in Phase I and Phase II,  
13 sort of the both expense and actions that the IID has had to  
14 go to to protect people from flooding risks, humans now, not  
15 species from the flooding risk, just humans.

16 Could you walk us through Exhibit 68.

17 MR. SILVA: Yes. Exhibit 68, number or page 1 is a  
18 view of one of the dikes when we were starting to rebuild  
19 them. And the location of that is roughly -- roughly in  
20 this area, which is on the west.

21 MR. OSIAS: So we're just south -- first of all,  
22 we're on Exhibit 89A, which is the southeast quadrant of  
23 that overall picture. And you're now pointing to sort of  
24 the middle of the southeast end of the Sea.

25 MR. SILVA: Yes.

1           MR. OSIAS: And just to orient us, and then we can  
2 go through the rest of them more quickly, there's sort of  
3 three things portrayed in page 1 of 68. There's a dike,  
4 then there's a piece of barren land, and then there's a  
5 field. And maybe you could just describe why all of those  
6 are present in this photograph.

7           MR. SILVA: Again, on the right-hand side there's a  
8 dike. In the middle there's a portion, it's a borrow area  
9 where we borrowed dirt from the original field site to build  
10 the dike. And then, of course, on the far left is what's  
11 left of the farming area.

12           MR. OSIAS: Now, the barren area at one time was  
13 agricultural land?

14           MR. SILVA: Yes.

15           MR. OSIAS: It had crops on it?

16           MR. SILVA: Yes.

17           MR. OSIAS: And we now see it's barren because that  
18 land was lost to construction?

19           MR. SILVA: It was lost to construction of the dike,  
20 yes.

21           MR. OSIAS: Okay.

22           MR. SILVA: And it's lower than the rest of the  
23 field, and therefore it's got a lot of salt. You can see  
24 the evaporation --

25           MR. OSIAS: Right, I was going to ask if -- I see

1 white areas again. That's salt accumulation.

2 MR. SILVA: Yes.

3 MR. OSIAS: All right. And for that field to drain  
4 water, how does it leave?

5 MR. SILVA: We have to pump both subsurface and  
6 surface water from that field. All of those areas around  
7 the Sea that are protected by dikes and some other ones are  
8 all having to be pumped, both tailwater and tile water.

9 MR. OSIAS: So gravity drains it out?

10 MR. SILVA: That's right.

11 MR. OSIAS: And who pays for that pumping?

12 MR. SILVA: I --

13 MR. OSIAS: It's a continuing expense.

14 MR. SILVA: It's a continuing expense.

15 MR. OSIAS: All right. And, again, to go back to my  
16 question, is this -- a, are dikes still there; b, are dikes  
17 still needed? How have conditions changed if at all?

18 MR. SILVA: The dikes are still there. As a matter  
19 of fact, these pictures were taken during the time when we  
20 were upgrading them, when we were bringing the elevation up.

21 And in this particular case, this dike, we had to  
22 put a buttress dike against it because of seismic problems.  
23 We checked out the stability of all of the dikes because we  
24 took them over from -- they were built by different  
25 landowners, different people, and so we did not know the --

1       how well they were built.  So when we took them over, we had  
2       to do studies, engineering studies.

3               This particular area had a problem with stability,  
4       and we had to build -- actually add to the width of the dike  
5       to make it more stable if an earthquake were to occur.

6               MR. OSIAS:  Now, if you know, are there earthquake  
7       faults in the Imperial Valley?

8               MR. SILVA:  They're basically all over the valley,  
9       running basically along the axis of the orientation of the  
10       Salton Sea.

11               MR. OSIAS:  So they -- is there a major one that's  
12       fairly well-known?

13               MR. SILVA:  The San Andreas Fault is kind of on the  
14       east side of the Salton Sea.

15               MR. OSIAS:  And the fault lines generally run from  
16       the lower right-hand corner to the upper left-hand corner  
17       direction of this photo?

18               MR. SILVA:  Yes.

19               MR. OSIAS:  Not Exhibit 68, the photo on 89A.

20               MR. SILVA:  Yes, that's correct.

21               MR. OSIAS:  And so they are perpendicular to the  
22       dikes in many instances?

23               MR. SILVA:  In many instances they're perpendicular  
24       or in some instances they're parallel.

25               MR. OSIAS:  Okay.  And as we go through these, if

1       you would also give me a brief description and then let us  
2       know what they protect and what would happen if they failed.

3               MR. SILVA: Okay. The next -- page 2 shows the  
4       beginning of the construction of the buttress dike right up  
5       against the original dike. And you can see on the  
6       right-hand side there's some growth there. There's the high  
7       end of the -- of the next parcel. But if you look towards  
8       the west, that would be the very low end, and it protects  
9       basically this property that's to the left.

10              MR. OSIAS: Okay.

11              MR. SILVA: And if it was to break, those would  
12       flood and probably come back to this -- where there is a  
13       stake with some red ribbon there.

14              MR. OSIAS: Actually, let me just -- go ahead.

15              MR. SILVA: The next one is just further down on  
16       that same dike. You can see the area where we borrowed the  
17       dirt from. You can see some salinity again showing up there  
18       in the surface.

19              This is just another picture --

20              MR. OSIAS: You're up to page 4?

21              MR. SILVA: On page 4, a different time. You can  
22       see we're adding dirt to form the buttress dike. That's the  
23       same area.

24              MR. OSIAS: Okay.

25              MR. SILVA: This next photograph is in a different

1 location in the same general area. And it's just -- it was  
2 taken just to show the difference in elevation between  
3 the -- the borrow area and the top of the dike.

4 MR. OSIAS: And the pond that you see on page 5 of  
5 Exhibit 69 -- or pardon me -- 68, what --

6 MR. SILVA: Page 5?

7 MR. OSIAS: Yeah. Why is that pond there?

8 MR. SILVA: That's a pond that holds tailwater  
9 before it's pumped out into the Sea.

10 MR. OSIAS: So you have to -- normally you wouldn't  
11 have to do that in Imperial, but when you're near the Sea,  
12 you do?

13 MR. SILVA: That's correct. The pumps that we put  
14 in are pretty small capacity, so they have to have a place  
15 to store the tailwater.

16 MR. OSIAS: Okay. And is there a picture of those  
17 on the next page?

18 MR. SILVA: You can actually see the -- in this  
19 picture you can see them. They're in the very middle, kind  
20 of a little bit on the right-hand side. But on the next  
21 page, on 6, you can see the -- there's two pump  
22 installations on the -- kind of the left one is a subsurface  
23 pump, the one on the right is a tailwater pump.

24 MR. OSIAS: When's the last time you visited these  
25 dikes?

1 MR. SILVA: I was there a week ago Monday.

2 MR. OSIAS: And what was happening at the Sea at  
3 that date?

4 MR. SILVA: I just happened to be -- the previous  
5 photos, the wind was blowing out of the west. In this  
6 particular area we built dikes at elevation minus 220.

7 MR. OSIAS: That's the top of the dike.

8 MR. SILVA: The top of the dike, elevation minus  
9 220, which would give us right now roughly six, seven feet  
10 of the free board, in other words. But with the west wind  
11 blowing, the water was breaking over the top of the dike. I  
12 couldn't go down some of them because I didn't have a  
13 four-wheel drive vehicle, so I was afraid I was going to  
14 slip off into the Sea.

15 MR. OSIAS: The top of that's an angle, so it's --

16 MR. SILVA: Well, they're angled so the water drains  
17 as they go by. And as you can see, I'm glad we built them  
18 that high because if we would -- the other ones we built a  
19 foot or two feet lower. But this area gets the west winds,  
20 which are the prevailing winds, and that's what -- we have  
21 to protect that area.

22 Also, what happens is when that happens, the drift  
23 of that salt water affects crops in that area, so these  
24 people, the farmers, they can put up haystacks of old straw  
25 or something to protect them from the salinity spray.

1           MR. OSIAS: Salt spray is not an agricultural  
2 production benefit?

3           MR. SILVA: No, it's not.

4           MR. OSIAS: Okay.

5           MR. SILVA: Next picture, on 7, it's an aerial  
6 photograph looking in the same general area, but it shows --  
7 it's kind of washed out, but it shows -- it's looking  
8 towards the southeast. There's a geothermal plant there,  
9 and the -- kind of on the right center of the photo. And  
10 kind of to the left of that there's a construction of  
11 another -- during the construction phase of another power --  
12 geothermal power plant.

13           MR. OSIAS: And if the dike broke, the power plant  
14 is flooded?

15           MR. SILVA: That's the dike that I went down the  
16 other day and I couldn't drive down it because it was so --  
17 so slick.

18           If you look at the next photo, number 8, you can see  
19 a better -- that's looking from the opposite direction  
20 looking to the northwest. What we did is we also built a --  
21 what we call secondary dikes on the south side, which would  
22 be kind of on the left of the photo, all the way around that  
23 site so that if the dike breaks in a general area, it will  
24 flood it. But if it breaks in another location, it will not  
25 affect the power plant.



1           MR. OSIAS: So you actually had to dike away from  
2 the Sea so that the water wouldn't come in through the back  
3 door if it broke somewhere else.

4           MR. SILVA: If it broke somewhere else, yeah.

5           MR. OSIAS: All right. Have any environmental  
6 groups contributed money to these dikes?

7           MR. SILVA: No.

8           MR. OSIAS: Now, let me just walk you through some  
9 of the other rebuttal exhibits so we can lay the foundation  
10 for them getting into evidence. I'll do this real quickly.

11           Exhibit 69, do you know what that is?

12           MR. SILVA: Yes, this is a copy of the Salton Sea  
13 restoration project, the environmental impact statement and  
14 report both.

15           MR. OSIAS: And how did IID come to have one?

16           MR. SILVA: We received a copy. We're part of  
17 the -- we're members of the Salton Sea Authority, and we're  
18 an interested party, of course, so we received a copy of  
19 this.

20           MR. OSIAS: All right. Mark, I need you to show  
21 these.

22           We'll put up the big picture so you can quickly  
23 describe what the exhibit is and who made it and why.

24           Exhibit 70, which we used in cross-examination  
25 during Phase II, can you quickly describe what that is.

1           MR. SILVA: Yes. This is a chart showing the total  
2 inflow to the Salton Sea from IID.

3           MR. OSIAS: Now, how do you -- how was this chart  
4 prepared?

5           MR. SILVA: It's prepared from records that IID --  
6 data that IID obtains from elevation gauges around the  
7 Salton Sea and -- and the leaders at the Alamo and New  
8 Rivers.

9           MR. OSIAS: Okay. And did you have your staff  
10 prepare this chart?

11          MR. SILVA: Yes. It was prepared by our staff.

12          MR. OSIAS: From IID records?

13          MR. SILVA: From IID, yes.

14          MR. OSIAS: Now you remember Exhibit 11 that showed  
15 the fluctuations in diversions from the Colorado River?

16          MR. SILVA: Oh, yes. Uh-huh.

17          MR. OSIAS: You probably have that one memorized,  
18 right?

19          MR. SILVA: Yes.

20          MR. OSIAS: Okay. And this Exhibit 70 sort of shows  
21 the same volatility in inflow to the Sea; is that right?

22          MR. SILVA: Yes. If you look at the high to the  
23 low, there's about a 500,000 acre difference in inflow to  
24 the Salton Sea over roughly the 60 years there.

25          MR. OSIAS: Okay. And it sort of mirrors the

1 diversions from the river, does it not?

2 MR. SILVA: Yes, it does.

3 MR. OSIAS: Okay. And Exhibit 71, which is the  
4 Salton Sea at Fig Tree John title, first of all, what is Fig  
5 Tree John?

6 MR. SILVA: Fig Tree John is the name of a gauge for  
7 elevation that's been there since the -- not the beginning  
8 of time, but the beginning of history of IID that we have  
9 been able to keep a constant datum for the elevation of the  
10 Salton Sea. So that's a very important gauge of --

11 MR. OSIAS: It's an elevation gauge.

12 MR. SILVA: Yes.

13 MR. OSIAS: Okay. And there are other elevation  
14 gauges?

15 MR. SILVA: There are two or three other ones that we  
16 had over time, yes.

17 MR. OSIAS: Does the USGS have one?

18 MR. SILVA: Yes, USGS has one at the old Naval  
19 station.

20 MR. OSIAS: And do you recall the different  
21 calibration points on Fig Tree John versus the USGS station?

22 MR. SILVA: There's a difference in datum between  
23 Fig Tree John and the USGS, and I remember eighty-nine  
24 hundredths of a foot, which would be 10, 11 inches,  
25 something like that.

1 MR. OSIAS: Okay. They show the same patterns;  
2 they're just off in terms of a number by that differential?

3 MR. SILVA: That's correct. They show the same  
4 relative differences. It's just a different datum that they  
5 use.

6 MR. OSIAS: And the IID uses the Fig Tree John one  
7 because it has the historic measurements; is that right?

8 MR. SILVA: Yes.

9 MR. OSIAS: This chart was made by your staff?

10 MR. SILVA: Yes.

11 MR. OSIAS: And you track what's happening at the  
12 Salton Sea?

13 MR. SILVA: We get a report every week, yes.

14 MR. OSIAS: Okay. Now, this reflects a decline over  
15 the last four years; is that right?

16 MR. SILVA: Yes, the red one being the latest one,  
17 yes.

18 MR. OSIAS: Okay. And each year it's gone down a  
19 little bit.

20 MR. SILVA: Each year it's taken about a tenth or  
21 two-tenths of a foot drop in elevation.

22 MR. OSIAS: And have you personally observed the  
23 same -- I'm not saying you observed a little tenth of a  
24 foot, but do you see the Sea coming down over the last four  
25 or five years?

1 MR. SILVA: I keep track of it pretty well.  
2 Because, again, we spend so much money there, it became part  
3 of our everyday operations at this district. So I keep  
4 pretty good watch on it, yes.

5 MR. OSIAS: Okay. This chart only went back to '99.  
6 Do you remember whether it's been declining for longer than  
7 that?

8 MR. SILVA: Actually '95 or six was one of our --  
9 was about the highest period. It's been coming down since  
10 then, yes.

11 MR. OSIAS: Okay. Could we go then to Exhibit 77.  
12 This is the Salton Sea elevation. Did you cause  
13 this table to be prepared?

14 I'm sorry, it's not a table. Did you cause this  
15 graph to be prepared?

16 MR. SILVA: Yes.

17 MR. OSIAS: And what does it reflect?

18 MR. SILVA: It reflects the elevation of the Sea  
19 going back to 1904, basically since the flooding of the  
20 Colorado River into the Salton Sea Trough.

21 MR. OSIAS: Okay. And this is from data that the  
22 IID has.

23 MR. SILVA: Yes. Again, Salton Sea Authority at the  
24 Fig Tree John gauge.

25 MR. OSIAS: Okay. And you can see the big spike

1 from the flood, and then it bottoms out -- and we heard  
2 about this -- and then it gradually grows in fits and  
3 spurts?

4 MR. SILVA: Yes.

5 MR. OSIAS: Okay. And Exhibit 78, which is also a  
6 Salton Sea elevation. Do you recognize this?

7 MR. SILVA: Yes. It's also an elevation of the  
8 Salton Sea, just a different time period.

9 MR. OSIAS: Okay. What does it run from so we can  
10 distinguish it?

11 MR. SILVA: From 1919 through the -- well, basically  
12 to the present.

13 MR. OSIAS: So it picks up with the low point after  
14 the flooding; is that --

15 MR. SILVA: That's correct. That's the point, the  
16 lowest point from there on is what's showing on this graph.

17 MR. OSIAS: Okay. And then Exhibit 80, we had  
18 some -- we had some discussion in rebuttal and -- not  
19 rebuttal, pardon me -- in cross-examination in Phase II  
20 about what a pump back looked like and how it worked in  
21 terms of ag recycling versus urban recycling. And if you  
22 spend no more than one minute, but this is an  
23 illustration -- tell them we'll call them back.

24 CHAIRMAN BAGGETT: The dike went out.

25 MR. OSIAS: The dike went out. Oh, God.

1 MR. SILVA: Excuse me.

2 Using the graph -- excuse me, the chart --

3 MR. OSIAS: Yeah, speak up because you're away from  
4 the mic.

5 MR. SILVA: This shows the existing condition before  
6 a pump back system to show that water comes into the field,  
7 is spread over the field. There's a tailwater ditch. It  
8 goes through a tailwater water box into the drain. That's  
9 the runoff from the surface. And there's also probably a  
10 tile line that runs into the drain as well for subsurface  
11 drainage.

12 When you put a --

13 MR. OSIAS: Let me just stop you right there.

14 In the before condition, because we heard about this  
15 yesterday, there's no ditch running right from the delivery  
16 point to the drain ditch, right? The water actually has to  
17 just spread out over the field.

18 MR. SILVA: Right, spread out over the field to  
19 irrigate.

20 MR. OSIAS: That's because crops are everywhere on  
21 the field.

22 MR. SILVA: Yes.

23 MR. OSIAS: Okay.

24 MR. SILVA: If you put a tailwater return system in,  
25 you have to have -- basically the only thing that changes is

1       you have to have some kind of a pond at the tail end of the  
2       field to collect that surface runoff, a pump to pump it back  
3       to the head of the ditch. So usually you mix the water in  
4       case there's any salinity, and you reapply it to the field.  
5       There is an overflow from the pond to the drain in case you  
6       don't use all the water, it rains or some other activity  
7       like that happened.

8               And, of course, you still have the drainage from the  
9       subsurface flows as well.

10              MR. OSIAS: Okay. And in the exhibits we submitted,  
11       but not on the blow-up, we had photographs of this; is that  
12       right?

13              MR. SILVA: Yes.

14              MR. OSIAS: And that's in Exhibit 80. And those  
15       photographs were taken by whom, and do you know where they  
16       are?

17              MR. SILVA: That was Exhibit, what, 80?

18              MR. OSIAS: 80.

19              MR. SILVA: These are pictures of IID installed  
20       tailwater return systems. I'm not sure who exactly took the  
21       pictures, but they're part of the NWD/IID agreement systems.  
22       And it shows -- for instance, on the top picture shows a  
23       linear pond, in other words, a pond that doesn't show like  
24       we have on the --

25              MR. OSIAS: Not square --



1           MR. SILVA: But it runs along the full length at the  
2 tail end of the field and then it comes back to the head of  
3 the field.

4           MR. OSIAS: Okay. And there are two kinds of pump  
5 backs, permanent and portable?

6           MR. SILVA: Yes. The first one shows a permanent  
7 system; in other words, it's a -- it's a pump that's  
8 installed permanently and usually runs on electricity. You  
9 can see on the first page, on the second one, it shows a  
10 portable tailwater return pond.

11           It's kind of a misnomer that the tailwater is not --  
12 I mean, the pond is not portable. It's the pump that's  
13 portable. And you can see there's a tractor there that's  
14 backed up into the -- into the pond, and they're pumping the  
15 water back that way.

16           MR. OSIAS: So they're using the tractor as the  
17 pump.

18           MR. SILVA: Yes.

19           MR. OSIAS: Okay. All right. Moving on, then,  
20 Exhibit 84 is a letter from Diane Feinstein.

21           MR. SILVA: Yes.

22           MR. OSIAS: IID received this letter?

23           MR. SILVA: Yes, last week.

24           MR. OSIAS: And you're familiar with it?

25           MR. SILVA: Yes, I am.

1 MR. OSIAS: Okay. And that's an accurate copy?  
2 MR. SILVA: Yes.  
3 MR. OSIAS: All right. And if I could have you look  
4 at Exhibit 86.  
5 MR. SILVA: Yes.  
6 MR. OSIAS: It's perhaps a bad photograph, but it's  
7 a -- it's taken from a Power Point or slide show. You can  
8 see a quote from Ted Schade. And what looks like smoke has  
9 been testified to as PM-10 emitting.  
10 Have you seen in your -- I think you testified in  
11 Phase I you've been at the district for a long time. Tell  
12 me how many years.  
13 MR. SILVA: Almost 30.  
14 MR. OSIAS: Okay. And a lot around the Sea for the  
15 various duties you've had, correct?  
16 MR. SILVA: That's correct.  
17 MR. OSIAS: Have you ever seen near the Salton Sea  
18 in any of the salt areas emissions like this?  
19 MR. SILVA: No, I have not.  
20 MR. OSIAS: And if you'll flip to page eighty -- not  
21 page -- Exhibit 88, you'll see a photograph headed Extreme  
22 Weathering Environment, and then there's a label that says,  
23 "Railroad ties after a few years on the plya."  
24 MR. SILVA: Yes.  
25 CHAIRMAN BAGGETT: Excuse me. This is Exhibit 87?

1           MR. OSIAS: I'm sorry, did I say -- yes, it is.  
2           Yes, it's 87, not 88. My mistake.

3           CHAIRMAN BAGGETT: Make sure we have the same one.

4           MR. OSIAS: Now, you can barely tell the railroad  
5           ties. Would it be fair to say those are heavily eroded?

6           MR. SILVA: Yes.

7           MR. OSIAS: And if it's true that that happened  
8           after a few years, do you have the same experience at the  
9           Salton Sea with, for example, that telephone pole?

10          MR. SILVA: No, we don't have anything like that,  
11          that kind of a problem.

12          MR. OSIAS: Okay. And lastly, Exhibit 90, is that a  
13          letter and a true copy of the letter that the IID received a  
14          copy of from Duncan Hunter?

15          MR. SILVA: Yes, it is.

16          CHAIRMAN BAGGETT: Exhibit 90?

17          MR. OSIAS: Uh-huh.

18          MR. FECKO: We didn't receive it.

19          MR. PELTIER: I've got a 90 tab.

20          MR. OSIAS: It was faxed on the morning of Friday  
21          because it wasn't received until that morning. And, again,  
22          the other materials you have were Fed Ex'd, so you have a  
23          Fed Ex package and a fax.

24          Okay. We'll deliver copies. Everyone else have  
25          them? It's a letter from Duncan Hunter.

1 MR. FECKO: Do you know who it was faxed to?  
2 MR. OSIAS: My bet is Katherine.  
3 Okay. Well, everybody has it but the Board.  
4 MR. FECKO: Yeah, I can get a copy.  
5 MR. OSIAS: And I was just laying the foundation for  
6 the receipt. We'll get you a copy. It's -- it's  
7 representative -- Duncan Hunter's response to Senator  
8 Feinstein's letter?  
9 MR. SILVA: Yes, it is.  
10 MR. OSIAS: Okay. All right. Thank you.  
11 Dr. Smith, how are you today?  
12 DR. SMITH: Fine.  
13 MR. OSIAS: You were here I think yesterday for at  
14 least some of the testimony regarding fallowing; is that  
15 right?  
16 DR. SMITH: That is correct.  
17 MR. OSIAS: And you read the written rebuttal  
18 testimony of Ms. Stapleton, Mr. Underwood, Mr. Levy and the  
19 exhibits that went along with those?  
20 DR. SMITH: Yes, I did.  
21 MR. OSIAS: Okay. You also experienced some lengthy  
22 cross-examination in Phase II about socioeconomic impacts  
23 from fallowing. Do you recall that?  
24 DR. SMITH: Yes, I -- yes, I guess I recall some.  
25 MR. OSIAS: Okay. You have examined for Imperial

1 Irrigation District the potential impacts of fallowing to  
2 some extent; is that correct?

3 DR. SMITH: That is correct.

4 MR. OSIAS: Okay. Let me -- let me start with sort  
5 of a simple question that is in -- that addresses some  
6 cross-examination by Mr. Slater of you involving the  
7 potential for a one-year sign-up program for fallowing with  
8 the goal of targeting a crop.

9 Do you remember that hypothetical that was posed to  
10 you?

11 DR. SMITH: Yes, I do.

12 MR. OSIAS: And do you have an opinion, first of  
13 all, about the use of one-year commitments by farmers as  
14 compared to the long-term commitment between Imperial and  
15 San Diego?

16 DR. SMITH: I have a view on that.

17 MR. OSIAS: Would you share that?

18 DR. SMITH: Yes, I think to -- for IID to enter into  
19 a long-term firm commitment to make water available year in  
20 and year out at designated quantities, and to meet that  
21 commitment by one-year agreements, would be incredibly, I  
22 would almost say promiscuous risk taking.

23 MR. OSIAS: And why is that?

24 DR. SMITH: Because of the fact that you have a  
25 fixed obligation and, by the way, a pricing schedule that's

1 defined under the terms of the agreement, and you would hope  
2 that on a year-to-year basis you round up the sufficient  
3 quantity and hope that the price at which you can round that  
4 up in a given year is such that you don't go broke.

5 MR. OSIAS: And so at least in your opinion, that  
6 would be an unworkable program design?

7 DR. SMITH: It would be -- as I said, to pursue that  
8 would be an extraordinarily risky strategy.

9 MR. OSIAS: Okay. Are there -- let me back up.

10 If you did entitle farmers to sign up on a one-year  
11 basis, would that help them target a crop?

12 DR. SMITH: It would possibly help them, but it  
13 would not necessarily achieve I think what people were  
14 contemplating when they talked about crop targeting.

15 MR. OSIAS: Maybe I can refine my question a little  
16 bit.

17 Would it help them choose what crop in that year  
18 would be to their maximum advantage?

19 DR. SMITH: Sure.

20 MR. OSIAS: Okay. Maybe you could explain that and  
21 relate that to your last answer about targeting a crop.

22 DR. SMITH: Right. In any given year, for example  
23 if there was a one-year solicitation, the farmer would make  
24 a decision in terms of which acreage to plant, and they  
25 would contemplate the crops. The economic return that they

1 would anticipate depends on market conditions, and so as a  
2 result, depending upon where crop prices were, crops that  
3 four years ago looked to be high valued may not look to be  
4 very high valued, in fact could be losers or a significant  
5 risk of a loser in a given year.

6 MR. OSIAS: So, for example, if you only had to do a  
7 one-year sign-up, a farmer who was in the first year of  
8 alfalfa, which lasts for four, and was suffering say from  
9 low broccoli prices, might choose to fallow broccoli in that  
10 year rather than take out his alfalfa which is four years  
11 old.

12 DR. SMITH: Yeah, correct.

13 May I expand on the economics of vegetables, because  
14 it --

15 MR. OSIAS: Yes. Why don't -- why don't you tell us  
16 how vegetables may or may not be used in a fallowing  
17 program.

18 DR. SMITH: Okay. When a grower decides to plant a  
19 vegetable, they have to put anywhere from twelve to \$1500 in  
20 the ground in terms of what I'll call preharvest investment  
21 and take the financial risk of price variation as well as  
22 crop yields and see to what extent can they make money.

23 Certainly, a grower who decides to engage in that  
24 investment will decide, given their expectation of market  
25 prices at that time, given the risk, it's a great idea. But

1 it doesn't follow that each and every year. In fact, if you  
2 look at the vegetable growers, they don't make money year in  
3 and year out. What it is is when it comes up heads on their  
4 investment, the demands are large enough to offset the loss.

5 MR. OSIAS: Now, I think you said, though, that if  
6 you let farmers sign up one year at a time, they would be  
7 able to better choose which crop to fallow, to minimize  
8 their economic impact.

9 DR. SMITH: Correct.

10 MR. OSIAS: So is there a way you could marry that  
11 advantage to a long-term supply program? Is there a way to  
12 combine that with the -- with the San Diego contract?

13 DR. SMITH: No, not as currently structured.

14 MR. OSIAS: Is there a way to modify the contract to  
15 permit that?

16 DR. SMITH: Yes.

17 MR. OSIAS: And how would you do that?

18 DR. SMITH: Well, what it is is that if we want to  
19 run a one-year solicitation year in and year out, we would  
20 figure out the price, contract price, withhold allowable  
21 deducts relating to environmental and IID cost, put the  
22 price out and see how much sign up that year. Some years  
23 you may get a 120,000 acre-feet; other years if business are  
24 stronger, you may get 50,000 acre-feet; other years you may  
25 get 220.



1           MR. OSIAS: So if the volume commitment to San Diego  
2 was adjusted, so that it -- that IID promised to deliver  
3 whatever water was created with this fixed payment based on  
4 the current price, then the risk of mismatch in terms of  
5 volume and price would go away; is that --

6           DR. SMITH: Yes, it would because you no longer have  
7 a mismatch. Effectively the term of the delivery obligation  
8 is coincident with the term of the landowner contract.

9           MR. OSIAS: So, you know, in some years San Diego  
10 might get more than our ramp up that we showed on Exhibit 1A  
11 and some years less?

12          DR. SMITH: Right.

13          MR. OSIAS: And so long as they were willing to take  
14 whatever the --

15          DR. SMITH: Quantity risk is.

16          MR. OSIAS: Right.

17          DR. SMITH: Yeah.

18          MR. OSIAS: Okay. Now, you heard and have read a  
19 great deal about both the PVID test program and the PVID  
20 proposed long-term program.

21          DR. SMITH: Yes, I have.

22          MR. OSIAS: All right. And I think you have both  
23 observed and read people's use of the test program to opine  
24 on socioeconomic impacts in Imperial from a long-term  
25 fallowing program?

1 DR. SMITH: Yes.

2 MR. OSIAS: Okay. Have you -- have you studied the  
3 socioeconomic impacts of the Palo Verde test program?

4 DR. SMITH: Well, I have read the MQ report.

5 MR. OSIAS: Okay. And that's the report that many  
6 have cited both in their written testimony and in their oral  
7 testimony as the source of information regarding, say, job  
8 losses and things?

9 DR. SMITH: Yes.

10 MR. OSIAS: Okay. And did you just read it or did  
11 you actually read it and analyze it?

12 DR. SMITH: I read it and analyzed it.

13 MR. OSIAS: Okay. And have you formulated an  
14 opinion about whether that report accurately concludes with  
15 estimates regarding employment and business impacts?

16 DR. SMITH: I have formed an opinion.

17 MR. OSIAS: What is that opinion?

18 DR. SMITH: That the methods employed in this study  
19 do not provide a reasonable estimate of the impact of the  
20 test program on the local economy in the Palo Verde Valley.

21 MR. OSIAS: And could you explain why that's your  
22 opinion.

23 DR. SMITH: Yes, I think there's really two  
24 fundamental points here.

25 The first point is that MQ conducted a crop budget

1 analysis to estimate job losses. And the crop budget is  
2 found in Appendix B of that report.

3 MR. OSIAS: Okay. By the way, I believe that report  
4 is PLC 32.

5 DR. SMITH: May be.

6 MR. OSIAS: I'm sorry.

7 DR. SMITH: Mr. Slater says it's 31.

8 MR. SLATER: 31.

9 MR. OSIAS: Oh, I'm sorry. Okay. Go on, please.

10 DR. SMITH: Okay. Let's turn to a portion of  
11 Appendix B of that exhibit.

12 MR. OSIAS: Well, for the sake of time, why don't  
13 you just describe for us what's wrong with that appendix  
14 rather than --

15 DR. SMITH: Sure. Well, like in alfalfa there's  
16 really two problems, the first of which is if you look, they  
17 have expenditures up through the establishment of a crop and  
18 do not include harvesting.

19 MR. OSIAS: So an omission of crop expenditures for  
20 harvest.

21 DR. SMITH: Right. And while I had not gone back  
22 and looked at the crop guidelines for Imperial which this  
23 report would be based upon for the year that they did, an  
24 examination of a more -- of the most recent crop guidelines  
25 would show that harvest costs are about as large as the

1 costs that are included here. So we have an excluded cost  
2 category.

3 MR. OSIAS: And how do the costs for harvest relate  
4 to employment?

5 DR. SMITH: Well, actually for harvest cost, often  
6 there would be a custom hire.

7 MR. OSIAS: What does that mean?

8 DR. SMITH: What it would mean I guess in the  
9 Imperial Valley, if I may just use an example I'm familiar  
10 with, is Steve Scleroni. He has -- you know, if you want to  
11 harvest something, he will enter into an agreement and send  
12 out his employees.

13 MR. OSIAS: Okay.

14 DR. SMITH: And he gets paid. The payments for that  
15 contract service would be showing up here as expenditures,  
16 and -- but will not be shown up here as labor units, so to  
17 speak.

18 MR. OSIAS: Okay. So --

19 DR. SMITH: What you have to do is track through the  
20 labor impacts of those custom expenditures.

21 MR. OSIAS: And because they didn't include the  
22 expenditures, you believe they did not, therefore, include  
23 the loss of labor.

24 DR. SMITH: Right, and I would say the criticism of  
25 not tracking the labor impact of the other custom that is

1 included in that analysis also has that problem.

2 I may just, in the interest of time, observe that  
3 the economic impact study based on an implant model, for  
4 example, will trace through these things and capture these  
5 linkages.

6 MR. OSIAS: And do you know -- is that what MWD is  
7 doing now in their proposed study on the new PVID deal?

8 DR. SMITH: Yes, that is correct. They have --  
9 they -- Mr. Underwood indicated yesterday, I think this  
10 report is anticipated to be public within the next month,  
11 and it's my understanding that that will include an in-plant  
12 based analysis. So I would say -- I would opine that  
13 certainly that's a better tool to be a more comprehensive  
14 job.

15 MR. OSIAS: Okay. And the second reason that -- I  
16 think you said two primary reasons that you disagreed with  
17 the conclusions here regarding labor and --

18 DR. SMITH: Right. I think we have to turn to page  
19 21 of the MQ report. Table 7 reports a study by MQ where  
20 what they did is they looked at monthly employment in the  
21 area before the program and during the program, during what  
22 they called low season and high season employment, which is  
23 really related to summer months versus non-summer.

24 And what they found in the low season, that during  
25 the periods of the test program, there was roughly in that

1 month 335 less jobs, which was statistically significant,  
2 less jobs relative to preprogram. And then during the high  
3 season months, the average monthly difference was a loss of  
4 a thousand jobs for that month.

5 Now, let's be careful, these are monthly employment  
6 so these are not full-time equivalents.

7 MR. OSIAS: Okay. And what did the report then do  
8 with that information?

9 DR. SMITH: Well, what they did is they decided to  
10 not rely on that information. In other words, they just  
11 decided for -- for various reasons, not going to base my  
12 estimate on this evidence.

13 MR. OSIAS: Okay. Now, you have prepared an Exhibit  
14 81; is that right?

15 DR. SMITH: Yes.

16 MR. OSIAS: Do you have that handy? That would be  
17 IID 81.

18 DR. SMITH: Yes, I have.

19 MR. OSIAS: Okay. Now, were you able to determine  
20 from the MQ report that one of the reasons they discarded  
21 those job losses is because they assumed farmers were  
22 targeting alfalfa?

23 DR. SMITH: That is correct. In fact, there is  
24 language to the effect they had conducted some interviews  
25 with -- with a handful of people and said that no one they

1 spoke to ever believed anything other -- excuse me, no one  
2 they spoke to believed that vegetables were fallowed as a  
3 consequence of this program. So with that information, they  
4 decided to say, well, I guess they're -- and by the way, I'm  
5 sympathetic to their problem. There's -- a physical study  
6 always has a lot of sensitive things, but they went over  
7 this outside information. The statistics just aren't  
8 credible. The result doesn't make sense from that point of  
9 view. That's why they didn't rely on them.

10 MR. OSIAS: Okay. Now, what is Exhibit 81?

11 DR. SMITH: What Exhibit 81 does is compare the  
12 acreage in the -- in field and vegetable crops in Palo Verde  
13 Valley before the program. And what I did is we went to the  
14 ag commissioner, Riverside agricultural commissioner's crop  
15 report for 1991, the last full year before the test program.  
16 And then the next two columns in this exhibit provide what  
17 is -- what was the results -- when Metropolitan signed up  
18 participants, they asked them, what were you planning to  
19 grow? And that's what the next two columns are.

20 MR. OSIAS: Okay. What do you conclude from Exhibit  
21 81?

22 DR. SMITH: Well, what I conclude is that, while  
23 it's true, the share of acreage that was planned that would  
24 have been planted but for the program was 63 percent in  
25 alfalfa relative to a 45 percent in '91. So there was a

1 higher participation rate, if you will. It's not the case  
2 that there was exclusively the type of targeting that people  
3 have been assuming.

4 MR. OSIAS: So, other than alfalfa was in fact  
5 fallowed in your opinion.

6 DR. SMITH: Yes.

7 MR. OSIAS: And so that would make sense if the  
8 farmer chose a crop that in that year was not going to be as  
9 profitable?

10 DR. SMITH: Right, and there was a lot of dynamics  
11 going on in the marketplace in Palo Verde at the time, which  
12 will have -- both economic and other considerations will  
13 have a bearing on that.

14 MR. OSIAS: Now, using the test program and the  
15 proposed PVID program, what if anything can you extrapolate  
16 with respect to the potential socioeconomic impacts in  
17 Imperial if it adopted a Palo Verde type program?

18 DR. SMITH: Well, you would have to begin to think  
19 about what are the similarities and differences between  
20 these two communities.

21 MR. OSIAS: And tell us.

22 DR. SMITH: Well, one thing is that -- I think it's  
23 Mr. Underwood that actually testified yesterday, Palo Verde  
24 is certainly more intensive in alfalfa and everyone's  
25 favorite low valued crops than Imperial Valley is. Our crop



1 mixes are different.

2 MR. OSIAS: Okay. What else?

3 DR. SMITH: There would also be the question of the  
4 economic structures of -- of agricultural between the two  
5 communities. And what I mean by that is just to what extent  
6 are they using similar techniques for growing or different  
7 techniques? And that would maybe -- and that would be as  
8 we've heard before, subtle type really matters in farming.

9 MR. OSIAS: How about capital expenditures?

10 DR. SMITH: Another issue would be -- as you said,  
11 would be related to what are the types of improvements that  
12 are on the lands?

13 MR. OSIAS: Like, for example?

14 DR. SMITH: Well, the one that I think is most  
15 significant that I'm aware of the difference is tile, tile  
16 investment. Imperial Valley is on the order ranging between  
17 a thousand to \$2,000 an acre, so maybe 1500 an acre is a  
18 good mid range. Whereas in Palo Verde Valley there's very  
19 little tile investment.

20 MR. OSIAS: Okay. And that's relevant to what,  
21 stranded capital costs?

22 DR. SMITH: Yes, that would be relevant to stranded  
23 capital cost.

24 MR. OSIAS: So aside from looking at differences and  
25 similarities in ag, what else would you -- or how else could

1       you use PVID test experience, PVID proposed program in  
2       analyzing a similar program in Imperial?

3               DR. SMITH: I'd say, first of all, I think the  
4       proposed or contemplated -- excuse me, planned study by  
5       Metropolitan I think will be very useful information because  
6       at least they're employing tools that I think are better  
7       suited to the problem, so I think it should be given weight,  
8       that information.

9               MR. OSIAS: Okay. What if a PVID type program were  
10       in Imperial? What socioeconomic impacts would you  
11       anticipate from such a program, subject to, of course, the  
12       differences that you identified that have not yet been  
13       criticized?

14              DR. SMITH: Certainly the adverse impacts on the  
15       local economy, as I testified in Phase II, depend critically  
16       on which crops are fallowed. If I may briefly focus on my  
17       study, is that there's two issues here, one of which is the  
18       crop mix issue where I gave a range of what would be the  
19       impact of full crop mix as used by Hill when their  
20       environmental review was filed versus the targeting of  
21       alfalfa.

22              But the other thing is that -- and this is more  
23       fundamental, from my viewpoint, is that IID were to switch  
24       its deal from conservation efficiency based to land -- to  
25       land fallowing, we have a loss of economic stimulus that

1 otherwise would have occurred from the original transaction  
2 switching to the economic costs that will have to -- that  
3 would have to be figured out how to be mitigated.

4 MR. OSIAS: Assume nonetheless that the PVID price  
5 was offered to Imperial farmers and to the District. We've  
6 heard people at least suggest, without the benefit of  
7 studies, that that's plenty of money to mitigate  
8 socioeconomics. Do you have any thoughts on that?

9 DR. SMITH: Yeah. In fact, I think that gets us to  
10 really what would be the cost of fallowing in the Imperial  
11 Valley, and I think there's three components of that cost.  
12 One would be what would be the on-farm cost of a fallowing  
13 program? What would be IID's cost as well as what would be  
14 the economic mitigation --

15 MR. OSIAS: Okay.

16 DR. SMITH: -- related to fallowing?

17 MR. OSIAS: And your study that you already  
18 testified to in Phase II deals with the socioeconomic, and  
19 it had two answers. If it was a full crop mix, it's one  
20 number.

21 DR. SMITH: Right.

22 MR. OSIAS: And if it's just alfalfa, it's another.

23 DR. SMITH: Correct.

24 MR. OSIAS: So we don't need to go there now, right?

25 DR. SMITH: Right.

1 MR. OSIAS: Okay. So let's just focus --

2 DR. SMITH: That's sort of the nut we need to crack.

3 MR. OSIAS: Okay. So now if we took the Palo Verde  
4 payments and try to apply them to both the IID's costs and  
5 the farmers' costs, how would that work?

6 DR. SMITH: Well, I think what you'd start with in  
7 terms of on-farm cost, as I testified in Phase I, there's a  
8 lot of components to the full economic costs of  
9 conservation, foregone return on land, income, foregone  
10 return on stranded capital investments --

11 MR. OSIAS: You heard Mr. Levy -- I'm going to  
12 interrupt you for time sake.

13 DR. SMITH: Right.

14 MR. OSIAS: He acknowledged that all of those were  
15 appropriate categories.

16 DR. SMITH: Yeah, as well as a few others I could  
17 read --

18 MR. OSIAS: Okay.

19 DR. SMITH: -- but for the interest of time.

20 MR. OSIAS: And that's the same list you're using,  
21 right?

22 DR. SMITH: Correct.

23 MR. OSIAS: Okay. So we don't have to repeat it.

24 DR. SMITH: Right.

25 And so suppose what we did was said, suppose the

1 Palo Verde contract was to be the base for just covering  
2 those on-farm costs.

3 MR. OSIAS: So make an assumption that what Palo  
4 Verde is paying is sufficient to cover this.

5 DR. SMITH: Right.

6 MR. OSIAS: Otherwise nobody would sign up.

7 DR. SMITH: Let's make that assumption.

8 MR. OSIAS: Okay. Go on.

9 DR. SMITH: Now, one thing that's important, as was  
10 discussed yesterday, is there's an upfront payment to this  
11 stream as well as sort of a take down payment when actually  
12 there's fallowing.

13 MR. OSIAS: Okay.

14 DR. SMITH: And what's very important to understand  
15 is there's often a difference between the seller and buyer's  
16 perspective in how to value a payment stream.

17 MR. OSIAS: Well, let's focus on the farmer --

18 DR. SMITH: Right.

19 MR. OSIAS: -- and his view of how much money he's  
20 getting.

21 DR. SMITH: Right.

22 MR. OSIAS: And is that the seller or the buyer?

23 DR. SMITH: Well, that would be the seller, I guess,  
24 because they're selling the water.

25 MR. OSIAS: Okay. Fine.

1 DR. SMITH: Yeah.

2 MR. OSIAS: So you heard Mr. Underwood identify the  
3 amount of the upfront payment.

4 DR. SMITH: Right.

5 MR. OSIAS: How will a farmer seller, however you  
6 want to call him, value that upfront payment?

7 DR. SMITH: Well, they would amortize it according  
8 to their private cost of capital.

9 MR. OSIAS: Okay. Now, that could be a different  
10 cost than a public agency.

11 DR. SMITH: Absolutely.

12 MR. OSIAS: So what my cost MWD less in terms of  
13 cost of funds and, therefore, make the upfront payment more  
14 valuable, isn't the same for the farmer; is that right?

15 DR. SMITH: Right. And in fact, I think it's very  
16 common when you have buyers and sellers having different  
17 costs of capital, the prudent buyer would try to front load  
18 and take advantage of those differences. Not take  
19 advantage, but to create a mutual gain by loading more  
20 upfront.

21 MR. OSIAS: Okay. So you factored in that upfront  
22 and you have the take down and we have this volume  
23 variability.

24 DR. SMITH: Right.

25 MR. OSIAS: You have to take that into account, too,

1 right?

2 DR. SMITH: Exactly.

3 MR. OSIAS: And you end up with a price that's being  
4 paid to the farmer. Now --

5 DR. SMITH: Yeah, what I did is I used a private  
6 cost capital of 8 percent, two and a half -- by the way,  
7 Metropolitan, since I've read the staff report that  
8 generates Mr. Underwood's numbers, they assume the capital  
9 rate of five-and-a-half percent. That's a difference. But  
10 the other assumptions in terms of rate of escalation is the  
11 same. I've concluded that a reasonable valuation over a  
12 range of possible frequencies would be about \$175 an  
13 acre-foot.

14 So I'm just going to say, let's suppose, therefore,  
15 an IID following program requires payments for all the  
16 complex costs \$175 an acre-foot.

17 MR. OSIAS: By the way, setting aside how you got  
18 there, that's about halfway between the range that Mr.  
19 Underwood identified, isn't it --

20 DR. SMITH: Yeah.

21 MR. OSIAS: -- a hundred and fifty-three to two oh  
22 something?

23 DR. SMITH: Right.

24 MR. OSIAS: Okay.

25 DR. SMITH: Kismet someone would say.

1 MR. OSIAS: Yeah, someone. Go ahead.

2 DR. SMITH: Okay. Now, there's IID costs. And,  
3 again, I think Mr. Levy has confirmed certainly program  
4 administration, lost hydropower, foregone revenues from  
5 water sales and environmental mitigation.

6 MR. OSIAS: Okay.

7 DR. SMITH: Based on assumptions that program  
8 administration costs is on the order of ten dollars an  
9 acre-foot, which corresponds with what IID staff has told me  
10 is probably where we're at, lost hydropower, that is looking  
11 like that would be valued at about three dollars an  
12 acre-foot, using the fifteen fifty number for the water  
13 rate, and assuming that IID spends the whole thirty million  
14 on environmental mitigation rather than fifteen, since we're  
15 all in this together, partners, we'll belly up, throw a  
16 little more into the pot here, that totals \$36 an acre-foot  
17 of IID cost.

18 So if I add 175 and 36, I get 211.

19 MR. OSIAS: Okay. Now, how much does that leave for  
20 socioeconomic mitigation?

21 DR. SMITH: Well, on the San Diego transaction of  
22 \$250 an acre-foot -- I was actually reconfirming  
23 calculations when you wanted me to do signage up here, but  
24 \$39 an acre-foot from the San Diego transaction. From the  
25 first Coachella transaction of \$50, that is, I guess, under



1 water shall we say.

2 MR. OSIAS: No pun intended.

3 DR. SMITH: That's short \$161 an acre-foot. That's  
4 just \$50 minus 211. And the 125 transaction is short 86  
5 bucks per acre-foot.

6 MR. OSIAS: Okay. So not a lot of money available  
7 for socioeconomics.

8 DR. SMITH: Right. I mean, if I just use the  
9 200,000 from San Diego, I get four million a year. If I use  
10 the 50,000 from first Coachella, I lose eight million a  
11 year; I'm under water already. And if I use the 50,000 for  
12 the second Coachella transfer, that's another four and a  
13 half million. This is a flood, economic flood.

14 MR. OSIAS: So if you compare that to the loss of  
15 the benefit of the bargain that you had in your testimony  
16 for Phase II, this is a serious mismatch; is that fair?

17 DR. SMITH: Right. I mean under this drill.

18 MR. OSIAS: Okay. Let me quickly move on to one  
19 last topic.

20 The -- in cross-examination many have suggested that  
21 the Salton Sea in a dying versus restored state is the  
22 difference between a negative economic factor and a huge  
23 economic stimulus. Are you aware of that?

24 DR. SMITH: Yes, I recall that discussion.

25 MR. OSIAS: Okay. And you recall that in fact at

1 least one or two referred to a Rose Institute study as  
2 evidence of that conclusion.

3 DR. SMITH: Yes, I recall that.

4 MR. OSIAS: Now, actually maybe before we go there,  
5 conceptually a -- a vibrant sea should be worth more than a  
6 dead sea.

7 DR. SMITH: Absolutely.

8 MR. OSIAS: So it's not a conceptual thing.

9 DR. SMITH: No.

10 MR. OSIAS: All right. Did you -- did you review  
11 the entire Rose Institute, not just the excerpts filed with  
12 the Board?

13 DR. SMITH: I read the entire Rose Institute report.

14 MR. OSIAS: Okay. And did you formulate an opinion  
15 on its conclusion?

16 DR. SMITH: Yes.

17 MR. OSIAS: And what is that opinion?

18 DR. SMITH: It provides no useful information about  
19 what are the economic benefits or consequences of either the  
20 restoration or the loss of the Sea.

21 MR. OSIAS: And why does it provide no useful  
22 information?

23 DR. SMITH: I'll just use the example of its  
24 estimate of enhancement of property values. There's  
25 unsubstantiated assumptions. For example, they assume a

1 restored sea will increase property values by five percent  
2 per year whereas an unrestored or dying sea will reduce  
3 property values. I can't remember if it was by two or five  
4 percent.

5 And what I mean by unsubstantiated, there is no  
6 stated justification for the assumption, so I'm not -- so  
7 there's no basis upon which one can go and look at the  
8 argument or whatever.

9 MR. OSIAS: So using smaller words maybe for me, if  
10 you look through the report to see why they determined it  
11 would go up five percent, what would you find?

12 DR. SMITH: There's no discussion of that.

13 MR. OSIAS: Okay. Thank you.

14 CHAIRMAN BAGGETT: Okay. Let's take a short recess,  
15 and we'll come back with cross-examination by San Diego.  
16 We'll recess for 10 minutes.

17 (Break taken.)

18 CHAIRMAN BAGGETT: Okay. Let's go back on the  
19 record with cross-examination by San Diego of Imperial  
20 Irrigation's rebuttal witnesses.

21 ---o0o---

22 CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

23 BY SAN DIEGO COUNTY WATER AUTHORITY

24 BY MR. SLATER

25 MR. SLATER: I'm Scott Slater on behalf of the San

1 Diego County Water Authority. That's S-L-A-T-E-R.

2 Good afternoon or actually good morning, gentlemen.

3 DR. SMITH: Good morning.

4 MR. SILVA: Good morning

5 CHAIRMAN BAGGETT: I'm just hoping that's not true  
6 for how long we're going to be here with this panel.

7 MR. SLATER: I'm not hoping, either.

8 Dr. Smith, I think it's your testimony and I'm  
9 looking for some clarification, in your view there are  
10 several categories of costs associated with a potential  
11 implementation of a land fallowing program; is that correct?

12 DR. SMITH: That's correct.

13 MR. SLATER: Okay. And in a general way you would  
14 summarize those costs or break them down into on-farm costs,  
15 into IID's costs and then into economic mitigation?

16 DR. SMITH: Right.

17 MR. SLATER: Is that accurate?

18 DR. SMITH: (Nodding head.)

19 MR. SLATER: And collectively, without putting a --  
20 well, I guess you did put a dollar figure on it, so I'll go  
21 there.

22 In light of the potential costs that you considered  
23 in the potential implementation of a land fallowing  
24 conservation program, would you consider those costs to be  
25 substantial?

1 DR. SMITH: Yes. But let's be sure we understand  
2 that I only quantify two of the three costs.

3 MR. SLATER: Okay. So thus in quantifying only two,  
4 your opinion is as to those two costs.

5 DR. SMITH: Right.

6 MR. SLATER: -- are substantial.

7 DR. SMITH: Right.

8 MR. SLATER: And then one would presume if there was  
9 to be added expenditures to address the third, that would  
10 even make it more so, correct?

11 DR. SMITH: Right.

12 MR. OSIAS: Okay. And if IID in its discretion  
13 chose to implement a conservation program that was going to  
14 require such a substantial investment, that would be a  
15 significant effort on the part of Imperial Irrigation  
16 District, correct?

17 DR. SMITH: Would you please clarify the question.  
18 You used the word "investment." Investment in what by whom?

19 MR. SLATER: Okay. Assume for a second there was  
20 no -- that IID in its discretion chose to implement a  
21 fallowing program, fallowing slash conservation program on  
22 its own.

23 DR. SMITH: Okay.

24 MR. SLATER: Okay. And it wanted to mitigate or  
25 cover the costs that were associated with this program. And

1       you've identified them as being on-farm costs, IID costs and  
2       economic mitigation costs.

3               DR. SMITH: Right, okay.

4               MR. SLATER: Collectively those would be  
5       substantial, correct?

6               DR. SMITH: Right.

7               MR. SLATER: Okay. Now, IID hasn't asked you to  
8       review a specific proposal for -- regarding land fallowing  
9       conservation for its adoption, has it?

10              DR. SMITH: No, it has not.

11              MR. SLATER: And you're not aware of a specific  
12       proposal for land fallowing as a form of conservation that's  
13       presently pending in front of the Imperial Irrigation  
14       District, are you?

15              DR. SMITH: You mean not -- I'm not aware of one.

16              MR. SLATER: Okay. And then to sum up that.

17              DR. SMITH: May I clarify? I'm not aware of one  
18       that is pending before the IID Board of Directors.

19              MR. SLATER: Okay.

20              DR. SMITH: That's the source of my knowledge.

21              MR. SLATER: Well, that's who we care about.

22              DR. SMITH: Okay. That's who I care about.

23              MR. SLATER: That's where my question was going.  
24       So your comments relate then to a potential or a  
25       hypothetical program that has not yet been presented to the

1 IID Board for consideration.

2 DR. SMITH: Uh-huh. Yes.

3 MR. SLATER: Now, Dr. Smith, you're familiar, are  
4 you not, with a proposed PVID land fallowing program with  
5 Metropolitan?

6 DR. SMITH: Yes, I am.

7 MR. SLATER: And you're aware that there's a draft  
8 environmental impact report that's been released for that  
9 program?

10 DR. SMITH: Yes, I'm aware of that.

11 MR. SLATER: Okay. And are you generally familiar  
12 with the characteristics of that transaction?

13 DR. SMITH: I'm familiar with the -- with the --  
14 this was the term sheet that was approved by -- by both PVID  
15 and the Board of Directors at Metropolitan.

16 MR. SLATER: Have you reviewed the draft  
17 environmental impact report?

18 DR. SMITH: No, I have not.

19 MR. SLATER: Are you aware of whether the farmers'  
20 decision to participate in that program is voluntary?

21 DR. SMITH: That's my understanding.

22 MR. SLATER: And it's true, isn't it, that that --  
23 that program contemplates long-term agreements between  
24 landowners and Metropolitan?

25 DR. SMITH: It's my understanding that the term of

1 the agreement between Metropolitan and the landowners is  
2 coincident with a 35-year term with the agreement between  
3 Metropolitan and Palo Verde Irrigation District.

4 MR. SLATER: And under those long-term 35-year  
5 contracts, individual farmers have the right to select which  
6 parcels of land they will fallow and rotate over a five-year  
7 period; is that correct?

8 DR. SMITH: That is correct.

9 MR. SLATER: Now, with regard to the benefits of  
10 pursuing on-farm -- an on-farm conservation program, I  
11 believe there has been consistent testimony, I believe you  
12 actually testified to this, that there are actually  
13 socioeconomic benefits attributable to an on-farm  
14 conservation program.

15 DR. SMITH: A nonfallowing program.

16 MR. SLATER: A nonfallowing to be clear.

17 DR. SMITH: Which -- just to be also clear, which  
18 may also include system investments which would also be  
19 beneficial.

20 MR. SLATER: Okay. So among the suite of on-farm --  
21 I'm sorry -- among the suite of conservation and among the  
22 suite of on-farm conservation, we have efficiency  
23 improvements.

24 DR. SMITH: Correct.

25 MR. SLATER: Okay. And those would include things



1       like what?

2               DR. SMITH:  System improvements by Imperial  
3       Irrigation District, I think as I outlined in my Phase I  
4       testimony, as well as nonfallowing methods, as I outlined in  
5       my Phase I testimony --

6               MR. SLATER:  I'm just looking --

7               DR. SMITH:  -- included a laundry list of things,  
8       tailwater recovery system, drip, dead leveling, cascading,  
9       et cetera, et cetera.

10              MR. SLATER:  Okay.  And under the San Diego IID  
11       water transfer, it is contemplated, is it not, that farmers  
12       will actually pursue on-farm conservation measures other  
13       than fallowing, correct?

14              DR. SMITH:  That is correct.

15              MR. SLATER:  And one of those eligible forms would  
16       be tailwater recovery systems, right?

17              DR. SMITH:  Correct.

18              MR. SLATER:  Okay.  And those tailwater recovery  
19       systems have a cost, right?

20              DR. SMITH:  Correct.

21              MR. SLATER:  Okay.  Are you familiar with the costs  
22       associated with implementing a tailwater return system?

23              DR. SMITH:  I so testified in Phase I.

24              MR. SLATER:  Okay.

25              MR. OSIAS:  Mr. Chairman, just because it's early in

1 the day, before it gets late in the day, none of this was  
2 gone into in rebuttal, the cost of tailwater systems, the --  
3 at least not with this witness. We described them through  
4 this witness just so we could show the picture. So it  
5 exceeds the rebuttal would be my comment.

6 MR. SLATER: Well, the witness just testified that  
7 they are under water if they do a transaction involving  
8 fallowing with Coachella, and I am asking whether they would  
9 be under water if they did a transaction involving on-farm  
10 conservation with regard to Coachella.

11 MR. OSIAS: We agree about what you're asking. My  
12 objection is that that was a subject of his direct testimony  
13 in Phase II, in which he was cross-examined, so it's not  
14 appropriate to do it again on rebuttal.

15 CHAIRMAN BAGGETT: If that is the objection --

16 MR. OSIAS: That is my objection.

17 CHAIRMAN BAGGETT: -- I will sustain.

18 MR. OSIAS: That is my objection, exceeds the scope  
19 of rebuttal.

20 CHAIRMAN BAGGETT: I would sustain. If you could  
21 limit your comments to his rebuttal.

22 MR. SLATER: Okay. If I can ask you to take a look  
23 at IID Exhibit 81.

24 DR. SMITH: Got it.

25 MR. OSIAS: 91?

1 MR. SLATER: 81.

2 Now, this -- well, maybe you could tell me. What  
3 does this table represent?

4 DR. SMITH: Okay. The first column enumerates the  
5 field -- field crops and vegetables. They're melons, et  
6 cetera. The second column is, according to the Riverside  
7 agricultural commissioner's report for 1991, was the acreage  
8 in these different crops in Palo Verde Valley.

9 MR. SLATER: Okay. So am I correct, then, that  
10 roughly 97,000 acres were under irrigation in 1991?

11 DR. SMITH: In field and vegetables.

12 MR. SLATER: Okay. So the combination of the two.

13 DR. SMITH: Right. There's also citrus and whatnot  
14 that's not included in this table.

15 MR. SLATER: Okay. And under the test program,  
16 then, I believe you testified in the chart, and it shows  
17 that under 1991 acreage that it's expressed as a percentage,  
18 right?

19 DR. SMITH: Yes, the fourth column would be the  
20 percentage of the total represented by the first column, or,  
21 in other words, the actual acreage in '91.

22 MR. SLATER: Okay. So the experience as at least  
23 demonstrated in this graph is that alfalfa increased then in  
24 percentage under the program from 45 to 63 percent, right?

25 DR. SMITH: I so testified.

1 MR. SLATER: Right. And similarly Sudan also went  
2 up from 3.6 to seven seven.

3 DR. SMITH: Correct.

4 MR. SLATER: And wheat, four one to six five?

5 DR. SMITH: Correct.

6 MR. SLATER: But you also indicated that indeed that  
7 there were other --

8 DR. SMITH: Right.

9 MR. SLATER: -- other crops that were also being  
10 increased such as melons.

11 DR. SMITH: Melons increased, right.

12 MR. SLATER: Right. And --

13 DR. SMITH: Excuse me, Mr. Slater.

14 MR. SLATER: Yes.

15 DR. SMITH: It may be useful. When I said increase,  
16 we -- be a little clear. For example, look at the fifth  
17 column, crops planned for acreage fallowed in '92. That's  
18 the percent. Excuse me. This is the answer to the question  
19 what would you -- what were you planning to grow but for the  
20 program? And these are the percentages.

21 So the 63 percent would be -- of the total acreage  
22 in the program, 63 percent of it would have been -- would  
23 have been planted in alfalfa, so the share increased, not  
24 the acreage.

25 MR. SLATER: The share. Fair enough. Thank you for

1           that correction. Appreciate that.

2           DR. SMITH: Okay.

3           MR. SLATER: Okay. Mr. Smith -- Dr. Smith, are you  
4 aware of whether there was a white fly infestation in the  
5 Imperial Valley and Palo Verde area?

6           DR. SMITH: Yes.

7           MR. SLATER: And I guess it was in the late '80s and  
8 early '90s?

9           DR. SMITH: Correct.

10          MR. SLATER: Do you know when it reached its peak?

11          DR. SMITH: In the Imperial Valley, it -- well,  
12 actually, let me back up.

13                 It's my understanding that the white fly infestation  
14 started in Palo Verde Valley in the late '80s and probably  
15 reached its peak in the early '90s.

16          MR. SLATER: Okay.

17          DR. SMITH: In Imperial Valley it was more of it  
18 moved over there and had a huge impact in '92.

19          MR. SLATER: And do you know whether the white fly  
20 infestation affected melons?

21          DR. SMITH: That -- that was certainly -- that was  
22 one of the crops impacted by the white fly infestation.

23          MR. SLATER: Right. And alfalfa, on the other hand,  
24 isn't impacted by --

25          DR. SMITH: It was in Imperial Valley.

1 MR. SLATER: Oh, it was?

2 DR. SMITH: Yeah.

3 And -- and I have not investigated to confirm  
4 whether or not it was also in '92 in Palo Verde, but from --  
5 from the commentaries of studies like even from MQ, that's a  
6 really good historical discussion of this that certainly it  
7 was alive and well in Palo Verde Valley in '92.

8 MR. SLATER: Now, are you aware or do you have  
9 knowledge whether the regional economic impacts of the Palo  
10 Verde test land fallowing program, which I think we're  
11 calling the M cubed, PCL 31 --

12 DR. SMITH: Uh-huh.

13 MR. SLATER: -- whether that study indicated a or  
14 attributed a potential loss of employment to the white fly  
15 infestation?

16 DR. SMITH: What they did is they looked going back  
17 to the early '80s and looked at the decline in acreage that  
18 occurred. And using the same crop budget methodology that I  
19 discussed earlier this morning, estimated the job losses and  
20 indicated that certainly the white fly infestation was a  
21 loss of significant jobs.

22 MR. SLATER: Almost done.

23 I'm going to take you back to the costs incurred in  
24 implementing a fallowing program.

25 Now, one of the comments that you mentioned was

1 foregone revenues and water sales; is that right?

2 DR. SMITH: Right.

3 MR. SLATER: And that would be sales by IID to its  
4 customers?

5 DR. SMITH: Correct.

6 MR. SLATER: And how much does IID itself pay for  
7 the water that it receives from the Bureau?

8 DR. SMITH: It's my understanding that we -- that  
9 there's no payment for that water.

10 MR. SLATER: And how much does it receive from its  
11 customers in the form of a sale on a per acre-foot basis?

12 DR. SMITH: It would be \$15.50.

13 MR. SLATER: And does IID sell its water by -- by  
14 contracts to its landowners?

15 DR. SMITH: No, they don't.

16 MR. SLATER: And IID, I believe the testimony has  
17 consistently been and do you agree, that IID farmers can  
18 choose whether to order water from IID?

19 DR. SMITH: Yes, they can.

20 MR. SLATER: So it is a voluntary decision on their  
21 part to order the water in any given year.

22 DR. SMITH: That is true.

23 MR. SLATER: And, in fact, over time, IID's orders  
24 for Colorado River water to meet its own demand has  
25 fluctuated, correct?

1 DR. SMITH: Fluctuated in response to a lot of very  
2 predictable conditions.

3 MR. SLATER: So in some years it's greater than 3.1  
4 million acre-feet and in some years it's less, correct?

5 DR. SMITH: It varies year to year.

6 MR. SLATER: And with regard to the water that IID  
7 is making available to San Diego with the transfer  
8 agreement, it's going to sell that water, right?

9 DR. SMITH: IID is going to sell the water.

10 MR. SLATER: It's going to be paid for it, right?

11 DR. SMITH: It's going to be paid for making the  
12 water available.

13 MR. SLATER: So there's going to be a new sale,  
14 correct?

15 DR. SMITH: Right.

16 MR. SLATER: And similarly the water it makes  
17 available to Coachella, it's going to be paid for that as  
18 well, correct?

19 DR. SMITH: Correct.

20 MR. SLATER: And do you know whether -- strike that.

21 Isn't it true under the San Diego IID transfer  
22 agreement that if Imperial makes the water available at  
23 Imperial Dam, San Diego has to pay IID for the water it  
24 makes available?

25 DR. SMITH: That is correct.



1 MR. SLATER: Okay. No further questions.

2 CHAIRMAN BAGGETT: Thank you.

3 Tribes aren't here. Salton Sea.

4 It's like being in a room with all these celebrities  
5 after watching the P.B.S. show last night. Quite an  
6 experience. Nice photos, though.

7 Mr. Kirk, it's all yours.

8 MR. KIRK: Was it the Water Education Foundation?

9 CHAIRMAN BAGGETT: Yeah.

10 MR. KIRK: With Andy Horn?

11 UNIDENTIFIED SPEAKER: No, you were in it.

12 CHAIRMAN BAGGETT: Half this room was in it.

13 MR. KIRK: What are we doing up here?

14 ---o0o---

15 CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

16 BY SALTON SEA AUTHORITY

17 BY MR. KIRK

18 MR. KIRK: Good morning. I want to make sure I  
19 appropriately focus my questions so that Mr. Osias doesn't  
20 cut me off short.

21 Mr. Silva, the rebuttal testimony outlines that you  
22 provided or that were provided by IID, on page 1, you  
23 indicate four areas -- I don't know if you have this,  
24 rebuttal testimony outlines of Mr. Jesse Silva, Dr. Rodney  
25 Smith, Laura Harnish, et cetera, et cetera.

1 MR. OSIAS: You don't have it?  
2 Rod's got one.  
3 MR. SILVA: Okay.  
4 MR. KIRK: Page 1 outlines the scope of your  
5 rebuttal.  
6 MR. SILVA: Yes.  
7 MR. KIRK: It's Salton Sea elevation issues, diking,  
8 drainage and pumping; is that correct?  
9 MR. SILVA: Yes.  
10 MR. KIRK: Entitlement enforcement; is that correct?  
11 MR. SILVA: That's correct.  
12 MR. KIRK: The IOP; is that correct?  
13 MR. SILVA: That's correct.  
14 MR. KIRK: Did you provide any oral testimony on  
15 Salton Sea elevation issues?  
16 MR. SILVA: This morning, yes.  
17 MR. KIRK: And drainage and pumping issues?  
18 MR. SILVA: Yes.  
19 MR. KIRK: Entitlement enforcement?  
20 MR. SILVA: Not this morning.  
21 MR. KIRK: The IOP?  
22 MR. SILVA: No.  
23 MR. KIRK: So you provided rebuttal testimony on two  
24 of these four topic areas.  
25 MR. SILVA: That's correct.

1           MR. KIRK: Is there written testimony related to the  
2 topics you didn't address, entitlement enforcement and the  
3 IOP?

4           MR. OSIAS: Objection in terms of ambiguity. You  
5 mean submitted as rebuttal?

6           MR. KIRK: Submitted in rebuttal. Thank you.

7           MR. SILVA: Well, there are exhibits, but there's  
8 no -- I did not prepare any written testimony.

9           MR. KIRK: The exhibits that you provided in  
10 rebuttal are Exhibits 67 through 89; is that correct?

11          MR. OSIAS: I think it's 67 through 90.

12          MR. KIRK: 67 through 90.

13                   Do any of those exhibits rebut entitlement  
14 enforcement or IOP issues?

15          MR. SILVA: By themselves, they do not.

16          MR. KIRK: In any way do they?

17          MR. SILVA: Well, they have the information  
18 regarding the inadvertent overrun plan, and the -- some of  
19 the other ones talk about the entitlement of IID and all of  
20 the parties in California rated the Colorado River  
21 entitlements.

22          MR. KIRK: Can you point to the rebuttal exhibits  
23 that do one or both of those things.

24          MR. OSIAS: I think Mr. Silva was thinking about  
25 exhibits in general.

1 MR. KIRK: I'm sure Mr. Silva could --  
2 MR. OSIAS: Well, no.  
3 MR. KIRK: -- respond on his own.  
4 MR. OSIAS: Well, he could except that you're asking  
5 about exhibits that he didn't submit. I did.  
6 MR. KIRK: I just asked Mr. Silva if the exhibits --  
7 if, in fact, the exhibits addressed entitlement enforcement  
8 and the IOP. I identified Exhibits 67 through 90.  
9 MR. OSIAS: I'll give him my list. I don't think he  
10 has a list in front of him.  
11 MR. KIRK: So, Mr. Silva, are you familiar with the  
12 exhibits that were provided on your behalf?  
13 MR. SILVA: Yes, I am.  
14 MR. KIRK: Do any of those exhibits address  
15 entitlement enforcement or the IOP?  
16 MR. OSIAS: For rebuttal.  
17 MR. KIRK: For rebuttal.  
18 MR. SILVA: Again, the exhibits, for instance --  
19 MR. KIRK: Take a minute to review that if you  
20 hadn't reviewed it before.  
21 MR. SILVA: They are not actually in this set.  
22 There was a previous --  
23 MR. KIRK: All right. So -- but on page 1 of your  
24 outline you indicate that you will be rebutting issues  
25 related to entitlement enforcement and the IOP.

1           And you just said you did not provide any verbal  
2     rebuttal.

3           MR. SILVA: That's correct.

4           MR. KIRK: And are you telling me that you didn't  
5     provide any written rebuttal either?

6           MR. SILVA: That's correct.

7           MR. KIRK: You know there have been significant  
8     issues related to entitlement enforcement and the IOP that  
9     have been raised during this hearing process?

10          MR. SILVA: Yes, I do.

11          MR. KIRK: All right. I guess we'll just discuss,  
12     then, the elevation issues and the drainage and pumping  
13     issues. Is that appropriate, then?

14          MR. SILVA: That's a question for my attorney to  
15     answer.

16          MR. KIRK: Well, you did provide --

17          CHAIRMAN BAGGETT: Proceed.

18          MR. KIRK: You did provide testimony on those two  
19     issues.

20          MR. SILVA: Yes.

21          MR. KIRK: I'll throw you an easy one to begin with.  
22     The -- perhaps probably they'll all be easy for you, Jesse.

23                 The primary purpose of the Salton Sea for IID and  
24     its farmers, what is it?

25          MR. SILVA: To provide a repository for drainage

1 from the agricultural parallel.

2 MR. KIRK: The agricultural sump.

3 MR. SILVA: Yes.

4 MR. KIRK: It's actually designated as an  
5 agricultural sump, correct?

6 MR. SILVA: That's correct.

7 MR. KIRK: Is it designated as an agricultural sump  
8 by IID?

9 MR. OSIAS: I'm going to start here now. I guess  
10 the third's a charm. My objection is exceeds the scope of  
11 rebuttal.

12 MR. KIRK: Mr. Silva is -- the scope of his rebuttal  
13 is elevation issues and drainage and pumping. Elevation is  
14 very related to the agricultural repository, and, in fact,  
15 the designation of this agricultural repository.

16 MR. OSIAS: I don't see how --

17 CHAIRMAN BAGGETT: I would sustain.

18 You can go -- go to the issues he raised, which you  
19 just led to. I don't think you have to get back into  
20 whether it's characterized as a sump, not a sump. That  
21 wasn't his rebuttal.

22 His rebuttal was more specifically related to --

23 MR. KIRK: Is flooding related to elevation?

24 CHAIRMAN BAGGETT: To those issues, correct.

25 MR. KIRK: Is flooding at the Salton Sea related to

1 the elevation of the Salton Sea?

2 MR. SILVA: Yes, it is.

3 MR. KIRK: And the elevation of the Salton Sea is  
4 currently approximately what?

5 MR. SILVA: Minus 227, somewhere in there.

6 MR. KIRK: And you indicated the Sea is a designated  
7 agricultural repository. What is the designation -- what's  
8 the elevation designation of this designated agricultural  
9 repository?

10 MR. SILVA: The original elevation was minus 220.  
11 That was the area that was intended to be that it would  
12 reach.

13 MR. KIRK: Sometimes it's hard to think in negatives  
14 but 220 is -- negative 220 is seven feet higher, eight feet  
15 higher than the current elevation of the Sea?

16 MR. SILVA: That's correct.

17 MR. KIRK: So the Sea has been designated as an  
18 agricultural repository seven or eight feet higher than it  
19 currently is?

20 MR. SILVA: That's correct.

21 MR. KIRK: And, in fact, six or seven feet higher  
22 than the Salton Sea has ever been in the past 50 years; is  
23 that correct?

24 MR. SILVA: That's correct.

25 MR. KIRK: You testified the Sea was its highest

1 in -- was it 1995, 19 --

2 MR. SILVA: '95 or '96, I can't remember. We have  
3 the information back there.

4 MR. KIRK: That was at elevation 227, 226?

5 MR. SILVA: About 225 and a half, somewhere in  
6 there. We have the information here in the --

7 MR. KIRK: So even at that elevation, the designated  
8 agricultural repository was five feet higher than that  
9 elevation of the Sea at that time?

10 MR. SILVA: That's correct.

11 MR. KIRK: And the designated agricultural  
12 repository was designated by executive order 80 years ago or  
13 thereabouts?

14 MR. SILVA: That's correct.

15 MR. KIRK: By executive order?

16 MR. SILVA: That's correct.

17 MR. KIRK: Do you know why it was designated at 220  
18 by the President under executive order?

19 MR. SILVA: I don't know why, no.

20 MR. KIRK: Do you think the Imperial Irrigation  
21 District or the people of Imperial Valley had something to  
22 do with that?

23 MR. OSIAS: All right. I'm going to raise the same  
24 objection. It exceeds the scope of rebuttal.

25 The reason for the elevation being set in whatever



1 it was, 80 years ago, was not the subject of --

2 CHAIRMAN BAGGETT: I would sustain that. I think  
3 one of the challenges is we had a lot of this information in  
4 the first phase.

5 MR. KIRK: Oh, well, I apologize for that. I wasn't  
6 a part of that.

7 CHAIRMAN BAGGETT: You were there. You had a chance  
8 to cross on the original. And that's the rules.

9 MR. KIRK: Fair enough, and I'll move on.  
10 You have testified that you're concerned about  
11 drainage issues relating to pumping agricultural water into  
12 the Salton Sea, correct?

13 MR. SILVA: That's correct.

14 MR. KIRK: And it does cost IID, its farmers, time  
15 and money to do that, correct?

16 MR. SILVA: That's correct.

17 MR. KIRK: Are the agricultural lands that are  
18 pumping water up into the Salton Sea below the elevation  
19 220?

20 MR. SILVA: Yes.

21 MR. KIRK: And IID is delivering water to lands  
22 below the designated agricultural repository level of  
23 negative 220, correct?

24 MR. SILVA: Yes.

25 MR. KIRK: So you're concerned about water that

1       you're delivering to farms below 220, the agricultural  
2       repository, and then pumping that water back up into the  
3       Salton Sea; is that correct?

4               MR. SILVA:  The question -- what was the original,  
5       that I'm concerned?

6               MR. KIRK:  I'll restate since it was a bit  
7       convoluted.

8               You've expressed concerns about pumping this water  
9       up.  At the same time you acknowledge you're delivering  
10      water below the designated agricultural repository level of  
11      minus 220.

12              MR. SILVA:  That's correct.

13              MR. KIRK:  Thanks.

14              It's probably a little unfair of me to talk about  
15      pumping, because I think the majority of your issues related  
16      to elevation were about flooding, correct?

17              MR. SILVA:  That's correct.

18              MR. KIRK:  And you're concerned about flooding  
19      because of property damage and liability on the District?

20              MR. SILVA:  That's correct.

21              MR. KIRK:  And IID has purchased a lot of lands  
22      within that designated agricultural repository of minus 220  
23      to protect itself against liability, claims, et cetera; is  
24      that correct?

25              MR. SILVA:  That's correct.

1           MR. KIRK: In fact, isn't IID the largest property  
2 owner of land in the Salton Trough under the elevation of  
3 minus 220?

4           MR. SILVA: I would have to -- yes, we are. Yes.

5           MR. KIRK: It's certainly the largest landowner of  
6 land under the Salton Sea.

7           MR. SILVA: Yes.

8           MR. KIRK: It's likely that you'd be the largest  
9 landowner of land under that 220 mark as well.

10          MR. SILVA: That's correct.

11          MR. KIRK: And, again, the purpose of that -- those  
12 land purchases have been to reduce the potential for  
13 property damage from flooding and reduce your liability.

14          MR. SILVA: That's correct.

15          MR. KIRK: Well, isn't -- you're concerned about  
16 this liability issue. Isn't the land around the Salton Sea  
17 relatively low value? I mean, the property values are real  
18 low around the Salton Sea, aren't they?

19          MR. SILVA: Which areas of the Salton Sea?

20          MR. KIRK: All the way around the Salton Sea.

21          MR. SILVA: Relative to what? I mean, I --

22          MR. KIRK: Relative to land in San Diego County.

23          MR. SILVA: Well, I don't live in San Diego County  
24 so I don't know the difference. But there are some  
25 structures around the Salton Sea, for instance the

1 geothermal power plant, that are very, very valuable.

2 MR. KIRK: How valuable are they?

3 MR. SILVA: I don't know what the number is, but  
4 they're valuable as -- maybe not the land, but the  
5 structures themselves are valuable.

6 MR. KIRK: So their assessed value is probably --  
7 they're probably the highest value pieces of property under  
8 that 220 elevation mark around the Salton Sea?

9 MR. SILVA: I'm not sure of that but it could be,  
10 yes.

11 MR. KIRK: But that's what comes to mind as one  
12 piece of property around the Salton Sea that's very high  
13 value, correct?

14 MR. SILVA: Yes.

15 MR. KIRK: And you've provided an exhibit or two  
16 here. Exhibit 68. If you could refer to this, Mr. Silva,  
17 page 7 and page 8.

18 MR. SILVA: 67?

19 MR. KIRK: Actually, it's 68. Exhibit 68, page 7  
20 and page 8.

21 MR. SILVA: Yes.

22 MR. KIRK: And these are the facilities, some of the  
23 facilities you're talking about that lie under the  
24 agricultural repository of elevation 220, close to the  
25 Salton Sea and could be flooded and create some property

1 damage; is that correct?

2 MR. SILVA: That's correct.

3 MR. KIRK: Could you describe -- this is on the  
4 south part of the Salton Sea, Mr. Silva?

5 MR. SILVA: Yes, south and east.

6 MR. KIRK: Do you know which geothermal facility  
7 this is? Do you know the name of it?

8 MR. SILVA: No, I don't know the name. They've  
9 changed -- they were going to get new owners, and I don't  
10 know the actual -- I think it's -- well, excuse me. I think  
11 it's called Elmore, but I don't know which number, if it's  
12 Elmore one or two, I don't know.

13 MR. KIRK: Could this be unit one? I mean, some --  
14 I think this is unit one next to the Salton Sea. Do you  
15 think that might be correct?

16 MR. SILVA: It may be correct, yes.

17 MR. KIRK: Who owns that land?

18 MR. SILVA: That land is owned by IID.

19 MR. KIRK: This land is owned by IID. So Cal Energy  
20 or one of its successors or associated companies leases that  
21 land from you?

22 MR. SILVA: That's correct.

23 MR. KIRK: Are you receiving lease payments from Cal  
24 Energy for that land?

25 MR. SILVA: Yes, we are.

1 MR. KIRK: When did that begin?  
2 When did these facilities -- when generally was unit  
3 one constructed? In the '70s, the '80s?  
4 MR. SILVA: The '70s.  
5 MR. KIRK: '70s. 50 years after the designation of  
6 an agricultural repository, thereabouts?  
7 MR. SILVA: Roughly.  
8 MR. KIRK: So you own the land, and then you leased  
9 it to Cal Energy or its predecessor who constructed a,  
10 probably a multi hundred million dollar, hundred million  
11 dollar plus plant under the designated agricultural  
12 repository.  
13 MR. SILVA: I don't know. We originally had the  
14 lease directly with whoever built the plant. I believe it  
15 was a sublease through the Elmore family was actually  
16 leasing the property.  
17 MR. KIRK: But you own the land.  
18 MR. SILVA: Yes, we do own the land.  
19 MR. KIRK: And do you know how much lease payment  
20 you're receiving for that?  
21 MR. SILVA: No, I don't.  
22 MR. KIRK: But you're allowing Cal Energy to use  
23 your land, and that land is located below the agricultural  
24 designated repository of 220.  
25 MR. SILVA: Said that before, yes.

1           MR. KIRK:  And this perhaps is the most expensive  
2 property around the shores of the Salton Sea, and based on  
3 the photos you provided, perhaps at the most risk.  Is that  
4 correct?

5           MR. SILVA:  Well, the property is probably not the  
6 value.  It's the value of the stuff that's on it.

7           MR. KIRK:  Sure.  When I say property, I mean the  
8 asset.  Is that --

9           MR. SILVA:  That's correct.

10          MR. KIRK:  -- a fair statement, then?

11          MR. SILVA:  That is a fair statement.

12          MR. KIRK:  Does IID have some responsibility for  
13 leasing lands below 220 that is subject to flood damage?

14                 You've --

15          MR. SILVA:  I don't understand the question.

16          MR. KIRK:  Does IID -- you've expressed concerns  
17 about flood damage.

18          MR. SILVA:  Uh-huh.

19          MR. KIRK:  Isn't IID in part responsible for  
20 allowing structures like this to occur within the designated  
21 agricultural repository existing below elevation 220?

22          MR. SILVA:  Are we responsible for allowing it to  
23 occur?

24          MR. KIRK:  Are you responsible, yeah.

25          MR. SILVA:  We allowed it to occur, yes.

1 MR. KIRK: Thank you. That's what I was looking  
2 for.  
3 Does in fact IID provide power in the area?  
4 MR. SILVA: Yes, we do.  
5 MR. KIRK: And you transmit power from Cal Energy?  
6 MR. SILVA: Yes, we do.  
7 MR. KIRK: And probably unit one as well?  
8 MR. SILVA: From all those areas, yes.  
9 MR. KIRK: Do you receive payments for that  
10 transmission of power?  
11 MR. SILVA: Yes, we do.  
12 MR. KIRK: And, in fact, this geothermal plant nor  
13 any other could operate a business if it wasn't for the  
14 ability to transmit power provided by IID.  
15 MR. SILVA: That's correct.  
16 MR. KIRK: Okay. So, again, you're concerned about  
17 flood damage, but IID has some responsibility for allowing  
18 expensive structures to exist along the perimeter of the  
19 Sea.  
20 MR. OSIAS: Objection. That's not what he said.  
21 MR. KIRK: That was the question.  
22 MR. OSIAS: I understand the question. I'm  
23 objecting to the question. If I get my objection out, and  
24 then you can overrule or sustain it before responded to by  
25 Mr. Kirk.



1                   CHAIRMAN BAGGETT: Your objection.

2                   MR. OSIAS: My objection is, in response to the  
3 question about whether IID has responsibility, the witness  
4 did not say yes. The witness said they allowed the land to  
5 be used. So this question now puts the responsibility  
6 answer into the question. So I object to the form of the  
7 question.

8                   MR. KIRK: We could ask the Court Reporter --  
9 actually, Mr. Silva did indicate the IID has some  
10 responsibility.

11                  MR. OSIAS: No, he didn't.

12                  CHAIRMAN BAGGETT: Want to go back and --

13                  MR. KIRK: I think the record will stand out.  
14 Again, the question is --

15                  CHAIRMAN BAGGETT: Restate your question.

16                  MR. KIRK: Does IID -- you have expressed concerns  
17 about flooding along the shoreline. And you've acknowledged  
18 that IID has lands along the shoreline.

19                  MR. SILVA: That's correct.

20                  MR. KIRK: And you have acknowledged that IID owns  
21 this land, which may be the most valuable land around the  
22 perimeter of the Salton Sea.

23                  MR. SILVA: Yes.

24                  MR. KIRK: And you acknowledge that IID transmits  
25 power from this facility and in fact all geothermal

1 facilities owned by Cal Energy or its related companies,  
2 correct?

3 MR. SILVA: That's correct.

4 MR. KIRK: So would you agree with me that IID does  
5 have some discretion about whether property -- how property  
6 you own is used?

7 MR. SILVA: Yes, we do have discretion.

8 MR. KIRK: And this property is located below the  
9 elevation 220?

10 MR. SILVA: A large portion of it.

11 MR. KIRK: And your property maps identify very  
12 clearly the agricultural repository in all of your property  
13 maps, is that correct, the elevation 220 line?

14 MR. SILVA: Yes.

15 MR. KIRK: So it wasn't a surprise; you knew this  
16 property was under the elevation 220.

17 MR. SILVA: Me personally?

18 MR. KIRK: IID generally.

19 MR. SILVA: At the time that they did this?

20 MR. KIRK: Yes.

21 MR. SILVA: I'm sure somebody did, yes.

22 MR. KIRK: No further questions. Thank you, Jesse.

23 CHAIRMAN BAGGETT: Thank you.

24 PCL?

25 //

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

---o0o---

CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

BY PLANNING AND CONSERVATION LEAGUE

BY MS. DOUGLAS

MS. DOUGLAS: Good morning. Good to see both of you again.

MR. SILVA: Good morning.

DR. SMITH: Good morning.

MS. DOUGLAS: My questions are for Dr. Smith.

Now, Dr. Smith, you've -- you've worked with IID for a long time, right?

DR. SMITH: Yes.

MS. DOUGLAS: And you're familiar with -- with basically -- you've studied the cropping patterns and agricultural patterns in the Imperial Valley?

DR. SMITH: Yes.

MS. DOUGLAS: With your knowledge of the Imperial Valley, do you think that -- can you imagine that you might be capable of designing a fallowing program that provides incentives for farmers to target low value and high water use crops?

DR. SMITH: What do you mean by target?

MS. DOUGLAS: Encourage -- encourage, provide incentives for fallowing of higher water use and lower value crops. Is that possible?

1 DR. SMITH: I'm sorry. Could you -- I find the  
2 question a little vague. Could you give me an example of  
3 what you're thinking of?

4 MS. DOUGLAS: All right. There's a blank screen.  
5 You're -- you're in charge of thinking about how to design a  
6 fallowing program. Your goal is to have the program target,  
7 to provide incentives for fallowing to be of low value and  
8 high water use crops rather than having high value, low  
9 water use crops fallowed. This is just your assignment.

10 Would you be capable of -- of doing that or of  
11 putting structures in place that would provide those  
12 incentives?

13 DR. SMITH: What's the term of the program?

14 MS. DOUGLAS: It's a 75-year program, but the term  
15 of the contracts can be whatever you think is appropriate.

16 DR. SMITH: One of the biggest problems -- I don't  
17 mean to say it's impossible, but one of the biggest problems  
18 is going to be how do you monitor when someone says, you  
19 know, but for the program, I'm going to do something. Allow  
20 me to elaborate.

21 Economists could say or an economist, even me, could  
22 say, if I want to prefer water that is conserved by crop one  
23 versus crop two, and if I want to encourage it, one natural  
24 way would be to pay more per acre-foot from crop one than  
25 you would offer per acre-foot conserved by crop two.

1           That would be one way, once you begin to fill in  
2           the blank -- the blank screen. Okay?

3           One of the difficulties, though, is if you were to  
4           pursue that, so you're paying people differently depending  
5           upon what they represent their intentions would be but for  
6           the program. So there will be an evidentiary issue related  
7           to the representation if someone comes in and says, you know  
8           what, I really was planning to do crop one next year,  
9           therefore, give me the higher payment, than someone who's  
10          going to come in and say, I was really thinking of doing  
11          crop two. So there's going to be a monitoring  
12          administration here that would be generated by differential  
13          payments.

14          MS. DOUGLAS: Okay. So -- so there are clearly some  
15          evidentiary issues if you do it that way.

16          What if -- what if -- can't you measure the water  
17          use that a farmer uses, how much water the farmer has  
18          delivered to the farm in a year?

19          DR. SMITH: Yes.

20          MS. DOUGLAS: Okay. Let's -- let's move on --

21          DR. SMITH: Okay. Go ahead.

22          MS. DOUGLAS: Let's move on to third party impacts.

23          Would you be able to imagine how third party impacts  
24          could be monitored and quantified?

25          DR. SMITH: Yes, I can imagine one could set up a

1 system upon which, if you could start tracking in more real  
2 time employments, and then you'd have to develop a standard  
3 where you would say, but for the program, this would have  
4 been the level of employment. And I guess you would use  
5 discrepancies from that as an estimate of the impact of the  
6 program.

7 MS. DOUGLAS: All right.

8 DR. SMITH: Again, the reliability of the measure  
9 would be certainly something one would have to think about  
10 in the design of the method.

11 MS. DOUGLAS: Absolutely.

12 Now, you said --

13 DR. SMITH: Again, since you're paying people based  
14 on how the method works.

15 MS. DOUGLAS: And if you're paying people who know  
16 what they're doing, and if you have a lot of people looking  
17 at their work, you have a chance of getting a good product?

18 DR. SMITH: Maybe.

19 MS. DOUGLAS: Let's move on to the Rose Institute  
20 study. Now, you said that the Rose Institute study has no  
21 useful information, right?

22 DR. SMITH: That was my conclusion.

23 MS. DOUGLAS: That was your conclusion.

24 DR. SMITH: About the economic consequences -- or  
25 excuse me -- the economic value of a restored sea versus the

1 economic losses of a dead sea.

2 MS. DOUGLAS: Right. And -- and I guess your main  
3 objection is that it doesn't provide a basis for the numbers  
4 that -- that the study puts forward.

5 DR. SMITH: Correct.

6 MS. DOUGLAS: I'd just like to explore this a little  
7 bit. Now, how would you place an economic value on the  
8 Pacific Flyway, for example?

9 DR. SMITH: Well, I guess the first thing I would  
10 have to do is define said flyway.

11 MS. DOUGLAS: Sure.

12 DR. SMITH: The next thing I would have to do is ask  
13 are there alternative means of different locations of -- to  
14 said flyway? And one method, therefore, would be to use  
15 what is known in appraisal work as the avoided cost as a way  
16 of saying, you know, if we replace it by something else,  
17 what's the cost of replacement and use that value. That  
18 would be one appraisal method.

19 Another may be if there was a transaction where the  
20 Pacific Flyway was sold, that would be known as a market  
21 base valuation under appraisal work.

22 MS. DOUGLAS: How would you place a value on the  
23 white pelican species?

24 MR. OSIAS: Let me -- let me object just on an  
25 ambiguity basis. Do you mean visiting the Salton Sea and

1 value in Imperial or just in general?

2 MS. DOUGLAS: I mean basically in general. We're  
3 talking about the economic value of a restored sea versus a  
4 dead sea. And in order to come up with those numbers, you  
5 need to put a value on, for example, the white pelican  
6 population.

7 MR. OSIAS: No, you've clarified it. So the  
8 existence of white pelicans in the valley was your question.

9 DR. SMITH: Well, one method would be to the extent  
10 that people had invested resources to protect the pelican.  
11 If you had evidence of those efforts, then you could, among  
12 other things, look at what was the investment in -- in the  
13 protection of the pelican? What was the efficiency or the  
14 effectiveness of those expenditures?

15 MS. DOUGLAS: Just looking at expenditures to  
16 protect the pelican, but does that tell you what the pelican  
17 is worth?

18 DR. SMITH: It would give you a lower boundary  
19 estimate of what the value of the pelican was to the person  
20 who spent the resources.

21 MS. DOUGLAS: What about --

22 DR. SMITH: So, for example, if someone spent a  
23 dollar to save a pelican and could have spent a dollar fifty  
24 to save a second one and chose not to, that would be -- that  
25 would start to give you some information.



1 MS. DOUGLAS: Show you the value of the pelican to  
2 that person?

3 DR. SMITH: Right.

4 MS. DOUGLAS: What about -- how would you value --  
5 how would you estimate the cost of Owens Valley type dust  
6 and PM-10 problems in the -- in the Salton Sea region?

7 MR. OSIAS: I'd object as beyond the scope of  
8 rebuttal.

9 MS. DOUGLAS: This is still within the same -- this  
10 is now getting into the cost of the dead sea.

11 CHAIRMAN BAGGETT: I would overrule. Continue.

12 DR. SMITH: So would you restate or just --

13 MS. DOUGLAS: Sure.

14 DR. SMITH: -- say it again. You don't have to  
15 restate it. Say it again.

16 MS. DOUGLAS: I'll say it again.

17 DR. SMITH: Yeah.

18 MS. DOUGLAS: How would you go about estimating the  
19 economic cost of a very severe, say, Owens Lake level PM-10  
20 and dust problems in the Salton Sea area? So I've give you  
21 a scope, including Coachella and Imperial Valleys.

22 DR. SMITH: May I break up your question into Owens  
23 Lake first?

24 MS. DOUGLAS: Sure.

25 DR. SMITH: To the extent that there was efforts

1       that were undertaken to address problems in Owens Lake, I  
2       would look at the willingness of people to spend or address  
3       those problems and the effectiveness of those in -- in -- in  
4       reducing the problems that are in your question. That would  
5       be step one.

6               MS. DOUGLAS: That would be a step, but let me ask  
7       you something on step one. In 1913 or 1920, the people who  
8       had the money to spend to rectify the problem preferred not  
9       to spend it, and the people who were actually living through  
10      the problem didn't have the resources to invest. Does that  
11      change your analysis?

12             Because the people who had the money to spend  
13      weren't necessarily bearing any of the costs.

14             DR. SMITH: I understand your point. And summarily  
15      I guess the people who were bearing the costs, I guess, to  
16      answer of your question, is that given their economic  
17      circumstances, they couldn't afford to do anything about it.  
18      In that circumstance, we wouldn't have any effort to --

19             MS. DOUGLAS: Right.

20             DR. SMITH: -- address the problem.

21             MS. DOUGLAS: And, in fact, there wasn't for a long  
22      time.

23             DR. SMITH: In which case, then, under my first step  
24      there would be nothing to look at.

25             MS. DOUGLAS: Okay. So nothing to look at so let's

1 go on.

2 DR. SMITH: Right, yeah.

3 MS. DOUGLAS: So let's go on then. Do you want to  
4 say more about Owens Lake or shall we shift to the Salton  
5 Sea?

6 DR. SMITH: Let's shift to the Salton Sea.

7 MS. DOUGLAS: So how would you evaluate the cost of  
8 dust storms in Imperial and Coachella Valleys?

9 DR. SMITH: Well, again, if -- well, first of all,  
10 do we have anything out of step one?

11 MS. DOUGLAS: We have -- I guess what we have out of  
12 step one, from what I understood, is that the amount of  
13 money that somebody spent to clean up the problem could  
14 provide you information as to the cost of the problem, if  
15 they had any reason or desire to spend the money.

16 I mean, obviously if people aren't bearing the cost  
17 who have the money, then you might not have anything to  
18 show.

19 DR. SMITH: Right.

20 MS. DOUGLAS: It would not be an adequate --

21 DR. SMITH: Right, I just wanted to clarify a little  
22 bit because I think you stated my position a little  
23 differently.

24 To the extent that we had an effort to deal with it  
25 by looking at expenditures of resources and effectiveness,

1 that would provide a lower bound value. Okay, a lower  
2 bound, not the value.

3 MS. DOUGLAS: Not the value, the lower estimate.

4 DR. SMITH: Right.

5 MS. DOUGLAS: So a lower estimate for a long time  
6 was zero, right?

7 DR. SMITH: Right.

8 MS. DOUGLAS: All right. So let's move on to the  
9 Salton Sea area, then.

10 DR. SMITH: Okay.

11 MS. DOUGLAS: How would you estimate the cost if the  
12 same thing happened there?

13 DR. SMITH: Again, you would start with the first  
14 threshold issue. What were people willing to do to address  
15 the problem?

16 MS. DOUGLAS: What --

17 DR. SMITH: And, again, if you -- if one had a facts  
18 base where there's nothing yet undertaken, then, you know,  
19 you'd have to move on to a different method.

20 MS. DOUGLAS: Imagine that you're predicting,  
21 though. You don't know what people are willing to do to  
22 address the problem because the problem hasn't occurred yet.  
23 How might you estimate what people might be willing to do to  
24 address the problem?

25 DR. SMITH: Well, in the economics literature,

1       there's this whole willingness to pay survey approach where  
2       one tries to develop a representative sample of people whose  
3       values you thought were relevant to the question, do a  
4       scientifically valid random sample of such population, and  
5       then try to craft questionnaires where you ask that question  
6       rather than of an economist, of people you think may care  
7       about the resource.

8                 And then what has been done is those surveys have  
9       been used to try to infer, what is implied by the values  
10      from the exercise of the survey of the hypothetical  
11      question?

12                MS. DOUGLAS: For example, you could have a survey  
13      that says, there may be dust and the PM-10 has these  
14      potential health effects, for example, increasing the  
15      instance of asthma, and this could affect you. How much  
16      would you be willing to pay to avoid this problem?

17                DR. SMITH: Right. As a matter of fact, the water  
18      agencies -- I think Ms. Stapleton testified yesterday to the  
19      fact that the Authority in '91 during the drought actually  
20      investigated the value to them of supply reliability. They  
21      conducted a willingness to pay survey in that area. I  
22      didn't look at the sample, so I can't go there with you.

23                But the -- but the -- but the survey was much like,  
24      well, geez, there's a risk of a water shortage. How much  
25      would you be willing to pay more on your monthly bill to

1 avoid a risk of one of three, one of four, 10, 20, 30  
2 percent. And, again, people who conduct this work take  
3 those results and try to infer what's -- what's the value?

4 MS. DOUGLAS: So if you live, for example, in one of  
5 these trailers on the shores of the Salton Sea, and you fill  
6 out this willingness to pay survey, how meaningful in your  
7 opinion is that person's answer?

8 DR. SMITH: That's one of the controversies of the  
9 method.

10 MS. DOUGLAS: All right. Thank you. I have no  
11 further questions.

12 CHAIRMAN BAGGETT: Thank you.

13 Sierra Club? No.

14 Audubon. National Wildlife. Defenders.

15 (Reporter changes paper.)

16 CHAIRMAN BAGGETT: Let's go back on the record.

17 Let's go with Defenders and keep going.

18 ---o0o---

19 CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

20 BY DEFENDERS OF WILDLIFE

21 BY MR. FLETCHER

22 MR. FLETCHER: Good morning, gentlemen.

23 MR. SILVA: Good morning.

24 MR. FLETCHER: I'm Brendan Fletcher with Defenders  
25 of Wildlife.

1 DR. SMITH: Good morning.

2 MR. FLETCHER: I have a few questions for Mr. Silva.

3 Do you have the list of rebuttal exhibits in front

4 of you, Mr. Silva, or the actual exhibits themselves in

5 front of you?

6 MR. SILVA: Yes.

7 MR. FLETCHER: Could you turn to Exhibit 86, please.

8 MR. SILVA: Yes.

9 MR. FLETCHER: And that -- that's a picture of Owens

10 Lake; is that correct?

11 MR. SILVA: That's what I understood it to be, yes.

12 MR. FLETCHER: Where did you get that picture; do

13 you know?

14 MR. SILVA: I did not get it myself. It was

15 provided by my attorney.

16 MR. FLETCHER: Do you know where it was provided

17 from? I'm just curious.

18 MR. SILVA: I think he described where it came from

19 off the Internet somewhere, but I don't remember.

20 MR. FLETCHER: Okay. The picture's not incredibly

21 clear, but can you -- do you know what the orientation of

22 that picture is? Was it taken from the south or the north?

23 MR. SILVA: I do not know.

24 MR. FLETCHER: No. Okay. At -- despite the

25 caption, I'm going to try to describe the picture for a

1 moment.

2 That appears to be an arc of dust storms around the  
3 shoreline of Owens Lake or Owens Dry Lake; is that correct?

4 MR. SILVA: I'll take your word for it. I don't --  
5 it looks like a bunch of dust storms, but I can't make out  
6 where the lake is. I think it's in the foreground, but I'm  
7 not sure.

8 MR. FLETCHER: All right. Taking the picture from  
9 the top right --

10 MR. SILVA: Okay.

11 MR. FLETCHER: -- arcing around in sort of a  
12 semicircle down at the bottom left, would the distance  
13 between the top of the picture and the bottom of the  
14 picture, do you think that would be measured in hundreds of  
15 yards or miles? Do you know how long that would be?

16 MR. SILVA: I don't think it would be in hundreds --  
17 as you said hundreds of yards or hundreds of miles.

18 MR. FLETCHER: Hundreds of yards or -- well, let's  
19 just start with hundreds of yards. Do you think that that  
20 distance would be greater than several hundred yards?

21 MR. SILVA: Yes.

22 MR. FLETCHER: Do you think it would be several  
23 miles in extent?

24 MR. SILVA: Yes.

25 MR. FLETCHER: So basically this shows a patch of



1 dust storms extending over several miles?

2 MR. SILVA: That's what it seems to me like, yes.

3 MR. FLETCHER: And the dust seems to be rising into  
4 the air.

5 MR. SILVA: Yes.

6 MR. FLETCHER: Would you think that would be  
7 hundreds of feet into the air?

8 MR. SILVA: Yes.

9 MR. FLETCHER: Do you think it would be thousands of  
10 feet into the air?

11 MR. SILVA: I don't think thousands.

12 MR. FLETCHER: You don't think thousands. So  
13 judging from the picture at least, it shows a series of dust  
14 storms several miles in extent rising hundreds of feet into  
15 the air?

16 MR. SILVA: That is my interpretation of that, yes.

17 MR. FLETCHER: And you said you've never seen  
18 anything like that at the Salton Sea?

19 MR. SILVA: That's correct.

20 MR. FLETCHER: So you've never seen a dust storm at  
21 the Salton Sea several miles in extent rising hundreds of  
22 feet in the air.

23 MR. SILVA: I think the question that I was asked  
24 was from dust around the Salton Sea.

25 MR. FLETCHER: Right.

1           MR. SILVA: And, no, I have not seen that type of  
2 a -- of an occurrence.

3           MR. FLETCHER: Now, if the transfer goes forward as  
4 it's currently been proposed through on-farm conservation  
5 system and improvements, the Salton Sea will recede to the  
6 point where the shoreline is approximately 250 feet below  
7 sea level; is that correct?

8           MR. OSIAS: I think that's beyond his -- objection,  
9 beyond his rebuttal testimony, too. He didn't go to a  
10 predicted elevation for the project. He talked about  
11 current elevation and flooding.

12          CHAIRMAN BAGGETT: I would sustain that.

13          MR. FLETCHER: I'm just trying to determine what he  
14 has and hasn't observed at the Salton Sea. And the question  
15 is -- well, okay. It doesn't have to be particular. I  
16 mean, the Salton Sea is going to recede, is that correct, if  
17 the project goes forward?

18          MR. SILVA: If the project goes forward?

19          MR. FLETCHER: Yeah, the shoreline will recede and  
20 the elevation will be lower than it currently is.

21          MR. SILVA: If the project goes forward as we  
22 presented it, the Sea will go down, yes.

23          MR. FLETCHER: And would it surprise you if 50,000  
24 acres of seabed would be exposed?

25          MR. OSIAS: Same objection. It's not that this is

1 irrelevant. This was in Phase II. This witness didn't come  
2 back on rebuttal and talk about exposed shoreline.

3 CHAIRMAN BAGGETT: I would sustain, yeah. His  
4 testimony was dealing with flooding and diking, those  
5 issues.

6 MR. FLETCHER: But there was this testimony about  
7 what he's seen at the Salton Sea in terms of dust storms; is  
8 that correct?

9 MR. OSIAS: The testimony was whether he saw  
10 anything that looked like this, and the answer was no.

11 CHAIRMAN BAGGETT: The testimony was a picture,  
12 which is about as legible as the letter received yesterday,  
13 but -- and I would -- it was just responding to this letter.  
14 It wasn't his observations over the past.

15 MR. ROSSMANN: Your Honor, I've been reluctant to  
16 object to something that Mr. Osias offers in evidence, and  
17 perhaps I should have done it.

18 MR. OSIAS: I haven't offered it in yet.

19 MR. ROSSMANN: Okay. I -- may I respectfully  
20 suggest that we've heard enough now to withdraw 86 and 87,  
21 since the witness -- and I assume that Dr. Smith has no  
22 personal knowledge of this impressionistic image that we  
23 have as Exhibit 86. And the simplest thing would be just to  
24 withdraw both of those exhibits.

25 MR. OSIAS: Well, I actually have witnesses coming

1 on later who are going to lay the foundation for them and  
2 have better copies. But the question to Mr. Silva was, have  
3 you seen white dust-like smoke rising from the ground in the  
4 vicinity of the Salton Sea as in this picture?

5 CHAIRMAN BAGGETT: And the objection is that --

6 MR. OSIAS: This version is illegible.

7 CHAIRMAN BAGGETT: Well, how big, how high, what  
8 size, what volume. I mean --

9 MR. OSIAS: I'll do that on redirect.

10 CHAIRMAN BAGGETT: This could be a two-inch dust  
11 storm.

12 MR. OSIAS: Right. The cross can do the job on  
13 that. That doesn't mean that an exhibit is inadmissible.

14 MR. ROSSMANN: Well, Your Honor --

15 CHAIRMAN BAGGETT: We'll deal with admissibility  
16 issues later.

17 MR. ROSSMANN: Right.

18 CHAIRMAN BAGGETT: So you have fair warning, I  
19 guess.

20 MR. FLETCHER: My understanding, then, is that you  
21 testified that you have not seen a dust storm of this type  
22 at the Salton Sea as it -- as it exists today.

23 MR. SILVA: Again, the -- the question that I  
24 believe that I was asked was about some particles or  
25 salinity around the Sea, the -- the evaporated salt that's

1 around the Sea. And, no, I have not seen that.

2 MR. FLETCHER: Okay. Have you ever observed the  
3 Salton Sea and a dust storm arising from it or not arising  
4 from it, at a time when approximately 50,000 acres of seabed  
5 that are now submerged are exposed to the air?

6 In other words, have you seen -- have you seen the  
7 Salton Sea at a time when 50,000 acres that are currently  
8 under water are exposed?

9 MR. SILVA: No, I have not.

10 MR. FLETCHER: No more questions. Thank you.

11 CHAIRMAN BAGGETT: Thank you.  
12 County.

13 MR. ROSSMANN: Yes, sir.

14 ---o0o---

15 CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

16 BY COUNTY OF IMPERIAL

17 BY MR. ROSSMANN

18 MR. ROSSMANN: Mr. Silva, going back to your  
19 testimony on Exhibits 67 and 68, the wave action and the  
20 salt spray, is it your personal experience that high winds  
21 are prevalent at the Salton Sea?

22 MR. SILVA: High winds from the west, those are -- I  
23 have observed winds from the west that are high in velocity,  
24 yes.

25 MR. ROSSMANN: Thank you. I won't ask any more

1 questions about 86 because Mr. Fletcher really asked the  
2 questions I was going to ask you.

3 Although, isn't it not true looking at Exhibit 86  
4 that that could just as easily be the surf at Ocean Beach  
5 as -- and literally as indescribable as what Mr. Fletcher  
6 thought it might be?

7 MR. SILVA: Well, I thought it was a valley of some  
8 sort that had dust in it, but I didn't think -- my first  
9 impression was not that it was Ocean Beach, no.

10 MR. ROSSMANN: But it is indescribable.

11 Exhibit 88, I believe, is a table. Did you prepare  
12 that, sir?

13 MR. SILVA: 88?

14 MR. ROSSMANN: 88. Yes, sir.

15 MR. SILVA: No, I did not.

16 MR. ROSSMANN: Dr. Smith, did you prepare it?

17 DR. SMITH: I provided input into the preparation of  
18 the table.

19 MR. ROSSMANN: Well, since it wasn't described on  
20 direct examination, perhaps you could lay a foundation for  
21 us here so that we know what this is. Try to help your  
22 counsel out so he doesn't have to do it on redirect.

23 DR. SMITH: Okay. What -- oh, thank you.

24 As you may recall, there's various agreements --  
25 Imperial, San Diego, Coachella, QSA. If you look at all of

1       those agreements and say, what are the environmental  
2       commitments in terms of what is the maximum amount of  
3       mitigation cost a party is willing to be responsible for and  
4       still be willing to proceed with their commitments? Okay?

5               MR. ROSSMANN: Yes.

6               DR. SMITH: And what this does is bring up into --  
7       according to the terms of these proposed agreements, what is  
8       the present value as of today's dollars, assuming a 45-year  
9       term of their obligation.

10              So, for example, for Imperial Irrigation District,  
11       you've heard a lot probably that there is a mitigation or  
12       environmental cap of 15 million. And if environmental  
13       mitigation obligations of Imperial were to exceed that cap  
14       or might exceed, Imperial is not obligated to proceed with  
15       the transaction.

16              A detail, the 15 million is in '98 dollars.

17              MR. ROSSMANN: Yes.

18              DR. SMITH: So what I've done is a rough adjustment  
19       to what it would be in 2002. So that's why it's 16.2  
20       million.

21              MR. ROSSMANN: Okay. So this table in a nutshell  
22       incapsulates the environmental mitigation commitments that  
23       are in the previously proposed transfer agreement.

24              DR. SMITH: Correct. Agreements.

25              MR. ROSSMANN: Agreements.

1 DR. SMITH: The family.

2 MR. ROSSMANN: QSA as well as the transfer  
3 agreement.

4 DR. SMITH: Right.

5 MR. ROSSMANN: Okay. Thank you very much. Since  
6 that hadn't been described on direct, I just wanted to get  
7 that clear.

8 Table 81 is your review of the Riverside County ag  
9 commissioner's data. My understanding of the Palo Verde  
10 Irrigation District is that it also extends into Imperial  
11 County.

12 CHAIRMAN BAGGETT: What exhibit number?

13 MR. ROSSMANN: I think it's 81, sir.

14 CHAIRMAN BAGGETT: 81. I thought you said 80.

15 MR. ROSSMANN: Yes, sir.

16 CHAIRMAN BAGGETT: Thank you.

17 DR. SMITH: It extends but a very small amount.

18 MR. ROSSMANN: So --

19 DR. SMITH: And the difficulty is I'm not aware that  
20 the Imperial County ag commissioner separates out,  
21 provides --

22 MR. ROSSMANN: So the data, the overwhelming share  
23 of the district is in Riverside County.

24 DR. SMITH: That's my understanding.

25 MR. ROSSMANN: And so you feel that this is an



1       adequate representation --

2               DR. SMITH: Right.

3               MR. ROSSMANN: -- of the entire district?

4               DR. SMITH: Right.

5               MR. ROSSMANN: I just wanted to get that  
6 clarification as well.

7               And finally, sir, on the Rose Institute study,  
8 Exhibit 83, it seems to be grounded in work done by a  
9 Professor Bazdarich [phonetic] --

10              DR. SMITH: Bazdarich.

11              MR. ROSSMANN: Bazdarich.

12              Do you know that individual?

13              DR. SMITH: Yes, I do.

14              MR. ROSSMANN: Have you reviewed any of the  
15 underlying data or reports that are referenced in the Rose  
16 Institute study?

17              DR. SMITH: No, I haven't.

18              MR. ROSSMANN: Okay.

19              Okay. Finally, Mr. Silva, let's come back to one  
20 more alligator in the bathtub, Exhibit 84, which is Senator  
21 Feinstein's letter.

22              MR. SILVA: Yes.

23              MR. ROSSMANN: I think it would be helpful for all  
24 of us and particularly the Board to find out if there have  
25 been transactions with the Senator since this letter was

1 written that might let us know if she continues to hold the  
2 views expressed in that letter or if there has been dialogue  
3 within the Imperial Valley community that may show dialogue,  
4 if you will, as opposed to just one-way communication.

5 MR. OSIAS: And let me just object to have the  
6 witness exclude any dialogue with counsel.

7 CHAIRMAN BAGGETT: That I think --

8 MR. ROSSMANN: I'm not asking for your dialogue --  
9 I'm asking about dialogue with Senator Feinstein or her  
10 office.

11 CHAIRMAN BAGGETT: I suspect there has been some  
12 dialogue with counsel. Anyway, Mr. Silva.

13 MR. SILVA: We have prepared a letter in response to  
14 this letter. It went out yesterday sometime, at noon or so.  
15 We -- I don't know that we have entered it into the record,  
16 but we -- we may want to do that. I --

17 MR. OSIAS: We'd be pleased to. It just didn't meet  
18 the deadline because it wasn't prepared until yesterday.

19 MR. SILVA: So we can make it available. But, yes,  
20 we have prepared a response to her letter.

21 MR. ROSSMANN: Yes.

22 MR. SILVA: And, really, that's the only dialogue, I  
23 guess.

24 CHAIRMAN BAGGETT: Well, I assume on redirect, one  
25 could --

1 MR. ROSSMANN: I think that would --

2 CHAIRMAN BAGGETT: It would be good to --

3 MR. ROSSMANN: I think that would be helpful. Just  
4 like the Congressman's letter came after the fact and was  
5 presented yesterday morning when we got here, I think they  
6 would be useful to have.

7 MR. OSIAS: The Congressman's letter was faxed up  
8 timely before the 12:00 noon deadline on Friday.

9 MR. ROSSMANN: Well, in light of the extreme  
10 relevance and sensitivity of this letter, I think if the  
11 District has a response, it would probably be a very  
12 important completion of the record. So I would make that  
13 request.

14 Thank you very much, sir.

15 CHAIRMAN BAGGETT: Thank you.

16 Mr. Rodegerdts.

17 ---o0o---

18 CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

19 BY CALIFORNIA FARM BUREAU FEDERATION

20 BY MR. RODEGERDTS

21 MR. RODEGERDTS: Good morning, again.

22 MR. SILVA: Good morning.

23 DR. SMITH: Good morning.

24 MR. RODEGERDTS: Mr. Silva, I'm a northerner, and I  
25 don't fully appreciate all the wonderful things that are

1           happening around the Salton Sea. And excluding the  
2           testimony that we've heard in response to the power plant  
3           location, I was going to ask you a few questions about just  
4           why the District is out there building dikes and buying  
5           property and demolishing homes along the shores of the  
6           Salton Sea.

7                         Just what is the Imperial Irrigation District's  
8           jurisdiction? How is it involved in all these activities?

9                         MR. SILVA: We've been involved because we've been  
10          sued by people that have either property or structures. And  
11          we have been sued, and so we have been involved  
12          involuntarily, I guess.

13                        MR. RODEGERDTS: And why do their attorneys, as  
14          you're understanding, think that you could be sued? What's  
15          your liability? What's the basis for it?

16                        MR. OSIAS: Let me object. A, compound.

17                        MR. RODEGERDTS: I'll have him do it one at a time.

18                        MR. OSIAS: No, no. And just to make it easy, I  
19          would object to the extent your question asks for his  
20          opinion of the basis of liability versus what they've been  
21          accused of.

22                        MR. RODEGERDTS: All right. Thank you for helping  
23          me.

24                        CHAIRMAN BAGGETT: Rephrase the question.

25                        MR. RODEGERDTS: Well, yes. What do some of these

1 complaints accuse the District of having done?

2 MR. SILVA: Flooding their property and/or the  
3 flooding causing damage to sewer lines, houses, patios, all  
4 kinds of things.

5 MR. RODEGERDTS: And -- all right. And what do  
6 these plaintiffs attribute that flooding to?

7 Why is the property flooding?

8 MR. SILVA: Because IID allows it to happen.

9 MR. RODEGERDTS: And how is it IID allows it to  
10 happen?

11 MR. SILVA: Well, because we are the ones that are  
12 responsible to bring the water into the Imperial Valley and  
13 have drainage facilities as well. We're the ones that  
14 everybody looks to.

15 MR. RODEGERDTS: And -- and then you indicated that  
16 in some instances you were buying -- you were buying some of  
17 this flooded property; is that correct?

18 MR. SILVA: That's correct.

19 When that reservoir was declared by the President,  
20 all of that land was not government property or IID  
21 property, so we've been purchasing the land up to the minus  
22 220 contour. You know, it's our -- it's our wish to  
23 eventually have all of it purchased so it's either  
24 government or IID owns it so we will not have those  
25 problems.

1           MR. RODEGERDTS: That's a stated goal of the  
2 District?

3           MR. SILVA: Yes.

4           MR. RODEGERDTS: And then at that point in time, it  
5 would be the opinion of the District that these liability  
6 issues will hopefully lessen or cease?

7           MR. SILVA: Yes.

8           MR. RODEGERDTS: How is this -- are you familiar  
9 with some of the concerns that some of the farmers have in  
10 the District about liability if in fact this project goes  
11 through in connection with the -- what happens at the Salton  
12 Sea?

13          MR. SILVA: Yes, I've heard farmers state those  
14 concerns, yes.

15          MR. RODEGERDTS: Are some -- is it your  
16 understanding some of those concerns are grounded in the  
17 same factual patterns that might be the basis for some of  
18 these lawsuits?

19          MR. SILVA: The concerns are that as the Sea  
20 recedes, we will have people complaining about the fact that  
21 their -- their beachfront homes are no longer next to the  
22 Sea.

23          MR. RODEGERDTS: But, again, these are -- there'll  
24 be liability issues then.

25          MR. SILVA: That is the concerns stated by the

1 farmers, some of the farmers.

2 MR. RODEGERDTS: Dr. Smith, you were here yesterday  
3 to hear the -- in the afternoon to hear the testimony, is  
4 that correct, that we heard from Metropolitan regarding Palo  
5 Verde's fallowing program?

6 DR. SMITH: Yes, I was.

7 MR. RODEGERDTS: I -- I came away from hearing that  
8 testimony with the impression that the farmers in the Palo  
9 Verde Valley generally were embracing this -- this fallowing  
10 program that was being proposed.

11 DR. SMITH: I think one could get that impression  
12 from the testimony.

13 MR. RODEGERDTS: Was that your impression?

14 DR. SMITH: Of the testimony?

15 MR. RODEGERDTS: Yes.

16 DR. SMITH: Certainly of the testimony.

17 MR. RODEGERDTS: Okay. Why -- why might, in your  
18 opinion, the farmers think that that was a pretty good  
19 program?

20 MR. SLATER: Objection. Exceeds the scope of  
21 rebuttal testimony. He's offered no testimony whatsoever  
22 on -- on rebuttal regarding farmers' impressions or delight  
23 with the PVID program.

24 MR. RODEGERDTS: We certainly talked a whole lot or  
25 there were a whole lot of questions about the Palo Verde

1 program in this rebuttal, Mr. Chairman.

2 I --

3 CHAIRMAN BAGGETT: In this particular witness's  
4 rebuttal?

5 MR. RODEGERDTS: Yes.

6 MR. SLATER: This outline only covered the study.

7 MR. OSIAS: No, that's not true.

8 CHAIRMAN BAGGETT: No, I --

9 MR. OSIAS: His direct testimony was about the  
10 applicability and potential applicability and impacts of a  
11 Palo Verde type program.

12 CHAIRMAN BAGGETT: I would overrule. Continue.

13 MR. RODEGERDTS: Can you answer or do you need to  
14 have me restate the question?

15 DR. SMITH: Would you please restate it.

16 MR. RODEGERDTS: What might be the positive aspects  
17 of your understanding of the fallowing program in Palo Verde  
18 which might make it attractive to farmers in the valley?

19 DR. SMITH: I would imagine that it will return on  
20 the economic valuation of potential participants. And  
21 really we should be careful here. It's both farmers and  
22 landowners.

23 MR. RODEGERDTS: Right. That's right.

24 DR. SMITH: In the discussion we've been a little --  
25 collectively we've been a little loose here.



1 MR. RODEGERDTS: Exactly.

2 DR. SMITH: The landowners and farmers making an  
3 economic decision that the terms, financial terms are  
4 attractive relative to what they perceive their income  
5 opportunities are for farming during the term of the  
6 proposed agreement.

7 But we don't know the answer to that yet, because --  
8 and, by the way, this is not a criticism of Metropolitan --  
9 because until they complete and finalize environmental  
10 review, they cannot go out and offer the actual agreements,  
11 conduct the solicitation process and find out does the dog  
12 hunt or not? But certainly there's -- there's expressed  
13 optimism we heard yesterday, as I imagine, because  
14 Metropolitan seems to me they're very interested in securing  
15 water, and I imagine they -- if they didn't think that was  
16 going to work, they would have probably changed the terms to  
17 something that they thought was successful.

18 But right now, it's a hypothesis that -- that the --  
19 that the -- a subscription or solicitation process will be  
20 successful.

21 MR. RODEGERDTS: Looking at the third party impacts,  
22 Palo Verde and in connection with the Imperial Irrigation  
23 District transfer, your earlier testimony suggested that  
24 there were definite economic stimulations that would result  
25 from an on-farm conservation program --

1 DR. SMITH: Yes, both on-farm systems.

2 MR. RODEGERDTS: -- as opposed to proposed  
3 following.

4 And in Palo Verde, we see following and no necessary  
5 emphasis on on-farm conservation programs.

6 DR. SMITH: Yes, that is certainly a difference  
7 between the two proposed transactions.

8 MR. RODEGERDTS: So we won't have that economic  
9 stimulus in the Palo Verde situation.

10 DR. SMITH: No, we will -- the economic stimulus  
11 will be -- will have to be related to a trickle down theory  
12 of the fact that the payments to the landowners slash  
13 farmers will recirculate in the economy.

14 MR. RODEGERDTS: Are you familiar enough with the  
15 suggestion in Palo Verde to have an opinion as to whether or  
16 not the amount of water to be transferred in Palo Verde  
17 could in fact be generated from an on-farm conservation  
18 system similar to that which is being proposed in the  
19 Imperial Valley?

20 DR. SMITH: I had --

21 MR. SLATER: Mr. Chairman, I'll interpose my  
22 objection just for the record. This exceeds the scope of  
23 the outline testimony that was submitted. There is nothing  
24 in this outline which suggests this witness's testimony will  
25 go to the PVID proposed program. The only reference to PVID

1 is page 2, analysis of the study, quote, regional economic  
2 impacts of the Palo Verde test land following program.

3 MR. OSIAS: Do you want me to respond?

4 CHAIRMAN BAGGETT: Please.

5 MR. OSIAS: The -- the Chair was kind enough to  
6 allow people, rather than writing out their testimony, to  
7 indicate in an outline fashion what they thought they would  
8 cover.

9 CHAIRMAN BAGGETT: Right.

10 MR. OSIAS: The testimony, though, actually was the  
11 oral presentation this morning to which there was no  
12 objection. Now, if there are questions beyond what was  
13 testified to here, I've made objections to going beyond  
14 that, and that's a proper objection. The fact that it's not  
15 enumerated in the outline is now, A, late, and, B, not  
16 the -- the nature of an outline to be used as an evidentiary  
17 objection.

18 MR. SLATER: If I may, there was no direct testimony  
19 from this witness on -- in the case of rebuttal regarding  
20 the characteristics of the Palo Verde program, which this  
21 lawyer is now crossing.

22 MR. OSIAS: Again, let me respond. There were  
23 questions elicited on a description basis. On this  
24 question, I can't recall what this question was, and there  
25 may be a singular objection to it not based on the outline

1 but based on what this question was.

2 MR. RODEGERDTS: The question --

3 CHAIRMAN BAGGETT: I would sustain --

4 MR. RODEGERDTS: Do you need to hear the question  
5 again?

6 CHAIRMAN BAGGETT: Yeah, let's hear the question  
7 again.

8 MR. RODEGERDTS: The question is -- you understood  
9 the question, Dr. Smith?

10 DR. SMITH: Please restate it. I get confused --

11 MR. RODEGERDTS: In its simplest terms, without all  
12 the ornaments on the Christmas tree, are you familiar enough  
13 with the situation in Palo Verde to have an opinion as to  
14 whether or not there could be an on-farm water conservation  
15 program in the Palo Verde Valley sufficient to generate the  
16 water necessary for the transfer?

17 MR. SLATER: Objection. Exceeds the scope of  
18 rebuttal direct.

19 CHAIRMAN BAGGETT: I will overrule. I think it was  
20 an outline form. The witness is obviously --

21 MR. SLATER: With regard to on-farm?

22 CHAIRMAN BAGGETT: He's very familiar with the Palo  
23 Verde program, it's obvious. There was testimony on  
24 rebuttal dealing with that program. It wasn't outlined, so  
25 overruled. Answer if you have an opinion.

1 DR. SMITH: I'm not familiar enough with the  
2 specifics of the Palo Verde Valley and the potential  
3 applicability of, for example, tailwater recovery systems,  
4 to be able to answer that question.

5 MR. RODEGERDTS: Thank you. Aren't lawyers  
6 wonderful. We argue about all these things, and then we  
7 can't get an answer.

8 Okay. Thank you very much.

9 DR. SMITH: What did Shakespeare say?

10 MR. RODEGERDTS: Pardon me?

11 CHAIRMAN BAGGETT: Thank you.

12 MR. ROSSMANN: Only Yogi Berra and Churchill get  
13 quoted here.

14 MR. OSIAS: What light through yonder window breaks.

15 CHAIRMAN BAGGETT: Mr. DuBois.

16 ---o0o---

17 CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

18 BY MR. DU BOIS

19 MR. DU BOIS: I think my only questions are for Dr.  
20 Smith.

21 Dr. Smith, you were describing how to arrive at the  
22 value of a pelican or -- or perhaps the value of a Pacific  
23 Flyway. Now, let me put it in different context. If -- if  
24 you owned a house and you had paid, say, a hundred thousand  
25 dollars for the house, somebody contested your ownership and

1       you had to spend another \$10,000 to prove that you owned the  
2       house, would you then value the house at \$110,000.

3               DR. SMITH: I think in the house valuation, assuming  
4       we have the market data available of comparable  
5       transactions, that's what I would rely upon.

6               MR. DU BOIS: It wouldn't depend on the amount or --  
7       your decision to spend money to defend would not enter into  
8       the value, would not change the value of the house?

9               DR. SMITH: Well, it may change the value of the  
10       house. For example, if someone were to threaten a taking,  
11       for example --

12              MR. DU BOIS: Yeah.

13              DR. SMITH: -- hypothetically, which was proposed to  
14       be uncompensated, that may have a tendency to reduce the  
15       value of the house.

16              MR. DU BOIS: All right. Let me extend it further  
17       to a water right.

18              DR. SMITH: Okay.

19              MR. DU BOIS: Imperial, most of us believe, has a  
20       water right on the Colorado River. And the reason I'm  
21       asking this question is I believe that when you were asked  
22       what does IID pay for its water, the answer was nothing. I  
23       pre -- did I misquote you?

24              DR. SMITH: Yes. What I said is it's my  
25       recollection there's no payment to the federal government.

1 MR. DU BOIS: Thank you. I have no further  
2 questions.

3 CHAIRMAN BAGGETT: Thank you.

4 Mr. Gilbert.

5 MR. GILBERT: Thank you, Mr. Chairman.

6 ---o0o---

7 CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

8 BY MR. GILBERT

9 MR. GILBERT: A few first for Mr. Silva.

10 You testified about the dikes at the Sea and the  
11 problems with getting them high enough to keep the water and  
12 the sprays in and even the problems of earthquake faults  
13 nearby.

14 Is that area right near the Sea an active earthquake  
15 area?

16 MR. SILVA: Yes, the -- most of the valley is. But  
17 there at the geothermal areas, that's the hot spots, and  
18 there are -- there are seismic activities pretty much all  
19 the time, very little, very small, but pretty consistent.

20 MR. GILBERT: Not high on the Reichter scale, but  
21 common to have several of these events in a single week?

22 MR. SILVA: Yes.

23 MR. GILBERT: Are you familiar with mud pots?

24 MR. SILVA: Yes.

25 MR. GILBERT: It's not a common phenomenon. Could

1       you describe what a mud pot is.

2               MR. SILVA:  It's a -- when carbon dioxide gas comes  
3       up through -- through fissures in the soil, it comes up --  
4       and around the Sea, since there's -- on the edges of the Sea  
5       where it's wet, mud and water combined, you see a gas come  
6       up.  And when the mud comes up with it, it forms kind of  
7       like a circular pattern of mud and water.

8               MR. GILBERT:  And is it not true that occasionally  
9       these things kind of erupt and blow a large hole?

10              MR. SILVA:  We had one occur about six, seven years  
11       ago just inside the dike, missed the dike by about ten feet.  
12       It just -- it was about as big as this room.  It was -- I  
13       guess a pocket of carbon dioxide gas was trapped, and it  
14       finally kind of exploded up to the surface, yes, and it made  
15       a big hole there, yes.

16              MR. GILBERT:  If that had been right centered on one  
17       of the dikes, would that have been big enough to blow a hole  
18       in it?

19              MR. SILVA:  Yes, it would just demolish that whole  
20       dike area, yes.

21              MR. GILBERT:  What elevation would the salt -- the  
22       Sea need to recede to in order to avoid the risk of flooding  
23       from dike breakage?

24              MR. SILVA:  About minus 235 or so.

25              MR. GILBERT:  And if there is a -- a flooding



1 problem, is the District insured against that problem?

2 MR. SILVA: No.

3 MR. GILBERT: Let me ask a couple of questions --  
4 well, one more question.

5 You testified about the tailwater return systems.  
6 Would those conserve water in Palo Verde Valley for water  
7 for transfer?

8 MR. SILVA: My opinion is that they would not.  
9 Because they don't have any tailwater, they don't have any  
10 drains, and so the water now does not drain anywhere, so it  
11 just drains into the soil. So I don't see where they would  
12 be useful.

13 MR. GILBERT: And those return flows return to the  
14 Colorado River to be reused?

15 MR. SILVA: That's correct.

16 MR. GILBERT: Thank you.

17 A few questions for Dr. Smith. I was intrigued by  
18 the earlier question about if you could craft a program that  
19 would target specific crops, and I'd like to follow that up  
20 with just a few questions.

21 If you were going to attempt to do that, would you  
22 be more likely to seek contracts with farmers as opposed to  
23 landowners?

24 DR. SMITH: Actually, given my understanding of the  
25 nature of the trust relationship between the District and

1 landowners and all that, I don't -- you need to have  
2 contracts with landowners as well, so I don't think you can  
3 get them out of the --

4 MR. GILBERT: Okay. Would you say that the farmers  
5 are usually more involved in the choice of crops than the  
6 landowners?

7 DR. SMITH: The people who work the land are the  
8 ones that make those decisions.

9 MR. GILBERT: And one of the tenets of this program  
10 would be that it would be voluntary and not all farmers and  
11 all landowners would be required to participate?

12 DR. SMITH: Certainly the Board has been very clear  
13 since 1995 that any on-farm program would be voluntary.

14 MR. GILBERT: And isn't it very possible that if a  
15 participating farmer or landowner or group chose to not  
16 plant a certain acreage of a certain crop, that the  
17 nonparticipants might take up that slack and plant  
18 additional acreage of that same crop?

19 DR. SMITH: Absolutely.

20 MR. GILBERT: Is it not possible that even a single  
21 farmer might form two entities in which he farmed, and one  
22 entity might seek to get paid for not farming the targeted  
23 crop while the other entity might increase the acreage of  
24 that same crop?

25 DR. SMITH: That would be a problem, and it would

1 be -- also put the IID in the business of trying to pierce  
2 the corporate veil of the purpose of the second entity and  
3 so on and so forth.

4 MR. GILBERT: So some of those -- some of these  
5 reasons contribute to that it would be extremely difficult  
6 to tailor a program to target specific crops?

7 DR. SMITH: I agree with that, Mr. Gilbert.

8 MR. GILBERT: Thank you.

9 CHAIRMAN BAGGETT: Thank you.

10 All my questions for this panel have already been  
11 asked. Dana, Andy, Tom? Andy.

12 MR. FECKO: Just a few, thanks, for Mr. Smith.

13 ---o0o---

14 CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

15 BY STAFF

16 MR. FECKO: We've -- we've heard during these  
17 proceedings that fallowing has some impact to the community  
18 as far as economic activity and lost jobs, and it's a  
19 negative impact. Is that your recollection?

20 DR. SMITH: Yes.

21 MR. FECKO: Okay. Thinking of those impacts, I'm  
22 trying to think of it as on a graph where perhaps on the Y  
23 axis you'd have economic activity and on the X axis you'd  
24 have land fallowing.

25 Is it a linear relationship or is there some drop

1 offs there where you get to a certain amount of land  
2 fallowed where you have a pretty severe drop off in economic  
3 activity?

4 DR. SMITH: I think as I testified in Phase II, the  
5 technology of these economic models seem linear.

6 MR. FECKO: Okay. That's all. Thank you.

7 CHAIRMAN BAGGETT: Well, do we want to just try to  
8 continue and do redirect? Do you have a long lengthy --

9 MR. OSIAS: Yeah.

10 CHAIRMAN BAGGETT: Okay. Let's try it and see.

11 MR. OSIAS: I have a couple questions. It should be  
12 brief.

13 CHAIRMAN BAGGETT: I'm sure the panel would like to  
14 be done by lunch.

15 MR. OSIAS: I think it's very conservative.

16 ---o0o---

17 REDIRECT EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

18 BY MR. OSIAS

19 MR. OSIAS: First, just to clarify, Mr. Silva, at  
20 least as far as you know as the general manager, the  
21 District is willing to submit the response letter to Senator  
22 Feinstein?

23 MR. SILVA: Yes.

24 MR. OSIAS: Okay. And you'll provide an accurate  
25 copy of that?

1 MR. SILVA: Yes.

2 MR. OSIAS: Thank you. So pending objection, we'll  
3 do that hopefully this afternoon.

4 CHAIRMAN BAGGETT: Okay. Well, I don't see any  
5 objections.

6 MR. OSIAS: If the Exhibit 84 photograph -- no,  
7 that's not 84, sorry. It's 86.

8 If it showed hundreds of miles of white powder  
9 emitting from the ground thousands of feet into the air,  
10 have you seen anything like that near the Salton Sea?

11 MR. SILVA: No.

12 MR. OSIAS: If it showed hundreds of miles of that  
13 same type of dust emitting only hundreds of feet in the air,  
14 have you seen anything like that near the Salton Sea?

15 MR. SILVA: No.

16 MR. OSIAS: If it showed several miles emitting a  
17 hundred feet into the air or less, have you seen anything  
18 like that near the Salton Sea?

19 MR. SILVA: No.

20 MR. OSIAS: If it showed hundreds of yards of white  
21 powdery dust emitting 20 feet into the air, have you seen  
22 anything like that near the Salton Sea?

23 MR. SILVA: No.

24 MR. OSIAS: If it showed ten yards emitting two feet  
25 into the air this white powdery dust, have you seen anything

1 like that near the Salton Sea?

2 MR. SILVA: No, I have not.

3 MR. OSIAS: Thank you. I don't have any further  
4 questions.

5 CHAIRMAN BAGGETT: San Diego?

6 MR. SLATER: No.

7 CHAIRMAN BAGGETT: Salton Sea, Mr. Kirk?

8 MR. KIRK: It's tempting to ask about 18 inches of  
9 dust.

10 CHAIRMAN BAGGETT: Is that a waive? Okay.

11 PCL, Ms. Douglas.

12 Sierra Club, Audubon, National Wildlife are still no  
13 longer present I assume.

14 Defenders?

15 MR. FLETCHER: No thanks.

16 CHAIRMAN BAGGETT: County?

17 MR. ROSSMANN: Yes, I will ask the one question that  
18 can be asked.

19 ---o0o---

20 RE-CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

21 BY COUNTY OF IMPERIAL

22 BY MR. ROSSMANN

23 MR. ROSSMANN: If any of those parameters were  
24 observed or experienced at the Salton Sea in the future,  
25 would you not be concerned about that for the environment of

1 the Imperial Valley?

2 MR. SILVA: The parameters being --

3 MR. OSIAS: Object. This exceeds the cross which  
4 was whether he has observed them in the past. Now questions  
5 about what would happen in the future or his concern about  
6 it was asked.

7 MR. ROSSMANN: Well, I think that's within the scope  
8 of what we're getting at here. I don't think anyone has  
9 represented that these are the existing conditions in the  
10 Imperial Valley, but they're -- but this testimony has been  
11 put on to suggest that this is not going to be the impact of  
12 the project.

13 MR. OSIAS: Well, the purpose -- the purpose of  
14 testimony is not always revealed until the end of the case,  
15 and certainly not by the witness. And so he merely  
16 testified historically, and if Mr. Rossmann thinks that's  
17 irrelevant, it's a little late to make that objection.  
18 But we'd like --

19 CHAIRMAN BAGGETT: I would sustain the objection.  
20 He didn't testify to the future. The rebuttal was very  
21 narrow.

22 MR. ROSSMANN: Yes, sir.

23 CHAIRMAN BAGGETT: Thank you.

24 Farm Bureau, Mr. Rodegerdts?

25 MR. RODEGERDTS: Pass.

1                   CHAIRMAN BAGGETT: Mr. DuBois?  
2                   MR. DU BOIS: Pass.  
3                   CHAIRMAN BAGGETT: Mr. Gilbert?  
4                   MR. GILBERT: No.  
5                   CHAIRMAN BAGGETT: I have none. Any staff?  
6                   With that, do we have exhibits to move into evidence  
7 for this panel or do you want to wait till you're done with  
8 the whole --  
9                   MR. OSIAS: No, I think we should wait --  
10                  CHAIRMAN BAGGETT: Wait till we're done.  
11                  MR. OSIAS: I do actually now have a good copy which  
12 we'll get -- do we have multiple copies? I'm sorry. I'll  
13 wait till after lunch, then.  
14                  CHAIRMAN BAGGETT: With that, let's recess till  
15 12:30.  
16                  MR. SLATER: Sir? Mr. Chair, do you want to deal  
17 with the letter?  
18                  CHAIRMAN BAGGETT: This is the letter from --  
19                  MR. SLATER: This is the letter that was -- this was  
20 introduced by -- by the County yesterday and marked -- I  
21 believe it was a County --  
22                  CHAIRMAN BAGGETT: Yeah, we've got a copy that's  
23 legible with the attachments.  
24                  MR. SLATER: With the subsequent --  
25                  CHAIRMAN BAGGETT: Is there objection to moving San



1 Diego Exhibit 61 into evidence? Imperial County, do you  
2 want to move yours now or later?

3 MR. ROSSMANN: Yeah, this appears to be a much  
4 better copy of Imperial 5 so I think we moved it into  
5 evidence yesterday subject to its replacement.

6 CHAIRMAN BAGGETT: We'll just replace it -- we'll  
7 replace it with attachments.

8 MR. ROSSMANN: Yes, sir.

9 MR. SLATER: Thank you.

10 MR. ROSSMANN: Then we also had the --

11 MR. SLATER: The follow-up, which is San Diego  
12 Exhibit 61.

13 CHAIRMAN BAGGETT: There's no objection. That's  
14 moved into evidence.

15 MR. OSIAS: No objection.

16 CHAIRMAN BAGGETT: Okay. With that, if people  
17 didn't get copies of the tentative schedule -- we'll talk  
18 about that at the end of the day -- there's copies. I know  
19 some of the parties were gone yesterday when we passed these  
20 out.

21 By the --

22 MR. SLATER: And, Mr. Chair, one more.

23 Should I make an effort to have the witnesses  
24 available to respond to questions about this letter on the  
25 10th? Or are --

1                   CHAIRMAN BAGGETT: Let's talk at the end of the day.

2                   Let's recess for lunch. Be back at 12:30.

3                                   (Luncheon break taken.)

4   ---o0o---

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

AFTERNOON SESSION

---o0o---

CHAIRMAN BAGGETT: Okay. We're ready to go back on the record with the second panel of IID's rebuttal witnesses.

Mr. Osias.

---o0o---

DIRECT EXAMINATION OF IMPERIAL IRRIGATION DISTRICT  
BY MR. OSIAS

MR. OSIAS: Good afternoon. Thank you.

We have two new witnesses here that had not been sworn before.

CHAIRMAN BAGGETT: Okay.

MR. OSIAS: If you'd like to administer the oath to Dr. Dickey and Dr. Ohlendorf.

(Oath administered by Chairman Baggett.)

MR. OSIAS: Ms. Harnish, thank you for coming back. Would you remind us of your position with respect to the EIR/EIS.

MS. HARNISH: I am the project manager for the EIR/EIS.

MR. OSIAS: You are now and you were when you testified last, correct?

MS. HARNISH: That's correct.

MR. OSIAS: Okay. What is the current status of the

1 EIR/EIS from a schedule perspective?

2 MS. HARNISH: From a schedule perspective, we are in  
3 the process of responding to comments. We plan to complete  
4 that and be ready for certification at the June 25th IID  
5 Board meeting.

6 MR. OSIAS: How many comments have you received?

7 MS. HARNISH: We've received over 200 letters which  
8 constituted over 1700 actual individual comments.

9 MR. OSIAS: And you're in the process of responding  
10 to each and every one?

11 MS. HARNISH: That's right, we're responding to each  
12 and every one.

13 MR. OSIAS: Okay. The Board heard, was it  
14 yesterday, I believe it was yesterday, about the position  
15 taken very recently by the wildlife agencies with respect to  
16 HCP-1. Are you familiar with that?

17 MS. HARNISH: Yes, I am.

18 MR. OSIAS: You weren't actually here for the  
19 testimony, right?

20 MS. HARNISH: Right.

21 MR. OSIAS: But you've seen the letter from Mr.  
22 Valentine?

23 MS. HARNISH: Yes, I have.

24 MR. OSIAS: Okay. And as a result of that, will the  
25 EIR/EIS change?

1 MS. HARNISH: In the final, we are acknowledging  
2 that the fish and wildlife -- or the resource agencies have  
3 indicated that HCP-1 is not a feasible mitigation option for  
4 the Sea. And --

5 MR. OSIAS: So -- go ahead.

6 MS. HARNISH: No, go ahead.

7 MR. OSIAS: So that leaves us with HCP-2; is that  
8 correct?

9 MS. HARNISH: That's correct.

10 MR. OSIAS: And could you summarize, then, for us  
11 what HCP-2 entails.

12 MS. HARNISH: HCP-2 entails putting water in the Sea  
13 at or above the baseline levels until the year 2030.

14 MR. OSIAS: Now, is the source of that water  
15 identified in HCP-2?

16 MS. HARNISH: No, it's not.

17 MR. OSIAS: When I say is, that's perhaps the wrong  
18 verb because you're going to end up with a final --

19 MS. HARNISH: That's correct, it's in process.

20 MR. OSIAS: Right. So I suppose, based on your  
21 current knowledge -- I'll use the future tense, will it  
22 include.

23 So the HCP-2 will not identify --

24 MS. HARNISH: It does not identify a specific  
25 source. It identifies specific water quality requirements

1 for the water --

2 MR. OSIAS: Okay.

3 MS. HARNISH: -- however.

4 MR. OSIAS: And so the Habitat Conservation Plan is  
5 focused on mitigating species impacts by water under HCP-2,  
6 rather than how to create the water; is that fair?

7 MS. HARNISH: That's correct.

8 MR. OSIAS: Okay. Now, you said it will -- it will  
9 contemplate mitigating until 2030. Can you explain where  
10 that year comes from.

11 MS. HARNISH: Yes. The year 2030 comes from the  
12 baseline prediction that the Sea would reach 60 parts per  
13 thousand sometime -- within a 95-percent confidence, between  
14 2018 and 2030. And so they've erred on the conservative  
15 side and gone with putting water in the Sea until the year  
16 2030.

17 MR. OSIAS: Now, you probably didn't mean erred in  
18 the literal sense.

19 MS. HARNISH: No, I didn't mean it was an error,  
20 correct. They went on the conservative side.

21 MR. OSIAS: Okay. Now, when you say "they," this is  
22 actually -- I take it, the year has been the subject of  
23 discussion as far as you know in the wildlife agency  
24 negotiations?

25 MS. HARNISH: That's correct. I haven't been -- I

1 haven't been at the meetings, but my understanding from the  
2 biologists is that they spent quite a bit of time actually  
3 in discussing these -- the confidence intervals and having  
4 the resource agencies come to a level of comfort with using  
5 2030 as a year that -- that they're comfortable mitigating  
6 for the impacts related to the Sea.

7 MR. OSIAS: Okay. And people do report to you  
8 because you're responsible for producing this final document  
9 which will contain the text of the HCP-2.

10 MS. HARNISH: That's correct. We'll have an update  
11 on HCP-2 in the final EIR.

12 MR. OSIAS: Okay. And I was actually going to your  
13 source and knowledge. It's part of your job to know what's  
14 going on there?

15 MS. HARNISH: That's right.

16 MR. OSIAS: Now, to some significant extent, the  
17 cross-examination of you last time you were with us inquired  
18 about the use of a no-project baseline for the Salton Sea  
19 resource. Do you recall that cross-examination?

20 MS. HARNISH: I recall it fondly, yes.

21 MR. OSIAS: Okay. I'd be surprised if you actually  
22 recall it fondly.

23 Will the final EIR/EIS still use a baseline that  
24 involves projections for the Salton Sea resource?

25 MS. HARNISH: Yes, it will.

1 MR. OSIAS: Okay. Will you tell us why it will  
2 still use a projected baseline.

3 MS. HARNISH: It's a reasonable assumption when  
4 you're -- when you are evaluating the impacts of a project  
5 against a given resource, if that resource is projected to  
6 change over time, then you should look at that change over  
7 time and compare the project against it.

8 So you would consider any activities that are  
9 reasonable and foreseeable that would occur that would  
10 affect that resource and compare the project effects against  
11 that.

12 MR. OSIAS: And is there some qualitative component  
13 of either reasonable expectation or -- or almost certain  
14 expectation that you use to gauge what goes into the  
15 assumptions regarding the projected baseline?

16 MS. HARNISH: You consider what is reasonable and  
17 foreseeable.

18 MR. OSIAS: Okay. Now, if you were doing an EIR  
19 with respect to the environmental impact of adding two train  
20 cars to a freight train that was going to leave the Chicago  
21 station and go to New York, and it was already headed there  
22 but just stopped in Chicago, would you evaluate the impact  
23 of the two additional freight cars or would you have to  
24 assume the train wasn't going there at all because when you  
25 were taking your snapshot it was sitting in the Chicago



1 station?

2 You understand my question?

3 MS. HARNISH: I'm not entirely sure that I did.

4 MR. OSIAS: I'm trying to get to the --

5 MS. HARNISH: I think you would evaluate the impact  
6 of the cars on the moving train.

7 MR. OSIAS: Right, that was already headed to New  
8 York.

9 MS. HARNISH: Right, exactly.

10 MR. OSIAS: And so --

11 MS. HARNISH: Yeah.

12 MR. OSIAS: -- much of the questions to you asked,  
13 what was the date of the condition on the date of the IOP,  
14 which I take it CH2MHill evaluated, correct?

15 MS. HARNISH: Correct.

16 MR. OSIAS: And you had to adjust that for these  
17 reasonably foreseeable events in developing the Salton Sea  
18 baseline, correct?

19 MS. HARNISH: That's right.

20 MR. OSIAS: All right. Now, can you summarize for  
21 us again the assumptions, at least the key assumptions, that  
22 went into the Salton Sea no-project baseline?

23 MS. HARNISH: Yes. The reasonably foreseeable  
24 changes were the river administration, which is the  
25 entitlement enforcement of California being held to 4.4; an

1 assumption regarding the increase in that, in the Colorado  
2 River salinity, which would require farmers to increase  
3 leaching; the effects of the MWD/IID 1989 --'88 agreement or  
4 the transfer agreement.

5 We assume that Coachella Valley Water District would  
6 continue to pump their wells to meet their demands, and that  
7 would increase groundwater overdraft. We assume M&I use in  
8 the Imperial Valley would increase over the next 75 years,  
9 and that New River inflows from Mexico would stay the same  
10 or decrease over the next 75 years.

11 MR. OSIAS: And could you give us a very quick  
12 summary as to why you determined -- I don't mean you  
13 personally, but you and your team -- that each of these  
14 assumptions were reasonably foreseeable?

15 MS. HARNISH: You want me to go through each of  
16 them?

17 MR. OSIAS: Just do one at a time, yeah. Take the  
18 entitlement enforcement first.

19 MS. HARNISH: Okay. Entitlement enforcement  
20 considered to be reasonably foreseeable because absent the  
21 QSA, this is the law of the river. And, you know, I don't  
22 know what else to say about that. It's the law of the  
23 river, and that is what would be in place.

24 MR. OSIAS: Well, it is possible looking backwards  
25 to note that California could take more water because there

1 was surplus on the river and there was unused water by  
2 Arizona and Nevada?

3 MS. HARNISH: That's right.

4 MR. OSIAS: And today that's not so, correct?

5 MS. HARNISH: That's correct.

6 MR. OSIAS: And so, therefore, you don't project it  
7 to be that way in the future?

8 When I say "that," I mean, surplus water and unused  
9 water by Arizona and Nevada.

10 MS. HARNISH: Right, it's understood that the --  
11 that due to growing demand in the other basin states, the  
12 possibility of -- of the availability of surplus flows in  
13 the future will not occur.

14 MR. OSIAS: Okay. And the source of information on  
15 increases in Colorado River salinity?

16 MS. HARNISH: That's from the Bureau of  
17 Reclamation's projections for salinity for the Colorado  
18 River.

19 MR. OSIAS: All right. And the 1988 MWD/IID  
20 agreement, that was actually finished when, do you know, in  
21 terms of building out the project?

22 MS. HARNISH: It was ramped up to full  
23 implementation in '98, I believe.

24 MR. OSIAS: And so you used an assumption that those  
25 impacts that weren't there historically, but it wasn't fully

1 built out, are now in the baseline?

2 MS. HARNISH: That's correct.

3 MR. OSIAS: And the source of information about  
4 Coachella's continuing to pump and the continuance of its  
5 overdraft, where did that information come from?

6 MS. HARNISH: That information came from Coachella  
7 Valley. They provided us with that information.

8 MR. OSIAS: I take it that one is in fact consistent  
9 with history?

10 MS. HARNISH: Yes, it is. It's the continuation of  
11 their -- of the line of their overdraft.

12 MR. OSIAS: And M&I use, increasing Imperial Valley,  
13 is that also just an extension of the historic growth rate?

14 MS. HARNISH: Correct.

15 MR. OSIAS: And finally river flows from Mexico,  
16 what was the basis --

17 MS. HARNISH: That's also based on history.

18 MR. OSIAS: Okay. Now, besides being crossed on  
19 whether you should use a baseline at all or any of these  
20 assumptions, I think you received some questioning about  
21 whether the effect of these assumptions, you know,  
22 arithmetically in the model was done correctly.

23 And I think one specific example was the focus of  
24 Mr. Kirk's cross-examination, where he suggested that if  
25 there was a cutback required by Coachella and/or IID because

1 of the four four limitation --

2 MS. HARNISH: Uh-huh.

3 MR. OSIAS: -- that rather than that full cutback  
4 hitting the Sea, it might only be a third.

5 Do you remember that questioning?

6 MS. HARNISH: Yes, I do.

7 MR. OSIAS: Okay. And other questions were about  
8 other assumptions in sort of similar style, right?

9 MS. HARNISH: That's correct.

10 MR. OSIAS: And so did you ask to have a sensitivity  
11 analysis done on those assumptions?

12 MS. HARNISH: Yes, we did.

13 MR. OSIAS: Why don't you just tell us briefly what  
14 you did.

15 MS. HARNISH: We conducted a sensitivity analysis on  
16 each of these baseline assumptions that I just listed using  
17 a plausible alternative scenario for those input parameters.  
18 And as a result, what we found is that if you -- if you run  
19 the model differently under those different scenarios, there  
20 could be a change in the year in which the Sea reaches 60  
21 parts per thousand. And the change is between minus two and  
22 plus three.

23 So from where our median year was 2023, the median  
24 year could be 2020 versus 2025. So that is well within our  
25 predicted range of 2018 and 2030.

1 MR. KIRK: Mr. Chairman, I object to this line of  
2 questioning. We don't have the -- this sensitivity analysis  
3 in the record, do we?

4 CHAIRMAN BAGGETT: Mr. Osias?

5 MR. OSIAS: No.

6 CHAIRMAN BAGGETT: Response?

7 MR. OSIAS: No, we didn't. We're merely asking the  
8 person who's responsible for having it done to report its  
9 conclusions.

10 MR. KIRK: Ask that this line of questioning be  
11 withdrawn and the witness's responses be withdrawn from the  
12 record.

13 CHAIRMAN BAGGETT: As related to the sensitivity  
14 analysis.

15 MR. OSIAS: On what grounds?

16 MR. KIRK: Again, if we don't have -- there's no  
17 foundation; there's nothing in the record. This is hearsay  
18 as far as I know, and there's no -- nothing in the record  
19 that explains the sensitivity analysis that presumably the  
20 IID could have provided this as a part of their rebuttal  
21 exhibits.

22 CHAIRMAN BAGGETT: Mr. Osias?

23 MR. OSIAS: Yeah, let me respond.

24 Certainly Ms. Harnish's testimony is not hearsay.  
25 Anything she was told was; anything she read was. That in

1 and of itself is not disqualifying. She is the project  
2 manager who had this work done, and she's reporting its  
3 conclusions and she can be cross-examined on them.

4 And it's not required, at least hasn't been to date  
5 in this hearing, that anyone who is qualified to testify in  
6 a subject has to produce all of the work product that any of  
7 them relied upon in giving their testimony.

8 Certainly, if Mr. Kirk wants to ask questions about  
9 it and can poke holes in her analysis, although she's not  
10 doing any analysis, he'll have that opportunity, and then it  
11 can go to the weight of the report.

12 Also -- excuse me. Although I don't know, I'll ask  
13 whether it will be in the final, and if it is of course  
14 there's a second opportunity.

15 CHAIRMAN BAGGETT: There's an opportunity there,  
16 so --

17 MR. OSIAS: Make I should ask that first if you  
18 want.

19 CHAIRMAN BAGGETT: Please.

20 MR. OSIAS: Will the sensitivity analysis be in an  
21 appendix or something to the final?

22 MS. HARNISH: It will be included in a master  
23 response related to the development of the projected  
24 baseline.

25 MR. OSIAS: So I would add that as a basis then.

1                   CHAIRMAN BAGGETT: There will be plenty of  
2 opportunity during cross today and the document, which is  
3 still preliminary, will be available with the final EIR  
4 which we've already determined we've had ample opportunity  
5 for people to read it in advance and cross on. So I will  
6 overrule. Continue.

7                   MR. OSIAS: Thank you.

8                   My next question was going to be, just to make sure,  
9 although the median changed plus or minus two or three  
10 years, did either of the outside dates within the 95-percent  
11 confidence interval change?

12                  MS. HARNISH: No.

13                  MR. OSIAS: You were here also when questions were  
14 asked by a variety of people regarding potential selenium  
15 impacts to the wetlands mitigation that is contemplated by  
16 the EIR/EIS not for Salton Sea species, but for other  
17 species, correct?

18                  MS. HARNISH: That's right.

19                  MR. OSIAS: And I believe you and Dr. Eckhart, the  
20 hydrologist who was here at that time, both admitted that  
21 neither of you were selenium experts.

22                  Do you recall that?

23                  MS. HARNISH: I do recall that.

24                  MR. OSIAS: And so as project manager, have you  
25 brought with you today a selenium expert?



1 MS. HARNISH: Yes, I have.

2 MR. OSIAS: Thank you. And who is that?

3 MS. HARNISH: That is Dr. Harry Ohlendorf seated  
4 beside me.

5 MR. OSIAS: He's to your right?

6 MS. HARNISH: He's to my right.

7 MR. OSIAS: Okay. And do you recall there was also  
8 sort of a similar line of questioning about what we now  
9 fondly refer to as PM-10 and the risk of that being an air  
10 pollution problem in Imperial Valley?

11 MS. HARNISH: That's correct.

12 MR. OSIAS: And, again, he was project manager, and  
13 Dr. Eckhart as the hydrologist didn't have the scientific  
14 basis to answer some of those questions, correct?

15 MS. HARNISH: That's correct.

16 MR. OSIAS: And so did you bring from your team  
17 someone who is knowledgeable about the PM-10 emissivity  
18 issues relating to the Salton Sea?

19 MS. HARNISH: I did. I brought Dr. John Dickey.

20 MR. OSIAS: And he's sitting --

21 MS. HARNISH: He's sitting to my left.

22 MR. OSIAS: All right. So let me move then, if I  
23 might, to Dr. Ohlendorf.

24 Good afternoon.

25 DR. OHLENDORF: Good afternoon.

1           MR. OSIAS:  And if you would summarize for us your  
2           education, qualifications, experience in the -- in the  
3           selenium field.  I don't know if that's a field, but let's  
4           pretend it is for a moment, relating to selenium issues.

5           DR. OHLENDORF:  Yes, I have an undergraduate degree  
6           in history and science, and Masters and Ph.D. in wildlife  
7           ecology.

8           I worked for 18 --

9           MR. OSIAS:  Is your mic on?

10          DR. OHLENDORF:  Well, it's green.

11          MR. OSIAS:  Push again.  Try now.

12          DR. OHLENDORF:  I worked for 18 years for the U.S.  
13          Fish and Wildlife Service in the environmental contaminants  
14          research program, part of that time in Maryland and part of  
15          the time at a research station in Davis where we were  
16          conducting studies on effects of contaminants in California  
17          primarily on wildlife.

18                 During that time, or for the last 20 years, much of  
19          the work has been related to selenium issues starting with  
20          studies I did at Kesterson Reservoir in 1982 through 1985.  
21          And since then on a variety of other selenium related  
22          situations dealing with agricultural drainage primarily,  
23          sometimes industrial discharges.

24                 And for the Imperial Valley, I was part of the team  
25          that did the earlier EIR in I think it was 1994 on the

1 earlier transfer project, and I was consulted as some of the  
2 questions came up related to selenium in the current EIR.

3 MR. OSIAS: You are currently employed by CH2MHill?

4 DR. OHLENDORF: That's correct.

5 MR. OSIAS: And you gave us a 21-page curriculum  
6 vitae which has extensive publications and refer anyone who  
7 wants more detail to that.

8 DR. OHLENDORF: That's correct.

9 MR. OSIAS: You were here, Dr. Ohlendorf, for the  
10 direct testimony yesterday morning of -- I don't know if  
11 it's Dr. Berman [verbatim] or --

12 DR. OHLENDORF: Dr. Barnum?

13 MR. OSIAS: Barnum or Mr. Barnum, but you heard his  
14 testimony?

15 DR. OHLENDORF: I did.

16 MR. OSIAS: You actually know him, do you not?

17 DR. OHLENDORF: I do.

18 MR. OSIAS: Okay. Unfortunately you didn't stay for  
19 all the cross-examination; is that right?

20 DR. OHLENDORF: That's right.

21 MR. OSIAS: Okay. But you heard his direct?

22 DR. OHLENDORF: Right.

23 MR. OSIAS: Let me ask you specifically, with  
24 respect to creating a wetlands, in order to mitigate species  
25 impacts that might take place in the drains because of this

1 project, have you looked at the question of potential  
2 selenium risks in such a wetlands?

3 DR. OHLENDORF: Yes. With the water that is  
4 proposed for that mitigation, I have.

5 MR. OSIAS: And why don't you describe for us what  
6 your conclusion is with respect to a selenium risk in -- in  
7 that wetlands. And actually, maybe if you could define  
8 better than the words I'm using, what is a selenium risk?  
9 What are we really worrying about?

10 DR. OHLENDORF: The main concern about selenium is  
11 bioaccumulation, which means that from water selenium is  
12 taken up by plants and animals that live in the water, and  
13 then it's passed on through the food chain, not magnifying  
14 typically, but with a high rate of uptake from water into  
15 other aquatic organisms like invertebrates and then fish and  
16 birds that feed on the invertebrates would receive that  
17 selenium as dietary exposure.

18 The main concerns about selenium under situations  
19 like this are related to reproductive impairment, which  
20 means that eggs of the birds or fish fail to hatch or they  
21 may have a high rate of deformities when the concentrations  
22 are elevated sufficiently.

23 MR. OSIAS: Now, maybe before we get to the  
24 wetlands, one more back-up question.

25 Are you familiar with whether there are current

1 selenium toxicity manifestations in the drains of the Salton  
2 Sea? I think Mr. Fecko asked that question of some other  
3 witness.

4 DR. OHLENDORF: I haven't seen any indication of  
5 reproductive problems in any of the species that occur  
6 there. There are sampling programs that have been conducted  
7 that evaluated the selenium concentrations in tissues or  
8 water or sediment or various other media, but there hasn't  
9 been anything that's been demonstrated as a reproductive  
10 problem in those species that have been sampled. And it has  
11 included a number of aquatic related species.

12 MR. OSIAS: And I think Dr. Barnum mentioned there  
13 might have been one critter of some kind that may have had a  
14 selenium symptom. Did you hear him testify as to that?

15 DR. OHLENDORF: I believe I heard him mention that.  
16 There was a study that was done several years ago, I believe  
17 it was the one that was conducted by Fish and Wildlife  
18 Service in sampling the fish eating birds around Salton Sea.  
19 And my understanding of it was that there was one embryo  
20 identified as being possibly affected that was sent to the  
21 Patuxent Wildlife Research Center and evaluated by the  
22 embryologist, and the kinds of abnormalities were found not  
23 typical of selenium toxicosis.

24 MR. OSIAS: So it was a deformed bird but for  
25 apparently a different reason.

1 DR. OHLENDORF: That's my understanding, right.

2 MR. OSIAS: Okay. So now going to the wetlands that  
3 is proposed, will that wetlands pose a bioaccumulation risk  
4 to the species that -- that use the mitigation wetlands?

5 DR. OHLENDORF: Well, the species that would live in  
6 that wetland would have higher than background  
7 concentrations of selenium because that's the nature of the  
8 water that's available. But the concentrations that are in  
9 the water are in the range of two parts per billion, and  
10 that's near the target for the proposed criterion that's  
11 been considered by EPA for revising water quality criteria,  
12 revising from five down to two parts per billion to be  
13 protective of fish and wildlife due to bioaccumulation.

14 And so the concentrations that would be there would  
15 be higher than typical background, but it would be unlikely  
16 that there would be any reproductive impairment in any of  
17 the species that would use it, fish or wildlife.

18 MR. OSIAS: Now, you mentioned the water source and  
19 the two parts per billion. I take it the water source is  
20 somewhat important then to the bioaccumulation in that  
21 wetlands?

22 DR. OHLENDORF: That's right. If -- if it has  
23 higher than, well, several parts per billion, there's about  
24 a thousand fold increase of selenium going from water into  
25 the food chain. And if you're at the range of two or so

1 parts per billion, you're near the background or the lower  
2 end of accumulation above background, but you're below the  
3 threshold for reproductive impacts. If you're in the range  
4 of 10 to 15 or so parts per billion, there's a good chance  
5 that there would be enough bioaccumulation to have some  
6 reproductive impairment.

7 MR. OSIAS: What water source are you contemplating  
8 in your analysis would be used to create the mitigation  
9 wetlands?

10 DR. OHLENDORF: It would be Colorado River water.

11 MR. OSIAS: Irrigation quality?

12 DR. OHLENDORF: Right.

13 MR. OSIAS: Thank you.

14 Dr. Dickey, how are you?

15 DR. DICKEY: I'm fine.

16 MR. OSIAS: Maybe we can get a few minutes on your  
17 background, and then technology and other exhibits being  
18 willing, we'll walk through some pictures.

19 First, if you would tell us about your education and  
20 background I guess with respect to emitted soils.

21 DR. DICKEY: Okay.

22 MR. OSIAS: You have to turn yours on, right?

23 DR. DICKEY: Right. I did undergraduate and  
24 Master's work at Davis in international agricultural  
25 development and agronomy. Later a Ph.D. from Purdue in soil

1 science.

2 I've worked about -- having the graduate work -- 23  
3 years in various aspects of soil management, many of them  
4 related to soil productivity, production of crops and soil  
5 conservation and in water erosion.

6 I've worked in the midwestern United States,  
7 extensively in California, in West Africa. I'm currently  
8 employed by CH2MHill based in Redding. And I've worked  
9 since 1997 on the very substantial dust mitigation program  
10 in Owens Valley. I'm the chief scientist for that program,  
11 and it involves dust mitigation on approximately 25 square  
12 miles of emissive lake bed. I'm quite familiar with the  
13 lake bed, familiar with the regulatory situation.

14 I've been responsible for the -- as liaison for the  
15 Department of Water and Power, effectively the responsible  
16 party there, our client. Responsible as the liaison to the  
17 Air Pollution Control District who actually replanned and  
18 executed all the research. And also been involved in the  
19 planning and execution of the dust mitigation and  
20 environmental monitoring of that.

21 MR. OSIAS: And tell me how does a Ph.D. in soil  
22 become the expert in airborne dust?

23 DR. DICKEY: Good question.

24 Owens Lake is a complicated place, because the  
25 problems are so severe, and it's taken a lot of minds all



1 together to really understand the place and to solve the  
2 problem.

3 The reason I'm useful, I think, as chief scientist  
4 is because a lot of the mitigation actually has to operate  
5 at the land surface where the dust emissions take place.  
6 I'm very familiar with soil surfaces and the processes  
7 within them, hydrology, fertility, plant growth, salt  
8 accumulation, salt movement, all that.

9 MR. OSIAS: Crusting?

10 DR. DICKEY: Crusting, there you go.

11 MR. OSIAS: Breaking of crusts?

12 DR. DICKEY: Right. And I would say primarily  
13 through the Owens program, I'm quite familiar with how dust  
14 is emitted. It's distinct from the specialties of air  
15 quality modeling and so forth, which are not my core  
16 expertise. I'm familiar with them because I've been  
17 associated with the program.

18 MR. OSIAS: So within your expertise is sort of the  
19 question of -- of type of soil, type of salt, conditions  
20 affecting soils and salts that would, I don't know whether  
21 it's cause or enable emissivity. That's within your  
22 expertise. And although you have knowledge, you don't hold  
23 yourself as an expert on how it would blow around.

24 Is that --

25 DR. DICKEY: Simply put, that's right.

1           MR. OSIAS: Okay. Now, have you been asked to  
2 consider whether the Salton Sea area is similar to or  
3 different from Owens Lake or Mono Lake?

4           DR. DICKEY: Yes.

5           MR. OSIAS: And do you have an answer for us?

6           DR. DICKEY: I have -- I have an answer.

7           MR. OSIAS: Good. Why don't we start with how do  
8 you approach a problem like that? Or a question like that,  
9 I guess I should say.

10          DR. DICKEY: Right. The way I approach it was to  
11 look at our experience at Owens and what we know about the  
12 environment there, some of the ways we were able to deduce  
13 what we know about the environment there and the struggles  
14 the Great Basin and the department have had in figuring that  
15 out. And then ask myself how we do that at Salton Sea.

16          Also, broken down the process of wind erosion and  
17 looked for -- the driving forces that we have, you know, are  
18 actually well documented the world over, but certainly  
19 active at Owens, and looked for those driving forces at  
20 Salton Sea, see what sort of analogies we have.

21          And then on the flipside of the driving forces  
22 you've got the resistive forces, the things that make land  
23 less likely to blow under a given level of stress. I've  
24 looked at those as well.

25          MR. OSIAS: I'm tempted to label the driving forces

1 and the resistive forces as the good and evil, but I'll try  
2 to avoid that.

3 In comparing Salton Sea and Owens and/or Mono, I  
4 mean, I guess we start with we already know that there is a  
5 problem at Owens and it's of major proportions, correct?

6 DR. DICKEY: Correct.

7 MR. OSIAS: Now, what do we know -- before we get to  
8 predicting what would happen in the future, what do we know  
9 about the Salton Sea area today?

10 Or maybe in terms of history, maybe that's the place  
11 to start.

12 DR. DICKEY: Right. Its history is distinct from  
13 Owens Lake in the sense that it's a recent lake whereas  
14 Owens is a recently drained lake and was a very ancient lake  
15 before that.

16 We know -- we know something about the geology  
17 around it and how it's applied the sediments, the sediments  
18 that fill the Sea, the ones people are concerned about  
19 should the Sea be drained. The nature of those sediments is  
20 part of the story.

21 We know about the climate, temperature, wind, things  
22 like that. We know something about the chemistry of the  
23 Sea. Those things are well documented and at Owens Lake.

24 MR. OSIAS: Do we --

25 DR. DICKEY: Oh, if I may, something -- I'd like to

1 continue.

2 MR. OSIAS: Yeah.

3 DR. DICKEY: Something I've grown accustomed to  
4 doing at Owens Lake also is just looking at land surfaces  
5 and looking at soil crusts. So you have the visual evidence  
6 in the land surface. The nice thing about those land  
7 surfaces is they preserve -- until they're rained on and  
8 crusted, they preserve the evidence of damage from wind  
9 erosion to some extents.

10 MR. OSIAS: Okay. Now, would you factor into your  
11 approach to the question about risk of PM-10 problems at the  
12 Salton Sea the experience to date with PM-10 emissions in  
13 the Salton Sea area?

14 DR. DICKEY: Yes.

15 MR. OSIAS: And what if anything can you tell us  
16 about historic emissivity, if that's the right word?

17 DR. DICKEY: Yeah, should we look at some of the --

18 MR. OSIAS: Yeah, feel free to use the exhibits. I  
19 put on those big ones the number so you can let other  
20 people know --

21 DR. DICKEY: Turn them this way.

22 MR. OSIAS: No, this is the important audience  
23 actually, and everyone else has the little ones, and they  
24 can move over here if they want to see.

25 DR. DICKEY: Apologies to everybody else, then.

1           Okay. What we have are about three or four figures  
2           that show the history of Salton Sea hydrology and water  
3           levels. And what they'll demonstrate is that the Salton Sea  
4           has gone up and down because there's been more or less water  
5           going into it over time. So the situation we're  
6           contemplating now, the nice thing is that we do have some  
7           historical things to refer to. Not to say all these  
8           processes are identical, but they're similar, and they're  
9           the best we've got at Salton Sea, so why not make use of  
10          them.

11           You'll see that the flows to the Salton Sea are  
12          fluctuating over time from '42 to 2002, the period in this  
13          record, from something a little over 800,000 acre-feet per  
14          year to something a little less than 1.4 million acre-feet  
15          per year.

16           MR. OSIAS: Actually, before you turn that one,  
17          let's just maybe look at that -- I'll eyeball it -- about a  
18          ten-year period between '82 and '92. Is that sort of a  
19          valley of inflow?

20           DR. DICKEY: It appears to be, yeah.

21           MR. OSIAS: And potentially, you know, 100- to  
22          200,000 acre-foot inflow reduction, correct?

23           DR. DICKEY: Yeah, between the peak and the valley  
24          about 200,000 acre-feet.

25           MR. OSIAS: Okay. Can you tell us what exhibit

1 number that is at the top there?

2 DR. DICKEY: 70.

3 MR. OSIAS: Thank you.

4 Do we have any reported evidence of Owens type  
5 emissions during that ten-year period when, presumably, the  
6 Sea was lower because of that ten-year lowered inflow?

7 DR. DICKEY: At Imperial Valley it's reported a  
8 nonattainment area, but I've never heard those nonattainment  
9 events linked directly to exposed sea sediments. And, in  
10 fact, anecdotal -- anecdotal evidence that I've collected,  
11 which would include going to the -- attending the Salton Sea  
12 Air Quality Workshop, consulting with people at the  
13 Irrigation District primarily who work out on those lands,  
14 many of which the District owns, there was no report of that  
15 kind of emissions.

16 MR. OSIAS: Now, if you contrast that maybe with the  
17 experience at Mono Lake, when you had a, you know, declining  
18 shoreline, did we start seeing emissivity rather promptly?

19 DR. DICKEY: Right. That was the basis of a State  
20 Board action, I think, to refill the Sea. And it was  
21 specifically because when that -- that lake dropped, the  
22 results were dramatic, and it didn't take a practiced eye to  
23 perceive that there were air quality problems there, and the  
24 State Board took action.

25 MR. OSIAS: Now, the fact that at least anecdotally

1 we don't have these experiences during that dip there, that  
2 doesn't prove it won't happen in the future; is that --

3 DR. DICKEY: No, in my opinion it does not prove  
4 that.

5 MR. OSIAS: But is it useful information?

6 DR. DICKEY: To me it's useful because I'm being  
7 asked to give some kind of a considered judgment, and it  
8 should form part of that considered judgment.

9 MR. OSIAS: Okay. Now, if you'd flip to your next  
10 chart.

11 DR. DICKEY: Yes.

12 MR. OSIAS: This is Exhibit seventy -- can you see  
13 the top?

14 DR. DICKEY: 77.

15 If I could add to that last response.

16 MR. OSIAS: Sure.

17 DR. DICKEY: Just as a scientist, you know, you  
18 could do things on paper, and you can go through the  
19 literature and look at other sites and try to deduce what's  
20 going to happen in a unique situation. In the west we're  
21 creating unique situations as we manage water.

22 It's in my experience far better to use the most  
23 local, the most analogous situation you can. And so  
24 something at Salton Sea for me bears more weight.

25 MR. OSIAS: Okay. Thank you.

1                   Now, Exhibit 77, which we saw before and had Mr.  
2                   Silva explain, is the history of elevations at the Sea all  
3                   the way back to the Colorado River break, which -- which  
4                   flooded it. Do you see that?

5                   DR. DICKEY: Yeah, to the extreme left.

6                   MR. OSIAS: Okay. Now -- and despite Mr. Kirk's  
7                   question to Mr. Silva about the highest elevation date being  
8                   '95, he was probably considering modern time but he ignores  
9                   in fact when the flooding took place, how high the elevation  
10                  was, right?

11                  DR. DICKEY: Right. And that looks to have been a  
12                  hundred -- would you say a hundred and ninety-eight?

13                  MR. OSIAS: Minus one --

14                  DR. DICKEY: Minus 198?

15                  MR. OSIAS: Yes.

16                  Now, one thing you didn't mention but I think  
17                  everybody knows but I'll ask you is, I assume it's relevant  
18                  to your analysis of what might happen in terms of PM-10  
19                  whether saline water, salty water is involved in a  
20                  disappearing lake versus fresh water, correct?

21                  DR. DICKEY: You want to know whether that's  
22                  important, whether it's saline or fresh?

23                  MR. OSIAS: Yes.

24                  DR. DICKEY: It's important, yes.

25                  MR. OSIAS: So, just to use this graph now, I guess



1           when the Colorado River started flowing into the Imperial  
2           Valley, it was fresh. But we now have some evaporation  
3           events that dropped the elevation what, how many feet?  
4           DR. DICKEY: Let's see.  
5           MR. OSIAS: Sixty something feet.  
6           DR. DICKEY: 52, 56 feet.  
7           MR. OSIAS: I think we had Dr. Friend yesterday  
8           testify it went from over 80 feet deep down to 23 feet deep  
9           or something like that.  
10          DR. DICKEY: Right.  
11          MR. OSIAS: Were you here for any of his testimony?  
12          DR. DICKEY: I did hear that.  
13          MR. OSIAS: Okay. And, therefore, the salinity by  
14          the time it got down to its low in 1919 was pretty saline.  
15          DR. DICKEY: And I do not know what that level of  
16          salinity is offhand.  
17          MR. OSIAS: That's fine.  
18          DR. DICKEY: But I presume 20 years of evaporation,  
19          it would have made some increase in salinity.  
20          MR. OSIAS: Well, actually at Owens, the whole lake  
21          disappeared in 20 years, did it not?  
22          DR. DICKEY: Right.  
23          MR. OSIAS: And it left a lot of salt behind.  
24          DR. DICKEY: Yes, it was -- it was quite saline at  
25          the beginning as well.

1           MR. OSIAS: Okay. Now, from these elevations of the  
2           Sea, have we heard or seen in any historic literature the  
3           kind of Owens Lake dust storms in the Imperial Valley?

4           DR. DICKEY: No. The stories, anecdotes I've heard  
5           are about, you know, you look out on areas now, the Sea  
6           being quite high. These areas were exposed. People drove  
7           out across these areas. They used to drink out on that  
8           island, and, you know, we had a bathhouse here. Yeah, and  
9           they -- the stories are not about massive dust storms from  
10          those areas.

11          MR. OSIAS: Okay. If we could go to the next chart,  
12          which is Exhibit 75. Is that right?

13          DR. DICKEY: 78.

14          MR. OSIAS: 78, I'm sorry.

15          Now, this is just a portion of 77 which takes it  
16          from its low in '19 to date; is that right?

17          DR. DICKEY: Right.

18          MR. OSIAS: Is it relevant -- and then please  
19          describe, you know, if it's just a note or perhaps even  
20          important -- how long salty water has sat over a piece of  
21          land before it disappears with respect to the salt deposits  
22          it could leave behind?

23          DR. DICKEY: I think the most important two things  
24          in terms of what's on the ground are the nature and  
25          concentrations of the salts. Okay. Their relative

1 composition of their constituent ions and the -- the actual  
2 separates in the sediments. We have sandy sediments, clay  
3 sediments, that kind of thing.

4 So, in other words, the time I find to be -- I  
5 don't -- I can't connect it with a mechanism with which I'm  
6 familiar.

7 MR. OSIAS: All right. If the -- do you see the  
8 minus 228 line in elevation?

9 DR. DICKEY: I do.

10 MR. OSIAS: At least the land above that has -- has  
11 not been under water for a particularly long time.

12 DR. DICKEY: Right.

13 MR. OSIAS: And the salinity there is, at least to  
14 date, not been hypersalient.

15 MEMBER SILVA: Some of those areas are fairly salty  
16 because they have saline shallow groundwater perk to the  
17 surface, right. Especially along on the shoreline, it's --  
18 as you transport it pretty readily, it's pretty salty.

19 MR. OSIAS: Okay. And this is the elevation chart,  
20 and I think before we were looking at the inflow chart.

21 DR. DICKEY: Right.

22 MR. OSIAS: You'll notice another sort of giant  
23 valley -- maybe giant is an exaggeration. You see a valley  
24 in terms of the elevation, what looks like, you know,  
25 sometime after the Great Depression and up until World War

1 II.

2 DR. DICKEY: Right. It drops from about 245 or so  
3 down to about minus 249.

4 MR. OSIAS: And then, you know --

5 DR. DICKEY: Four or five feet, yeah.

6 MR. OSIAS: And, again, in a shallow basin, that  
7 would expose some land, right?

8 DR. DICKEY: Absolutely.

9 MR. OSIAS: And one more time, not historical record  
10 of Owens type emissions.

11 DR. DICKEY: Right.

12 MR. OSIAS: All right. So I guess looking  
13 backwards, the news isn't conclusive but it's at least  
14 optimistic; is that fair?

15 DR. DICKEY: Yeah. The chemistry of these waters  
16 has been relatively constant all being nourished by the  
17 Colorado River, although it's become more concentrated. And  
18 the nature of the sediments hasn't changed appreciably, so  
19 I'd say that this is -- this is still one of your best  
20 indications.

21 MR. OSIAS: All right. Now, looking ahead, which is  
22 really the question that -- that needs to be answered, you  
23 described that you had to analyze and need to analyze  
24 driving forces and resistive forces.

25 Could you describe for us what those are.

1 DR. DICKEY: Sure. Driving forces -- driving forces  
2 for dust emissions, clearly wind and particularly the  
3 frequency of very high winds; and, secondly, mobile sand.

4 Mobile sand is -- may I go into some detail on that?

5 MR. OSIAS: Yes, please explain.

6 Actually, let me just -- this seemed to be a  
7 particularly important subject on -- I went through the  
8 other two witnesses really briefly. I mean, if we have some  
9 time pressure because I don't have the clock here, let me  
10 know, and I'll try to speed them up.

11 CHAIRMAN BAGGETT: No time constraints.

12 MR. OSIAS: Okay. Well, I don't want to drag it out  
13 but I thought this was fairly important for --

14 CHAIRMAN BAGGETT: Unless there is a plane to catch  
15 tonight.

16 MR. OSIAS: Thank you. Go ahead.

17 DR. DICKEY: I came on four wheels. Okay by me.

18 Sand motion is a big deal at Owens Lake. Sand  
19 motion is the surrogate for dust emissions.

20 MR. OSIAS: What does surrogate mean?

21 DR. DICKEY: Surrogate means it's -- it's very  
22 difficult actually to catch a little dust out of the air.  
23 It's expensive to install a monitoring station that will do  
24 that. It's costly equipment.

25 So Great Basin's regulatory agency and ourselves,

1 that would be my client, Department of Water and Power, most  
2 of the monitoring we've done has been coupling those with  
3 more sand catchers and sand sensing types of devices, and so  
4 we actually monitor sand motion as opposed to air  
5 concentrations to try to figure out which areas are emitting  
6 the most dust.

7 MR. OSIAS: Because they're connected.

8 DR. DICKEY: Because they're connected. And there's  
9 a simple reason they're connected, and that is that if you  
10 blow on something, then, you know, you may see it move, if  
11 you blow hard enough. But if you, you know, blow very hard  
12 and drop sand, okay, or whack something with a hammer, hit  
13 by something solid, it tends to move.

14 So, for instance, when people do wind tunnel testing  
15 to test how much dust comes off the surface, they blow a lot  
16 of air, but the way the test is done is they feed sand in at  
17 the front end. Because it's not really meaningful to just  
18 blow air across. It's the mobile sand that really drives  
19 the emissions.

20 What happens is the sand, if there's enough energy,  
21 enough energy imparted to the sand, it will hop, and it's  
22 called saltation. And it hops up first, gets into the  
23 faster air stream, and then it's accelerated that way and  
24 whacks the surface. And as it whacks the surface, it  
25 jackhammers up whatever -- often there's a stable crust,

1 especially on a salt lake. These crusts are destroyed, and  
2 the softer material is exposed, and you get sort of a  
3 snowballing effect.

4 And it -- it also drives other particles up in the  
5 air when it hits, and some of those finer particles may be  
6 suspended in maybe PM-10. So sand motion is a big deal.

7 MR. OSIAS: So wind and sand is driving forces.

8 DR. DICKEY: Right. No sand -- in fact, the sand  
9 sheets at Owens Lake are the areas that Department of Water  
10 and Power is controlling. And there's not a lot of focus on  
11 areas that don't have mobile sand.

12 MR. OSIAS: All right. And the resistive forces?

13 DR. DICKEY: Resistive forces are at the level of  
14 the sediments themselves. And what happens on a salt lake  
15 is that the -- at the surface in particular, you have water  
16 coming up, and water evaporates. What's left behind are the  
17 salts, and the salts cement the soil particles together.  
18 The nature of that cementation is dependent on minerals that  
19 are formed. And those minerals depend on the chemistry and  
20 then also the temperature and moisture conditions, because  
21 different salts take on various levels of hydration, et  
22 cetera, to form different minerals.

23 At Owens, the headache -- one of the great headaches  
24 is that you have a lot of sodium and carbon, and those  
25 minerals tend to change volume drastically. And so when

1 they're in their harder, denser state, they're -- they  
2 cement the crust very nicely. There's very little in the  
3 way of summertime dust emissions; wintertime is a different  
4 story. That's specific to its chemistry, so that's a  
5 resistive force is that crust.

6 MR. OSIAS: Any others or is that the primary ones?

7 DR. DICKEY: Well, you can put others in place. I  
8 mean, obviously, when you mitigate dust, you put things like  
9 vegetation in the lay of the land and wet the surface. But  
10 in terms of the native, bare salt surface, that's the  
11 biggie. You can also roughen the surface, but that tends --  
12 that gets to dust mitigation, also.

13 MR. OSIAS: Okay. Now, I take it to -- to do a  
14 comparison of Owens to Salton Sea, you -- you looked at the  
15 driving forces at Owens which you know particularly well,  
16 and then you also looked at the driving forces at Salton Sea  
17 and similarly the resistive forces that you just described?

18 DR. DICKEY: Right. That's the conceptual basis  
19 for --

20 MR. OSIAS: Okay. Could you tell us what you  
21 learned on a comparative basis between these two.

22 DR. DICKEY: Right. Well, first of all, let me just  
23 say that a -- at Owens, we've done an entire soil survey,  
24 and we've learned a lot about the sediments that are under  
25 the Sea, that were under Owens Lake. And that's still not



1 really the basis for figuring out where the dust comes from.

2 The basis for figuring out where the dust comes from  
3 is looking at where the sand blows. And we could do that  
4 because Owens is exposed. I don't have that advantage in  
5 Salton Sea. Nothing's exposed; nothing's blowing.

6 So what I'm looking at are the exposed sediments  
7 around -- around the edge of the lake.

8 MR. OSIAS: Well, let me back up.

9 Dr. Friend, of course, informed us of the extensive  
10 salt flats that are in the area, and at least to date sand  
11 blowing hasn't caused those to do anything.

12 DR. DICKEY: Right. And one of the reasons you  
13 don't see a lot of sand blowing causing problems down at  
14 Salton Sea is because the -- the topography is pretty  
15 different. At Owens Lake, when you look up, you see the  
16 Sierras, you see the Inyos, all with peaks well over 10,000  
17 feet, Mt. Whitney in view from Owens Lake. And Owens Lake  
18 is only 3500 feet. So the gradient of the stream feeding  
19 Owens Lake in this very deep valley are steep.

20 Even Owens River itself doesn't have a lot of  
21 control structures on it, and it comes at a pretty good clip  
22 down to Owens Lake Delta at the north end. All those  
23 systems have, over time, delivered among other things a fair  
24 amount of sand to Owens Lake, so that Owens Lake has sand  
25 dunes ringing it. You can walk almost all the way around

1 Owens Lake and find sand dunes, and they are vegetated.  
2 Some of them blow; some of them are relatively stable.

3 So those dunes are a ready source of sand. Another  
4 source of sands are the soils out on the lake themselves.  
5 Indeed the sand in the dunes is blown up out of the lake,  
6 and the lake has -- haven't been able to map the soil, so  
7 that many of the mapping units are Owens Delta sand, Keeler  
8 sand, they're named sands because they're dominantly sands,  
9 and their surface rises in some cases to some depth. A lot  
10 of sands apply out there.

11 And then, if you will, the third class of sand out  
12 there are the sand sheets, which are nothing more than kind  
13 of a -- if you get strong winds blowing to the north and  
14 south, then you move these very thin layers of sand north  
15 and south, and that's what drives the dust emissions. So  
16 lots of sand because of this high gradient system.

17 Now, the bathymetry at the Salton Sea, which I  
18 believe you can present that into evidence?

19 MR. OSIAS: No, we didn't. I mean, we used it, but  
20 let me have you -- we skipped that one. I'm sorry. Let's  
21 put up the whole Sea first, maybe, so you can lay the  
22 foundation for it. Is that behind it?

23 DR. DICKEY: Yeah.

24 MR. OSIAS: This is Exhibit --

25 DR. DICKEY: 89.

1           MR. OSIAS: -- 89, and it has the CH2MHill name on  
2           it. Can you identify where this photograph with the  
3           bathymetry lines came from?  
4           DR. DICKEY: Tim Hill in Redding, California.  
5           MR. OSIAS: Did you work with him?  
6           DR. DICKEY: I do.  
7           MR. OSIAS: Pardon me?  
8           DR. DICKEY: Yes. Yes, I do.  
9           MR. OSIAS: And did he do this at your request?  
10          DR. DICKEY: Yeah, I think he did it at your  
11          request.  
12          MS. HARNISH: Right.  
13          MR. OSIAS: He's pointing to Laura for the record.  
14          DR. DICKEY: Yes.  
15          MR. OSIAS: Okay. And although on the big picture  
16          you can't see it, we've handed out small ones where the  
17          lines are shown. Let's just fully explain the exhibit for  
18          one minute, take a detour from the sand business.  
19          DR. DICKEY: All right. And we'll be back to sands,  
20          right?  
21          MR. OSIAS: So what do we depict here with respect  
22          to the various lines that are evident in the smaller  
23          handouts?  
24          DR. DICKEY: Right. It's a topographic map of the  
25          Sea bottom. And what becomes apparent is that the area in

1       which the sediments have been supplied by the rivers that  
2       come in mainly from the southeast, these areas are  
3       shallower.

4               MR. OSIAS: Okay. Now, before we get to sand again,  
5       hang on one second.

6               How far -- what's the elevation differences for the  
7       lines?

8               One foot?

9               DR. DICKEY: I don't know the contour interval. I'm  
10       sorry.

11              MR. OSIAS: I think it's on the --

12              DR. DICKEY: Okay. One foot.

13              MR. OSIAS: Thank you.

14              And there is a red line that you see ringing the  
15       Sea that --

16              DR. DICKEY: Minus 235.

17              MR. OSIAS: Okay. And you were here -- that's the  
18       elevation where the bottom of the dikes exist, correct?

19              DR. DICKEY: Right.

20              MR. OSIAS: So if we -- before we get back to air,  
21       just because this is a CH2MHill exhibit, if we wanted to  
22       know what the size of the Sea would be without the flooding  
23       risk, it's depicted by the red line.

24              DR. DICKEY: That would make sense.

25              MR. OSIAS: Okay. Now, we were talking about

1 topography of the Salton Sea as compared to, I guess,  
2 topography of Owens, and you started to mention the shallow  
3 topography. And resume, please.

4 DR. DICKEY: Okay. So the question I've got is,  
5 when you drop the Sea level, where -- where are you going to  
6 have large expanses of exposed sediments, because these are  
7 the areas that I want to evaluate.

8 MR. OSIAS: Uh-huh.

9 DR. DICKEY: And the answer I get by looking at the  
10 bathymetry in brief is that dominantly in the southwest, to  
11 a lesser extent up in the north, you have lines of  
12 topography that are further apart indicating a shallower  
13 slope, and, therefore, a larger expanse of exposed  
14 sediments.

15 MR. OSIAS: And a steeper slope isn't as risky  
16 because?

17 DR. DICKEY: Because as you drop sea level, very  
18 little in the way of actual surface area is exposed.

19 MR. OSIAS: Oh, all right. Now, does the Salton Sea  
20 have sand dunes ringing it?

21 DR. DICKEY: The Salton Sea doesn't have sand dunes  
22 ringing it. When you look up, you see sky. You don't see  
23 the mountains. If you're at the southeast, you can see some  
24 sand dunes, but you need to look carefully. They're a long  
25 ways away.

1 MR. OSIAS: And in what direction?

2 DR. DICKEY: To the southwest generally.

3 MR. OSIAS: Okay. They're not shown on this  
4 photograph?

5 DR. DICKEY: No, they would be somewhere in the back  
6 of the room, a long ways away.

7 MR. OSIAS: All right.

8 DR. DICKEY: I'm not sure exactly how far, but many  
9 miles away.

10 MR. OSIAS: And are there dunes anywhere else in the  
11 immediate vicinity?

12 DR. DICKEY: There are dunes. There's said to be  
13 dunes on the west side, but it's in the area where  
14 the bathymetry indicates very little in the way of sediments  
15 would be exposed.

16 MR. OSIAS: Okay. Now, I guess the chemistry  
17 component of the -- or the -- that portion of the resistive  
18 forces, how do you compare that from Salton Sea to Owens?

19 DR. DICKEY: Well, could I -- I'd like to make a  
20 quick conclusion about the --

21 MR. OSIAS: Please.

22 DR. DICKEY: -- co-occurrence of the sand, just for  
23 anybody who didn't -- you know, didn't get there from --  
24 from, you know, the discussion.

25 When I -- I did travel a little bit and looked at

1 the exposed sediments in the southeast, specifically looking  
2 for damage that might have been done by sand, and I didn't  
3 see extensive damage, and I didn't see sand. My conclusion  
4 is that one of the reasons we haven't had reports of large  
5 emissions from exposed sediments is because of the lack of  
6 mobile sand. Okay.

7 MR. OSIAS: Okay. So should we turn to the  
8 chemistry question?

9 DR. DICKEY: Sure, that would be fine.

10 MR. OSIAS: All right.

11 DR. DICKEY: Well, briefly, the chemistry of Owens  
12 Lake and Salton Sea, since they come from different water  
13 sources are different. Obviously both are fairly  
14 concentrated, Owens the more concentrated by about  
15 threefold. And we're talking about groundwater at Owens  
16 Lake, but that's -- it's shallow groundwater now. It may be  
17 a foot below the surface, but it's still a lake, and that's  
18 what forms the salts that then cement the crust. So I have  
19 access to the extensive database developed by Great Basin  
20 Unified Pollution Control District and used it for  
21 environmental work in planning and engineering and so forth  
22 at Owens. And I've compared that with some of the data from  
23 the Salton Sea.

24 You wouldn't expect that it would be the same water.  
25 Some of the notable differences are that, you know, Owens is

1 a great resource from a mineral standpoint. State land has  
2 mineral leases out in the tide pool because it's sodium  
3 chlorine and sodium carbonate. Sodium carbonate is one of  
4 the most problematic salts out there, but in the temperature  
5 range, at the range of fluctuation that's typical at Owens,  
6 that salt gains numerous waters of hydration and changes in  
7 volume I think on the order of sevenfold. That is an  
8 extreme situation.

9 MR. OSIAS: And the bigger volumes is lighter or  
10 something in --

11 DR. DICKEY: No. As it changes volume, these  
12 crystals get small, and then they get very fluffy.

13 MR. OSIAS: Okay.

14 DR. DICKEY: And those soft fluffy things don't  
15 cement together very well. They're just taking up a  
16 different amount of space.

17 So the situation at Salton Sea, you can't guarantee  
18 that you won't have soft salts at some point, but you have a  
19 different temperature regime, first of all. You don't --  
20 you do have the same salts. You have different salt  
21 minerals at different times.

22 Second of all, you've got very little in the way of  
23 carbon, almost absent. Predominantly in chloride sulfate  
24 you've got well over twice as much sulfate, and you have a  
25 lot more calcium, magnesium. It's 98-percent sodium up at



1 Owens; it's seventy-two or something like that down at  
2 Salton Sea.

3 So the presumption that you get anything like  
4 identical conditions in the salt crust is at least casting a  
5 serious question by the difference in climate and chemical  
6 conditions. You would expect it to be different. Exactly  
7 how it's going to be different will be hard to tell.

8 MR. OSIAS: Okay.

9 DR. DICKEY: In fact, at the Salton Sea workshop,  
10 there was -- what I perceive was pretty unanimous -- the air  
11 quality workshop, pretty unanimous agreement that there was  
12 a real lack of data to conclude that it's going to be a  
13 problem or to conclude that it's not going to be a problem.  
14 That was one problem, one conclusion. But notable among the  
15 missing data is no information on the salts.

16 MR. OSIAS: Now, given all this optimistic  
17 comparison, you're still not willing to guarantee there  
18 would be no PM-10 problem, right?

19 DR. DICKEY: Not me.

20 MR. OSIAS: In fact, the EIR/EIS doesn't assume at  
21 least any further there would be no PM-10?

22 DR. DICKEY: I believe the EIR/EIS assumes  
23 significant impact.

24 MR. OSIAS: So a mitigation approach is needed; is  
25 that correct?

1 DR. DICKEY: You need to have a plan because it's --  
2 it's a potential impact.

3 MR. OSIAS: And are you familiar at least with  
4 the -- the plan that has been developed?

5 DR. DICKEY: The one that's in draft as part of the  
6 master responses, yes.

7 MR. OSIAS: Okay. Before we go there, let's just  
8 get two things out of the way especially for Mr. Rossmann.

9 Exhibit 86, which is not Ocean Beach, do we have a  
10 good picture of that?

11 Well, maybe we need the lights dimmed.

12 All right. First let me ask, do you know where this  
13 picture came from?

14 DR. DICKEY: Yes, I do. I made -- I made the slide.

15 MR. OSIAS: Okay.

16 MR. DICKEY: And I acquired the photographs.

17 MR. OSIAS: And can you -- actually, this one is in  
18 two parts. I guess the top part was cut off in Exhibit 86.

19 What are we looking at? Actually, where are we  
20 looking? Maybe that would be a good place to start.

21 DR. DICKEY: We are looking from -- in the upper  
22 photograph, from the east, probably Horseshoe Meadows Road  
23 looking out on Owens Lake.

24 MR. OSIAS: And in the lower photograph?

25 DR. DICKEY: Lower photograph also Owens Lake, and

1 I'm -- I'm thinking that's from the -- from the south, but I  
2 couldn't guarantee it.

3 MR. OSIAS: All right. And do you know what date  
4 these photos were taken?

5 DR. DICKEY: I don't -- I don't know the date  
6 unfortunately.

7 MR. OSIAS: Okay.

8 DR. DICKEY: They're -- I can tell you they're  
9 probably wintertime photos because that's when we have dust  
10 storms at Owens Lake.

11 MR. OSIAS: All right. What looks like smoke to the  
12 native eye, do you know what that is?

13 DR. DICKEY: I'd like to acknowledge the  
14 photographer.

15 MR. OSIAS: Yes, please.

16 DR. DICKEY: Bill Cox, Great Basin Unified Air  
17 Pollution Control District. The lower also came from Great  
18 Basin. I was given both by Ted Schade.

19 MR. OSIAS: Okay. So he's the source of these  
20 photographs.

21 DR. DICKEY: He and I work closely.

22 MR. OSIAS: And that's his quote superimposed on the  
23 picture. You didn't do that, did you?

24 DR. DICKEY: I put the quote on the picture for me.  
25 I was -- I just left it on when I gave it to you, so -- but

1 I feel it's pretty, pretty honest, and that's why I put it  
2 there.

3 MR. OSIAS: What was -- what was this slide used  
4 for? Maybe you could tell us that.

5 DR. DICKEY: It was an open house on the occasion  
6 of the -- when it was first used. They had an open house on  
7 the occasion of the dedication of the first ten miles of  
8 dust mitigation on Owens Lake.

9 MR. OSIAS: Was Ted Schade there?

10 DR. DICKEY: He was there.

11 MR. OSIAS: Did he object to the description?

12 DR. DICKEY: You know, I don't know that he studied  
13 the slide presentation, but I'm -- I know -- as I know him,  
14 I doubt that he'd object.

15 MR. OSIAS: Okay. Now maybe you could tell us what  
16 looks like smoke to the untrained eye, what is that?

17 DR. DICKEY: Those are dust emissions.

18 MR. OSIAS: Rising from the ground?

19 DR. DICKEY: Yes, indeed. The --

20 MR. OSIAS: About how many feet, if that was of  
21 concern?

22 DR. DICKEY: Right. The upper photograph takes in  
23 the better part of the north to south reach of Owens Lake,  
24 which is probably 20 miles, and so that would be hundreds of  
25 feet upward.

1           And if you look at that area, that's not a bad idea  
2 of all of the most emissive areas on Owens Lake around its  
3 western present. I can't give you a hard figure on the  
4 numbers of feet in the air.

5           MR. OSIAS: Okay. And the bottom slide?

6           DR. DICKEY: Bottom slide, again, the points of  
7 reference are a little tougher, and I'm guessing it's three,  
8 four, five miles across.

9           MR. OSIAS: All right. And Exhibit 87, same general  
10 questions. Where did this come from?

11          DR. DICKEY: This one is my photograph, and it's  
12 just a shot to get a feel for some of the sand down here on  
13 Owens Lake. And it's blowing across the surface; it's  
14 barely eroded. I believe this is the south sand sheet, one  
15 of the most emissive areas in the planet. This is where the  
16 very, very high concentrations that I think have been in  
17 testimony already, that are a hundred times federal PM-10  
18 standards have actually been measured.

19          And because of the highly -- the ph of these soils  
20 is around ten to highly alkaline, and it's -- between that  
21 and the beating that things take from the mobile sand,  
22 things like railroad ties look like this after a while.  
23 It's a bit of an expression. We're looking at a familiar  
24 object, and you can just sort of think back at what a  
25 beating it must have taken to become like that.

1 MR. OSIAS: Right. How long do you think? You  
2 wrote a few years --

3 DR. DICKEY: Yeah, yeah. Those would have been --  
4 those could be up to a hundred years old. They don't have  
5 square nails in them, but they were probably back when it  
6 was still a lake.

7 MR. OSIAS: So a few years is not accurate?

8 DR. DICKEY: Yeah, a few years -- sorry, that is not  
9 accurate.

10 MR. OSIAS: Okay.

11 DR. DICKEY: And it -- apologies for that.

12 MR. OSIAS: So, in order to -- in order to mitigate  
13 what might be a PM-10 problem from the declining Salton Sea,  
14 what is the plan that's being developed?

15 DR. DICKEY: The -- it's a phase plan. The  
16 presumption is that if we have dust problems down there,  
17 that they'll become apparent, and they'll become apparent to  
18 us because we'll monitor. So the first thing that -- the  
19 first thing that is proposed is to really work with the  
20 natural conditions and avoid PM-10 that might be caused by  
21 human activity.

22 The resistive forces we talked about, the  
23 sedimentation of the surface, you can take a surface that's  
24 relatively resistant and make it nonresistant simply by  
25 beating it up physically.

1 MR. OSIAS: Driving on it.

2 DR. DICKEY: Driving on it.

3 MR. OSIAS: Motorcycle.

4 DR. DICKEY: Right. And so the first thing is to do  
5 no harm, try to let those things stay crusted.

6 Second item in the list -- I'll refer to my -- refer  
7 to my notes to stay on track -- research and monitoring.  
8 There -- presumably there would be dust mitigation  
9 strategies that would work better and worse at Salton Sea,  
10 and these things just simply need to be nailed down. Again,  
11 the workshop was fairly unanimous in the -- in the notion  
12 that more information not only on dust mitigation but just  
13 on environmental conditions is needed.

14 So that's -- the monitoring, of course, is part of  
15 the research program to understand where the dust emissions  
16 are coming from. We have anecdotal evidence at this point.  
17 For these two programs like this, you have much more than  
18 that. That way you can focus your efforts.

19 The third is creating and purchasing offsetting  
20 emissions reduction credits. So to the extent that you can  
21 work with other polluters in the area and purchase credits,  
22 it may be an efficient way to mitigate your problem.

23 MR. OSIAS: Is that essentially if there is some  
24 emission from an exposed portion of a seabed, that may be  
25 more expensive to eliminate than an equally harmful source

1            somewhere else, go the cheaper source and eliminate that?

2            DR. DICKEY: Right. And presumably that's the only  
3            condition under which the trade would be allowed.

4            MR. OSIAS: Okay.

5            DR. DICKEY: Right.

6            And then the fourth has two parts, and the first is  
7            the implementation of feasible dust mitigation measures as  
8            we've experienced at Owens. Extensive implementation seems  
9            to be quite costly, so this is within the realm of economic  
10           feasibility. But, you know, if we have focused areas that  
11           require attention, then they would be attended to based on  
12           the research program. We hopefully have the most cost  
13           effective program that we could imagine at that point, and  
14           we would also know where to apply it.

15           And then, lastly, supply water to the Sea to  
16           maintain water surface elevations, to rewet emissive areas.  
17           So that if you have areas that are emissive, you rewet them,  
18           not by irrigation but rather by raising the water level.  
19           And that's last resort, if you will. That's the staged  
20           program that is in the draft.

21           MR. OSIAS: All right. Thank you very much.

22           I guess the -- sort of the last type of question is  
23           one that was put to many witnesses during Phase II, that  
24           goes something like, well, wouldn't you agree that even a  
25           problem at the Salton Sea that was only one percent of the



1           problem at Owens Valley is still a major problem?

2           DR. DICKEY: Uh-huh.

3           MR. OSIAS: Would you agree with that?

4           DR. DICKEY: If the problem were one percent at  
5 what's at Owens Lake, would it be a major problem?

6           MR. OSIAS: Yes.

7           DR. DICKEY: Well, just by the numbers, anything  
8 that's one percent of Owens Lake is a problem, whether it's  
9 the Salton Sea or Newport Beach.

10          MR. OSIAS: Okay. Does that tell us very much, that  
11 question by saying, well, geez, it could be one-hundredth of  
12 Owens Lake and still be a problem?

13          DR. DICKEY: As I say, the same could be said of  
14 anyplace on the planet. And the only reason it's more  
15 relevant in Salton Sea is because, you know, we are  
16 concerned about the future there, but we're concerned about  
17 the future anyplace.

18          My -- I guess, if I could talk a little bit more  
19 about that analysis. You know, the way you figure out  
20 whether or not you've got a dust problem is you begin with  
21 emissions factors. You have to map them, lay them out.  
22 They go into the grid of your model. And because we have  
23 water on this area and it's not emitting, be anybody's guess  
24 that those emissions factors drive the answer to whether or  
25 not there is a problem. So if you want to project, then

1 that's how you do it. And at this moment those are guesses.

2 And so if you start with the concentrations that are  
3 several steps down that -- that analytical process past the  
4 modeling, and you just say, well, if I have a hundredth of  
5 the concentration I have a problem, while it's true, it  
6 doesn't tell you much about whether or not you'll ever get  
7 there.

8 MR. OSIAS: Let me take it one different direction.  
9 If you were a publicly funded agency that was engaged in  
10 partial scientific analysis, based on what you know, would  
11 you inform the public that a receding Salton Sea will create  
12 an Owens Lake problem?

13 DR. DICKEY: No.

14 MR. OSIAS: Thank you.

15 CHAIRMAN BAGGETT: With that, let's take 10 minutes,  
16 come back with cross-examination. We're in recess.

17 (Break taken.)

18 CHAIRMAN BAGGETT: So we're back with  
19 cross-examination of IID's second rebuttal panel.

20 San Diego.

21 MS. HASTINGS: We have no questions.

22 CHAIRMAN BAGGETT: Great start to the afternoon.

23 With that, Colorado Indian Tribes. Salton Sea.

24 MR. KIRK: I've got a few.

25 CHAIRMAN BAGGETT: I figured you might.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

---o0o---

CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

BY SALTON SEA AUTHORITY

BY MR. KIRK

MR. KIRK: Good afternoon.

MS. HARNISH: Hi, Tom.

MR. KIRK: I was as surprised by San Diego's waiving as anybody else, so I apologize.

Ms. Harnish, welcome back.

MS. HARNISH: Thanks.

MR. KIRK: You -- let's talk a little bit about HCP-1. Based on your update to the Board and the participants, it sounds like HCP-1 is being pulled from the final EIR/EIS. Is that the current plan; is that accurate?

MS. HARNISH: That's correct, yes.

MR. KIRK: So HCP No. 2 or the fallowing for makeup water is the proposed mitigation for the HCP?

MS. HARNISH: It's not fallowing for makeup water. It's using water for mitigation for the Sea. The water could come from a number of sources. It's not being limited to coming from fallowing.

MR. KIRK: Was it designed to come from fallowing in the draft EIS/EIR?

MS. HARNISH: No, it was not.

MR. KIRK: So it wasn't specified.

1 MS. HARNISH: It wasn't specified.

2 MR. KIRK: Wasn't HCP-2, didn't it involve some sort  
3 of fallowing? Isn't that the way it was described in the  
4 EIS/EIR?

5 MS. HARNISH: Fallowing for HCP-2 was described as  
6 an option for it, but it was not described as the only way  
7 of implementing HCP-2.

8 MR. KIRK: What other ways are there?

9 MS. HARNISH: Other sources of water and other --  
10 and construction of conservation measures. So conservation  
11 creation by other means and other sources.

12 It's --

13 MR. KIRK: Conservation --

14 MS. HARNISH: It's in the project description.

15 MR. KIRK: As an example, conservation by what sort  
16 of other measures?

17 MS. HARNISH: Well, any of the conservation.

18 (Brief interruption in proceedings.)

19 CHAIRMAN BAGGETT: Let's go back on the record.

20 MR. KIRK: All right, Ms. Harnish. So on-farm  
21 conservation could be one mechanism to provide water for  
22 makeup water to the Sea?

23 MS. HARNISH: Yes.

24 MR. KIRK: Doesn't on-farm conservation reduce flows  
25 to the Salton Sea in the first place?

1 MS. HARNISH: Well, it would be additional on-farm  
2 conservation in addition to transfer. We tried to just  
3 allow a lot of flexibility for how that water would be  
4 generated.

5 MR. KIRK: Sure. I guess I'm just continuing to  
6 have a hard time with this concept. You would conduct  
7 on-farm conservation, which reduces inflows to the Salton  
8 Sea to provide makeup water for other on-farm conservation,  
9 which reduces inflows to the Sea?

10 MS. HARNISH: Let me think about it.

11 Well, rather -- if you're conserving that water, you  
12 wouldn't be transferring that water from the construction of  
13 those conservation measures. That water would go to the  
14 Sea. That --

15 MR. KIRK: Let me try to ask it another way because  
16 I'm really confused.

17 MS. HARNISH: Perhaps I am, too.

18 MR. KIRK: And I think we had some questions about  
19 this yesterday as well.

20 Under on-farm conservation, isn't there a one-to-one  
21 impact on flows to the Salton Sea?

22 MS. HARNISH: Under on-farm conservation?

23 MR. KIRK: Yeah, if you do on-farm conservation and  
24 conserve and then send that water somewhere, there's a  
25 one-to-one impact on flows --

1 MS. HARNISH: That's correct.

2 MR. KIRK: -- to the Salton Sea.

3 MS. HARNISH: That's correct.

4 MR. KIRK: So now we're going to undertake on-farm  
5 conservation to provide mitigation water for water lost  
6 under some other on-farm conservation. Is that the  
7 strategy?

8 MS. HARNISH: You know, I'd like to look at the EIR  
9 if I could. Is that --

10 MR. KIRK: I'm not sure if we have a whole lot of  
11 time here, and I'm not sure if that's going to provide much  
12 illumination.

13 Based on your recollection, does on-farm  
14 conservation -- on-farm conversation has a one-to-one impact  
15 on the Salton Sea. You're conserving water --

16 MS. HARNISH: That's correct, yes.

17 MR. KIRK: You're conserving water that's flowing to  
18 the Salton Sea.

19 MS. HARNISH: Right.

20 MR. KIRK: So how would -- how would on-farm  
21 conservation, which is reducing flows to the Salton Sea,  
22 provide makeup water for other flows lost to the Salton Sea?

23 MS. HARNISH: Perhaps I misspoke.

24 MR. OSIAS: Do you recall?

25 MS. HARNISH: I don't recall.

1 MR. KIRK: You don't recall what?

2 MS. HARNISH: Well, I think I need to -- I would  
3 like to revisit my description of HCP-2 that's been  
4 prepared. And certainly fallowing is an option, certainly  
5 other sources of waters, and perhaps I misspoke just what  
6 the construction of conservation measures would be.

7 I would need to revisit --

8 MR. KIRK: All right. So you're not sure about  
9 on-farm conservation --

10 MS. HARNISH: I'm not sure about that. I need to  
11 take another look back at --

12 MR. KIRK: Fallowing --

13 MS. HARNISH: -- our draft update of the HCP.

14 MR. KIRK: All right. So fallowing may be one  
15 mechanism. On-farm conservation you're not sure --

16 MS. HARNISH: I'm not sure about it, and I would --

17 MR. KIRK: What other sources are there?

18 MS. HARNISH: I don't know. They haven't been  
19 identified.

20 MR. KIRK: Will they be identified in the final?

21 MS. HARNISH: They may not be identified in the  
22 final.

23 MR. KIRK: Is the HCP perhaps the most important  
24 mitigation measure in your environmental documents?

25 MS. HARNISH: Certainly. And if additional -- if

1 other sources of water are required, possibly subsequent  
2 environmental review would be required to evaluate the  
3 impacts of using those other sources for the HCP.

4 MR. KIRK: So the replacement water at this stage is  
5 unspecified.

6 MS. HARNISH: A range of possible sources is  
7 specified.

8 MR. KIRK: Let's head back to HCP-1. This has been  
9 a moving target for all of us to some degree; is that fair?

10 MS. HARNISH: HCP-1?

11 MR. KIRK: Well, yeah, HCP-1. The environmental  
12 process is still underway. A lot of changes have  
13 occurred --

14 MS. HARNISH: That's correct.

15 MR. KIRK: -- in the last couple of weeks, and  
16 particularly last week; isn't that fair?

17 MS. HARNISH: Yeah, absolutely.

18 MR. KIRK: So let's assume HCP finds its way -- that  
19 HCP No. 1 finds its way back into --

20 MS. HARNISH: Uh-huh.

21 MR. KIRK: -- the final EIR.

22 MS. HARNISH: We don't foresee --

23 MR. KIRK: Is that a possibility?

24 MS. HARNISH: I don't foresee that as a possibility.

25 MR. KIRK: There has been some discussion among the



1 experts, in fact the experts you brought today, at least one  
2 of them has testified about mitigation wetlands, which is  
3 the concept under HCP No. 1; isn't that correct?

4 MS. HARNISH: I believe the wetlands that he was  
5 testifying about are a component, a wetland component that  
6 is part of both HCP-1 and HCP-2. That's the wetlands and  
7 marshes that would be mitigation for the drains and not  
8 associated with the hatchery and the ponds that were in  
9 HCP-1. So --

10 MR. KIRK: Okay. So under HCP-1, didn't you testify  
11 that New River water would be a source of water?

12 MR. OSIAS: Objection. Beyond the scope of  
13 rebuttal. The only questions about HCP-1 was it was  
14 dropped.

15 MR. KIRK: Withdrawn.

16 Mr. Ohlendorf, welcome again.

17 The selenium levels in the drains and rivers, what  
18 are those ambient levels? In the Imperial Valley.

19 DR. OHLENDORF: You're talking about current levels?

20 MR. KIRK: Current levels.

21 DR. OHLENDORF: In the range of a few parts per  
22 billion. In some areas, below five; in some areas, above  
23 five.

24 MR. KIRK: Are they ever above ten?

25 DR. OHLENDORF: Averages, I don't know of any areas

1 where they average above ten.

2 MR. KIRK: So on the order of five parts per billion  
3 to ten parts per billion in the drains and rivers?

4 DR. OHLENDORF: Or less. I think there's some areas  
5 where they average less than five.

6 MR. KIRK: All right. And it was your testimony  
7 that we're not seeing the effects of selenium toxicosis in  
8 the Imperial Valley?

9 DR. OHLENDORF: I've seen no evidence of that.

10 MR. KIRK: Under the proposed project, selenium  
11 levels in the drains will go up, will they not?

12 DR. OHLENDORF: Generally, right.

13 MR. KIRK: Approximately 25 percent?

14 DR. OHLENDORF: Something on that order.

15 MR. KIRK: Is it possible that we would see  
16 selenium, the effects of selenium if concentrations were  
17 25-percent greater than there are today?

18 DR. OHLENDORF: I don't think there would be any  
19 apparent effect. It may be that something could be  
20 documented if something were -- if they were studied  
21 intensively in the laboratory with certain conditions. But  
22 I think it's unlikely there would be significant  
23 reproductive effects.

24 MR. KIRK: If there were reproductive effects or  
25 even other sublethal effects, there are sublethal effects as

1 a possibility as well, too, correct?

2 DR. OHLENDORF: Correct.

3 MR. KIRK: And there are some relationships between  
4 selenium and avian disease?

5 DR. OHLENDORF: There have been some studies that  
6 have shown relationships.

7 MR. KIRK: Are there particular bird species that  
8 are more susceptible to selenium contamination than others?

9 MR. OSIAS: Let me object at least on the basis that  
10 it exceeds the scope unless it's per species that would use  
11 a wetlands or a drain, since the only thing he testified  
12 about were selenium in wetlands and drains.

13 MR. KIRK: Well, actually, the scope of his  
14 testimony on page 4 of your outline, Dr. Harry Ohlendorf  
15 will provide rebuttal testimony on selenium cycling and  
16 bioaccumulation effects, selenium threshold levels, selenium  
17 analysis for the Salton Sea and wetlands mitigation project.

18 So it certainly seems within the outline of your  
19 testimony.

20 CHAIRMAN BAGGETT: I would overrule. Continue.

21 MR. KIRK: Are there particular bird species that  
22 are more susceptible to selenium than others?

23 DR. OHLENDORF: Those species that have been studied  
24 do vary in sensitivity. Typically, the birds have -- using  
25 black-necked stilts as a model, the species -- that's the

1 one that was used in the EIR.

2 MR. KIRK: Have you used other species in your  
3 publications and analysis?

4 DR. OHLENDORF: Right.

5 MR. KIRK: Have you -- you have used others?

6 DR. OHLENDORF: Right.

7 MR. KIRK: What other species?

8 DR. OHLENDORF: Well, I've summarized a lot of  
9 literature, and some of the analyses have included less  
10 sensitive species like American avocet. One that's more  
11 sensitive generally, mallard. And from the species that  
12 have been studied for some effects, mallards are somewhat  
13 more sensitive than stilts but the thresholds are not very  
14 different for hatchability effects. It's more on  
15 terretogenesis [phonetic] effects, which would occur at much  
16 higher concentrations than those that occur in the rivers  
17 and drains.

18 MR. KIRK: When studying -- when you're looking for  
19 a sensitive species, sensitive receptor among avaphone as it  
20 were, would you look for birds that had a long residency  
21 time in a particular habitat?

22 DR. OHLENDORF: Reasonably long, although for  
23 selenium, uptake and loss is pretty rapid, and so the  
24 species -- for example, studies that have been done with  
25 mallards show that uptake and loss occurs in a period of a

1 couple of weeks. So it's not necessarily a lifetime  
2 residency type exposure that's needed.

3 MR. KIRK: Would you look for localized foraging  
4 range?

5 DR. OHLENDORF: Sure.

6 MR. KIRK: How about stereotype food preferences?

7 DR. OHLENDORF: Well, it depends on what's in those  
8 food sources. If there's a particular food item that has  
9 high concentrations of selenium or bioaccumulate very  
10 readily, that could be detrimental. On the other hand, if  
11 they have narrow food preferences and they eat those things  
12 that don't tend to bioaccumulate readily, then they would be  
13 less exposed.

14 MR. KIRK: Do those three criteria sound familiar?

15 With long residency times, localized ranges,  
16 stereotyped food preferences?

17 MR. OHLENDORF: Well, I don't know that I used the  
18 word "stereotype," but food preferences, sure.

19 MR. KIRK: From one of the pieces of literature that  
20 was identified in your CV, The Economics and Management of  
21 Water and Drainage in Agricultural, 1991 --

22 DR. OHLENDORF: Uh-huh.

23 MR. KIRK: -- those are the three criteria you use.

24 You use the word "stereotype" there, and I'm not  
25 exactly sure what it means either.

1 DR. OHLENDORF: Well, just a clarification. You're  
2 talking about the Skorupa and Ohlendorf paper?

3 MR. KIRK: Yes.

4 DR. OHLENDORF: All right. And Dr. Skorupa was the  
5 senior author. That may have been his wording, so, fine,  
6 I'll accept it.

7 MR. KIRK: In that article, did you and Dr. Skorupa  
8 indicate that eared grebes are -- let's see -- are --  
9 probably come close to meeting the special circumstances for  
10 requiring one-to-one correspondence between selenium and  
11 water and waterborne selenium and selenium contamination?

12 DR. OHLENDORF: Right, for nesting areas that would  
13 be true.

14 MR. KIRK: Do you know that -- are you aware that  
15 the Salton Sea contains eared grebes?

16 DR. OHLENDORF: I know there's a wintering  
17 population. I'm not aware of a nesting population.

18 MR. KIRK: So you know of no nesting at the Salton  
19 Sea?

20 DR. OHLENDORF: I don't know of any eared grebes  
21 nesting there, no.

22 MR. KIRK: Are you familiar with the nesting habits  
23 of the eared grebe?

24 DR. OHLENDORF: Under some circumstances, yeah,  
25 we've studied eared grebes at Kesterson Reservoir.

1           MR. KIRK:  Why wouldn't eared grebes nest on the  
2           Salton Sea?

3           DR. OHLENDORF:  I'm not saying they don't.  I'm  
4           saying I'm not aware of a nesting population.  I know there  
5           is a large wintering population, but my understanding was  
6           that they were more migratory and that they nested  
7           elsewhere.

8           MR. KIRK:  Is it true that eared grebes would have a  
9           hard time nesting on the Salton Sea because of wave action  
10          and the vast expanse of water?

11          DR. OHLENDORF:  Right.

12          MR. KIRK:  And if there were impoundments with less  
13          wave action, would we expect eared grebes to nest at the  
14          Salton Sea?

15          MR. OSIAS:  I'm going to raise the same objection.  
16          I'm not sure how Salton Sea grebes and impoundments relates  
17          to the inquiry on rebuttal which was focused on wetlands and  
18          drains.

19          MR. KIRK:  I --

20          MR. OSIAS:  Let me just finish.  Okay?

21          I concede that the outline included a broader list  
22          of subjects because notice was necessary to give people time  
23          to prepare for what might be testified to.  Given the  
24          shortness of time, we decided that his testimony was what it  
25          was today, and, therefore, the fact that something might

1 have been broader in an outline I don't think is  
2 determinative of what the rebuttal evidence is. And so on  
3 that basis, I believe this inquiry has gone now beyond at  
4 least the last time I spoke up, which is into the potential  
5 for nesting grebes in ponds that aren't currently there,  
6 which is nothing that we touched on --

7 MR. KIRK: Well, in fact --

8 MR. OSIAS: -- during his rebuttal.

9 MR. KIRK: Mr. Chairman, we are moving back to the  
10 geography of concern by Mr. Osias and into the wetlands.  
11 We've been discussing the Salton Sea. This witness was  
12 brought forward apparently to focus his testimony on  
13 selenium in wetlands, and that is exactly where I'm heading,  
14 eared grebes use of wetlands and their very likelihood for  
15 selenium contamination.

16 CHAIRMAN BAGGETT: Then if you could frame your  
17 questions --

18 MR. KIRK: All right.

19 CHAIRMAN BAGGETT: -- related to selenium as opposed  
20 to future potential nesting sites, which is where you were  
21 going.

22 So I would sustain that objection and focus your  
23 questions on the selenium issues.

24 MR. KIRK: Sure.

25 At Kesterson, eared grebes do nest in some of those



1 impoundments, correct?

2 DR. OHLENDORF: They did in 1983. They have not  
3 nested there since it has no water.

4 MR. KIRK: Would you expect eared grebes to nest at  
5 the Salton Sea at wetlands as proposed by the proposed  
6 project?

7 DR. OHLENDORF: They could. They do nest in the  
8 central valley, so I don't know what the likelihood would be  
9 for them to also nest in the Imperial Valley.

10 MR. KIRK: Would you be surprised if I told you that  
11 in fact eared grebes are nesting in impoundments at the  
12 Salton Sea, near the Salton Sea today?

13 DR. OHLENDORF: I wouldn't be very surprised, no.

14 MR. KIRK: So eared grebes you have testified are  
15 potentially more susceptible to selenium contamination than  
16 other bird species.

17 DR. OHLENDORF: They could be. They could be more  
18 highly exposed, right.

19 MR. KIRK: In the same article, you indicated that  
20 the waterborne selenium level, which is a contamination  
21 threshold for eared grebes, is actually .5 parts per  
22 billion.

23 DR. OHLENDORF: That was the calculated  
24 concentration in water that would result in above background  
25 concentrations, that's correct.

1 MR. KIRK: And --

2 DR. OHLENDORF: It didn't equate to impaired  
3 reproduction.

4 MR. KIRK: I appreciate that.

5 The embryo toxicity -- did I pronounce that  
6 correctly?

7 DR. OHLENDORF: Right.

8 MR. KIRK: Or close enough?

9 DR. OHLENDORF: Uh-huh.

10 MR. KIRK: The embryo toxicity thresholds are two to  
11 thirteen parts per billion. Does that sound familiar?

12 DR. OHLENDORF: Uh-huh.

13 MR. KIRK: And so the wetlands --

14 MR. OSIAS: You have to say yes or no.

15 DR. OHLENDORF: Yes.

16 MR. KIRK: Thank you. Thank you, Mr. Osias.

17 So the wetlands, if they are fed by Colorado River  
18 water, could exceed selenium thresholds that you've  
19 established in some of your work for at least the eared  
20 grebe, correct?

21 DR. OHLENDORF: That would be a very marginal degree  
22 of effect. It's -- it's theoretically possible.

23 MR. KIRK: But a contamination threshold,  
24 nonetheless.

25 DR. OHLENDORF: As I mentioned earlier, yes, that

1 would be above background levels.

2 MR. KIRK: Are you aware that other sections of the  
3 EIR suggest that the Salton Sea region would become much  
4 like a Mono Lake, and we continue to have many eared grebes  
5 at the Salton Sea. It's one species that would presumably  
6 do well for some period of time for the Salton Sea.

7 DR. OHLENDORF: I don't recall that particular  
8 section.

9 MR. KIRK: And I could refer it to you, but I  
10 suspect hypothetically you can imagine if the Salton Sea  
11 were to become more hypersaline, eared grebes would likely  
12 be one species that would continue to do well for some  
13 period of time.

14 DR. OHLENDORF: Well, I think they would be feeding  
15 there. I don't know about their being able to nest.

16 As you mentioned, the Salton Sea is essentially open  
17 water habitat. Eared grebes nest in shallow water marshes  
18 where there's vegetation to anchor the nests. Potentially  
19 they could occur as a nesting species, I'm not sure.

20 MR. KIRK: So the combination of feeding in the  
21 Salton Sea and nesting in wetlands, we could have some  
22 pretty good habitat for eared grebes.

23 DR. OHLENDORF: Well, they typically are feeding --  
24 because they don't fly around from nesting area to feeding  
25 area, they would typically be feeding in the areas where

1       they're nesting. And so I don't believe they would be  
2       feeding in the Sea and then flying off to a nesting area.

3               MR. KIRK: All right. Are you aware that 90 percent  
4       of the North American population of eared grebes do use the  
5       Salton Sea some winters?

6               MR. OSIAS: Two objections. One is expertise  
7       regarding avian populations. He's here as a selenium  
8       expert. I don't even know myself if he knows that.

9               Second, it's outside the scope of the rebuttal to  
10      talk about avian population in the Pacific Flyways and  
11      generalized nesting at the Salton Sea. Or not nesting,  
12      visiting.

13              CHAIRMAN BAGGETT: Right.

14              MR. KIRK: And the expert is here to testify on the  
15      impacts of selenium, and we are discussing the potential  
16      impacts of selenium on a particularly sensitive species that  
17      apparently will do well in the future at the Salton Sea  
18      according to the project proponent EIR/EIS.

19              MR. OSIAS: And that part I think has been answered,  
20      if I could respond. But the question about how many of them  
21      visit the Salton Sea is a different subject area, which is  
22      what the last question --

23              MR. KIRK: I didn't, in fact, ask him. I asked him  
24      if he was aware of that, and I assume he could answer yes or  
25      no.

1 MR. OSIAS: But it goes to how many visits.

2 MR. KIRK: And if he doesn't know, he could say I  
3 don't know.

4 MR. OSIAS: But that's outside the scope is my  
5 point.

6 CHAIRMAN BAGGETT: I agree it's outside the scope,  
7 but I'll allow it.

8 MR. KIRK: It's the last question in the series.

9 Did you -- do you know that the Salton Sea and the  
10 Salton Sea region host 90 percent of the eared grebe  
11 population in North America some winters?

12 DR. OHLENDORF: I could imagine it would be  
13 somewhere in that order of magnitude. I don't know the  
14 specific numbers.

15 MR. KIRK: Thank you.

16 Ms. Harnish, let's jump on the Osias Express, the  
17 train. And this unfortunately brings us all back to the  
18 days of algebra or calculus I suspect.

19 MS. HARNISH: You make it sound so fun.

20 MR. KIRK: Anything with Mr. Osias I'm sure is fun  
21 and entertaining.

22 The constant speed of the Osias Express from Los  
23 Angeles to New York, the constant rate is -- say it takes a  
24 day for this L.A. to New York train to get from Chicago to  
25 New York. Actually let's make it six days. It probably

1 makes the math a little easier.

2 MS. HARNISH: Six days.

3 MR. KIRK: Six days from Chicago to New York.

4 And, by the way, the speed of the train, we actually  
5 want the train to be a slow moving train because it's so  
6 entertaining and fun to be on the Osias Express. So to the  
7 degree the time of the Express shortens, that's a bad thing.  
8 It's a negative impact.

9 Does that make sense? This hypothetical is tracking  
10 so far?

11 In addition, Ms. Harnish, you're in Chicago, and you  
12 get on the train and you actually bring with you two  
13 locomotives, and you accelerate the trip from six days to  
14 one day.

15 Is the impact of adding those two locomotives five  
16 days?

17 MS. HARNISH: Why am I back to my squares here? I'm  
18 going to ask you to restate that, Tom.

19 MR. KIRK: Sure.

20 It takes six days for you to get from Chicago to New  
21 York on this train that's traveling from Los Angeles.  
22 You're looking forward to this long trip, but for whatever  
23 reason, you decide to bring two more locomotives onto the  
24 train to speed up the trip, and the trip is now one day.

25 Isn't the impact then five -- a five-day impact from

1 adding those two locomotives?

2 MS. HARNISH: Yes, I guess there is a five-day  
3 impact.

4 MR. KIRK: All right. Now, let's assume that one  
5 locomotive is added just before Chicago, just before you get  
6 onboard.

7 MS. HARNISH: Uh-huh.

8 MR. KIRK: You only add one -- and, in fact, you  
9 don't add anything. So one locomotive is added before it  
10 gets to Chicago. It speeds up the trip to three days.

11 Now, the third scenario, does that make sense to  
12 you? If we were to add a locomotive just before Chicago,  
13 speed up the trip, it's now three days. Does that track  
14 with our long hypothetical here?

15 MS. HARNISH: So two locomotives speeded up to one  
16 day, one locomotive up to three days.

17 MR. KIRK: And if you want to make it exact, it's  
18 called 3.5 days.

19 MS. HARNISH: Okay. That sounds fine.

20 MR. KIRK: So there are 3.5 days now. Now, you see  
21 this locomotive, and it only has one extra locomotive. You  
22 see this train, and it only has -- it has these two  
23 locomotives on it, and you decide just to add one.

24 After all --

25 MS. HARNISH: Are we back to the original train now

1 or are we on the train --

2 MR. KIRK: You're on -- you're on the speeded up

3 train, the slightly speeded up train.

4 MS. HARNISH: It's the three-car train or the six --

5 MR. KIRK: You're on the three-and-a-half-day car

6 train. You add a locomotive. You've just minimized --

7 you've just sped up the trip to a one-day trip.

8 MS. HARNISH: Okay.

9 MR. KIRK: All right.

10 MS. HARNISH: All right.

11 MR. KIRK: What is your impact under that scenario?

12 MS. HARNISH: I'm sorry. I--

13 MR. KIRK: How fast have you sped up the train by

14 adding one locomotive, two or three days?

15 MS. HARNISH: Yeah, so two-and-a-half days, I guess.

16 MR. KIRK: All right. So if that other train wasn't

17 added just before Chicago, you had a five-day impact. But

18 because that other train was added just before Chicago, you

19 have only a two- or three-day impact; is that correct?

20 MS. HARNISH: that's -- yes.

21 MR. KIRK: Thank you.

22 You testified about this very issue, the baseline

23 issue, and I assume you see the metaphor here.

24 MR. OSIAS: You can assume whatever you want. Is

25 that a question?



1           MR. KIRK:  It's a question.  Do you understand the  
2           metaphor that's been -- was made by Mr. Osias --  
3           MS. HARNISH:  I do.  
4           MR. KIRK:  -- and by me?  
5           Thank you.  
6           MR. OSIAS:  Two questions.  
7           MR. KIRK:  You're including --  
8           MR. OSIAS:  She didn't answer the second question.  
9           MR. KIRK:  Do you understand the --  
10          MR. OSIAS:  She said that -- by me, she said yes.  
11          And you said by you --  
12          MR. KIRK:  Do you understand?  
13          MR. OSIAS:  -- and you started again, so let her  
14          answer.  
15          MS. HARNISH:  I understand that you're making a  
16          metaphor between a moving train and adding trains and  
17          speeding up the train and the baseline for the project.  
18          MR. KIRK:  I suspected you understood, Ms. Harnish.  
19          Thank you.  
20          The entitlement enforcement was added, in fact, just  
21          before the project in this case, correct?  The entitlement  
22          enforcement starts in the year 2000 according to the draft  
23          EIS/EIR and minimizes the potential impacts of your proposed  
24          project.  
25          MS. HARNISH:  I think that it's an error that it

1 starts in 2000. I think that it's -- it's -- and perhaps  
2 that will be corrected. I think it may be clarified in the  
3 final.

4 MR. KIRK: Okay. So at least the 2000 date might be  
5 in error.

6 MS. HARNISH: Right, but -- but that entitlement  
7 enforcement would occur prior to the project beginning is  
8 true.

9 MR. KIRK: Are you aware that the impact on the  
10 Salton Sea of entitlement enforcement is fifty-six -- 50,000  
11 acre-feet of water per year?

12 MS. HARNISH: Yes.

13 MR. KIRK: Are you aware that the impact of the IOP  
14 is 56,000, 57,000, 58,000 acre-feet of water per year?

15 MS. HARNISH: Yes.

16 MR. KIRK: Are you aware that the entitlement  
17 enforcement is included in the baseline and the IOP is  
18 included in the proposed project?

19 MS. HARNISH: Yes.

20 MR. KIRK: Are you aware that your colleague Dr.  
21 Eckhart testified that the impacts are cumulative?

22 MR. OSIAS: Objection. Beyond the scope of  
23 rebuttal.

24 MR. KIRK: In fact --

25 MR. OSIAS: Hang on. No discussion, no questions

1 about the IOP, only the baseline.

2 MR. KIRK: There have been -- the entitlement  
3 enforcement in the IOP are one and the same, unfortunately,  
4 in this EIR, and that's why we're discussing it at this  
5 stage.

6 MR. OSIAS: Well --

7 MR. KIRK: There's been this, again, conflation of  
8 the two concepts.

9 MR. OSIAS: In terms of response to the objection,  
10 that's not responsive. I think his argument is because he  
11 thinks they're one and the same, and has defined them as  
12 such in his question, he should be allowed to ask questions  
13 about something that is in fact different.

14 The EIR does not say the IOP, which is described as  
15 part of the project, is in the baseline. Nor does it say  
16 it's the same thing as entitlement enforcement. Only Mr.  
17 Kirk has defined them as the same because the predicted  
18 impact he's identified in terms of a number is the same.  
19 That doesn't mean they are the same.

20 CHAIRMAN BAGGETT: Response?

21 MR. ROSSMANN: Your Honor, while he's thinking, let  
22 me offer an observation. I was planning to ask questions  
23 about what is in the baseline. Now, maybe that's beyond  
24 what Mr. Kirk is inquiring, but I think it is fair to  
25 determine what is in the baseline --

1 MR. OSIAS: I do, too.

2 CHAIRMAN BAGGETT: That's legitimate grounds.

3 MR. OSIAS: That entitlement enforcement in fact is  
4 in the baseline.

5 MR. ROSSMANN: If he's trying to find out if the IOP  
6 is in the baseline or --

7 MR. OSIAS: That wasn't his question, Mr. Rossmann.  
8 His question was the IOP is the same thing, and, therefore,  
9 he could ask questions about it.

10 CHAIRMAN BAGGETT: I will sustain that objection,  
11 but if you can rephrase it to -- I think you understand --

12 MR. KIRK: Yeah, I do.

13 CHAIRMAN BAGGETT: -- the difference, and I think  
14 you can probably rephrase it to get back to the baseline  
15 issue.

16 MR. KIRK: I'm not sure if I'm creative enough to do  
17 that, but I'll give it a shot.

18 Ms. Harnish, then the entitlement enforcement is a  
19 part of the baseline, and it's about a 58,000 acre-foot --

20 MS. HARNISH: That's right.

21 MR. KIRK: All right. And so you measure the  
22 project against the baseline; is that correct?

23 MS. HARNISH: That's right.

24 MR. KIRK: And so, in fact, the intent of  
25 establishing a baseline is to determine impacts from the

1 project?

2 MS. HARNISH: That's right.

3 MR. KIRK: And you wouldn't include something in the  
4 baseline that was actually a part of the project, would you?

5 MS. HARNISH: No, you wouldn't.

6 MR. KIRK: So if there was a project by a different  
7 name but essentially the same thing --

8 MS. HARNISH: Uh-huh.

9 MR. KIRK: -- you wouldn't include that in the  
10 project description and the no -- and the baseline; you'd do  
11 one or the other.

12 MS. HARNISH: That's correct.

13 MR. KIRK: So if there was a project that was very  
14 similar to entitlement enforcement, essentially the same  
15 thing, you wouldn't include that in the proposed project.

16 MS. HARNISH: No, you wouldn't. If it was the same  
17 thing, then you wouldn't.

18 MR. KIRK: Thank you.

19 Mr. Dickey, you participated in the Salton Sea Air  
20 Quality Workshop?

21 DR. DICKEY: I attended.

22 MR. KIRK: You attended, fair enough.

23 You seem to concur with much of the discussion and  
24 conclusions offered at that workshop.

25 DR. DICKEY: There was a great deal of discussion.

1 I cited some items that I concurred with, and for the moment  
2 you should take that as the limit of my concurrence.

3 MR. KIRK: Thanks for the clarification.

4 You did indicate under rebuttal, under your direct  
5 testimony moments ago, that you haven't heard of any  
6 anecdotal information of dust storms coming off the surface  
7 of exposed Salton Sea water, off the surface of land that  
8 previously had Salton Sea water on top of it.

9 Is that correct?

10 DR. DICKEY: Right, exposed sediments.

11 MR. KIRK: So you've heard of no anecdotal  
12 information, you've seen no anecdotal information of any  
13 sort in the Salton Sea region that suggests that exposed  
14 lake bed would cause dust storms.

15 DR. DICKEY: I'm not aware of any, and contrasted  
16 that with the Mono situation where we didn't have to look  
17 very hard to find anecdotal or other evidence.

18 MR. KIRK: Did you seek anecdotal information?

19 DR. DICKEY: Yes.

20 MR. KIRK: Where did you seek it?

21 DR. DICKEY: I sought it with people I know in  
22 the -- in the region, primarily the Imperial Irrigation  
23 District contacts.

24 MR. KIRK: And you indicated you didn't hear of any  
25 at the Salton Sea Air Quality Workshop either, or see any at

1           that workshop.

2                   DR. DICKEY: No, there was not a recounting of that  
3           kind of event there that I recall.

4                   MR. KIRK: But you acknowledge that we do have dust  
5           storms in the Salton Trough?

6                   DR. DICKEY: Yes, I believe that I cited that it's a  
7           nonattainment area.

8                   MR. KIRK: And you're aware of major dust storms in  
9           the Salton Trough, major wind events and dust storms?

10                  DR. DICKEY: I assume if it's a nonattainment area  
11           that there are significant dust events in the Salton Trough.

12                  MR. KIRK: Have you spent a lot of time in the area?

13                  DR. DICKEY: Haven't spent a lot of time in the  
14           area, no.

15                  MR. KIRK: How much time? How many days have you  
16           spent in the area in the past ten years?

17                  DR. DICKEY: Probably two or three.

18                  MR. KIRK: Two or three days?

19                  DR. DICKEY: Uh-huh.

20                  MR. KIRK: Over your lifetime, how many days have  
21           you spent?

22                  DR. DICKEY: Oh, would be just a few more days when  
23           I was quite young, actually.

24                  MR. KIRK: So you have not observed any major dust  
25           storms firsthand?

1 DR. DICKEY: None -- none of the anecdotal evidence  
2 I sought did I seek with myself.

3 MR. KIRK: You mentioned the elevation of the Sea is  
4 high, and that's one reason it would be difficult to  
5 determine, at least today, if there are going to be dust  
6 problems coming off exposed lake bed.

7 DR. DICKEY: I believe that the scope of the memory  
8 of the people I spoke with exceeds today's conditions.

9 MR. KIRK: Can you clarify that, Mr. Dickey? I  
10 wasn't sure what your answer was.

11 DR. DICKEY: If -- if you -- if you're -- by  
12 anecdotal you mean if you walk out today, what do you see,  
13 then your question makes sense. But it doesn't make sense  
14 because that's not what I meant by anecdotal. What I meant  
15 by anecdotal is anecdotes extending over a long period of  
16 time, including times when the Sea was at much lower levels.

17 MR. KIRK: Okay. I was just asking -- perhaps I'll  
18 just restate the question.

19 DR. DICKEY: Fine.

20 MR. KIRK: Is elevation relatively high at the  
21 Salton Sea today compared to the last 20 or 30 years?

22 DR. DICKEY: Yes.

23 MR. KIRK: But actually it's a little lower today  
24 this year than it was last year and the year before; is that  
25 correct?



1 DR. DICKEY: I would have to look at the data.

2 MR. KIRK: You actually have it behind you, if you

3 just want to --

4 DR. DICKEY: Sure. You want to look at it?

5 MR. KIRK: That would be great.

6 Yeah, that looks great. I can't see it very well

7 from here. It's IID 71?

8 MR. OSIAS: Yes.

9 MR. KIRK: Thank you.

10 The red line, which year is that?

11 DR. DICKEY: That's 2002.

12 MR. KIRK: Is that lower than the blue line?

13 DR. DICKEY: That's lower than all the other lines

14 on the graph that go back to 1999.

15 MR. KIRK: But generally in the past couple of

16 years, isn't it true that the elevation of the Sea is

17 slightly lower?

18 DR. DICKEY: Yes. Slightly lower in 2001 and 2002

19 than in 1999 or 2000 according to this graph.

20 MR. KIRK: There seems to be a pattern to the

21 elevation information as well, isn't there? The elevation

22 is a little higher what time of year? I can't read it from

23 here.

24 DR. DICKEY: Looks like around May.

25 MR. KIRK: What time of year is the elevation lower?

1 DR. DICKEY: Looks like around December.

2 MR. KIRK: All right. So if we were to see problems  
3 at the Salton Sea from exposed lake bed, what time of year  
4 would you expect it to be?

5 DR. DICKEY: Could be any time of year. Simply  
6 needs to be exposed sediments.

7 MR. KIRK: What time of year is it most likely to  
8 have exposed sediments at the Salton Sea?

9 DR. DICKEY: Could be any time of year.

10 MR. KIRK: According to this information, what time  
11 of year is the most likely?

12 MR. DICKEY: It could be any time of year.

13 MR. KIRK: So it's more likely to have exposed  
14 sediments at the Sea in June than it is in December?

15 DR. DICKEY: The extent of exposed sediments, the  
16 pattern line, this would be greater during the June period.  
17 Or the December period, excuse me.

18 MR. KIRK: Okay. So in the winter months, it  
19 appears that there would be more likelihood for exposed  
20 sediment at the Salton Sea.

21 DR. DICKEY: I think there's a great likelihood of  
22 exposed sediment year-round at the Salton Sea.

23 MR. KIRK: Comparing the data across one year, look  
24 at any one of those lines, the blue line, the dark blue, the  
25 green or the yellow. What time of year is it most likely to

1 have exposed sediments at the Salton Sea?

2 DR. DICKEY: It's most likely -- it would have  
3 equivalent likelihood year-round.

4 MR. KIRK: Would you have more land exposed --  
5 according to the data in IID 71, would you have more land  
6 exposed in winter or in summer?

7 DR. DICKEY: Winter.

8 MR. KIRK: Thank you.

9 DR. DICKEY: Your previous questions were about  
10 probability, not extent.

11 MR. KIRK: Thank you.

12 Could you also show the bathymetry exhibit? Would  
13 you mind bringing that up again?

14 And I was one of those that couldn't see very well.  
15 Would you mind pointing out to us again what area of the  
16 Salton Sea would you expect to see exposed land first?

17 DR. DICKEY: (Indicating.)

18 MR. KIRK: I'm sorry. You'll have to actually  
19 describe what you're doing both for my purpose and the Court  
20 Reporter.

21 DR. DICKEY: Sure. I was pointing to the areas  
22 around the two river deltas.

23 MR. KIRK: Okay. So the southeast portions of the  
24 Salton Sea generally?

25 DR. DICKEY: Generally.

1           MR. KIRK: I'd like to introduce a photograph  
2 related to this testimony, label it Salton Sea Authority  
3 number 37.

4           Are you familiar with that photograph?

5           DR. DICKEY: I have never seen this photograph to my  
6 knowledge.

7           MR. KIRK: Perhaps I could jog your memory. Wasn't  
8 this a photograph that was used in the Salton Sea Air  
9 Quality Workshop that was held a couple of months ago that  
10 you attended?

11          DR. DICKEY: I cannot testify to that effect because  
12 it's beyond the scope of my knowledge.

13          MR. KIRK: As an offer of proof, we have the  
14 photographer of this in the audience today. It's Dr. Milt  
15 Friend, and Dr. Milt Friend took this photo on Davis Road.

16          Do you know where Davis Road is at the Salton Sea?

17          DR. DICKEY: I don't.

18          Oh, correction. I was on Davis Road. I do now  
19 recall.

20          MR. KIRK: Why were you on Davis Road?

21          DR. DICKEY: Well, it was one of those days I  
22 referred to I was on Davis Road looking at exposed  
23 sediments.

24          MR. KIRK: And why at Davis Road?

25          DR. DICKEY: Because it's nearby the Sea.

1           MR. KIRK: Dr. Friend took this photo this year,  
2 this winter at the Salton Sea.

3           And Dr. Friend will --

4           MR. OSIAS: Let me interrupt for just one minute.  
5 And at least for purposes of the questioning, if he could --  
6 if he could ask it in the form of assume Dr. Friend took  
7 this photo at this date or something, because we don't have  
8 any evidence of this and --

9           MR. KIRK: I'd be happy to do so.

10          CHAIRMAN BAGGETT: Okay.

11          MR. OSIAS: So if he could ask it in that fashion  
12 for now, and then he may have some chance at some other  
13 point to introduce evidence at some point.

14          MR. KIRK: I'd be happy to.

15          Assume that Dr. Friend took this photo the winter --  
16 this past winter on Davis Road, and that this is an image  
17 looking south on Davis Road with the right portion of this  
18 photograph being the Salton Sea, or at least where the  
19 Salton Sea was in the summer.

20          Can you make that assumption for me?

21          DR. DICKEY: I understand what you're telling me.

22          MR. KIRK: Does that look like Davis -- you were  
23 down at Davis Road not too long ago. Does that look like  
24 Davis Road to you?

25          DR. DICKEY: You know, there just aren't enough

1 identifying characteristics --

2 MR. KIRK: Did you visit --

3 DR. DICKEY: -- for me to testify to this being  
4 Davis Road or not being Davis Road.

5 MR. KIRK: I can understand that. We've seen some  
6 murky photographs lately, so perhaps we'll add this to the  
7 list.

8 Davis Road runs again along the border of the Salton  
9 Sea, and you have been down there. You were down there  
10 because there's exposed -- there's exposed lake bed,  
11 correct?

12 DR. DICKEY: Yes, along the stretch of Davis Road  
13 where I drove.

14 MR. KIRK: Was that exposed lake bed, did it in fact  
15 contain fairly, what I call in a very technical way, fluffy  
16 salts?

17 DR. DICKEY: At the time I was there, I didn't  
18 observe any.

19 MR. KIRK: All right. Assume for a minute that Dr.  
20 Friend will provide evidence that what he witnessed here was  
21 salt rising up off of exposed lake bed at the Salton Sea.

22 Would that constitute for you anecdotal evidence  
23 that exposed lake bed does create salt problems?

24 DR. DICKEY: Sure.

25 MR. KIRK: And would that suggest to you that major

1 exposures of lake bed could cause problems, PM-10 problems  
2 in the region?

3 DR. DICKEY: Would what suggest that?

4 MR. KIRK: Anecdotal evidence. You made -- did you  
5 in fact make the case earlier in your direct testimony, or  
6 is it called rebuttal testimony, direct testimony that  
7 anecdotal evidence is important and localized information is  
8 important to make a determination of air quality impacts?

9 DR. DICKEY: Sure, it's useful.

10 MR. KIRK: And one of the things that you lamented  
11 is that there is no anecdotal information --

12 DR. DICKEY: No, I didn't lament that particular  
13 thing.

14 MR. KIRK: Did you indicate there was no anecdotal  
15 information that you knew of about air quality impacts from  
16 exposed shore bed?

17 DR. DICKEY: I -- I don't know that I lamented  
18 anything. I did --

19 MR. KIRK: I restated the question and eliminated  
20 the word "lament."

21 DR. DICKEY: Oh, okay. I do not know until -- until  
22 this, I have not had anecdotal evidence of emissions from  
23 exposed lake shore sediments.

24 MR. KIRK: Ouch.

25 In conditions like this, do you expect many people

1 to be out witnessing these events on the shore of the Salton  
2 Sea?

3 MR. OSIAS: Objection. Just for clarity, so the  
4 record is clear, could you describe in your question what  
5 "conditions like this" is to assume exists.

6 CHAIRMAN BAGGETT: I would ask the same. Fair  
7 question.

8 MR. KIRK: In looking at Exhibit 37, and assume for  
9 a minute that Exhibit 37, a photograph by Dr. Milt Friend,  
10 depicts dust salt and dust coming off exposed lake bed of  
11 the Salton Sea.

12 DR. DICKEY: Uh-huh.

13 MR. KIRK: Do you expect too many folks other than  
14 researchers and the like to be out along the shore of the  
15 Salton Sea witnessing these sorts of events?

16 DR. DICKEY: I spent a lot of time in the Owens  
17 Valley and know people there. And when there are major dust  
18 storms, they have no problem reporting them anecdotally or  
19 otherwise.

20 MR. KIRK: When there are major -- you indicated  
21 that Salton Sea Trough is an area of nonattainment already,  
22 correct?

23 DR. DICKEY: To my knowledge.

24 MR. KIRK: When there are major dust storms, they're  
25 actually -- there is dust coming from many sources; is that



1 not the case?

2 DR. DICKEY: I suppose it depends on the dust storm  
3 where the dust is coming from.

4 MR. KIRK: One of the things you testified is that  
5 one of the -- at least certainly in the image you provided,  
6 having some elevation difference in the Owens Trough or  
7 Owens Valley allows you to witness these storms from afar;  
8 is that true?

9 DR. DICKEY: You can witness them from afar  
10 irrespective of your elevation.

11 MR. KIRK: If you're in the middle of one of these  
12 dust storms, is taking a photo of the great expanse of salt  
13 coming off the playa possible?

14 DR. DICKEY: If you want to take a picture of the  
15 entire playa, whether in a dust storm or not, you need to get  
16 yourself at some distance.

17 MR. KIRK: And perhaps elevation?

18 DR. DICKEY: Sure.

19 MR. KIRK: No further questions. Thank you.

20 CHAIRMAN BAGGETT: Thank you.

21 PCL?

22 MS. DOUGLAS: Yes.

23 //

24 //

25 //

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

---o0o---

CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

BY PLANNING AND CONSERVATION LEAGUE

BY MS. DOUGLAS

MS. DOUGLAS: All my questions this afternoon are for Mr. Dickey.

Now have a drink.

MR. OSIAS: Of water.

MS. DOUGLAS: Water. Understand.

MR. OSIAS: So the record is set.

MS. DOUGLAS: Now, you testified that -- correct me if I'm wrong, that you evaluate the potential for PM-10 problems looking at differences between driving and resistive forces; is that right?

DR. DICKEY: I testified that that was the conceptual framework I've used in the absence of better data.

MS. DOUGLAS: Okay. And some of these driving and resistive forces or factors in the forces that you talked about are wind, sand, chemistry of salts, temperature and moisture?

DR. DICKEY: Sure.

MS. DOUGLAS: Now, in terms of moisture, we heard testimony from Dr. Schade that moisture is -- is an element in salt crust forming; is that correct?

1 DR. DICKEY: That is correct in that regard.

2 MS. DOUGLAS: We also heard testimony that moisture  
3 can break up a salt crust; is that correct?

4 DR. DICKEY: Not directly.

5 MS. DOUGLAS: Can you explain that.

6 DR. DICKEY: Sure. The -- the indirect way that it  
7 can affect a salt crust is by changing the -- the salts in  
8 the salt crust, and particularly their volume, and that can  
9 weaken the salt crust. So it's not a breakage situation as  
10 you described it.

11 MS. DOUGLAS: All right. Great. But it can weaken  
12 the salt crust.

13 DR. DICKEY: Indeed.

14 MS. DOUGLAS: And if a salt crust is broken up by  
15 anything, sand for example, moisture would be needed to  
16 reform that crust, right?

17 DR. DICKEY: Yes.

18 MS. DOUGLAS: All right. In terms of wind, there  
19 are a number of variables of wind relating to wind that  
20 would be important to an analysis; is that correct?

21 DR. DICKEY: Yes.

22 MS. DOUGLAS: Variables might include the number of  
23 high speed wind events, wind speeds that are attained, the  
24 duration of wind events, steady wind for long periods of  
25 time at lower speeds, wind fetch.

1 Are all of these variables important?

2 DR. DICKEY: Sure. And I -- I'm not a  
3 micrometeorologist, but in general I'm aware that there are  
4 many parameters to describe wind to estimate risk. But I  
5 wouldn't testify to each of those individual items that --

6 MS. DOUGLAS: Okay. In terms of salt, you talked a  
7 little bit today about how the amount of salt residue can be  
8 important in how salty the lake is. Also salt chemistry can  
9 be important; is that correct?

10 DR. DICKEY: Yes.

11 MS. DOUGLAS: Would -- would it be fair to say that  
12 the relationship between these driving and resistive forces  
13 and forces that can contribute to or can reduce a PM-10  
14 problem are fairly complex?

15 DR. DICKEY: Fair to say.

16 MS. DOUGLAS: Now, we have some examples of other  
17 areas where there are PM-10 problems from dried up saline  
18 lake beds, and you've spoken about -- you've at least  
19 mentioned Mono Lake and Owens Lake, right?

20 DR. DICKEY: Uh-huh.

21 MS. DOUGLAS: And you're aware of the Searles Sea,  
22 for example, right?

23 DR. DICKEY: Uh-huh. Yes. Yes.

24 MS. DOUGLAS: Great. Thank you. You've got to help  
25 me, Mr. Osias.

1           MR. OSIAS: I just poked him. Trying to stay off  
2 the record.

3           MS. DOUGLAS: In these three different examples of  
4 Owens Lake and Mono Lake and the Searles Sea, if you know  
5 anything about it, would you say that the driving and  
6 resistive forces were equivalent or similar?

7           DR. DICKEY: Sorry. You're going to have to be more  
8 specific about the equivalency that you're asking me about.

9           MS. DOUGLAS: I'm -- let me -- okay. I'll be more  
10 specific.

11           We've talked about some similarities and differences  
12 between the Salton Sea and Owens Lake, correct?

13           DR. DICKEY: Yes.

14           MS. DOUGLAS: Are there also similarities and  
15 differences between Owens Lake and Mono Lake?

16           DR. DICKEY: There are -- I would say more probably  
17 there are similarities and differences between every lake  
18 and every other lake and every saline lake and every other  
19 saline lake. I'm not being evasive.

20           MS. DOUGLAS: No, I understand.

21           DR. DICKEY: I'm just trying to get a question I can  
22 respond to.

23           MS. DOUGLAS: Right. So it's -- would it be an  
24 adequate analysis to point to one or two similarities or one  
25 or two differences and try to draw a conclusion from that?

1 DR. DICKEY: Because the problem is complex, if the  
2 conclusion you're seeking is a definitive call on whether or  
3 not you're going to have a dust emissions problem there, on  
4 the hypothetical lake that you're going to hypothetically  
5 drain, a couple of parameters just simply don't tell you  
6 that.

7 MS. DOUGLAS: Great. Let's talk more about sand  
8 because at least Ted Schade, when he was out here, had told  
9 us that sand is the enemy of salt crust.

10 Do you agree with that statement by the way?

11 DR. DICKEY: I agree.

12 MS. DOUGLAS: Is it your testimony that there are  
13 not sources of windblown sands around the Salton Sea?

14 DR. DICKEY: No.

15 MS. DOUGLAS: Could you clarify your testimony about  
16 windblown sand sources around the Sea.

17 DR. DICKEY: Sure. My observation is that they're  
18 somewhat scarce in some of the areas where the bathymetry  
19 indicates that you'll have the greatest expanses of exposed  
20 sediments. And, furthermore, those are areas where we've  
21 had exposed sediments in the past during Sea fluctuations.  
22 It helps me square the rarity of this kind of anecdotal  
23 reporting.

24 MS. DOUGLAS: Could you indicate for the record  
25 what --

1 DR. DICKEY: Yes, it's shown in Salton Sea Authority  
2 Exhibit number 37.

3 Helps me square the rarity of that kind of thing  
4 with the fact that the sediments have been frequently  
5 exposed and exposed for prolonged periods.

6 MS. DOUGLAS: Have you ever read the salt -- the  
7 study of sediments of the Salton Sea? It's PCL Exhibit 20,  
8 but it's a reconnaissance study of the composition of  
9 sediments in the Salton Sea?

10 DR. DICKEY: The Levine Fricke --

11 MS. DOUGLAS: Yes.

12 DR. DICKEY: I'm familiar with its existence, but I  
13 have not read it, no.

14 MS. DOUGLAS: Have you seen any maps of the  
15 distribution of sand in the Salton Sea sediments?

16 DR. DICKEY: No.

17 MS. DOUGLAS: Have you -- you haven't, then, seen  
18 maps of the distribution of silt and clay in the Salton Sea  
19 sediments either?

20 DR. DICKEY: No. It's my understanding, again, from  
21 the secondhand discussion of the Levine Fricke study, that  
22 it was quite focused around the delta area, and they were  
23 looking particularly for toxics. I'm sure there are  
24 textural separates in there, too. It may be interesting.

25 MS. DOUGLAS: Do you agree with the statement of Ted

1 Schade that in an exposed lake bed, the worst situation that  
2 you could have is a mix of sand, silt and clay in the same  
3 area?

4 DR. DICKEY: It would depend on the mixture. I  
5 think every soil is a mixture. But -- so as stated, I think  
6 it's too simple.

7 MS. DOUGLAS: How would you state it? Let me try to  
8 restate it.

9 If there are fairly high levels of sand, silt and  
10 clay mixed in a same area, do you see that as a problematic?

11 DR. DICKEY: Potentially.

12 MS. DOUGLAS: Why is that?

13 DR. DICKEY: Because the sand is the driving force,  
14 and the other things are potentially PM-10.

15 MS. DOUGLAS: If you looked at the Levine Fricke  
16 report and it were to show hypothetically that in the areas  
17 that you said would be exposed, the areas around the delta,  
18 particularly the southeast of the Sea, were the same areas  
19 that have a mixture of sand, silt and clay, would that  
20 concern you?

21 DR. DICKEY: Not in the same measure that large  
22 concentrations of thicker sand would, and I'll tell you why.

23 MS. DOUGLAS: Okay.

24 DR. DICKEY: Soils -- all soils, as I said, are  
25 sand, silt and clay, every one of them. Even sand dunes,



1       you're going to find a little teeny bit of silt and clay.  
2       So that's just the deal. So to define a mixture of sand,  
3       silt and clay is to say, like, you walked outside and the  
4       sky was blue. It's always sand, silt and clay.

5               So these more equivalent mixtures that you're  
6       talking about, they can hold together fairly well, and they  
7       may not yield a whole lot of sand. If they don't yield a  
8       whole lot of sand, you don't have a lot of mobile sand.  
9       It's mobile sand that is a problem.

10              Dune sand, on the other hand, is mobile sand by  
11       definition. It's a ready supply of mobile sand. Also pure  
12       sand soils, such as are mapped out on Owens Lake in fairly  
13       extensive units, those are ready sources of mobile sand  
14       because sandy soil is noted for their lack of cohesion.  
15       Sand does not stick to itself very well. However, it's  
16       easily stuck together by silt and clay separates.

17              So the mere existence of a sand fraction in soil  
18       does not constitute a significant threat.

19              MS. DOUGLAS: Fair enough.

20              DR. DICKEY: It has to be mobile.

21              MS. DOUGLAS: I understand.

22              How high a number would -- of sand fraction would  
23       concern you? Five percent, ten, fifteen? When do we get  
24       into concern?

25              DR. DICKEY: Sand-dominated soils I think are soils

1       where you're looking at something in the neighborhood of 40-  
2       to 50-percent sand. And I think if you get up and over  
3       that, then you can have soils that have inferior cohesion  
4       and perhaps be more prone. But you still have to have  
5       mobile sand to break those apart.

6               MS. DOUGLAS: All right.

7               DR. DICKEY: And so in the absence of pure sand  
8       deposits, you don't have the explosive situation you do at  
9       Owens Lake.

10              MS. DOUGLAS: All right. Let's talk more about  
11      mobile sand. Now, you said you've been to the Salton Sea  
12      for two or three days. When was that?

13              DR. DICKEY: Just recently. April and last week.

14              MS. DOUGLAS: April and last week.

15              And did you go around the Salton Sea?

16              DR. DICKEY: I've been to the north, I've been to  
17      the west, and I've been to the southeast and the south.

18              MS. DOUGLAS: Who took you around?

19              DR. DICKEY: I took myself around the north, and  
20      Elton Grubon [phonetic] of Imperial Irrigation District took  
21      me around the south and the west.

22              MS. DOUGLAS: Did Elton Grubon take you or did you  
23      take yourself to the Navy test base on the shores of the  
24      Salton Sea?

25              DR. DICKEY: You're going to have to tell me exactly

1           where -- I think so.  Where is the Navy test base placed?  
2                    MS. DOUGLAS:  I don't recall exactly where it is.  
3           It's -- I've been there.  
4                    MR. OSIAS:  Okay.  
5                    MS. DOUGLAS:  But do you recall having been there?  
6                    DR. DICKEY:  Nothing I knew as the Navy test base, I  
7           can't say.  
8                    MR. OSIAS:  Does that help?  I put 89 up.  It's got  
9           the picture.  
10                   MS. DOUGLAS:  Thank you.  
11                    When you -- would it concern you at all if you knew  
12           that the Navy test base is -- has significant sand deposits  
13           around it?  
14                    DR. DICKEY:  Not necessarily.  
15                    MS. DOUGLAS:  What if you heard that at the Navy  
16           test base there are sand dunes that are right on the shores  
17           the Sea?  
18                    DR. DICKEY:  I know of some sand dunes on the shore  
19           of the Sea, and they don't concern me.  
20                    MS. DOUGLAS:  Why not?  
21                    DR. DICKEY:  Because they're adjacent to areas where  
22           the bathymetry indicates that there would be very little in  
23           the way of sediments exposed if the Sea level were to drop.  
24                    MS. DOUGLAS:  Let's go quickly to the Algodones  
25           Dunes.  You're aware of them as you mentioned, right?

1 DR. DICKEY: Right.

2 MS. DOUGLAS: And you weren't sure how far they are  
3 from the Sea, but does 15 miles sound about right?

4 DR. DICKEY: I cheated. I think I heard about 20  
5 during the break, but probably as good as 15.

6 MS. DOUGLAS: All right. Did you -- were you aware  
7 that these dunes extend nearly -- basically all the way to  
8 Mexico?

9 DR. DICKEY: No.

10 MS. DOUGLAS: Were you aware that this is the  
11 largest dune complex in the Western Hemisphere?

12 DR. DICKEY: No.

13 MS. DOUGLAS: And that these dunes extend more than  
14 60 miles?

15 DR. DICKEY: You know, I could see them from the  
16 Sea, and they were a long ways away, so I wasn't aware of  
17 their dimensions. But it was evident that they were large.

18 MS. DOUGLAS: How does sand get to a dune system  
19 that big? Does it blow there?

20 DR. DICKEY: It -- what do you mean by blow?

21 MS. DOUGLAS: Is it carried by the wind?

22 DR. DICKEY: Sand moves typically through creeping  
23 saltation.

24 MS. DOUGLAS: Does sand blow in the air?

25 DR. DICKEY: It depends on what you mean by -- I'm

1 not being evasive again, but I could cut to the chase here.  
2 It bounces across the ground propelled by wind, and it's  
3 quite different from other things that are carried in the  
4 wind as you say.

5 MS. DOUGLAS: Right. And actually this bouncing is  
6 a concern for PM-10 because it's the bouncing that kicks up  
7 particles?

8 DR. DICKEY: Sure.

9 MS. DOUGLAS: All right. So if you can imagine sand  
10 bouncing 20 miles to the Algodones Dunes, can you imagine  
11 sand bouncing from a part of the Sea that's not near  
12 emissive -- not near exposed lake beds, but by the Sea that  
13 is?

14 DR. DICKEY: No.

15 MS. DOUGLAS: Why not?

16 DR. DICKEY: Because, I think that the area that  
17 you're indicating, if it's the area I'm thinking on the west  
18 side of the Sea, is -- would have to cross the Sea, and sand  
19 doesn't cross water very well. It doesn't bounce off water.

20 MS. DOUGLAS: Let's go to the west side of the Sea  
21 then. Have you been on the west side of the Sea?

22 Let's go the east side of the Sea, I'm sorry. Have  
23 you been on the east side of the Sea?

24 DR. DICKEY: I've been on the east side of the Sea.  
25 I haven't been all along the entire eastern board of the

1 Sea.

2 MS. DOUGLAS: When you were on the east side of the  
3 Sea and you looked around, did you see loose sand?

4 DR. DICKEY: Not in the areas where I was, no.

5 MS. DOUGLAS: Did you get more than a mile from the  
6 highway?

7 MR. OSIAS: Let me just object. If you can specify  
8 a highway, that would be helpful.

9 MS. DOUGLAS: I'll do that.

10 Did you get more than a mile from the shores of the  
11 Salton Sea?

12 DR. DICKEY: More than a mile from the shores, you  
13 mean, up -- upland, right?

14 MS. DOUGLAS: Yes.

15 DR. DICKEY: I'm not certain.

16 MS. DOUGLAS: Are you aware -- well, did you get  
17 more than two or three miles upland away from the Salton  
18 Sea?

19 DR. DICKEY: Probably not. I was focused on  
20 sediments.

21 MS. DOUGLAS: Would you be at all concerned if you  
22 heard that there are sand deposits, say thin layers of  
23 unconsolidated windblown sand, sand sheets, to the east of  
24 the Sea about two to three miles from the Sea?

25 DR. DICKEY: I guess it would depend on what's

1           between them and the Sea.

2                   MS. DOUGLAS:  What do you think is between them and  
3           the Sea?  Is it flat?

4                   DR. DICKEY:  I really -- I don't know.  I don't have  
5           a firm thought about that.  I'm sorry.

6                   MS. DOUGLAS:  All right.  Have you ever heard the  
7           term "blow sand ecosystem"?

8                   DR. DICKEY:  No.

9                   MS. DOUGLAS:  So that would mean that you've never  
10          heard the term "blow sand ecosystem" applied to the  
11          Coachella Valley?

12                  DR. DICKEY:  No, not to my knowledge -- not to my  
13          recollection.

14                  MS. DOUGLAS:  Does the term "blow sand ecosystem"  
15          ring any alarm bells as we talk about the potential for sand  
16          kicking up PM-10?

17                  DR. DICKEY:  It indicates you've got mobile sand.  
18          That's the implication.

19                  MS. DOUGLAS:  All right.  Thanks.  No more  
20          questions.

21                  CHAIRMAN BAGGETT:  Okay.  Thank you.

22                  Mr. Fletcher, do you have a lengthy cross?

23                  MR. FLETCHER:  No, actually, I don't.

24                  CHAIRMAN BAGGETT:  Then let's continue and then take  
25          a break and then come back with the County afterwards.

1 MR. ROSSMANN: Yes, sir.

2 MR. FLETCHER: A lot of questions have already been  
3 asked.

4 CHAIRMAN BAGGETT: That's the advantage of going  
5 last.

6 ---o0o---

7 CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

8 BY DEFENDERS OF WILDLIFE

9 BY MR. FLETCHER

10 MR. FLETCHER: Do I do this every time I come up  
11 here?

12 Good afternoon, Drs. Ohlendorf and Dickey and Ms.  
13 Harnish. I have just a few questions for Dr. Dickey.

14 In your direct testimony, Dr. Dickey, you mentioned  
15 several factors that go into the formation of fluffy salt  
16 crust including temperature differences, presence of  
17 sulfates, carbonates. And then you indicated that in two  
18 different dry lakes in which those factors vary, you might  
19 have different salt crust; is that right?

20 DR. DICKEY: Sure.

21 MR. FLETCHER: Now, you also said that you can't  
22 guarantee that you won't have fluffy salts at the Salton  
23 Sea, notwithstanding that those factors are different in  
24 some respects than they are at Owens Lake; is that correct?

25 DR. DICKEY: Right.



1 MR. FLETCHER: And why can't you guarantee them?

2 DR. DICKEY: Well, I think the first is the -- the  
3 lack of experience, I guess, evidence studying the problem  
4 very much. At the workshop, for example, there was a long  
5 list of -- of needed data that were developed by the people  
6 at the workshop. And one of the things on the list was a  
7 study of how the salts change in the Salton Sea climate,  
8 Salton Sea salts change in that climate. Nobody at the  
9 workshop was aware of a study that describes that.

10 MR. FLETCHER: And I think on -- in your direct  
11 testimony, you actually said that it was the consensus of  
12 that work -- at the workshop that there are basically  
13 significant information gaps concerning -- that would need  
14 to be filled if we wanted a precise characterization of what  
15 air quality problems might be caused by exposing 50,000  
16 acres of seabed.

17 DR. DICKEY: I'd say that -- yeah. The precise --

18 MR. FLETCHER: Maybe not --

19 DR. DICKEY: People weren't even talking about  
20 precise, yeah.

21 MR. FLETCHER: Notwithstanding that consensus or  
22 those information gaps, it was also the consensus at that  
23 workshop that there is a very high probability of airborne  
24 dust problems if 50,000 acres of seabed are exposed at the  
25 Salton Sea; is that correct?

1 DR. DICKEY: Have you -- I haven't seen their  
2 report, and I didn't gather that to be the consensus, no.

3 MR. FLETCHER: Okay. Now, you testified on direct  
4 that an airborne dust emissions problem that is one percent  
5 of that at Owens Lake would be a concern regardless of where  
6 it occurs; is that -- is that correct?

7 DR. DICKEY: The basis of that, yes, is correct.  
8 The basis of that is that the worse dust concentrations at  
9 Owens Lake are, well, about a hundred times the -- the EPA  
10 limits, right.

11 MR. FLETCHER: So it doesn't matter if it's in San  
12 Diego or at the Salton Sea, it's a concern basically if you  
13 have one percent.

14 DR. DICKEY: Well, if you divide that number by a  
15 hundred, you end up with a number that's too high.

16 MR. FLETCHER: Is it possible that if 50,000 acres  
17 of seabed are exposed at the Salton Sea, you would have dust  
18 emissions that are one percent of those at Owens Lake?

19 DR. DICKEY: It is possible.

20 MR. FLETCHER: Is it possible that if 50,000 acres  
21 of seabed were exposed at the Salton Sea you'd have airborne  
22 emissions of dust that are 10 percent of those at Owens  
23 Lake?

24 DR. DICKEY: You know, I -- I don't really have  
25 enough data to speculate about those levels. Those levels

1 are quite substantial, and I don't have data to support that  
2 kind of hypothesis.

3 MR. FLETCHER: So you can't say whether it's  
4 possible or impossible.

5 DR. DICKEY: I couldn't declare it impossible.

6 MR. FLETCHER: Thank you. No more questions.

7 CHAIRMAN BAGGETT: Let's take a ten-minute recess,  
8 and we'll come back with County of Imperial.

9 (Break taken.)

10 CHAIRMAN BAGGETT: Let's go back on the record with  
11 Mr. Rossmann for the County of Imperial.

12 MR. ROSSMANN: Thank you, sir.

13 ---o0o---

14 CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

15 BY COUNTY OF IMPERIAL

16 BY MR. ROSSMANN

17 MR. ROSSMANN: Good afternoon. For the two of you  
18 who weren't here last time, I am Tony Rossmann, and I  
19 represent the County of Imperial, an entity distinct from  
20 the Imperial Irrigation District, a point that is sometimes  
21 lost in these proceedings.

22 I -- Ms. Harnish, I have a few questions for you on  
23 the EIR and the baseline issue, and then most of my  
24 questions will be for Dr. Dickey.

25 In your testimony or perhaps in response to

1 someone's question, you mentioned that there might have to  
2 be subsequent environmental review on a particular point.

3 MS. HARNISH: Yes, I was referring to if the source  
4 of water for the HCP-2 approach were other than what we've  
5 evaluated.

6 MR. ROSSMANN: And would it be your anticipation  
7 that that review would have to take place before the lead  
8 agency made a decision to enter into an agreement?

9 MS. HARNISH: I -- I believe -- I believe it would.

10 MR. ROSSMANN: It would be completed before there  
11 would be that decision. Okay.

12 So my understanding is that on 25 June, the Imperial  
13 District Board has an agenda item to certify the  
14 Environmental Impact Report, but they're not going to make a  
15 decision -- at least to the best of your knowledge, they're  
16 not going to actually make that decision that day.

17 MS. HARNISH: That's right.

18 MR. ROSSMANN: Okay. Will the QSA EIR be certified  
19 before 25 June to your knowledge?

20 MR. OSIAS: Objection. Although, I may be educated  
21 by Mr. Rossmann, unless it relates to the certification of  
22 our EIR, we asked no QSA EIR questions in rebuttal.

23 MR. ROSSMANN: Well, yeah, I do want to get this  
24 straight because, as I recall the testimony in the first  
25 round, there was acknowledgement that both the QSA and IA

1 EIR/EIS's were relied upon in this document. So I just  
2 wanted to find out if you were still going to follow that --

3 MS. HARNISH: Yes.

4 MR. ROSSMANN: -- that line.

5 So --

6 MS. HARNISH: The plan is for the QSA to be  
7 certified ahead of the IID EIR/EIS.

8 MR. ROSSMANN: Okay. And to your knowledge, is that  
9 also true with respect to the Bureau on the IA EIS?

10 MS. HARNISH: Well, it's an EIS so I believe that  
11 they are planning to do the equivalent of a certification  
12 prior to the certification of our documents.

13 MR. ROSSMANN: How about the Bureau's action on this  
14 joint EIS/EIR? Will that take place before the Imperial  
15 Board meets or will it take place afterwards to your  
16 knowledge?

17 MS. HARNISH: It will take place after.

18 MR. ROSSMANN: Okay. I believe the staff of the  
19 Board commented on the EIR/EIS stating that under certain  
20 circumstances an amendment to the petition before the Board  
21 might be necessary.

22 Did you see that letter?

23 MS. HARNISH: I did see the letter. But, as I said,  
24 there were 1700 comments, so I can't really --

25 MR. ROSSMANN: Right. However, this might be a

1 pretty important one.

2 MS. HARNISH: There were a lot of important ones.

3 MR. ROSSMANN: Right. Well, I'm going to just lead  
4 up to this very narrow question.

5 Will the final EIR address, as part of the project,  
6 amending the petition before this Board?

7 MS. HARNISH: You mean if it's necessary?

8 MR. ROSSMANN: Yes.

9 MS. HARNISH: I suppose if we know that it's  
10 necessary at the time the final EIR is released, we would  
11 note that.

12 MR. ROSSMANN: Okay. I know you've taken a lot of  
13 heat on reasonable and foreseeable baseline, so I want to  
14 preface these questions by stating that I have admiration  
15 for that aspect of your analysis of the reasoning that  
16 you've put into that. But I just have two questions on  
17 that.

18 Will that baseline, based on reasonably foreseeable  
19 conditions, also include a baseline that has reduced  
20 Colorado water river [verbatim] availability to San Diego?

21 MR. OSIAS: Let me -- let me object just on the  
22 basis of ambiguity, because we were quite careful in our  
23 questioning. The baseline that the testimony was about on  
24 rebuttal dealt with the baseline used for the Salton Sea  
25 resource. I assume -- for which San Diego is not relevant.

1 I assume your question is about a baseline maybe for impacts  
2 in San Diego, and I'm not sure there even is a baseline used  
3 in that analysis.

4 MR. ROSSMANN: Well, Your Honor, remember when Mr.  
5 Kirk was doing this line of questioning I spoke up because I  
6 anticipated asking the question just to determine what  
7 elements are in the baseline.

8 MR. OSIAS: But there's not one baseline is the  
9 point. There's a baseline for the Salton Sea resource. If  
10 that's what your question is, that's fine.

11 MR. ROSSMANN: Well, then let me ask --

12 MR. OSIAS: That's my objection. If we just  
13 specify --

14 MR. ROSSMANN: All right. Then let me take that  
15 objection in mind and withdraw the question I asked --

16 CHAIRMAN BAGGETT: Withdraw the question.

17 MR. ROSSMANN: -- and restate and ask this question.

18 What will be the baseline for Colorado water river  
19 [verbatim] availability in San Diego?

20 MS. HARNISH: I -- I don't --

21 MS. HASTINGS: I would object. This is outside the  
22 scope of this witness's testimony on rebuttal.

23 MR. ROSSMANN: Perhaps she was going to say she  
24 can't recall and that might be a more satisfactory answer,  
25 but -- I mean, I think it's a legitimate question to find

1 out how this baseline is going to be treated.

2 MS. HASTINGS: I again object. It's outside the  
3 scope of rebuttal testimony.

4 CHAIRMAN BAGGETT: Overruled. Answer the question  
5 if you can.

6 MS. HARNISH: I guess I don't recall if we have a  
7 specific baseline assumption about San Diego receiving  
8 water --

9 MR. ROSSMANN: Okay.

10 MS. HARNISH: -- the amount of water --

11 MR. ROSSMANN: That's a fair answer.

12 MS. HARNISH: -- and how that would be affected by  
13 the project.

14 MR. ROSSMANN: Now, you did testify that -- I did  
15 write this exact statement down in your direct testimony,  
16 that CH2MHill did evaluate existing conditions.

17 Did I get that correct?

18 MS. HARNISH: We -- we looked at what we -- we  
19 described existing conditions.

20 MR. ROSSMANN: Okay. Then that leads up to my next  
21 question. Did you compare the project and its alternatives  
22 to existing conditions?

23 MS. HARNISH: Are we talking about the Salton Sea?

24 MR. ROSSMANN: I'm talking about -- well, let's  
25 talk -- well, yes, let's talk about the Salton Sea. Let's



1 use that as the example since that was the scope of the  
2 rebuttal testimony, make your counsel smile, which is always  
3 good to see in these proceedings.

4 With respect to the Salton Sea, did you compare the  
5 project and its alternatives to existing conditions as well  
6 as your baseline?

7 MS. HARNISH: We did not evaluate impacts based on  
8 the existing condition.

9 MR. ROSSMANN: Okay.

10 Okay. Dr. Dickey, welcome to these proceedings. I  
11 couldn't remember from my memory whether you said you'd  
12 worked up at Owens Lake since 1997 or 1977. So perhaps you  
13 should help refresh my recollection on that.

14 DR. DICKEY: '97.

15 MR. ROSSMANN: 1997.

16 And I think it's clear, but your client, if you  
17 will, is the Los Angeles Department of Water and Power.

18 DR. DICKEY: That is correct.

19 MR. ROSSMANN: And in the course of that, you've  
20 obviously worked very closely with the Great Basin Air  
21 Pollution Control District.

22 DR. DICKEY: Very much so.

23 MR. ROSSMANN: And you've gotten to know Ted Schade  
24 pretty well.

25 DR. DICKEY: Yes, I have.

1           MR. ROSSMANN: How long have you worked with him in  
2 that endeavor?

3           DR. DICKEY: Pretty much the whole time. I'd say at  
4 the beginning of the proceeding, of our work with Water and  
5 Power, we were working as an expert witness, and so it was  
6 more -- but that -- but that really turned in to a more  
7 collaborative situation very quickly and happily, I'd say.

8           MR. ROSSMANN: As a result of ARB's action sending  
9 things back to the Great Basin Air Pollution Control  
10 District?

11          DR. DICKEY: That was a contributing part of that  
12 history.

13          MR. ROSSMANN: So you worked with Dr. -- with Dr.  
14 Schade both as a -- as, if you will, a participant in these  
15 proceedings and then as a collaborator in implementing the  
16 mitigation plan at Owens Lake.

17          DR. DICKEY: I worked with him in -- I'm the  
18 principal liaison for DWP in -- for the research program  
19 carried on by Great Basin, which is indirectly funded  
20 through an investment of Department of Water and Power.

21          And I work with him regularly on questions related  
22 to the dust mitigation projects.

23          MR. ROSSMANN: Have you formed an opinion of Dr. --  
24 of Ted Schade's professional qualifications?

25          Do you -- let me ask it this way: Do you highly

1 regard Ted Schade as a professional?

2 DR. DICKEY: Certainly I regard Ted Schade.

3 MR. ROSSMANN: Okay. You respect his opinions?

4 DR. DICKEY: I respect his opinions.

5 MR. ROSSMANN: You mentioned struggles. Have you  
6 had some disagreements?

7 DR. DICKEY: Certainly.

8 MR. ROSSMANN: Could you describe some of those,  
9 just two or three just to give us an illustration.

10 DR. DICKEY: Well, I'll give you one anyway.  
11 Hopefully that will help you.

12 When we set off with the Department of Water and  
13 Power, they were saddled with a fairly rigid state  
14 limitation program plan that had been drafted by the  
15 District, and we helped argue that it would be better to  
16 have a more flexible situation, which was eventually what  
17 happened in a memorandum and agreement between the  
18 Department and the District.

19 MR. ROSSMANN: Okay. That's a good illustration.

20 I've put up -- I've asked Mr. Hattam to put up  
21 Imperial 86 again, the indescribable photograph about which  
22 we've had a lot of discussion. And I just had a very narrow  
23 question on this.

24 I recall your testimony that this view could be a  
25 view from the south.

1                   It just decided to --

2                   DR. DICKEY: Just hit the control button there in

3 the corner.

4                   CHAIRMAN BAGGETT: Go off the record.

5                                 (Discussion held off the record.)

6                   CHAIRMAN BAGGETT: Go back on the record.

7                   MR. ROSSMANN: Thank you for that assist.

8                   I recall your testimony was that you thought this

9 might be a view from the south; is that correct?

10                  DR. DICKEY: The lower one I thought might be a view

11 from the south, but it's -- because of the dust, you know,

12 it's a little hard to pick out the landmarks.

13                  MR. ROSSMANN: Well, it seems to me that the dust is

14 blowing from the right to left-hand side of that photograph.

15                  DR. DICKEY: Looks like that.

16                  MR. ROSSMANN: If that were the case, wouldn't that

17 be blowing off the Sierra Crest from west to east?

18                  DR. DICKEY: Yeah, and the wind directors are

19 primarily north to south there, so it's a bit puzzling. But

20 you get -- you get winds blowing every which way on Owens

21 Lake from time to time, so that's not a good clue for me.

22                  MR. ROSSMANN: Not a good clue. Okay. All right.

23                  Your testimony, I think twice you stated that the

24 Imperial Valley is a nonattainment area?

25                  DR. DICKEY: That's my understanding.

1           MR. ROSSMANN: I see. Do you have an understanding  
2 of the basis for which the Imperial Valley may be designated  
3 a nonattainment area?

4           DR. DICKEY: No, I don't have a detailed  
5 understanding of that.

6           MR. ROSSMANN: Now, clearly in assessing the PM-10  
7 impacts, wind is a very important factor; is that correct?

8           DR. DICKEY: True.

9           MR. ROSSMANN: So if the wind were not accurately  
10 measured for the project at issue, that would influence  
11 adversely the PM-10 analysis. If the wind impacts were  
12 understated based on faulty measurements, that would  
13 influence the PM-10 analysis, would it not?

14          DR. DICKEY: It could.

15          MR. ROSSMANN: Let me ask you to -- well, let's come  
16 back to that. I mean, is there any way in which an  
17 understated wind speed could overstate the adverse impacts  
18 of potential PM-10 emissions?

19          DR. DICKEY: In terms of emissions, probably not.

20          MR. ROSSMANN: Okay. Could I ask you to -- with the  
21 assistance of some of your colleagues there -- put Imperial  
22 79 back up. That's one of the Salton Sea elevation graphs.

23          MR. OSIAS: No, that one is not one of them.

24          MR. ROSSMANN: Well, then I must have miscopied.

25          Let me --

1 MR. OSIAS: Which one do you want? What does it  
2 show?

3 MR. ROSSMANN: It's one of those two.

4 (Discussion held off the record.)

5 MR. ROSSMANN: Let's go with the more -- 73, I'm  
6 sorry.

7 MR. OSIAS: 78.

8 MR. ROSSMANN: 78. That was my mistake. I'm sorry.  
9 I'm referring to Imperial 78.

10 Now, let's focus first on the recent fluctuations in  
11 sea level. And let me ask you, sir, to focus on sea level  
12 from about 1979 to the present. And what would be the range  
13 of fluctuations in Salton Sea level in that time period of  
14 approximately the -- the most recent 20-plus years?

15 DR. DICKEY: 229 to about 226 it looks like.

16 MR. ROSSMANN: So plus or minus one-and-a-half to  
17 two feet off an average; is that right?

18 DR. DICKEY: Yeah, that would be about right.

19 MR. ROSSMANN: Okay.

20 I'm sorry. You have to -- as your counsel reminded,  
21 you have to say yes or no here.

22 Now, it was lower before that; it was never higher  
23 than it has been in that plateau that we've experienced in  
24 the last 20 years. So, I mean, at least since nineteen  
25 oh -- well, 1919 it looks like. Never been higher than

1           that.

2           DR. DICKEY: Yeah, that's what these data show.

3           MR. ROSSMANN: Right. It did take that dip that  
4 your counsel pointed out, and looked to me like around 1933  
5 or four, took a dip there, didn't it, of how many feet?

6           DR. DICKEY: It's a little later.

7           MR. ROSSMANN: Yeah.

8           DR. DICKEY: About six feet.

9           MR. ROSSMANN: Six feet. But then when it recovered  
10 that lost elevation, how many years differential are we  
11 talking about?

12          DR. DICKEY: Looks like peak to peak, maybe ten,  
13 eight, ten.

14          MR. ROSSMANN: Eight, ten at the most, maybe?  
15 Perhaps even less, maybe even six years?

16          DR. DICKEY: Would be 31 measured to here.

17          MR. ROSSMANN: Oh, I wasn't going peak to peak. I  
18 was going from where it started to where it took that steep  
19 decline. Looked like it was paralleling the stock market,  
20 Dow Jones, about the same point in our history. And then  
21 when it goes back up to that same level, looked to me about  
22 244.

23          DR. DICKEY: It's hard for me to know the spot  
24 you're picking out on the graph. You're welcome to point  
25 them out to me.

1           MR. ROSSMANN: Okay. Well, ten years is the longest  
2 period, but I think if you were to look at the 244-foot  
3 elevation there, it looked to me like it was more like five  
4 or six years. But I'd like you to be comfortable with that  
5 since you're the witness here.

6           DR. DICKEY: I'm not going to testify to five or six  
7 years between two points that I can't identify.

8           MR. ROSSMANN: Okay. Well, let's ask you to look  
9 back then at the exhibit and look at the 244-foot elevation  
10 contour. If I -- let me -- minus 244, yes, sir, that's it.

11           What year did it lose that level and take the steep  
12 dive?

13           DR. DICKEY: (Indicating.)

14           MR. ROSSMANN: Yes, sir. What year was that,  
15 recognizing you could be off one or two here?

16           DR. DICKEY: That looks like 1934.

17           MR. ROSSMANN: All right. And then what year did it  
18 then reattain the two hundred -- the minus 244-foot lake  
19 level?

20           MR. OSIAS: He's pointing to a point, Counsel. Is  
21 that where you want him to answer?

22           MR. ROSSMANN: Yes, that's right. Thank you very  
23 much, sir.

24           DR. DICKEY: 1940.

25           MR. ROSSMANN: So it is about six years, then.



1 DR. DICKEY: Between those two points.

2 MR. ROSSMANN: For those two points to restore to  
3 that minus 244.

4 Let me ask you this: Have you done any work at Mono  
5 Lake?

6 DR. DICKEY: No, I've done no work at Mono Lake.

7 MR. ROSSMANN: No work at Mono Lake.

8 Are you aware of the elevation loss of Mono Lake  
9 from the time DWP commenced diversions and this Board's  
10 decision in 1994 that turned that around?

11 DR. DICKEY: I'm aware of the fact of a -- of the  
12 lowering of the elevation.

13 MR. ROSSMANN: If I were to represent to you that  
14 Defenders' Exhibit 19 in these proceedings, which is this  
15 State Board's decision, shows that there was a 42-foot drop  
16 in elevation between 1941 and '94, would that sound  
17 reasonable to you or would you prefer to see that exhibit to  
18 verify that?

19 DR. DICKEY: I don't know that I need to verify your  
20 exhibits or that I could.

21 MR. ROSSMANN: If that were the case -- let me just  
22 ask you to assume if that were the case, we would be talking  
23 about a fluctuation that is more than 20 times the  
24 fluctuation that has been experienced at the Salton Sea for  
25 the last 50 years; is that correct?

1 DR. DICKEY: I haven't done the math. Help me out.  
2 What's your exhibit?

3 MR. ROSSMANN: We're talking a 42-foot elevation  
4 drop at Mono Lake lowering from a value of 6417 to 6375.  
5 And I'm asking you to compare that to the fluctuations that  
6 we started out with from 1979 to the present.

7 DR. DICKEY: That were three feet.

8 MR. ROSSMANN: Three feet. Okay.

9 So it would be 13, 14 times the difference.

10 DR. DICKEY: Right.

11 MR. ROSSMANN: Let's look at the time period as  
12 well, the number of years when the elevation started to fall  
13 and then things were turned around.

14 You've worked for DWP, so, I mean, I assume that  
15 you're generally aware that it was in the 1941 time frame  
16 when Los Angeles started its diversions from Mono Lake.

17 DR. DICKEY: I haven't worked on their larger water  
18 projects. I mean, I haven't worked on Mono Lake and am only  
19 generally familiar with its history.

20 MR. ROSSMANN: But if the time period were 50-plus  
21 years, in fact, 53 years, that would be a remarkably  
22 different period in which there had been exposure of lake  
23 bed than anything that we have experienced at the Salton  
24 Sea; isn't that correct?

25 DR. DICKEY: It would be -- restate the question,

1 please.

2 MR. ROSSMANN: Well, if in fact it was a 50-plus  
3 year period in which Mono -- Mono Lake's elevation were in  
4 decline --

5 DR. DICKEY: Uh-huh.

6 MR. ROSSMANN: -- that would be a significantly  
7 longer period of time than any exposure we have seen in this  
8 century at the Salton Sea.

9 MR. OSIAS: For the record, the witness has just put  
10 up Exhibit 77.

11 MR. ROSSMANN: Thank you.

12 DR. DICKEY: And the answer would be no.

13 MR. ROSSMANN: It would not be remarkably different  
14 and why is that?

15 DR. DICKEY: Because during this century, we had  
16 lake bed levels quite a bit higher than the ones we've been  
17 referring to. I'll point them out here.

18 MR. ROSSMANN: Yes, sir. You're pointing to a peak,  
19 and what year was that, like 1907, 1908?

20 DR. DICKEY: Right. And I just indicate that since  
21 the Sea hasn't refilled to that level, for instance, we've  
22 got about a hundred year period during which those sediments  
23 have been exposed. So that would exceed the period  
24 you're -- you've cited for Mono Lake, objectively.

25 MR. ROSSMANN: So a portion of the Salton Sea that

1 was briefly covered with water for a period of two or three  
2 years has remained exposed since 1907, 1908.

3 DR. DICKEY: Right.

4 MR. ROSSMANN: Okay. Well, in fact, if one looked  
5 at geologic time, isn't it true that a much larger portion  
6 of the Salton Sea was covered with water and has been  
7 exposed since, say, 1600?

8 MR. OSIAS: I'm going to object just for the  
9 interest of time that this is -- this and the entire Mono  
10 Lake discussion is well beyond the direct. The one question  
11 that was asked about Mono Lake, just so we don't get into  
12 quibbling, was whether anecdotal reports were available and  
13 rather promptly, to which inquiry is appropriate. But we've  
14 gone into now great detail in an area he doesn't work in  
15 indirectly, so I object to the scope.

16 CHAIRMAN BAGGETT: Do you have a response?

17 MR. ROSSMANN: Well, Your Honor, I think the quick  
18 response is, in the interest of moving along, I have  
19 concluded my examination. Thank you.

20 CHAIRMAN BAGGETT: Thank you.

21 Mr. Rodegerdts, Farm Bureau.

22 Mr. Du Bois.

23 MR. DU BOIS: Pass.

24 CHAIRMAN BAGGETT: Mr. Gilbert.

25 MR. GILBERT: No, sir.

1                   CHAIRMAN BAGGETT: I've got a couple. Do you have  
2 any?

3                   MR. FECKO: I do.

4                   CHAIRMAN BAGGETT: Do you want to go first?

5                   MR. FECKO: I can go.

6                   CHAIRMAN BAGGETT: Andy and Tom, and then I've got a  
7 couple of follow-up.

8   ---o0o---

9                   CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT  
10   BY STAFF

11                   MR. FECKO: Good afternoon. Dr. Ohlendorf, let me  
12 start with you.

13                   Going back to selenium concentrations that are in  
14 the water column in the Sea now, do you recall what those  
15 concentrations are today?

16                   DR. OHLENDORF: I think they're generally on the  
17 order of a part per billion or two.

18                   MR. FECKO: We've heard some testimony that by some  
19 mysterious process selenium keeps flowing into the Sea, but  
20 the concentration in the Sea is not going up.

21                   Is that -- is that an accurate representation of the  
22 process that's going on?

23                   DR. OHLENDORF: I think it's an accurate description  
24 of what's going on in the water column, right.

25                   MR. FECKO: Uh-huh.

1           Do you know or have any theories about why that's  
2           happening or if it will continue or --

3           DR. OHLENDORF: Well, I think there are a number of  
4           processes that are probably going on with what happens with  
5           selenium when it gets into the Sea. Part of it is deposited  
6           into the tidal sediment layer, and part of it is taken by  
7           biota. There's probably some export by large numbers of  
8           birds, for example, coming in and feeding there and then  
9           migrating elsewhere. Invertebrates could do some of that.

10          MR. FECKO: Building on that, do you know what  
11          kinds -- what forms of selenium are being sampled for around  
12          the Sea, recognizing that different forms are more  
13          bioavailable or less bioavailable to the biota there?

14          DR. OHLENDORF: I have not seen results for  
15          different fractions in the water column. I would expect  
16          that what's being measured for the most part is total  
17          recoverable since that's what the criteria are based on.  
18          For the biota tissues and for sediment, I believe the  
19          measurements would most likely be total selenium in most  
20          cases. I haven't seen any fractionation of organic species  
21          or the different inorganic species.

22          Typically, though, in something like the inflow  
23          water it would selenate that's coming in predominantly.

24          MR. FECKO: Okay. Thanks.

25          Dr. Dickey, in your work at Owens, have you -- is

1       there any evidence of or can you tell if there has been  
2       emissions in the past as the lake has grown and shrunk?  
3       We've heard some testimony that Owens has in fact over the  
4       years shrunk and expanded, and so this leads me to think  
5       that sediments have been left behind over the years that are  
6       potentially emissive.

7                Can you see evidence of that, let's say, in the  
8       surrounding geology, that windblown sediments erode rock  
9       formations or anything like that?

10              DR. DICKEY: You can see fairly direct evidence of  
11       it in the shorelines, the ancient shorelines. That's  
12       probably the easiest way to see where the -- where the lake  
13       has been historically. And some of them are well beyond the  
14       historic period.

15              Is that --

16              MR. FECKO: I think I'm more thinking of evidence of  
17       blowing sediment eroding things like rock structures or --

18              DR. DICKEY: I see.

19              MR. FECKO: I think we saw railroad ties that looked  
20       to be fairly --

21              DR. DICKEY: Yeah, you know, the eroding part --  
22       erosion is again mobile sand. That's the thing that does  
23       mechanical damage not only to soil crusts, but also to rock.  
24       And so there are -- there are rocks around the lake that  
25       have been there quite some time. The -- and then they're

1 eroded. I don't know for sure that they were eroded by --  
2 to what extent they were eroded by mobile sand. But then  
3 you can see sand dunes all around the lake, and we know  
4 where they came from.

5 MR. FECKO: Certainly.

6 DR. DICKEY: Right.

7 MR. FECKO: Switching a little bit on the attack  
8 here.

9 As a terminal lake like Owens or Salton Sea dries,  
10 the remaining pool as it's shrinking becomes more and more  
11 salty, obviously. Would you agree?

12 DR. DICKEY: Yes, typically.

13 MR. FECKO: Okay. And at some point salts begin to  
14 precipitate out?

15 DR. DICKEY: Right, at some point in the more  
16 concentrated portions --

17 MR. FECKO: Okay.

18 DR. DICKEY: -- of the lake, yeah.

19 MR. FECKO: And I'm not sure this was a situation at  
20 Owens, but realizing that the lake didn't dry up completely,  
21 but if you were to reapply water to portions of a lake that  
22 were once under water, have dried up and now you've  
23 reapplied water, do those salts become remobilized,  
24 redissolved?

25 DR. DICKEY: When you -- in general we're talking



1 about salts that are relatively soluble. Okay. So the  
2 addition of water will immediately -- you know, it will  
3 become salt solution when you add it to the lake. It's --  
4 if you put pure water on, very quickly you have salty water.

5 To get to a couple of other pieces of your question,  
6 first about precipitated salts. I mentioned the mineral  
7 deposits in the brine pool. There are significant  
8 precipitated salts that are minable at Owens, and we are  
9 adding relatively fresh water to about ten square miles of  
10 the lake. The average electric conductivity of those I  
11 think runs in the ten, twenty range, which is quite salty.  
12 When they go on, they have very, very little salt. It comes  
13 from the aqueducts.

14 So there's the answer to your question. You put  
15 fresh water on a salty lake, and you get salty water in a  
16 hurry.

17 MR. FECKO: Uh-huh.

18 I guess we're trying to understand that in the  
19 context of the Salton Sea where you have an ancient lake bed  
20 which was reflooded and ostensibly turned into a fresh water  
21 body, semi-fresh water body for some period of time.

22 DR. DICKEY: Right.

23 MR. FECKO: And it got saltier as years have gone  
24 on.

25 DR. DICKEY: Okay. And I think the evolution,

1       you're looking at a couple things happening. You have one  
2       large addition of a solution of salt and water from the  
3       Colorado River at the beginning. You evaporate a great deal  
4       of that water. Now it's more -- it's saltier.

5                Meanwhile, as you kick in agriculture, you're  
6       sending return flows which are also somewhat saltier than  
7       the river water, but -- but less salty than the Sea. But  
8       they're taking an amount of salt every year to the Sea.

9                You have ongoing evaporation from the Sea. So the  
10      pattern is you keep putting water and salt in and the only  
11      thing you're taking away is water, and so you end up with a  
12      saltier and saltier lake.

13               MR. FECKO: Sure.

14               DR. DICKEY: That's what I perceived to be your  
15      question.

16               MR. FECKO: Right.

17               DR. DICKEY: Help me out if I miss the track.

18               MR. FECKO: I think what I'm trying to get to is  
19      that the Salton Sea started out fairly fresh, even though it  
20      was -- there was a salty lake bed there left from previous  
21      fillings and dryings.

22               DR. DICKEY: Right. I don't know what the  
23      salinities were initially, but I would guess that that very  
24      large lake would have been pretty close to Colorado River  
25      water with a little extra salt from the historic deposits.

1 MR. FECKO: Okay. That's where I was going.

2 You mentioned you had some anecdotal contact with  
3 people in the Salton Sea area. Did anyone mention having  
4 problems with sand accumulating on their properties, on  
5 their farms, anything like that?

6 DR. DICKEY: I didn't really look into that, so  
7 those weren't the anecdotes I was looking for. They may  
8 have -- those same people may have been able to tell me  
9 about that if I had asked. I can't say whether they could  
10 or not.

11 MR. FECKO: That's all I have.

12 CHAIRMAN BAGGETT: Tom, do you have any?

13 MR. PELTIER: Yeah, I have a couple of questions for  
14 Ms. Harnish. If this is outside the scope of your rebuttal,  
15 you don't have to go into it.

16 In relation to the evaluation of the baseline  
17 salinity levels, do you know of any way to maintain salinity  
18 levels under reduced inflow conditions? All the curves that  
19 we saw show rising salinity. We have heard that there's  
20 going to be some at least potential mitigation measures  
21 implemented.

22 MS. HARNISH: Do I know of a way to maintain  
23 salinity in the Sea if flows are reduced?

24 MR. PELTIER: Yes.

25 MS. HARNISH: No.

1 MR. PELTIER: Okay. Thank you.

2 CHAIRMAN BAGGETT: I have a couple questions.

3 ---o0o---

4 CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

5 BY THE BOARD

6 CHAIRMAN BAGGETT: Ms. Harnish, in the final EIR is  
7 the ET fallowing concept, which has been discussed today, is  
8 that going to be evaluated as opposed to the --

9 MS. HARNISH: I don't think ET fallowing was  
10 discussed today.

11 CHAIRMAN BAGGETT: It was discussed in last two  
12 days, I guess, yesterday and today.

13 MR. OSIAS: Do you know the answer?

14 MS. HARNISH: I don't -- I guess I would need to be  
15 briefed a little more in detail on ET fallowing to respond  
16 to that on exactly what you mean.

17 CHAIRMAN BAGGETT: I don't know if it was clear what  
18 anybody meant.

19 MS. HARNISH: That's why I'm reluctant to respond.

20 MR. OSIAS: To recorrect for a moment.

21 CHAIRMAN BAGGETT: Okay.

22 MR. OSIAS: One of the questions that came up  
23 yesterday, I think from either you or staff, was if you  
24 fallowed to conserve water, and then you had to conserve  
25 some more to make up for even that reduced inflow, the total

1 acreage was 75,000.

2 CHAIRMAN BAGGETT: Right.

3 MR. OSIAS: Somebody did that math.

4 The EIR will assess up to a total of 75,000 as acres  
5 being fallowed. Whether it's three hundred saved and then a  
6 hundred mitigation --

7 CHAIRMAN BAGGETT: Got it.

8 MR. OSIAS: -- or some euphemism of ET is probably  
9 not addressed in that style. That's answer one.

10 And answer two is, it's assessed for purposes of  
11 certain impacts. But the socioeconomic portion of the  
12 question, which I think also came up yesterday --

13 CHAIRMAN BAGGETT: Right, it did.

14 MR. OSIAS: -- the hundred thousand extra for the  
15 mitigation to the Sea is viewed as an environmental  
16 mitigation expense.

17 So the socioeconomic impact was really, at least to  
18 date, focused on the creation of a three hundred.

19 CHAIRMAN BAGGETT: Okay.

20 MR. OSIAS: So there's a bit of a split there, and  
21 that's why it's in flux to figure out what to do about it.

22 CHAIRMAN BAGGETT: Okay. Thank you. That's fair.

23 MR. PELTIER: Did you take the oath?

24 MR. OSIAS: I did. Want to swear me?

25 MR. KIRK: Can he cross-examine me?

1           MR. OSIAS: I'll put that in the form of a question.  
2           Is that correct?

3           MS. HARNISH: That's right.

4           CHAIRMAN BAGGETT: Thank you.

5           Am I correct in my understanding that the fish pond  
6           mitigation measure is now not going to be included in the  
7           final EIR?

8           MS. HARNISH: That's correct.

9           CHAIRMAN BAGGETT: Based on, I guess, the one-page  
10          letter of -- intent of a letter that is yet to come from  
11          Fish and Game?

12          MS. HARNISH: Based on indications that a permit  
13          would not be -- we couldn't get a permit for that approach.  
14          It's not permissible.

15          CHAIRMAN BAGGETT: Would not mitigate under the ESA.

16          There's been a lot of testimony supporting IID's use  
17          of on-farm conservation, and you're aware it's in the EIR,  
18          the past work they've done.

19          So the question is, and it was asked earlier to some  
20          extent I think by Ms. Douglas or Mr. Fletcher, would not  
21          increase in on-farm conservation allow for a higher quality  
22          water because it would not be -- it's a nonirrigation return  
23          flow to be discharged into the Sea?

24          Let me break it down.

25          If we assume, which the EIR had, which you talked

1 about today, that there's going to be an increase in on-farm  
2 conservation of water.

3 MS. HARNISH: Uh-huh.

4 CHAIRMAN BAGGETT: So, therefore, one would  
5 assume -- I assume the implication -- maybe it's Mr. Kirk  
6 who asked this question earlier, trying to get at it.

7 So to keep from impacting the Sea, that means you're  
8 going to have to still have the same quantity of water going  
9 into the Sea.

10 MS. HARNISH: For HCP-2.

11 CHAIRMAN BAGGETT: But would not that -- since  
12 you're conserving more on-farm, that would allow water of  
13 nonirrigation return flow means then to return to the Sea.

14 I assume you're going to keep that volume constant  
15 somehow. So I assume that will then be made up with  
16 actually a higher quality water than return flow water?

17 MS. HARNISH: That's possible.

18 CHAIRMAN BAGGETT: I mean, is that what you're going  
19 to be evaluating in the EIR? You're talking -- you were  
20 talking about conserved water.

21 MS. HARNISH: Uh-huh.

22 CHAIRMAN BAGGETT: And this conserved water is going  
23 to benefit the Sea without fallowing, correct?

24 MS. HARNISH: Uh-huh.

25 CHAIRMAN BAGGETT: And the only way that that would

1 benefit the Sea, it appears to me, is there will be water --  
2 the water still has to go into the Sea to keep the level  
3 even with the lower below baseline level. So I'm just  
4 trying to understand, if that -- the mitigation is based on  
5 the fact that the water will be of higher quality going to  
6 the Sea than water that's going to be --

7 MS. HARNISH: In the tailwater.

8 CHAIRMAN BAGGETT: -- tailwater from recycled water.  
9 It's already been determined that water has higher selenium,  
10 has higher pesticide residue, et cetera, because it's return  
11 flow water. The more you recycle it, the more less  
12 desirable constituents are in that water.

13 So I assume you'll be making that up with nonreturn  
14 flow water? Are you going to evaluate that is the question.

15 MS. HARNISH: I'm not sure I know exactly the answer  
16 to your question, but I think I understand your question.

17 I think that our water quality analysis of the HCP-2  
18 would have assumed that the water quality was -- was equal  
19 to or greater than the baseline. So I'm not sure we looked  
20 at what the benefits would be.

21 Is that what you're --

22 CHAIRMAN BAGGETT: I think I'm trying to  
23 understand --

24 MS. HARNISH: -- asking, what the benefits would be?

25 CHAIRMAN BAGGETT: Because your statement was



1 earlier that on-farm conserved water will benefit the Sea.  
2 But obviously it won't benefit the Sea if it's been recycled  
3 eight times to the same field --

4 MS. HARNISH: I think I was --

5 CHAIRMAN BAGGETT: -- and then discharged. It's  
6 going to be obviously more higher pollutant loading.

7 So you're making it up -- somehow there's got to be  
8 a benefit, so I assume there's water --

9 MS. HARNISH: I think that was the statement where I  
10 said I misspoke in that the construction of conservation  
11 measures would not generate water for the Sea for HCP  
12 purposes. Is there confusion?

13 CHAIRMAN BAGGETT: Yeah.

14 MS. HARNISH: Okay. So I had misspoken, and I --

15 MR. KIRK: That's my recollection as well.

16 MS. HARNISH: Right, yeah.

17 CHAIRMAN BAGGETT: Now I'm equally as confused as --

18 MS. HARNISH: Right, I misspoke and I --

19 CHAIRMAN BAGGETT: -- some of the previous  
20 cross-examiners.

21 MR. OSIAS: Would you like me to redirect and then  
22 give you another chance?

23 CHAIRMAN BAGGETT: I have a feeling you will, so --

24 MR. OSIAS: That might be helpful.

25 CHAIRMAN BAGGETT: That would be good. Let me ask

1 the two other questions unrelated to Mr. Dickey -- for Dr.  
2 Dickey, I apologize.

3 You've got the charts. I think it's Exhibit 77 --  
4 is that the one's that up now -- and then there was 78. And  
5 as I recall from your testimony, the Sea was higher, it's  
6 dropped, now it's come back up. So, in fact, you pointed  
7 there were periods where the -- the seabed, the former  
8 seabed is now exposed to air.

9 DR. DICKEY: Right.

10 CHAIRMAN BAGGETT: And the testimony as I recall was  
11 that there -- that was really no problem historically with  
12 degradation of air quality from those events or no  
13 documentation?

14 DR. DICKEY: Right. At Mono Lake, for example,  
15 where you had a lowered sea level, the problems I think were  
16 quite evident. And here --

17 CHAIRMAN BAGGETT: I understand that, but my  
18 question --

19 DR. DICKEY: -- they weren't.

20 CHAIRMAN BAGGETT: So my question is, what  
21 evidence -- I guess I haven't seen it. Is there any hard  
22 evidence to document that, that has been provided or will be  
23 provided in the final EIR to demonstrate that, in fact,  
24 between -- well, right here, it looks like it's  
25 approximately '34, 1934 to '38 there was exposed lake bed

1 because the level dropped.

2 So if there were no -- what is the evidence to show  
3 that there was no PM-10 emissions -- we didn't have PM-10  
4 monitors in 1934, but is there -- do you have any anecdotal  
5 evidence, any historic evidence to demonstrate that these  
6 fluctuations over the years have in fact not caused air  
7 degradation?

8 DR. DICKEY: Right, and I haven't identified some  
9 really clever surrogate for PM-10 monitors for that period,  
10 unfortunately. The best I've been able to do is just look  
11 at the -- you know, if you ask people in Mono basin whether  
12 or not the dust was blowing, they know.

13 CHAIRMAN BAGGETT: I understand that. There is a  
14 lot of historic evidence. There's a lot of documentation,  
15 newspaper clippings.

16 DR. DICKEY: Right.

17 CHAIRMAN BAGGETT: I mean, has the same analysis  
18 been done in the Imperial Valley? Have you gone back and  
19 reviewed news clips for those periods of time and found in  
20 fact there were no evidence of -- journals of Mr. Du Bois.  
21 He was back there during those time periods to see whether  
22 he saw -- that's what I'm trying to --

23 DR. DICKEY: No, I haven't done that in-depth sort  
24 of evaluation.

25 CHAIRMAN BAGGETT: Will that be done by the final

1 EIR? Is that something, back to Miss Harnish, you might  
2 consider looking at?

3 MS. HARNISH: If Mr. Du Bois makes his journal  
4 available to us, we would be more than happy to look at it.

5 CHAIRMAN BAGGETT: I -- there's obviously the  
6 Imperial papers --

7 MS. HARNISH: Right. I think --

8 CHAIRMAN BAGGETT: I don't know, whatever kind of --  
9 I'm not an expert --

10 MS. HARNISH: Yeah, it's a very interesting  
11 suggestion, and we will take a look and see what we can  
12 find.

13 CHAIRMAN BAGGETT: That's the only questions I have  
14 at this point. Redirect?

15 MR. OSIAS: Yes, thank you.

16 ---o0o---

17 REDIRECT EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

18 BY MR. OSIAS

19 MR. OSIAS: Let me start with that question on the  
20 air, and then I'll go back to the water supply.

21 Dr. Dickey, the record, however it's collected,  
22 whether it's historical, journal, research or interviews of  
23 long-time citizens, or even more recent ones who spend days  
24 around the Sea, that's -- that's what you sort of mean by  
25 anecdotal evidence, right?

1 DR. DICKEY: Right.

2 MR. OSIAS: And obviously the precision of someone  
3 telling you what they observed is not the same as a PM-10  
4 monitor.

5 DR. DICKEY: Agreed.

6 MR. OSIAS: Okay. Now, you know, some of the  
7 pictures we've seen of Owens and I guess what you've heard  
8 with respect to Mono, that's what you're sort of looking for  
9 or looking to find was not present, correct?

10 DR. DICKEY: Perhaps something less dramatic, but  
11 certainly -- certainly dramatic enough to be easily noted by  
12 the casual observer.

13 MR. OSIAS: Okay. Now, the absence of any such  
14 reports by anyone with respect to, you know, a dust storm  
15 near the Sea would be fairly remarkable.

16 DR. DICKEY: True.

17 MR. OSIAS: I mean, for a long period of time. Is  
18 that right?

19 DR. DICKEY: Yes.

20 MR. OSIAS: Okay. So what we're looking for is  
21 maybe the extent, the frequency, how often, how long they  
22 last, that sort of stuff.

23 DR. DICKEY: Right, some kind of subjective  
24 interpretation, what sort of -- the tendency of what you're  
25 being told.

1           MR. OSIAS: Okay. Now, I want to put in -- that  
2           sort of research into the context of the mitigation plan  
3           that's proposed.

4           I take it that -- that either what you've done to  
5           date or even the more thorough even library-type research  
6           that the Chairman was suggesting, would the results of that  
7           in any way change, in your mind, what is proposed to  
8           mitigate what might happen?

9           DR. DICKEY: No. The --

10          MR. OSIAS: And tell me why either the absolute  
11          absence of any reported events or the discovery of, you  
12          know, that they have happened, tell me why that wouldn't  
13          change what you have in mind for mitigation.

14          DR. DICKEY: Right. Well, the analysis is intended  
15          to address the question of whether or not Salton Sea is an  
16          automatic or evident new Owens Lake. That is the conceptual  
17          analysis that we've spoken a lot about today.

18          We also spoke, as I pointed out, about the  
19          mitigation program and the environmental document. The  
20          conclusion of the environmental document is that the  
21          impacts, the assumption is, presumption is that they will be  
22          significant air impacts. And the mitigation program I laid  
23          out is actually quite thorough.

24          It includes, for example, prevention of disturbance  
25          of land surfaces and destruction of the natural protection

1       you have against dust emissions, and that includes  
2       monitoring of all exposed sediments, sediments exposed by  
3       the project for dust emission so that you know when and  
4       where they occur. It includes a fairly extensive research  
5       program to identify mitigation measures, should they be  
6       needed. It includes credit trading, should that be feasible  
7       and workable. And it includes more radical dust mitigation,  
8       things of the nature -- for example, the types of things you  
9       see at Owens Lake. And it includes rewatering in emissive  
10      areas if no other solutions appear to be economically  
11      feasible.

12               MR. OSIAS: Now, again, just to relate it to the  
13      historical evidence we have here, that sort of, you know, is  
14      appropriate for the -- this may be a bad phrase -- the  
15      degree of alarm that we should approach the declining Sea  
16      with, rather than whether we should actually monitor what's  
17      happening and mitigate it. Is that fair?

18               DR. DICKEY: Right. The general notion is that we  
19      have a consensus that data are lacking that we could have a  
20      dust problem. The idea is that you watch it, and you  
21      respond to what develops, and you respond in a timely  
22      manner, prepare yourself to respond, and you respond in a  
23      timely manner. The idea is that you've got a solution  
24      that's matched to the problem.

25               MR. OSIAS: And the fact that as a scientist you

1 would admit that it's not impossible that a drying lake bed  
2 could turn into Owens, that's a -- that's a statement you  
3 answered to someone, right?

4 DR. DICKEY: Right.

5 MR. OSIAS: Very little is impossible in this world,  
6 but set that aside.

7 DR. DICKEY: True enough.

8 MR. OSIAS: The fact that it's not impossible  
9 doesn't mean we should automatically expect it, correct?

10 DR. DICKEY: That's correct.

11 MR. OSIAS: And this historical information is to  
12 put into context the fact that just because it's not  
13 impossible doesn't mean it's going to happen.

14 DR. DICKEY: That's right.

15 MR. OSIAS: And mitigation is there to depict if and  
16 when and then design what to do about it; is that right?

17 DR. DICKEY: True.

18 MR. OSIAS: Turn -- assume there was lots of dust on  
19 one day when someone with a camera was on Davis Road. Okay.  
20 Do you understand that assumption?

21 DR. DICKEY: I do.

22 MR. OSIAS: And they took a picture of all that  
23 dust.

24 DR. DICKEY: Uh-huh.

25 MR. OSIAS: What can you conclude if anything from



1       that fact?

2               DR. DICKEY:  That there was dust in the air that  
3       day.  What you can't conclude?

4               MR. OSIAS:  Okay.  What can't you conclude?

5               DR. DICKEY:  What you can't conclude is where the  
6       dust came from, and it may have come from adjacent land.  
7       The likelihood of that is decent, but not -- not certain.  
8       It could have come from lands that are disturbed.

9               If you look at the sediments out at Salton Sea, what  
10      you find are -- are typically these relatively stable crusts  
11      being formed.  If you look at a place where a car has driven  
12      over it, that stable crust is destroyed.  That's why the  
13      first mitigation measure is to protect lands from traffic  
14      because that will make lands highly emissive.

15              If you look at the tire tracks and the crust next  
16      door to it, there's -- it's intuitively obviously that if  
17      you blow wind over it, the area in the tire track will blow.  
18      So there's a question of the history of the land from which  
19      the dust that you're looking at in the air, the history  
20      of -- of the condition of that land, whether it was wet  
21      recently, was it -- was it even -- were they exposed  
22      sediments?  If they were, how have they been treated?  Were  
23      they tilled?  Were they trafficked?  What happened?

24              And we really -- so, even though you know there's  
25      dust, there's more to know really before you know much about

1 the emissivity of the exposed sediments.

2 MR. OSIAS: And you've been on Davis Road.

3 DR. DICKEY: I have.

4 MR. OSIAS: And have you seen salt crusts near Davis  
5 Road?

6 DR. DICKEY: I've seen hard crusted soil near Davis  
7 Road --

8 MR. OSIAS: Have you seen --

9 DR. DICKEY: -- but cemented by salt.

10 MR. OSIAS: I'm sorry. I probably used imprecise  
11 phrases like colleague.

12 Have you seen whatever you describe that crust to be  
13 disturbed by tire tracks?

14 DR. DICKEY: I have indeed.

15 MR. OSIAS: In the vicinity of Davis Road?

16 DR. DICKEY: Yes.

17 MR. OSIAS: So even in a no-project world, some  
18 emission control could go on now by restricting vehicular  
19 use of certain areas?

20 DR. DICKEY: Right.

21 MR. OSIAS: All right. Ms. Harnish, let me talk  
22 about water and HCP-2, see if I can help with the questions  
23 that have been asked.

24 The HCP, Habitat Conservation Plan, is focused on  
25 mitigation steps -- let me back up.

1           To the extent it addresses the Salton Sea is what I  
2           want to focus on. Okay? So set aside the wetlands or the  
3           drains for the moment.

4           Certain species will -- that are in danger will  
5           suffer if there is a decline in elevation of the Sea beyond  
6           the baseline. Is that what the wildlife agencies are  
7           concerned about?

8           MS. HARNISH: Yes.

9           MR. OSIAS: And so to mitigate that decline in  
10          elevation beyond the baseline, two original suggestions had  
11          been made: One is a habitat replacement-type suggestion  
12          which evolved into ponds and hatcheries, correct?

13          MS. HARNISH: Correct.

14          MR. OSIAS: Besides the one-page letter, you've --  
15          it's been reported to you that people have actually said we  
16          will not permit that.

17          MS. HARNISH: That's right.

18          MR. OSIAS: Not permit meaning permission, but we  
19          won't give you a permit if that's what you do, correct?

20          MS. HARNISH: That's my understanding, yes.

21          MR. OSIAS: Okay. So that's why that was rejected,  
22          right?

23          MS. HARNISH: That's right.

24          MR. OSIAS: And the other mitigation approach was to  
25          find water and put it in the Sea in order to keep the

1 baseline elevation, correct?

2 MS. HARNISH: That's correct.

3 MR. OSIAS: Now, the mitigation is the water; is  
4 that right?

5 MS. HARNISH: That's right.

6 MR. OSIAS: And is -- going to the Chairman's  
7 question, is the assumption that that mitigation water is  
8 Colorado River quality?

9 MS. HARNISH: Yes.

10 MR. OSIAS: For -- okay.

11 MS. HARNISH: Yes, it is.

12 MR. OSIAS: And is there an analysis or an  
13 assumption that it might be higher quality than Colorado  
14 River water?

15 MS. HARNISH: No, there's not an assumption that it  
16 would be higher quality, no.

17 MR. OSIAS: Okay. And is there an assumption that  
18 it might be lower quality than Colorado River water?  
19 Assumption is the wrong word.

20 Is there an analysis of using lower quality water?

21 MS. HARNISH: No. No, there's not.

22 MR. OSIAS: Okay. So it's --

23 MS. HARNISH: Right.

24 MR. OSIAS: And the quality basis is sort of pegged  
25 to the Colorado River.

1 MS. HARNISH: That's right.

2 MR. OSIAS: Okay. Now, then we get to the question  
3 of the source of that water. And from a mitigation  
4 perspective, if it's Colorado River quality, is the source  
5 relevant to the mitigation effect?

6 MS. HARNISH: No, it's not.

7 MR. OSIAS: The volume is relevant, correct?

8 MS. HARNISH: The volume is relevant, correct.

9 MR. OSIAS: And the volume has to be equal to the  
10 amount necessary to keep the elevation at the baseline.

11 MS. HARNISH: That's right.

12 MR. OSIAS: Okay. And that water of Colorado River  
13 quality could come from the Imperial Valley.

14 MS. HARNISH: Yes.

15 MR. OSIAS: And it could come from the Coachella  
16 Valley.

17 MS. HARNISH: Yes.

18 MR. OSIAS: And it's at least physically feasible  
19 that it could come from the Palo Verde Valley.

20 MS. HARNISH: Yes.

21 MR. OSIAS: Someone could buy that water --

22 MS. HARNISH: Uh-huh.

23 MR. OSIAS: -- and divert it at one of the two  
24 places and put it in the Sea, correct?

25 MS. HARNISH: Right.

1           MR. OSIAS:  It's also possible it could come from  
2           somewhere else in California but be exchanged with Colorado  
3           River water so it could be dumped in the Sea, correct?

4           MS. HARNISH:  Correct.

5           MR. OSIAS:  Okay.  From the HCP -- if I have those  
6           letters right -- perspective, that's all the same vis-a-vis  
7           the species, correct?

8           MS. HARNISH:  That's right.  The concern is to get  
9           water into the Sea.

10          MR. OSIAS:  Okay.  And, therefore, for the permit  
11          fee, the take permit, it's also sort of irrelevant where the  
12          water comes from.

13          MS. HARNISH:  That's right.

14          MR. OSIAS:  Now, what I think Mr. Rossmann asked you  
15          was or someone, when a source is identified for that water,  
16          then if that source is not in Imperial Valley, there may be  
17          environmental review of getting that source to the Salton  
18          Sea, correct?

19          MS. HARNISH:  That's right.

20          MR. OSIAS:  But that's not an HCP change; that's  
21          just an EIR/EIS --

22          MS. HARNISH:  Right.

23          MR. OSIAS:  Okay.  If the water is from Imperial  
24          Valley, that's put into the Sea to preserve the elevation at  
25          the baseline.  Can that water come from efficiency

1 improvements on a farm?

2 MS. HARNISH: No.

3 MR. OSIAS: Okay. Just to make sure there's no  
4 confusion about that.

5 And if that water came from fallowing, you would  
6 have to divert water -- you'd have to let water go into the  
7 Sea beyond that which was already going as return flow in  
8 the nonfallowed state, correct?

9 MS. HARNISH: Right.

10 MR. OSIAS: In order to get a credit.

11 MS. HARNISH: That's right.

12 MR. OSIAS: All right. And I guess then coming  
13 finally back to the quality question, if you fallowed land  
14 and put the total volume of water that was otherwise  
15 delivered to that land into the Sea, and you assume that  
16 that had been six acre-feet an acre, if two was already  
17 going into the Sea, you've really only added as mitigation  
18 four acre-feet, right?

19 MS. HARNISH: That's right.

20 MR. OSIAS: And if you run it across the field and  
21 pick up salts, it's likely to be somewhat different quality  
22 than Colorado River water, more like tailwater, right?

23 MS. HARNISH: Yes.

24 MR. OSIAS: But the difference between tailwater and  
25 fresh water is not huge; is that fair?

1 MS. HARNISH: That's -- I don't know that answer.

2 MR. OSIAS: That's beyond your scope. Okay.

3 Those were the only two questions. I hope that  
4 helps.

5 CHAIRMAN BAGGETT: Thank you.

6 Recross? San Diego?

7 ---o0o---

8 RE-CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

9 BY SAN DIEGO COUNTY WATER AUTHORITY

10 BY MR. SLATER

11 MR. SLATER: In the spirit of trying to clarify  
12 things, because sometimes they're not even -- they're  
13 definitely not clear for me, HCP-2 is an effort to develop a  
14 mitigation measure to offset the impacts to the Sea,  
15 correct?

16 MS. HARNISH: Yes.

17 MR. SLATER: Okay. And those impacts are  
18 attributable to the proposed project's method of  
19 conservation which is on-farm conservation, correct?

20 MS. HARNISH: Well, it could be on-farm -- the  
21 impacts?

22 MR. SLATER: Yes.

23 MS. HARNISH: Could be from a range of -- it could  
24 be on-farm based or fallowing.

25 MR. SLATER: Okay. Can you describe the differences



1 between the -- could you describe Alternative 4 to the  
2 EIR/EIS. Then I'm going to ask you to compare that to HCP  
3 because they both involve fallowing.

4 MS. HARNISH: Right.

5 MR. SLATER: May involve fallowing.

6 MS. HARNISH: May involve, right.

7 Alternative 4 does involve fallowing. Alternative 4  
8 is the exclusive use of fallowing to generate 300,000  
9 acre-feet a year for transfer.

10 MR. SLATER: And it doesn't involve the -- it  
11 involves exclusively fallowing to create --

12 MS. HARNISH: Right.

13 MR. SLATER: -- that water.

14 MS. HARNISH: To create that water exclusively for  
15 transfer.

16 MR. SLATER: And how many acres of lands would be  
17 necessary to carry out the alternatives?

18 MR. OSIAS: I answered your question.

19 MS. HARNISH: Approximately 50,000.

20 MR. SLATER: And then compare again -- and under  
21 HCP-2 to create the mitigation to the primary project, that  
22 would be how many acres of land if fallowing were employed?

23 MS. HARNISH: 25,000. If fallowing is used, it  
24 would be 25,000.

25 MR. SLATER: To --

1 MS. HARNISH: You mean if it's used with --  
2 MR. SLATER: With the project.  
3 MS. HARNISH: With the project.  
4 MR. SLATER: Yes.  
5 MS. HARNISH: It's 25,000.  
6 MR. SLATER: Twenty-five with the project and --  
7 MS. HARNISH: Well, it depends on how you're -- it  
8 depends on how you're conserving the water. Because you  
9 need to make up -- the amount of water that you would need  
10 to put in the Sea is different depending on how you're  
11 conserving the water. If you're fallowing, then you need  
12 less water in HCP-2. And if you're doing conservation  
13 measures on-farm system based, you would need more fallowing  
14 to have the amount of water you would need for HCP-2.  
15 MR. SLATER: Thank you.  
16 And if we were -- if we assumed that on-farm  
17 conservation measures other than fallowing were employed in  
18 the project to generate 200,000 acre-feet of water, how  
19 much -- strike that -- 300,000, how many acres of land would  
20 be required to mitigate --  
21 MS. HARNISH: That's the 25,000 number.  
22 MR. SLATER: That's for the three hundred.  
23 MS. HARNISH: That's for the three hundred.  
24 MR. SLATER: Okay.  
25 CHAIRMAN BAGGETT: Mr. Kirk.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

---o0o---

RE CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

BY SALTON SEA AUTHORITY

BY MR. KIRK

MR. KIRK: Mr. Dickey, couple of questions for you.

Under redirect, you were referring generally to this proposed Salton Sea Authority Exhibit 37. The assumption is that this photo was taken this past winter, looking south on Davis Road.

Do you remember those questions?

MR. OSIAS: Objection. That wasn't in any way the question on redirect. It was assumed there was a picture of dust taken on Davis Road.

MR. KIRK: Assume that there was a picture of dust taken on Davis -- a picture of dust taken on Davis Road. And this -- remember, this, of course, is what I proposed was a picture of dust taken on Davis Road, correct?

DR. DICKEY: Is there a question? I'm sorry. Repeat your question.

MR. KIRK: I just want to make sure we're all on the same page.

You were asked a series of questions assuming it was a picture of dust taken on Davis Road, correct?

DR. DICKEY: I was asked the question.

MR. KIRK: Actually you were asked a series of

1 questions, weren't you, whether in fact the dust comes from  
2 multiple sources? It could have been from adjacent land,  
3 from offroad vehicle use, et cetera, correct?

4 DR. DICKEY: I was asked a series of questions.

5 MR. KIRK: And were those the nature of the  
6 questions?

7 DR. DICKEY: In general, yes.

8 MR. KIRK: And you've been on Davis Road, right?

9 DR. DICKEY: I've been on Davis Road.

10 MR. KIRK: The exhibit behind you, Mr. Osias, what  
11 exhibit is that?

12 MR. OSIAS: 89A.

13 MR. KIRK: Would you mind putting it up?

14 MR. OSIAS: No.

15 MR. KIRK: Thanks.

16 On Exhibit 89A, could you point out generally where  
17 Davis Road is on that exhibit?

18 DR. DICKEY: I believe it's just off to the east of  
19 the river delta here.

20 MR. KIRK: Yeah, that's my understanding as well.

21 MR. OSIAS: Just for the record, he's pointing to an  
22 area above a label called dike start just a bit north of  
23 that.

24 MR. KIRK: Just north of the Alamo River delta,  
25 correct?

1 DR. DICKEY: Yes.

2 MR. KIRK: And assume that --

3 DR. DICKEY: Actually I think it's a bit east.

4 MR. KIRK: That's actually a fair point. A bit east  
5 of the Alamo River delta and bit north of the Alamo River as  
6 it's flowing generally northwest into the Salton Sea,  
7 correct?

8 DR. DICKEY: Yeah.

9 MR. KIRK: And assume that a photo was taken looking  
10 south on Davis Road. To the right of that photo or to the  
11 west of that photo would be generally the direction of the  
12 Salton Sea, correct?

13 If you were looking south on Davis Road.

14 DR. DICKEY: Yes.

15 MR. KIRK: And between the road and the shoreline of  
16 the Salton Sea would be the exposed land in question,  
17 correct?

18 MR. OSIAS: Objection. What land exposed in  
19 question?

20 MR. KIRK: If you're looking west from Davis Road  
21 towards the Salton Sea, would the land that you would see be  
22 exposed Salton Sea lake bed?

23 DR. DICKEY: There would be exposed Salton Sea lake  
24 bed somewhere on the west side of Davis Road. Whether all  
25 the land on the west side of Davis Road is exposed Salton

1 Sea lake bed, I cannot testify.

2 MR. KIRK: And under this assumption, assume this  
3 photograph was taken with winds heading east and dust was  
4 blowing to the east.

5 DR. DICKEY: I'm sorry. What was the question  
6 again?

7 MR. KIRK: Can you assume that for the sake of  
8 assumption of this hypothetical wind is blowing from the  
9 west to the east?

10 DR. DICKEY: I'll take it on your -- on your  
11 authority that that's --

12 MR. KIRK: If that's the case, what would be the  
13 nearest patch of adjacent land that could pick up dust to  
14 blow across Davis Road.

15 Took a straight line heading west in the direction  
16 of the wind from Davis Road.

17 DR. DICKEY: But where are you on Davis Road?  
18 Sorry.

19 MR. KIRK: At the assumed location just north of the  
20 Alamo River along the shoreline of the Salton Sea during the  
21 summer and exposed -- exactly -- it's exposed land during  
22 the winter.

23 If you were to take a straight line from Davis Road  
24 looking west, you'd have between you and the Salton Sea  
25 land. Let's assume for the time being that it's exposed

1 lake bed.

2 DR. DICKEY: Okay.

3 MR. KIRK: Further west, where is the nearest bit of  
4 adjacent land?

5 DR. DICKEY: Oh, I see what you're saying.  
6 You get in the water if you go west, right?

7 MR. KIRK: Right.

8 DR. DICKEY: Is that what you're getting at?

9 MR. KIRK: Yeah, because --

10 DR. DICKEY: And if you swam long enough, you'd get  
11 to the other side of the Salton Sea.

12 MR. KIRK: Yeah. So could this dust be from --

13 DR. DICKEY: That's all -- that all is intuitively  
14 reasonable.

15 MR. KIRK: All right. So is this dust coming from  
16 the other side of the Salton Sea, the assumed dust heading  
17 east across Davis Road?

18 DR. DICKEY: You mean is it probable that in this  
19 hypothetical situation, would it be coming across the Salton  
20 Sea?

21 MR. KIRK: Yes.

22 DR. DICKEY: No.

23 MR. KIRK: How many miles --

24 DR. DICKEY: It's not probable.

25 MR. KIRK: -- is that in fact across the Salton Sea?

1 DR. DICKEY: I can't tell you that.

2 MR. KIRK: More than ten?

3 DR. DICKEY: Since I think it's improbable, does it  
4 matter how far it is?

5 MR. KIRK: Probably not. Withdraw the question.  
6 Improbable at one or ten, correct.

7 Related question. Assume for a moment that if we  
8 could track down the photographer of this exhibit and ask  
9 him or her if there were offroad vehicle use in this exposed  
10 lake bed that day, and this photographer said absolutely  
11 not, what other source could there be for this dust heading  
12 hypothetically from west to east across Davis Road?

13 DR. DICKEY: Try that question one more time,  
14 please.

15 MR. KIRK: If -- if this dust is not from the other  
16 side of the Salton Sea, and if this dust isn't from offroad  
17 vehicle use in the exposed lake bed, where else could it  
18 be -- where else could the source of this dust be emanating  
19 from?

20 DR. DICKEY: I don't have an answer for you. But  
21 I'll -- just something that might be helpful.

22 MR. KIRK: All right.

23 DR. DICKEY: During our questioning, we weren't  
24 really -- at least it wasn't my intent to convey that these  
25 were plumes from offroad vehicle use. Okay? That wasn't



1 what was intended to be communicated.

2 MR. KIRK: Okay. That's helpful. Perhaps I  
3 misunderstood you.

4 DR. DICKEY: Yes.

5 MR. KIRK: Was there any other source that you could  
6 imagine other than the lake bed itself that would generate  
7 this dust heading west to east other than the lake bed?

8 DR. DICKEY: If that's the only land upwind within a  
9 reasonable distance, then you could surmise that that's the  
10 source of the dust.

11 MR. KIRK: All right. And you've pointed out under  
12 redirect that this -- what did you call this type of  
13 evidence? What is it called? Oh, it's not as objective as  
14 a PM-10 monitor, as an example. Right?

15 DR. DICKEY: Which type of evidence are you  
16 referring to? If it's not as objective -- anecdotal, is  
17 that --

18 MR. KIRK: Anecdotal, thank you. That was the word  
19 I was looking for. It's late in the day.

20 DR. DICKEY: Right.

21 MR. KIRK: Anecdotal is not as good.

22 DR. DICKEY: No.

23 MR. KIRK: All right. But you're looking  
24 for anecdotal or at least you --

25 DR. DICKEY: Actually, it really -- it really

1 depends on -- the answer to that is it depends.

2 MR. KIRK: All right. You did point out under  
3 redirect that one piece of evidence in Owens Lake about the  
4 nature of dust and PM-10 in the Owens Valley is the fact  
5 that there are sand dunes close to the area, close to  
6 exposed Owens Lake area; is that correct?

7 DR. DICKEY: That that's a piece of what?

8 MR. KIRK: A piece of evidence suggesting wind  
9 action and distribution of sand particles in the area.

10 DR. DICKEY: That wasn't my testimony about the  
11 dunes.

12 MR. KIRK: What was your testimony? Why did you  
13 testify about sand dunes around Owens Lake?

14 MR. OSIAS: Objection. This exceeds the redirect.

15 MR. KIRK: Actually he did testify --

16 CHAIRMAN BAGGETT: Not on -- the limit now is to the  
17 last series of questions asked by Mr. Osias, which was very,  
18 very narrow in terms of dust.

19 I think you've already -- we've been very --

20 MR. OSIAS: Lenient.

21 CHAIRMAN BAGGETT: -- lenient on the offroad vehicle  
22 use. He did mention tire tracks, and that one is gone. I  
23 think we're getting back into original testimony.

24 MR. KIRK: My recollection is he did testify about  
25 the sand dunes around Owens Lake under redirect.

1                   Perhaps my recollection --

2                   CHAIRMAN BAGGETT: Not under the cross.

3                   MR. KIRK: Not under --

4                   MR. OSIAS: Not under redirect by me.

5                   MR. KIRK: All right. I'll take all your word for  
6 it.

7                   If it would be valuable -- and I leave this to the  
8 Board -- I'd be happy to discuss following, ET following,  
9 et cetera with Miss Harnish in certainly not a  
10 confrontational way, if it's helpful in terms of educational  
11 purpose. But I'd also be happy to head toward Sacramento  
12 airport.

13                   CHAIRMAN BAGGETT: It wasn't covered under the -- it  
14 was to some extent.

15                   MR. KIRK: It was.

16                   MR. OSIAS: My redirect was trying to explain the  
17 relationship between source of water and maintaining the  
18 elevation at the baseline, which I think was one of your  
19 questions.

20                   CHAIRMAN BAGGETT: That was my question. I think  
21 that's where he was going to. If you have any questions  
22 related to that.

23                   MR. KIRK: There were some questions offered about  
24 ET following versus following, et cetera, but --

25                   CHAIRMAN BAGGETT: That wasn't part of the redirect.

1 Sorry.

2 MR. KIRK: All right. Thank you very much.

3 CHAIRMAN BAGGETT: We'll have plenty of opportunity  
4 before we're done.

5 Okay. Ms. Douglas.

6 ---o0o---

7 RE-CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

8 BY PLANNING AND CONSERVATION LEAGUE

9 BY MS. DOUGLAS

10 MS. DOUGLAS: Mr. Dickey, I was interested to hear  
11 your list of potential monitoring and mitigation measures  
12 for air quality. And briefly you talked about monitoring,  
13 keeping people on salt flats, right; talked about a  
14 potential market mechanism, marketing PM-10 also; is that  
15 correct?

16 DR. DICKEY: Let me get the proper language for you.

17 MS. DOUGLAS: Sure.

18 DR. DICKEY: Here we go. Creator purchase  
19 offsetting emission reduction credits. Try to remember  
20 that.

21 MS. DOUGLAS: All right. Yeah, I didn't quite get  
22 that exact.

23 You also talked about implementing feasible dust  
24 mitigation measures, such as what's being done in the Owens  
25 Dry Lake Bed, for example?

1 DR. DICKEY: That was meant to be illustrative. The  
2 idea on number two, the second item I mentioned was  
3 research. And the intent is that the research and  
4 monitoring would be -- would lead to some kind of reasonable  
5 prescription.

6 MS. DOUGLAS: To what extent are these suggestions  
7 going to be analyzed in the EIR/EIS, the final?

8 DR. DICKEY: The -- you want to answer that?

9 MS. DOUGLAS: This could be to Miss Harnish.

10 MS. HARNISH: No, you can go ahead.

11 DR. DICKEY: Okay. In the master response on air  
12 quality, there will be a four-step plan, if you will, that  
13 responds to -- lays out mitigation in sort of a logical  
14 sequence. And it's meant to be responsive to the potential  
15 for a significant impact.

16 MS. DOUGLAS: Okay. And is the air quality  
17 mitigation in the final going to assume the exposure of the  
18 50,000 acres or -- of lake bed?

19 MS. HARNISH: No, because now we know that HCP-2 is  
20 the mitigation of choice. So that reduces the amount of  
21 exposed seabed to somewhere on the order of 16,000 acres.

22 The ultimate elevation of the Sea will be much  
23 higher than it would have been under the hatchery and ponds  
24 HCP.

25 MS. DOUGLAS: All right.

1 MS. HARNISH: And, additionally, because the water  
2 from HCP-2 will be -- baseline will be maintained until the  
3 year 2030, there won't be any exposure of seabed until -- I  
4 think it begins in about 2035.

5 MS. DOUGLAS: Okay.

6 MR. OSIAS: From the project as compared --

7 MS. HARNISH: Right, as -- right. Well, yeah, for  
8 the baseline for the project. Right.

9 MS. DOUGLAS: Well, we'll look forward to seeing  
10 that. Thank you.

11 MS. HARNISH: Yes.

12 CHAIRMAN BAGGETT: Defenders, do you have any?

13 MR. FLETCHER: Sure.

14 CHAIRMAN BAGGETT: I assume Sierra Club, Audubon and  
15 National Wildlife aren't present and have no questions.

16 MR. FLETCHER: I'll try to make this brief.

17 CHAIRMAN BAGGETT: Thank you.

18 ---o0o---

19 RE-CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

20 BY DEFENDERS OF WILDLIFE

21 BY MR. FLETCHER

22 MR. FLETCHER: You just mentioned -- Ms. Harnish,  
23 you just mentioned that if HCP-2 is adopted, the amount of  
24 exposed lake shore would be significantly less than under  
25 the current proposal, and that the air quality monitoring,

1 research, et cetera, program will probably take that into  
2 account; is that correct?

3 MS. HARNISH: Of course, yes.

4 MR. FLETCHER: If I understood you earlier, you  
5 stated that the water provided under HCP-2 would only be  
6 provided until 2030.

7 MS. HARNISH: That's correct.

8 MR. FLETCHER: So does the air quality program that  
9 you were just discussing take that into account?

10 MS. HARNISH: Yes, it does.

11 MR. FLETCHER: Okay. And I won't ask about the EIR  
12 so when we get to that point we can cross on that then.

13 CHAIRMAN BAGGETT: That's right.

14 MR. FLETCHER: I just want to make sure. Thank you.

15 CHAIRMAN BAGGETT: Okay. Thank you.

16 We're at Mr. Rossmann.

17 MR. ROSSMANN: Yes, sir.

18 ---o0o---

19 RE-CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

20 BY COUNTY OF IMPERIAL

21 BY MR. ROSSMANN

22 MR. ROSSMANN: Just three lines of questions. I'll  
23 start with Alternative 4 and the EIR is the following  
24 alternative.

25 MR. OSIAS: Mr. Chairman, because it's late in the

1 day, I failed to object to Mr. Slater asking that question,  
2 but there were no questions on redirect regarding  
3 Alternative 4.

4 CHAIRMAN BAGGETT: I would --

5 MR. OSIAS: So I object. It exceeds the scope of  
6 redirect.

7 CHAIRMAN BAGGETT: I would sustain that.

8 But in July you'll have an opportunity I'm sure to  
9 come back and discuss it.

10 MR. ROSSMANN: I am -- now I'm going to -- this  
11 question, however, was on redirect, can the water for HCP-2  
12 come from on-farm conservation? And I do have a  
13 hypothetical. I'm going to try, Your Honor, to trustfully  
14 get to the same question that I think you were trying to  
15 ask. And I'm going to ask -- this is a hypothetical, and  
16 it's a lot easier than trains racing across --

17 MS. HARNISH: I was going to ask. I hope no  
18 vehicles are involved.

19 CHAIRMAN BAGGETT: The train's left the station.

20 MR. ROSSMANN: We've talked about hypothetical  
21 waterers. I'd like you now to think of a hypothetical block  
22 of a hundred acre-feet of water --

23 MS. HARNISH: Okay.

24 MR. ROSSMANN: -- that would, absent the project, be  
25 used on a farm in the Imperial Valley.



1                   And that hundred acre-feet is conserved on-farm, and  
2 sixty acre-feet is made available to San Diego.

3                   MS. HARNISH: Uh-huh.

4                   MR. ROSSMANN: So San Diego gets, out of that  
5 hundred acre-feet, they get sixty. 40 acre-feet is  
6 transferred to another parcel in the Imperial Valley, and  
7 that farmer foregoes using her 40 acre-feet, and instead  
8 that 40 acre-feet of unused Colorado River water is placed  
9 directly into the Salton Sea.

10                  MS. HARNISH: I'm sorry. I'm lost on how out of a  
11 hundred acre-feet and they transfer sixty if you're growing  
12 something.

13                  MR. ROSSMANN: You're -- you are conserving a  
14 hundred acre-feet from on-farm conservation, so you're still  
15 growing the same amount --

16                  MS. HARNISH: Okay. That's the amount conserved.

17                  MR. ROSSMANN: That's the amount conserved.

18                  MS. HARNISH: I'm sorry. Sixty is transferred to  
19 San Diego --

20                  MR. ROSSMANN: Sixty goes to San Diego.

21                  MS. HARNISH: Forty goes to --

22                  MR. ROSSMANN: Forty goes to another parcel in the  
23 Imperial Valley, which is applied to that parcel. And the  
24 farmer that gets that benefit makes his or her -- I think  
25 her was my hypothetical -- 40 acre-feet available for

1 directly going into the Salton Sea.

2 Now, under those premises, on-farm conservation does  
3 make 40 acre-feet available for the Salton Sea, does it not?

4 MS. HARNISH: I guess it would, under that  
5 hypothetical.

6 MR. ROSSMANN: And if we apply the Mary Poppins  
7 treatment, and San Diego were given a subsidy to create 40  
8 acre-feet of water by desalination and paid the Imperial  
9 farmer for a hundred acre-feet of water, everybody benefits.

10 That's a realistic hypothetical, isn't it?

11 MS. HARNISH: Well, yeah. Mary Poppins I'm not  
12 sure.

13 MR. ROSSMANN: Well, Mary Poppins came to the rescue  
14 at Mono Lake, but that's beyond the scope of redirect as I  
15 think my counselor would point out.

16 CHAIRMAN BAGGETT: Yes.

17 MR. ROSSMANN: All right. The last line of  
18 questions goes to the proposed mitigation plan that -- yeah.

19 MS. HARNISH: Dr. Dickey.

20 MR. ROSSMANN: Sorry, Dr. Dickey, on your proposed  
21 mitigation plan.

22 One of the elements is to create a market for credit  
23 trading; is that correct?

24 DR. DICKEY: True. I don't know if -- I don't know  
25 if it's a market that needs to be created from scratch by

1 the way. But --

2 MR. ROSSMANN: Well, then let's talk about that.

3 Where would the rest of that market be if there were  
4 credits? Who would -- who would consume those credits?

5 DR. DICKEY: The consumer of the credits in this  
6 case would be the project proponent.

7 MR. ROSSMANN: The District itself would --

8 DR. DICKEY: Or the project proponent; is that  
9 right?

10 MR. ROSSMANN: If the District is made somehow  
11 responsible for creating the air quality, they're going to  
12 have to get someone else to offset, to compensate for that.  
13 Isn't that the credit that you're talking about?

14 DR. DICKEY: Yes.

15 MR. ROSSMANN: And who is that other entity that's  
16 going to offset its PM-10 emissions?

17 DR. DICKEY: My understanding is that, because it's  
18 a nonattainment area, there are some significant dust  
19 emissions and PM-10 impacts that are generated in Imperial  
20 County. And so you would be buying it from those creators  
21 of PM-10.

22 MR. ROSSMANN: Well, the testimony we had earlier is  
23 that cause or causation of that nonattainment is Mexico.  
24 And was it your -- was one of the possibilities that you  
25 would somehow go across the border and have them retire

1 their PM-10 emissions?

2 DR. DICKEY: Haven't got to that level of  
3 specificity, and, in fact, I've never discussed the  
4 extension of our program to Mexico.

5 MR. ROSSMANN: Final question. Your last resort is  
6 rewatering the Sea; is that correct?

7 DR. DICKEY: That's the last piece of the mitigation  
8 program that's in draft.

9 MR. ROSSMANN: All right. And am I correct in  
10 saying that --

11 DR. DICKEY: And I should --

12 MR. ROSSMANN: Excuse me.

13 DR. DICKEY: -- make it more precise.

14 MR. ROSSMANN: Yeah.

15 DR. DICKEY: It's actually rewatering emissive  
16 areas. And so it would only be -- there could be large  
17 areas of the Sea potentially that would not be emissive.

18 MR. ROSSMANN: But it's a last -- it was your last  
19 in order, because at Owens Lake that was kind of the last  
20 resort. It was the thing that finally had to be done to  
21 cure the problem at Owens Lake.

22 DR. DICKEY: That's -- I wouldn't characterize  
23 the -- the development in this mitigation program that way.  
24 It was not a knock off of Owens Lake.

25 MR. ROSSMANN: But in that situation, the last thing

1       that Los Angeles wanted to do was to have to put dedicated  
2       water to the lake if they could find other means of  
3       mitigating the problem.

4               DR. DICKEY:  Again, I think that the similarity is  
5       valid.  I'll go with you there.

6               MR. ROSSMANN:  Right.

7               DR. DICKEY:  But I think that you could do the same  
8       problem a hundred times in the western U.S. and the last  
9       solution is always going to be the one that uses the most  
10      water.  So --

11              MR. ROSSMANN:  Well, I want to suggest by this few  
12      questions that in fact Owens Lake is not the comparable.  
13      Owens Lake is not home to endangered bird species, is it?

14              DR. DICKEY:  Yes, it is.

15              MR. ROSSMANN:  Owens Dry Lake is?

16              DR. DICKEY:  Well, we should ask our wildlife  
17      specialist.  Do you want to comment?

18              Okay.  I do know that there are special status  
19      species at Owens; engaged species, perhaps not.

20              MR. ROSSMANN:  Okay.  Is there a fishing community  
21      that considers Owens Lake one of the outstanding fisheries  
22      in California?

23              MR. OSIAS:  Mr. Chairman, what -- just a minute.  
24      Let me get my objection out.

25              What the mitigation program is was certainly fair

1 game, and -- because that was asked for him to redescribe.  
2 Mr. Rossmann has probed as to what the components are and  
3 what sequence they'd be done. And then he asked the  
4 question, well, isn't water last because that's how it was  
5 at Owens, to which the answer was no.

6 And now he's trying to compare Owens fishing  
7 apparently, because he got that question out, and birds and  
8 I assume he's got a longer list all of which exceeds the  
9 scope of the limited redirect.

10 CHAIRMAN BAGGETT: Yes.

11 MR. ROSSMANN: Well, Your Honor, I didn't raise the  
12 issue of the mitigation plan and I didn't put forward the  
13 notion that the last element was rewatering. The line of  
14 questioning that I was engaged in here was designed to ask  
15 the witness if the differences between the two environments  
16 suggested that here at the Salton Sea, perhaps, rewatering  
17 should be the first on his list of a mitigation plan rather  
18 than the last.

19 And I think --

20 CHAIRMAN BAGGETT: Well, that question you just  
21 asked, that's a fair question. Ask it.

22 MR. OSIAS: And that is your final question.

23 MR. ROSSMANN: That is my final question.

24 CHAIRMAN BAGGETT: You don't need the foundation;  
25 just ask the question.

1 MR. ROSSMANN: Right.

2 DR. DICKEY: Run through it again so I make sure I  
3 answer the right question.

4 MR. ROSSMANN: Due to the circumstances at the  
5 Salton Sea, the fact that it's a home to so many bird  
6 species, et cetera, without going through all the lists,  
7 suggests that rewatering the Sea might be -- should be the  
8 first priority rather than the last priority in a mitigation  
9 plan.

10 DR. DICKEY: I'm, frankly, underqualified to answer  
11 that question. I -- I can't integrate --

12 MR. ROSSMANN: All the factors --

13 DR. DICKEY: -- for you --

14 MR. ROSSMANN: And perhaps Ms. Harnish, it looked  
15 like she might be trying to help us out here.

16 MS. HARNISH: I'd just like to say that the HCP is  
17 what's designed to mitigate the biological impacts, and  
18 those have been just, you know, talked about and consulted  
19 with the resource agencies. And that's what HCP-2 is  
20 designed to do is to go to 2030 to maintain the baseline  
21 levels until the Sea was projected -- the baseline was  
22 projected to reach sixty ppt. And that's to address those  
23 issues you're discussing in terms of endangered species.

24 This air quality mitigation picks up where that  
25 leaves off in terms of the potential for exposed seabed

1 after that.

2 MR. ROSSMANN: But if looked at as a unified whole,  
3 addressing the panoply of environmental issues that this  
4 proposal raises, doesn't it make sense to honor the existing  
5 expectation of a body of water that presently exists, rather  
6 than dealing with one that has been drained and then has to  
7 somehow be put back together?

8 MS. HARNISH: I don't think I can answer that.

9 MR. ROSSMANN: Okay. Thank you very much, sir.

10 CHAIRMAN BAGGETT: Farm Bureau.

11 Mr. Du Bois.

12 Mr. Gilbert?

13 ---o0o---

14 RE-CROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT

15 BY MR. GILBERT

16 MR. GILBERT: In regards to the question on recross  
17 about the amount of salt going into the Sea or the effluent  
18 into the Sea, I have a few questions that I hope might  
19 clarify that.

20 Ms. Harnish, I believe, considering the salt balance  
21 for the Imperial Irrigation District as a whole --

22 MR. OSIAS: Excuse me, Mr. Chairman. And I  
23 apologize, Mr. Gilbert, for interrupting you like I  
24 apparently have everybody. But I don't recall any redirect  
25 on the issue of salt balance.



1 I think maybe staff asked questions about the salt  
2 balance, but it was not redirect.

3 CHAIRMAN BAGGETT: You're limited to the last few  
4 questions Mr. Osias asked these two witnesses, and there  
5 were none asked of the doctor on --

6 MR. OSIAS: Right. But I do think that salt balance  
7 question unfortunately wasn't from me. It was from someone  
8 up on staff.

9 MR. GILBERT: I thought there was a question on  
10 redirect having to do with effluent into the Sea.

11 CHAIRMAN BAGGETT: On redirect there were mitigation  
12 for the air issues, which opened quite a bit actually, and  
13 conserved water issues as it relates to the Sea. Is that a  
14 fair description of Mr. Osias's areas which he redirected  
15 on?

16 Miss Harnish on Sea level and on-farm conservation,  
17 which basically followed up on the questions I asked.

18 MR. GILBERT: But nothing having to do with the  
19 amount of salt going into the Sea?

20 CHAIRMAN BAGGETT: No.

21 MR. OSIAS: None by me. Sorry.

22 MR. GILBERT: Okay. I'm sorry. I apologize.

23 CHAIRMAN BAGGETT: Tom or Andy, do you have any?

24 I have two.

25 //

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

---o0o---

RECROSS-EXAMINATION OF IMPERIAL IRRIGATION DISTRICT  
BY THE BOARD

CHAIRMAN BAGGETT: One, I appreciate the clarity, and I guess the Mono Lake issues aside here, I think not only my predecessors made the tough decision, but then they also got paid for the mitigation as I recall. I guess they -- so Mary Poppins was in fact this Board.

MR. ROSSMANN: I would comment on that, Your Honor, but I don't want to go out of order. It would be a good answer, though.

CHAIRMAN BAGGETT: On the air issues, for Dr. Dickey, I guess it's -- still it's not clear in your record what anecdotal evidence was reviewed, or I guess there was a lack of anecdotal evidence to show there were emission problems in prior low water years.

And I -- what I was trying to understand was how thorough did you research the records to determine -- I mean, did you just look through and see that they were every other month, every other year? I mean, I -- that's the question I was trying to get at.

DR. DICKEY: Fair enough. I could answer that question.

It's really a pretty -- pretty lightweight analysis. I didn't go through journals. Okay? What I did do was I

1 attended a workshop where the Authority -- excuse me. It's  
2 not the Authority; it's the Salton Sea scientific office --  
3 assembled what they presumed were some of the best minds and  
4 certainly some long-term -- some people with long-term  
5 experience down there. They -- they did not report at that  
6 workshop -- I mean, there was a long time spent struggling  
7 over whether or not there are going to be emissions from  
8 sediments.

9 CHAIRMAN BAGGETT: Right, I understand.

10 DR. DICKEY: Right. And --

11 CHAIRMAN BAGGETT: My question is really pretty  
12 narrow. What did you look at --

13 DR. DICKEY: And I'm telling you. I'm trying to  
14 anyway.

15 I looked at that testimony or that discussion. So  
16 we had a certain cross-section of expertise there. And I  
17 spoke with people who lived there a long time, primarily my  
18 contacts in Imperial Irrigation District. That's the scope  
19 of the anecdote.

20 CHAIRMAN BAGGETT: Okay. Make you should hire our  
21 friend Professor Sachs [phonetic] to do some research.

22 MR. ROSSMANN: I'm not sure John is ready to go  
23 through that again.

24 CHAIRMAN BAGGETT: He's very good at it. That's an  
25 aside for those of you with groundwater issues.

1           Last related to a question on mitigation.

2           What -- your lowest priority mitigation is, I guess,  
3           applying water to exposed lake beds to prevent -- to exposed  
4           lake beds that have been determined to be potentially  
5           degradational to air quality.

6           I think you answered in the recross, or Ms. Harnish  
7           did, regarding the wildlife impacts, but I think the human  
8           health impacts are also of significant concern.

9           To what extent have you examined or do you -- maybe  
10          do you intend to examine the human health impacts related to  
11          any potentially exposed lake bed areas that -- that have the  
12          potential for negative impacts on human health?

13          DR. DICKEY: Speaking specifically about dust  
14          emissions or other --

15          CHAIRMAN BAGGETT: Dust emissions, PM-10.

16          DR. DICKEY: Okay. I think, in general, the -- I'm  
17          getting a little out of my -- when we start talking about  
18          health effects and so forth, that's a little --

19          CHAIRMAN BAGGETT: Then assume that, that there are  
20          health effects.

21          DR. DICKEY: All right. And my presumption from my  
22          perspective is that there are federal -- there are federal  
23          standards for PM-10, and those are health based. And those  
24          would constitute the goals of, you know, the modern --  
25          they'd be the criteria against which the monitoring results

1 would be evaluated to try to ascertain whether or not you  
2 had a problem that might compromise health. And they'd also  
3 be diagnostic that help you know where you need to go.

4 CHAIRMAN BAGGETT: So, in essence, the -- your  
5 mitigation -- list of mitigation priorities is interim? It  
6 will change as information comes in from monitoring and --

7 DR. DICKEY: Yeah.

8 CHAIRMAN BAGGETT: So, because it's listed last now  
9 doesn't necessarily mean it will be the lowest level?

10 DR. DICKEY: I. -- in a soft sense, yes. I'd like  
11 to run through the -- I don't want to run through the whole  
12 list, but the things we put up front are things that we know  
13 if we don't do, are not done, are going to be hugely  
14 problematic.

15 CHAIRMAN BAGGETT: That answers my question.

16 DR. DICKEY: Okay.

17 CHAIRMAN BAGGETT: No other questions.

18 Then some -- you have exhibits --

19 MR. OSIAS: Yes.

20 CHAIRMAN BAGGETT: -- you'd like to enter.

21 We also have one from Salton Sea we better get in  
22 there.

23 MR. OSIAS: Well, Salton Sea, no foundation was  
24 laid. Do that one separately.

25 CHAIRMAN BAGGETT: I know, unless you want to enter

1 it.

2 MR. OSIAS: With respect to the IID exhibits,  
3 Exhibit 89, which was the CH2MHill bathymetry with the  
4 elevations of the whole Sea, in order for better resolution,  
5 we also distributed an 89A, B, C and D, which is merely that  
6 same photograph cut into quarters and blown up. So at least  
7 for purposes of the record we had an 89 and then an 89A, B,  
8 C and D.

9 We would -- we would move to enter into evidence all  
10 of our rebuttal exhibits and would offer for the benefit of  
11 those who are dissatisfied with the quality of the  
12 photograph, and because the missing top picture was also not  
13 there, that we will redistribute that to match what was  
14 shown on the slide.

15 MS. DIFFERDING: What exhibit number was that?

16 MR. OSIAS: Yeah, I'm going to find that one right  
17 now.

18 MR. ROSSMANN: 86, I think.

19 MR. OSIAS: That was 86.

20 MR. FECKO: Mr. Osias, do you have that  
21 electronically by any chance?

22 MR. OSIAS: I didn't hear that.

23 Any of these pictures --

24 MR. FECKO: You have to realize that when this is  
25 run through a scanner, it all looks like surf at Newport

1 Beach.

2 MR. OSIAS: Right. I believe Dr. Dickey has it  
3 electronically.

4 MR. FECKO: Okay.

5 MR. OSIAS: So we will find a way to communicate  
6 with all of those who want it electronically to get it that  
7 way.

8 DR. DICKEY: May I speak?

9 MR. OSIAS: Pardon me?

10 DR. DICKEY: I may have it on CD.

11 MR. OSIAS: Yeah, that's fine.

12 CHAIRMAN BAGGETT: CD is fine.

13 MR. OSIAS: CD is fine.

14 So I move those into evidence.

15 CHAIRMAN BAGGETT: Okay. Any objection?

16 MR. SLATER: No objection.

17 MR. FECKO: One more thing, I think, Mr. Osias, we  
18 were going to be entering was the testimony --

19 MR. OSIAS: Oh, I'm sorry. Yes.

20 We submitted a pleading which identified the  
21 witnesses in the outlines that we thought we might cover in  
22 rebuttal. Because it was merely the outlines, and it was in  
23 one document, we didn't give it an exhibit number. But for  
24 convenience, we would like to offer that in as Exhibit 91, I  
25 believe.

1 MR. HATTAM: No, two. 91 is --

2 MR. OSIAS: Okay.

3 MR. ROSSMANN: That was the letter.

4 MR. OSIAS: That would be 92.

5 And I forgot to mention, we do have IID 91 now,  
6 which is the response letter to Senator Feinstein that  
7 people asked that we submit. It's been distributed.

8 CHAIRMAN BAGGETT: It's been distributed. So that  
9 was number --

10 MR. OSIAS: That's 91. And then our outline of  
11 rebuttal testimony is 92.

12 CHAIRMAN BAGGETT: Okay. So they are so admitted.  
13 Now, Mr. Kirk.

14 MR. KIRK: I'd like to offer into evidence Salton  
15 Sea Authority Exhibit number 37, a real photograph looking  
16 south on Davis Road just north of the Alamo River, taken by  
17 Dr. Milton Friend, in the winter of 2001-2002.

18 CHAIRMAN BAGGETT: Any objection?

19 MR. OSIAS: Certainly everything Mr. Kirk said after  
20 "I'd like to the enter into evidence Exhibit 37" isn't  
21 evidence. On the other hand, since I think he used this to  
22 his advantage in cross, if he'd like to offer it into  
23 evidence as an illustration of dust on Davis Road, that  
24 would be fine, and limit it at that. That's how he used it.  
25 We don't know anything else about this picture without



1 witnesses.

2 CHAIRMAN BAGGETT: I would agree. Is that  
3 acceptable?

4 MR. KIRK: I suppose so. An illustration of dust  
5 on --

6 CHAIRMAN BAGGETT: Davis Road.

7 MR. KIRK: -- Davis Road.

8 CHAIRMAN BAGGETT: Taken during the time frame the  
9 winter of --

10 MR. KIRK: Taken during the time frame by -- in the  
11 winter of 2001-2002. I suppose so.

12 CHAIRMAN BAGGETT: Okay. It's so entered.

13 I've got a few other -- yeah, if you have it  
14 electronically again, Mr. Kirk -- Tom, if you have it  
15 electronically or on CD --

16 MR. KIRK: I do. I'll send it to Andy.

17 CHAIRMAN BAGGETT: Okay. That would be great.

18 So at this point we've finished the case in chief.  
19 We'll take -- and the rebuttal testimony with one exception,  
20 two exceptions. So first is we allowed for the Colorado  
21 River Indian Tribes' submittal and responses due June 4. So  
22 the record obviously remains open for any information right  
23 there.

24 And we will determine at the next day or two, we now  
25 have open June 10th for cross by the Chair the hearing

1 officer of San Diego's panel. And then, of course, that  
2 would obviously -- if there's a redirect and recross based  
3 on whatever questions I would ask, then, you know, that  
4 would obviously only be fair. That may not be necessary. I  
5 would like to think about it for a day, obviously.

6 Last night, like many of you, I didn't stay up till  
7 midnight trying to --

8 MR. SLATER: For clarification, is Chair's concern  
9 related to the letter itself or all subjects that --

10 CHAIRMAN BAGGETT: A number of subjects. The panel  
11 definitely had some wide ranging discussions of a number of  
12 issues which --

13 MR. SLATER: We'll just have to hold that date  
14 available.

15 CHAIRMAN BAGGETT: Yeah, and I guess to be candid,  
16 many of them are more legal in nature. And although the  
17 panel were not attorneys, they were obviously intimately  
18 aware of those issues, probably more than many attorneys  
19 that I know. So I feel they're definitely fair questions.

20 And maybe we could do it in terms of interrogatory  
21 and then deal with it in closing briefs also. That's what I  
22 want to contemplate. If I can do it that way, we'll do it  
23 that way.

24 I'm just trying to -- there is an advantage I think  
25 to the give and take, I think as Mr. Osias pointed out, of

1 live dialogue even as opposed to telecom phone dialogue, and  
2 that's what I'm trying to weigh is it worth.

3 MR. SLATER: Mr. Chair, we're happy to make the  
4 witnesses available if you think it would be beneficial to  
5 bring them back to respond to your questions.

6 CHAIRMAN BAGGETT: So with those two provisos, we'll  
7 take this under submission at this point. Although, we  
8 won't again reopen the record for the final EIR.

9 And the schedule, we sent out a tentative schedule  
10 yesterday. Do we have any -- we've obviously made the first  
11 benchmark on here, May 30th with the rebuttal. We will work  
12 on a list of key issues which we are interested in in  
13 closing briefs.

14 The transcript is still on -- you think for mid  
15 June, the transcripts will be sent is what Esther --

16 THE COURT REPORTER: Two weeks she told me.

17 CHAIRMAN BAGGETT: Yeah, two weeks. Amazing.

18 And the final EIR is still on track, as we  
19 understand it, to be certified by the end of June, which  
20 then makes the dates of eight, nine -- well, you've all got  
21 the dates in front of you.

22 We picked July 3rd at noon for closing briefs prior  
23 to the holiday. That still gives people a month. And I  
24 think at this point, I -- unless anybody objects, it seems  
25 that we've all got plenty of information to start working on

1           these briefs.  Is there a problem with that?

2                   MR. SLATER:  We support the schedule.

3                   CHAIRMAN BAGGETT:  Okay.  Does this schedule work --

4                   MR. SLATER:  It works.  I have only one question for  
5 clarification.

6                   CHAIRMAN BAGGETT:  Okay.

7                   MR. SLATER:  And we're happy with it as written, so  
8 we're not criticizing it in any way.

9                   The only question is whether you would expect that  
10 written testimony would be offered in advance of the hearing  
11 on the final Environmental Impact Report, and, if so, what  
12 that date would be.

13                   CHAIRMAN BAGGETT:  This is July 8th and 9th?

14                   MR. SLATER:  Right.  We're assuming those are the  
15 dates that you're setting aside for the hearing itself.  So  
16 my question is, backing up from that, are you expecting to  
17 require from us written testimony?

18                   CHAIRMAN BAGGETT:  Well, no.  Yeah, the scope of  
19 that testimony is for direct from the repairs of EIR.

20                   MR. SLATER:  No, I'm asking a purely procedural  
21 question.  Do you want testimony submitted in writing in  
22 advance of that?

23                   CHAIRMAN BAGGETT:  No, I don't think it's necessary.  
24 We're all going to have the final EIR at that point.  It  
25 would probably be -- I think it would be useful maybe to

1 provide a list of witnesses.

2 MR. SLATER: We're happy to be relieved --

3 CHAIRMAN BAGGETT: So we have some idea of what --

4 MR. SLATER: -- from the burden. Yes, thank you.

5 CHAIRMAN BAGGETT: -- what witnesses are coming so  
6 the parties can --

7 MR. OSIAS: In fact, we have been -- if I might  
8 address that question for a moment --

9 CHAIRMAN BAGGETT: Please.

10 MR. OSIAS: -- because we do want to share  
11 information. That's what that process is about.

12 We have been guessing sort of in advance which  
13 knowledgeable people from a very large team to bring. We  
14 guessed hydrologist and manager first time, and we ended up  
15 having a lot of focus on different subjects. We addressed  
16 air and selenium today, and there may be still other things.

17 We could bring, you know, five; we could bring six.  
18 It's pretty hard to bring thirty.

19 CHAIRMAN BAGGETT: Right.

20 MR. OSIAS: So subject to guessing wrong again, if  
21 people wanted to notify us that these are areas they  
22 particularly are concerned about, the change, which is what  
23 this focus is on, we would better be able to select. I  
24 think that might be useful.

25 MR. SLATER: We agree.

1 MR. OSIAS: But --

2 CHAIRMAN BAGGETT: I think I see a lot of heads  
3 nodding. It sounds like that certainly would be the most  
4 useful. I think obviously air --

5 MR. OSIAS: I mean, I think the ones that are  
6 obvious is we will bring back, assuming schedules work, an  
7 air person, presumably Dr. Dickey.

8 CHAIRMAN BAGGETT: And the economic --

9 MR. OSIAS: The socioeconomic person may need to do  
10 that, although -- and then we may -- we'd bring the  
11 hydrologist back.

12 CHAIRMAN BAGGETT: Ponds, with that off the table  
13 now, that changes.

14 MR. OSIAS: Yeah. So, anyway, if people warn us,  
15 we'll guess better. And then I guess if they don't, we'll  
16 be subject to maybe guessing wrong. Unless you want to  
17 require people to tell us.

18 CHAIRMAN BAGGETT: I think everybody knows how to  
19 contact Mr. Osias, so feel free.

20 MR. FLETCHER: Those responses we should serve; is  
21 that right? My understanding will be that we serve the  
22 entire list with our suggestions, once we --

23 CHAIRMAN BAGGETT: Yeah, I think electronically  
24 here's your suggestions and take them, exactly.

25 MR. OSIAS: And then going to Mr. Slater's question,

1 we did not think we should have this group write in advance  
2 about the changes. I mean --

3 CHAIRMAN BAGGETT: No, I think that's clear. We  
4 don't need to spend the time putting together that. It  
5 would be useful to say here's the three or four or five  
6 witnesses.

7 MR. SLATER: We appreciate that.

8 CHAIRMAN BAGGETT: And I assume that on -- I assume  
9 we'll have need of a hearing on July 8th.

10 MR. OSIAS: There definitely will be changes. The  
11 question is, what will be needed to either explain or  
12 question anybody.

13 I had a question on the briefs, if I might.

14 CHAIRMAN BAGGETT: Okay.

15 MR. OSIAS: Would staff and the Board find it  
16 useful, then, in addition to a closing brief, which would  
17 weave together the facts and the law, that those who wished  
18 submit a proposed form of order --

19 CHAIRMAN BAGGETT: Well --

20 MR. OSIAS: -- with findings?

21 CHAIRMAN BAGGETT: -- we certainly -- I proposed and  
22 we didn't write it down here. As I mentioned before, we  
23 would put the brief and then you could attach a list of  
24 findings to that. And I don't know about a page limit for  
25 briefs. That was another thing we should probably discuss.

1 I don't know that I see a need for it.

2 MR. OSIAS: I think if there was a page limit that  
3 was applied uniformly it would be unfair. I think the  
4 burden of a petitioner and the need to cover a variety of  
5 subjects versus an opponent who can focus --

6 CHAIRMAN BAGGETT: Each opponent seems to have  
7 narrow -- different areas, too, so I think that will --  
8 where you have the pleasure of covering all of them.

9 So there will be no page limits. You can attach to  
10 your brief, as a separate addendum, a list of proposed  
11 findings you would like to -- you think, based on what the  
12 evidence and the record are. And we'll give you a chance to  
13 supplement both those after the final EIR comes out.

14 In terms of drafting actually a draft order you'd  
15 like to see, I don't know that that's necessary.

16 The findings will -- the findings, that's going to  
17 give us, the Board, a pretty clear indication of what the  
18 order would be once we see the findings, so I think we can  
19 deal with that portion of it. But --

20 MR. RODEGERDTS: So you can supplement both the  
21 proposed findings and your brief after the --

22 CHAIRMAN BAGGETT: After you see the final EIR. I  
23 think that's only fair. But I think especially for certain  
24 arguments, especially legal arguments, you can already make.

25 MR. OSIAS: Right.



1           CHAIRMAN BAGGETT: Those aren't going to change.

2           MR. OSIAS: Right.

3           CHAIRMAN BAGGETT: And that's the list of questions  
4 we'll send you out. There will probably be a lot of those  
5 types of questions going more to authority and law and  
6 precedents of prior actions, things like that.

7           MR. OSIAS: And, again, I think in the spirit of  
8 what I understand you're proposing, and so people don't game  
9 this, a brief that's submitted that's, you know, fairly  
10 sketchy because what they really want to do is wait to see  
11 somebody else's and then file an extensive one as a  
12 supplement is not what you have in mind.

13          CHAIRMAN BAGGETT: No.

14          MR. OSIAS: The supplement should focus on anything  
15 new that needs to be readdressed or added because of the EIR  
16 based hearings.

17          CHAIRMAN BAGGETT: The supplement will be just like  
18 recross. A supplement will be listed and a supplemental  
19 brief and findings limited to the changes resulting from the  
20 final EIR, due to the draft EIR, not on the law, not on --  
21 that will all be covered.

22          Because we are, as you all know, under incredible --  
23 all of us are under a pretty tight timeline here, so we're  
24 just trying to work creatively to expedite it as much as we  
25 can and come up with still a fair and just result.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

With that, anything else?

MR. OSIAS: Thank you very much.

CHAIRMAN BAGGETT: And we appreciate all the  
courtesy you have all extended each other during some long,  
long days here. So thank you and have a good week.

MR. SLATER: Thank you, Mr. Chair.

(Proceedings adjourned at 5:35 p.m.)

---o0o---

1 REPORTER'S CERTIFICATE

2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

STATE OF CALIFORNIA )  
 ) ss.  
COUNTY OF SACRAMENTO )

I, KATHY L. SWINHART, certify that I was the official Court Reporter for the proceedings named herein, and that as such reporter, I reported in verbatim shorthand writing those proceedings;

That I thereafter caused my shorthand writing to be reduced to typewriting, and the pages numbered 2749 through 3085 herein constitute a complete, true and correct record of the proceedings.

IN WITNESS WHEREOF, I have subscribed this certificate at Sacramento, California, on the 18th day of June 2002.

\_\_\_\_\_  
KATHY L. SWINHART  
CSR NO. 10150