

WORKSHOP  
STATE WATER RESOURCES CONTROL BOARD  
STATE OF CALIFORNIA

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**Subject:** *Review of Water Quality Standards  
for the San Francisco Bay/  
Sacramento-San Joaquin Delta Estuary*

—o0o—

Held in  
Resources Building  
Sacramento, California

—o0o—

**Thursday, September 1, 1994  
10:00 a.m.**

VOLUME VII

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1 THURSDAY, SEPTEMBER 1, 1994, 10:00 A.M.

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3 MR. CAFFREY: Good morning. My name is John  
4 Caffrey. I am Chairman of the State Water Resources Control  
5 Board.

6 Welcome to these continuing proceedings on standard  
7 setting for the Bay-Delta.

8 Let the record show that the full Board is present  
9 this morning.

10 By way of introduction, to my far left is Executive  
11 Director, Walt Pettit. Next to Mr. Pettit is Board Member  
12 Marc Del Piero, and between Mr. Del Piero and myself is  
13 Board Member Mary Jane Forster. To my immediate right is  
14 Board Vice Chair James Stubchaer, and next to Mr. Stubchaer  
15 is Board Member John Brown.

16 Good morning to my fellow Board members and to all  
17 of you.

18 We also have at the staff table Mr. Tom Howard,  
19 Senior Engineer; and Barbara Leidigh, Senior Staff Counsel.

20 Also in the front row available to assist are other  
21 staff of the Board, Heidi Bratovich, Gail Linck, Ben Romero,  
22 Sean Bagheban.

23 Good morning to all of you.

24 This is the fifth in our series of workshops in  
25 which the State Water Resources Control Board will hear oral

1 comments and recommendations regarding the water quality  
2 standards for the Bay-Delta estuary.

3 I have discussed the procedure that we should follow  
4 from this point forward with the other Board members. All  
5 of us are aware of the important work the parties have been  
6 doing in developing alternative sets of standards for the  
7 Bay-Delta estuary.

8 We commend the parties for their efforts. We know  
9 it has not been easy. We encourage all of the parties to  
10 continue working together to identify and develop areas of  
11 agreement in response to these very positive efforts, and to  
12 keep everyone updated on the continuing work of the parties  
13 and the Board's staff.

14 We have asked the Board's Executive Director, Mr.  
15 Pettit, to conduct a series of publicly-noticed meetings  
16 with the parties and the involved State and Federal agencies  
17 starting later this month. We have tentatively scheduled  
18 the first of these for September 21. A public notice will  
19 be issued in the next few days.

20 The purpose of these meetings will be to review in  
21 detail and compare the features of the various alternatives  
22 that have been presented to the Board, and to provide  
23 opportunity for frank discussion and the exchange of ideas  
24 for modifications and/or improvements.

25 Later, probably in mid-October, the Board will hold

1 a concluding workshop to receive a progress report on the  
2 alternatives. If possible or appropriate, the workshop will  
3 include a staff presentation of an alternative developed out  
4 of the meetings between Mr. Pettit and the parties that may  
5 become the preferred alternative.

6 One serious caution: In order for the Board to meet  
7 the December commitment laid out in the framework agreement  
8 with the federal agencies, it is critical that the parties  
9 reach agreement or narrow the alternatives as soon as  
10 possible. We are confident that the process we are setting  
11 up to be conducted by Mr. Pettit and later the Board will  
12 afford that opportunity.

13 If you intend to speak today, please fill out a blue  
14 card and give it to our staff at the front table.

15 As you know, the comments and recommendations  
16 received during this series of workshops will be used to  
17 prepare a draft water quality control plan and we expect to  
18 release the draft in December, 1994.

19 About two months after the draft is released, we  
20 will hold a hearing on the draft. After the hearing, we  
21 will make whatever changes are needed, provide copies of the  
22 revised draft to the interested parties, and then, hold a  
23 Board meeting to consider it for adoption.

24 Conduct of today's proceeding: As in the past,  
25 today's proceedings are described in the notice for today.

1 Additional copies of the notice are available from staff.

2           This workshop will be informal. Today we want to  
3 hear from the parties on the key issues specified for this  
4 workshop. Each party will have 20 minutes for an oral  
5 presentation.

6           A party may be represented by one or several  
7 speakers. If the party needs additional time, the party's  
8 representative may request additional time at the beginning  
9 of the presentation. Please explain why the additional time  
10 is necessary.

11           If we are not able to provide you all the time you  
12 think you need, we encourage you to submit your presentation  
13 in writing.

14           In the interest of time, we ask that parties avoid  
15 repeating details already presented by other parties  
16 whenever possible and simply indicate agreement.

17           Alternatively, parties with the same interests are  
18 welcome and encouraged to make joint presentations.

19           We will also accept and we encourage, as we have  
20 been all along, written comments. You need to provide the  
21 Board and staff 20 copies of any written comments and  
22 recommendations, and make copies available to the other  
23 parties who are here today.

24           As in the past, a court reporter is present and will  
25 prepare a transcript. If you want a copy of the transcript,

1 you must make arrangements with the court reporter.

2           There will be no sworn testimony or cross-  
3 examination of the parties, but the Board members and staff  
4 may ask clarifying questions.

5           I believe I have about 15 cards for today, so  
6 perhaps we will finish today and not have to go over to  
7 tomorrow.

8           Today's key issue is carried over from the fourth  
9 workshop. It is: What fish and wildlife standards should  
10 the State Water Board evaluate as alternatives in this  
11 review?

12           And I will call the parties in the order that we  
13 have called them in the past: Number one, elected officials  
14 for the State, Federal and local governments; number two,  
15 representatives of the State, Federal and local agencies;  
16 and number three, all others in the order that your speaker  
17 cards were submitted to staff, unless you have special time  
18 constraints which you have noted on your speaker cards.

19           At this time, I would like to note that I have a  
20 special request from the Western United Dairymen to present  
21 a new economic model they have developed for these  
22 proceedings. This is something that they told us about a  
23 couple of workshops ago and asked that they be given some  
24 deference when that information is available.

25           Economics is not listed as a key issue for today,



1 but we have tried to accommodate people in these workshops  
2 whenever possible, and we recognize that the economic  
3 effects of the various alternatives are a very important  
4 consideration. Therefore, unless another Board member  
5 objects, I will grant 20 minutes for the presentation by  
6 Western United Dairymen.

7 Also, they have asked for permission to speak as  
8 early as possible to allow for discussion if it is desired  
9 on the economic model during the discussion of the  
10 alternatives presented by the other parties.

11 We will hear from them right after the elected  
12 officials and representatives of the public agencies.

13 In addition to the Executive Director's meetings  
14 later this month and the Board's October workshop, you may  
15 continue, as always, to send written materials to Mr. Pettit  
16 or Mr. Howard. If you do that, we ask that you send 20  
17 copies of your materials and that you also send copies to  
18 the parties who have participated in these proceedings.

19 Any materials received by the Board will be made  
20 available for inspection by interested persons. We thank  
21 those persons who have used these workshops as an  
22 opportunity to help the Board develop a plan that will  
23 afford reliable and reasonable protections for the estuary  
24 and all its beneficial uses.

25 We are hopeful that you will be able to further

1 address the Board as a result of the meetings to be  
2 conducted by Mr. Pettit.

3 Do any of the Board members wish to add anything to  
4 the statement I have put into the record at this point? If  
5 not, we will then move to the cards in the order that I  
6 specified.

7 The first presentation then is going to be from our  
8 counterparts in the Federal Government, Club Fed. Are the  
9 representatives of Club Fed ready to make their panel  
10 presentation?

11 I understand Patrick Wright, Dan Fults, Joel Medlin  
12 and Chris Mobley are present.

13 Have I covered everybody?

14 Please come forward.

15 MR. FULTS: We are missing Chris Mobley.

16 MR. CAFFREY: Does that present a problem?

17 MR. FULTS: I don't think so. I am not quite sure  
18 whether he will be here or not.

19 MR. CAFFREY: Good morning, gentlemen. Before you  
20 begin, I hope I didn't cause any confusion. Mr. Stubchaer  
21 was reminding me I may have said we would hear from the  
22 Dairymen after the elected officials. If I said that, what  
23 I meant to say was the representatives of the elected  
24 officials, of which there are a number here today, and the  
25 public agencies.

1           So, we will not be getting to the Dairymen's  
2 association immediately, but we will in the very near  
3 future.

4           Gentlemen, good morning.

5           MR. FULTS: We are here on behalf of the Club Fed  
6 and we will have a presentation for you today by Patrick  
7 Wright from EPA, who will be making a more in-depth  
8 presentation to you on the status of their activities.

9           My intention is to bring you up to date on where we  
10 are in terms of activities of Club Fed. It will be very  
11 short, but that will help to bring you up to speed as far  
12 as those things that have been going on.

13           My name is Dan Fults from the Bureau of Reclamation.

14           MR. CAFFREY: Let me remind all the parties that  
15 since this is not a hearing per se, we are, as I said in the  
16 statement, keeping a transcript, so if you could identify  
17 yourselves before you make your presentation, it would be  
18 helpful.

19           MR. FULTS: First off, I do want to say that  
20 yourself, as Chairman of the Board, signed the framework  
21 agreement. It is fully consummated now. All signatures  
22 have been done.

23           MR. CAFFREY: It hasn't changed since I signed it;  
24 has it?

25           MR. FULTS: No. It is signed and transmitted by the

1 Assistant Secretary to the Secretary of Resources, Doug  
2 Wheeler.

3 MR. CAFFREY: We appreciate that. Thank you very  
4 much.

5 MR. FULTS: A success story. It has three  
6 principles involved in it:

7 One of them is to work on water quality  
8 standards in the Bay-Delta.

9 The second principle is establishing an  
10 oversight management work group for the day-to-  
11 day type of operations that impact the Bay-  
12 Delta.

13 And then, the third principle is to work  
14 toward long-term solutions to the Bay-Delta  
15 issues that we have.

16 And in regard to developing a long-term process for  
17 getting at these issues, we have been working closely with  
18 members of Club Fed and certain representatives of the Water  
19 Policy Council on various proposals and ideas of how we can  
20 package a group that would be able to move ahead and start  
21 studying and working towards the long-term solution.

22 We have made good progress in that. In fact, there's  
23 a press release that I left quite a number of copies of in  
24 the doorway as you come in that announces a meeting, a  
25 formal type of meeting on September 19. There's a 10:00

1 a.m. meeting in Los Angeles, and then later in the day, a  
2 3:30 meeting in which State and Federal officials would like  
3 to meet with public interests to go over all the long-term  
4 process ideas that we have and to hear others' ideas, too,  
5 as we formulate this organization.

6 This process we have been working through I really  
7 feel reflects a true partnership between the Federal and  
8 State governments and the representatives involved.

9 We do want the public to play a very important role  
10 to us, both the State and Federal agencies. We have talked  
11 very seriously about establishing some type of citizens'  
12 advisory group that would be sanctioned by State and Federal  
13 law and we do realize that we will have to take an approach  
14 that could eventually lead into some type of CEQA and NEPA  
15 compliance in formulating solutions to the long-term issues  
16 in the Delta.

17 That pretty well brings you up to speed on where we  
18 are in the overall framework endeavors, and then, to get  
19 more informed on the water quality standards, Patrick Wright  
20 will be making a presentation.

21 MR. CAFFREY: Thank you, Mr. Fults.

22 MR. WRIGHT: I am Patrick Wright from EPA in San  
23 Francisco.

24 Good morning.

25 At the last Board workshop, EPA summarized the

1 extensive discussions with the parties that have taken place  
2 since our proposed standards were announced last December.

3 We also described some of the modifications to those  
4 standards that we have developed in an attempt to reduce  
5 their water supply impacts while maintaining our targeted  
6 level of protection.

7 Once again, we would like to thank the staffs of the  
8 various agencies and interests that contributed their time  
9 and energy to this process.

10 Although several significant differences remain among  
11 the parties, we are encouraged by the progress we have made  
12 to date and urge the Board to build upon these efforts in  
13 its development of State standards.

14 In December, 1993, EPA proposed three sets of water  
15 quality standards for the estuary as part of a coordinated  
16 set of federal actions. In the past several months, we have  
17 been reviewing the comments received on the proposed rule,  
18 and working with a broad spectrum of interested parties in  
19 developing the final rule.

20 Today we are making available several documents that  
21 explain in detail our current staff recommendations with  
22 respect to the final standards.

23 The first set of documents were contained in a notice  
24 of availability that was published in the Federal Register  
25 last Friday. The second set were part of a letter sent

1 earlier this week from EPA to the Fish and Wildlife Service  
2 and the National Marine Fisheries Service as part of the  
3 Endangered Species Act consultation process on the federal  
4 standards.

5           The recommendations in these documents are, of  
6 course, preliminary. They represent staff recommendations  
7 only and have not received final management approval.  
8 Nevertheless, we believe it is important for the State Board  
9 and other parties to be apprised of our efforts as we all  
10 work towards adoption of mutually acceptable standards.

11           The staff recommendations include four sets of water  
12 quality criteria:

13           1. Estuarine habitat criteria.

14           The first are the two parts per thousand salinity  
15 criteria at Rowe Island, Chipps Island, and the confluence  
16 of the Sacramento and San Joaquin Rivers.

17           Based on extensive discussions with DWR, CCWD and  
18 other parties, we have developed two major modifications to  
19 the estuarine habitat criteria described in the proposed  
20 rule: A sliding scale to replace the five water year  
21 classifications and three alternative methods of compliance  
22 at the Rowe Island and Chipps Island stations; daily  
23 salinity, 14-day average salinity and the equivalent daily  
24 outflow.

25           These modifications have been endorsed by a broad

1 range of interests.

2           2. Fish migration criteria.

3           The second set of criteria are fish migration  
4 criteria to protect salmon smolts and other migratory  
5 species in the Delta.

6           After the close of the public comment period, EPA  
7 participated in a series of three scientific peer review  
8 workshops on these criteria organized and facilitated by the  
9 urban and environmental interests. Several participants in  
10 the workshops raised concerns about using predicted model  
11 results as the basis for these criteria.

12           The group agreed that goals for salmon smolt survival  
13 should be based on the actual fall-run salmon smolt survival  
14 index rather than predicted model results from the U. S.  
15 Fish and Wildlife Service model.

16           Based on these discussions, EPA has developed an  
17 alternative methodology for the fish migration criteria that  
18 is based on measured survival rates. The new methodology is  
19 described in two documents published in the Federal Register  
20 last week: The summary of the three scientific peer review  
21 workshops on the fish migration criteria sponsored by the  
22 urban and environmental interests in June; and a description  
23 of an alternative set of criteria based on the conclusions  
24 of those workshops.

25           The target values for the new set of criteria reflect



1 an achievable set of implementation measures, and are  
2 generally consistent with the doubling goal established by  
3 the CVPIA and State legislation.

4           The workshop participants also discussed how these  
5 criteria might be implemented. There was general agreement  
6 that a specified salmon smolt survival goal should be  
7 coupled with a set of implementation measures designed to  
8 achieve the goal, including gate closures, increased flows,  
9 export limits and other measures.

10           The goals would be revisited during the triennial  
11 review process to determine the effectiveness of the  
12 measures. The implementation measures could then be  
13 modified as appropriate to achieve the goals on average over  
14 a period of years.

15           We believe this approach will insure that the  
16 designated uses are protected while providing the  
17 flexibility necessary to experiment with different  
18 approaches to improve survival.

19           In recent Board workshops several parties have  
20 stressed the importance of developing real-time monitoring  
21 programs and studies to evaluate the effectiveness of  
22 innovative control measures, such as the sound barrier on  
23 Georgiana Slough.

24           By combining goal setting with an adaptive management  
25 process, we can provide a mechanism for the State Board to

1 incorporate the results of these and other ongoing studies  
2 into its implementation plan without modifying the approved  
3 criteria.

4 3. Fish-spawning criteria.

5 The third set of criteria are salinity criteria to  
6 protect fish spawning and other fish and wildlife uses of  
7 the lower San Joaquin River from Jersey Point to Vernalis.  
8 The purpose of these criteria is to address increased  
9 salinity levels caused by agricultural return flows in the  
10 San Joaquin Valley.

11 In the preamble to the proposed rule, we suggested  
12 that these criteria were likely to be implemented by  
13 increased flows on the lower San Joaquin River. That  
14 statement was based on an analysis by the Board staff which  
15 concluded that the measures proposed to protect salmon in  
16 Draft Decision 1630 would also be adequate to meet these  
17 salinity criteria.

18 Several commenters took issue with these statements  
19 and suggested that these criteria should be implemented  
20 through reductions in salt loadings from agricultural return  
21 flows.

22 EPA agrees with these commenters, and recommends that  
23 the Board develop an implementation plan that builds upon  
24 the recommendations of the San Joaquin Valley drainage  
25 program and Environmental Defense Fund's recent proposals to

1 use economic incentives to achieve compliance with the  
2 criteria. Through this approach the Board can insure the  
3 criteria will not have any additional impacts on water  
4 supplies.

5 Some parties have suggested that these criteria are  
6 inconsistent with an ecosystem-based protection plan for the  
7 estuary and may even have adverse impacts on some species.

8 We disagree. We don't believe that setting criteria to  
9 reduce the impacts of salt loadings on spawning habitat for  
10 sensitive species, including striped bass and Sacramento  
11 splittail, is in any way inconsistent with an ecosystem-  
12 based approach.

13 We are also not aware of any evidence that reductions  
14 in salt loadings would have adverse impacts on other  
15 species. In fact, we note that several parties, including  
16 the California Urban Water Agencies and the Association of  
17 California Water Agencies have recommended reductions in  
18 salt loadings as part of their comprehensive protection plan  
19 for the estuary.

20 4. Suisun Marsh tidal wetlands criteria.

21 The final recommended criteria is a narrative  
22 criteria to protect the tidal wetlands surrounding Suisun  
23 Bay. You may recall that EPA's approval of the 1978 Delta  
24 Plan was conditioned in part upon the Board's commitment to  
25 develop standards to protect aquatic life and the brackish

1 tidal marshes surrounding Suisun Bay.

2           Because these commitments were not met, EPA  
3 specifically disapproved the State's salinity criteria for  
4 the marsh because they were not adequate to protect  
5 estuarine habitat, wildlife habitat, rare and endangered  
6 species, and other fish and wildlife uses of the marsh.

7           In the proposed rule, therefore, EPA has included two  
8 possible narrative criteria for the tidal wetlands, and  
9 solicited comment on whether these or other criteria should  
10 be included in the final rule.

11           Let me just clarify here. Those two possible  
12 narrative criteria are contained in a special section of the  
13 proposed rule that requested comments rather than in the  
14 proposed rule.

15           Based on the comments received on these and other  
16 questions, we have further refined this narrative criteria.  
17 It provides that water quality conditions be sufficient to  
18 support high plant diversity and diverse wildlife habitat,  
19 to prevent conversion of brackish marsh to salt marsh, and  
20 to protect and maintain sustainable populations of those  
21 species vulnerable to increases in water and soil salinity.

22           We believe that this criteria serves several  
23 important purposes:

24           It fulfills our responsibility to set standards for  
25 the tidal marshes;

1           It addresses concerns raised in the Endangered  
2 Species Act consultation process regarding the protection of  
3 candidate species dependent upon brackish marsh habitat;

4           It provides a clear statement that the tidal marsh  
5 community should be protected in any comprehensive  
6 ecosystem-based protection plan for the estuary;

7           And it provides an incentive for new and ongoing  
8 studies of the marsh to be completed, as the Board  
9 recommended in the 1991 plan.

10           You may recall that in the 1991 Water Quality Control  
11 Plan, the Board noted that a biological assessment is needed  
12 to determine the water quality requirements of the rare,  
13 threatened and endangered species in the managed and  
14 unmanaged wetlands around Suisun Bay. The plan stated that  
15 the Board would develop amendments and additions to the  
16 existing numeric criteria based upon the results of this  
17 assessment, and then, in a later action assign  
18 responsibility for meeting any changed standards.

19           EPA supports this approach and encourages the Board  
20 to work with the Department of Water Resources, the  
21 Department of Fish and Game and others to complete the  
22 assessment before the next triennial review.

23           The narrative criteria will provide a framework for  
24 these studies, and insure that protective criteria are in  
25 place pending the development of revised numeric criteria

1 for the marsh.

2 That concludes my summary of EPA's staff  
3 recommendations. Again, each of these criteria are  
4 explained in more detail in both our letter to the Fish and  
5 Wildlife Service and the National Marine Fisheries Service  
6 and our Federal Register notice regarding the fish migration  
7 criteria.

8 Thank you, again, for hearing our comments. We  
9 appreciate this opportunity to contribute to the State  
10 Board's process, and look forward to working with you and  
11 your staff in developing approvable State standards.

12 MR. CAFFREY: Thank you very much.

13 MR. WRIGHT: That concludes our presentation and I  
14 would like to welcome Chris Mobley here from the National  
15 Marine Fisheries Service.

16 MR. CAFFREY: Do you have a statement you want to  
17 make to the Board?

18 MR. MOBLEY: No.

19 MR. MEDLIN: I would like to introduce myself.  
20 First, I am Joel Medlin. I have recently come to the  
21 Sacramento area from the Dakotas, and worked for the Fish  
22 and Wildlife Service for a number of years and now I am the  
23 Field Supervisor here in Sacramento, California.

24 I do appreciate being here along with the other  
25 members of Club Fed, but I just want to assure the Board

1 that the Service has a major role in this activity in the  
2 establishment of the water quality standards, and especially  
3 regarding Endangered Species Act compliance.

4 We are looking for the long-term solution along with  
5 our counterpart federal agencies and obviously under the  
6 framework agreement with the State, and I'm very pleased to  
7 see the framework agreement as the basis for us to get  
8 really involved in the specific issues.

9 Clearly habitat is a major key to a long-term  
10 solution, and basically, that habitat can be broken down  
11 into physical, chemical and biological resources or  
12 parameters, and certainly, the Service's goal is to work  
13 with all the agencies to reverse the downward decline of all  
14 the species, not just those that are listed and endangered.

15 In fact, the mandate of the Endangered Species Act is  
16 to conserve natural resources, especially those that are  
17 listed, but also, those that are candidates for listing, and  
18 we are going to be looking at that long-term solution as a  
19 way to hopefully return some of the values that are causing  
20 many of the species to decline.

21 Obviously, key to the Bay-Delta area habitat is the  
22 chemical or the water quality standards which EPA and the  
23 Board are working on now, and certainly the Service is going  
24 to be much involved in reviewing the outcome of those  
25 efforts and implementing our Endangered Species Act

1 requirements.

2           In that regard, obviously, we are in various forms of  
3 consultation on many of the actions right now on the  
4 Endangered Species Act and I just felt like I should  
5 introduce myself and give you a few brief thoughts on my  
6 views.

7           MR. CAFFREY: Thank you, Mr. Medlin. Welcome to  
8 California. I take it, you arrived recently.

9           MR. MEDLIN: Yes, I came on paper, I arrived in  
10 April, but I have been in various stages of moving since,  
11 but I am in the office now.

12           MR. CAFFREY: All right. That completes then the  
13 presentation of the Club Fed panel. Thank you, gentlemen.

14           Let me see if we have questions. Mr. Del Piero.

15           MR. DEL PIERO: Mr. Wright, in regard to the  
16 presentation that you made, I have a couple of questions, if  
17 you would be kind enough.

18           At the end of the first paragraph titled *Estuarine*  
19 *Habitat*, the last sentence says: *These modifications have*  
20 *been endorsed by a broad range of interests.*

21           Whenever I read a sentence like that, I wonder who  
22 those *broad range of interests* are. Are they articulated  
23 somewhere so I can see who agreed and who disagreed?  
24 There's an implication that there are apparently some who  
25 disagreed.



1           MR. WRIGHT: Well, that may be. I am not aware of  
2 any parties that disagree in concept, for instance, with the  
3 idea of having a sliding scale or an alternative method of  
4 complying.

5           MR. DEL PIERO: How many were asked?

6           MR. WRIGHT: We have worked with dozens of interest  
7 groups from all parties.

8           MR. DEL PIERO: Were they asked?

9           MR. WRIGHT: Oh, yes.

10          MR. DEL PIERO: Have any of them voiced opposition?

11          MR. WRIGHT: We have had some disagreement over the  
12 technical details of how both the sliding scale and the  
13 alternative compliance methods would work.

14          MR. DEL PIERO: So, it was not unanimous in terms of  
15 support for the plan?

16          MR. WRIGHT: No, I would say not.

17          MR. DEL PIERO: Do you know who those organizations  
18 are so I can get a list?

19          MR. WRIGHT: What we can do is we can provide you  
20 with a list of the participants in the working group  
21 sessions that we held on these particular provisions.

22          MR. DEL PIERO: What good will that do if I don't  
23 know who supported and who didn't?

24          MR. WRIGHT: You will probably have to contact those  
25 members directly. In addition, there's a summary that was

1 prepared by Dr. Wim Kimmerer of a consensus process that as  
2 we indicated was sponsored by both the urban and  
3 environmental interests that wrote up essentially the degree  
4 of consensus that was achieved at those workshops and listed  
5 the participants.

6 MR. DEL PIERO: Now, no one kept a comprehensive list  
7 of who supported and who opposed?

8 MR. WRIGHT: I think this is the first time we have  
9 presented the specifics of this, so I am not sure that any  
10 of the parties, with the possible exception of the urban  
11 water agencies, are on record specifically on the specifics  
12 of these two alternatives.

13 MR. DEL PIERO: So, the broad range of interests  
14 referenced here are none of the water agencies?

15 MR. WRIGHT: No, again, I would say the broad range  
16 of interests supports the concept behind these major  
17 modifications. There may be some disagreement over some of  
18 the details, but I am not aware of any major disagreement  
19 with either of these.

20 MR. DEL PIERO: There is no way of my finding out what  
21 potential objections there might be to these  
22 recommendations?

23 MR. WRIGHT: That is what the Board's hearing is all  
24 about. Hopefully, you will hear that.

25 MR. DEL PIERO: This is being represented by you as

1 being endorsed by a broad range of interests.

2 MR. WRIGHT: As I said, when you look at the  
3 summaries of the urban and environmental documents, this  
4 reflects that summary -- that summary reflects a broad  
5 consensus of a large number of parties.

6 MR. DEL PIERO: But you don't know who they are?

7 MR. WRIGHT: No, there's a list of the urban  
8 agencies, DWR, environmental groups, including the Bay  
9 Institute. I don't have the specific list in front of me,  
10 but I can assure that a wide variety of groups was  
11 represented.

12 MR. DEL PIERO: All right. Let me go on to something  
13 else then.

14 The U. S. Environmental Protection Agency, during the  
15 tenure I have had with the Water Resources Control Board has  
16 repeatedly encouraged the Board to implement a permitting  
17 system whereby all agricultural discharges in the San  
18 Joaquin and Sacramento Valleys that are contributing to salt  
19 loading would be permitted by the Board.

20 Is that basically what you are recommending under  
21 your fish spawning, the third paragraph?

22 MR. WRIGHT: Not specifically.

23 MR. DEL PIERO: I want to get real specific on this  
24 because I want to know how you would propose this Board  
25 implement this recommendation without a permitting process.

1           MR. WRIGHT: For instance, there are a number of  
2 different programs out there that have been developed to  
3 reduce agricultural drainage.

4           MR. DEL PIERO: You are talking about voluntary  
5 programs?

6           MR. WRIGHT: I am talking about all the measures  
7 listed in the San Joaquin Valley drainage program and the  
8 wide variety of concepts in EDF's recent papers, as well as  
9 several others.

10           We are not prepared today to outline a specific  
11 recommended implementation approach, but to merely say that  
12 the Board should develop such an approach in order to  
13 implement the standards just like the Board does any other  
14 water quality standards, whether it be selenium in the  
15 valley, copper in the South Bay -- generally in those  
16 standard-setting processes, EPA does not show up and try to  
17 recommend or prescribe any particular implementation method,  
18 but instead, it focuses on the standards that are necessary  
19 for protection of the uses.

20           MR. DEL PIERO: You don't disagree, though, that EPA  
21 in the past has, if not outright recommended strongly,  
22 encouraged the Board to adopt a regulatory scheme for ag  
23 discharge.

24           MR. WRIGHT: I am not familiar with what our previous  
25 statements have been, but it wouldn't surprise me if that is

1 what our policy has been.

2 MR. DEL PIERO: Do you have any time line in which  
3 this nonspecific program that the Board should adopt should  
4 be implemented in order to achieve water quality standards?

5 MR. WRIGHT: We do not have a specific time frame in  
6 mind today, but we would be happy to discuss that with the  
7 Board and other parties in developing an implementation  
8 plan.

9 MR. DEL PIERO: The reason I ask that is because the  
10 implementation of a program to eliminate salt loading from  
11 agricultural return flows could be -- well --

12 MR. WRIGHT: We recognize it is not going to happen  
13 overnight.

14 MR. DEL PIERO: I don't think we have a staff to  
15 implement a permitting program like that for the San Joaquin  
16 and Sacramento.

17 MR. WRIGHT: They might give us a grant.

18 MR. DEL PIERO: They would have to be giving us a  
19 grant for the next 50 years to do something like that given  
20 the amount of salt.

21 I guess I am asking how realistic EPA's expectation  
22 is of implementing any kind of proposal like this short of  
23 tremendous amounts of funding for the implementation of this  
24 very strict regulatory program on all agricultural  
25 discharges.

1           How realistic do you expect this to be in addressing  
2 water quality in the Delta?

3           MR. WRIGHT: I would say we intend to be realistic  
4 and flexible regarding the time period it might take to  
5 comply with these standards just as we have been with the  
6 selenium standard in the valley, which also has a very  
7 extended implementation plan that has tried to address that  
8 issue as well.

9           MR. DEL PIERO: Is that within the context of  
10 protecting the species of the Delta or in the context of  
11 realistic implementation of the program you are  
12 recommending?

13          MR. WRIGHT: Clearly, by law, the standard has to be  
14 set at a level that's necessary to protect the use but at  
15 the same time the law provides plenty of flexibility in  
16 terms of time frames to implement the standards, so I think  
17 there is plenty of room for flexibility on that particular  
18 issue.

19          It's not, though, allowable to simply say that  
20 because it is difficult to implement, it is allowable not to  
21 set a standard. If you have a pollution problem, the law  
22 requires you to set the standards and then work towards  
23 implementation, and if that takes longer for some standards  
24 than others, that can be provided for.

25          MR. DEL PIERO: I understand. I am not being hard.

1 I am trying to get really down to some very specific facts  
2 and specific recommendations here because I have looked at  
3 this real closely and I am becoming concerned that a number  
4 of recommendations are sort of open ended in terms of actual  
5 implementation of proposals that can be incorporated into a  
6 water quality plan that can be sustained, and if, in fact,  
7 it is challenged, it appears that there are a lot of  
8 recommendations that don't have any specificity, or more  
9 significant; lack of specificity, and there is a tremendous  
10 propensity on the part of all the parties to say, we're  
11 going to be very flexible.

12 I had the occasion yesterday to see some of the most  
13 current species indicated in the Delta, not just the  
14 regulated indicated species, but pretty much all the species  
15 that are evaluated by the Department of Fish and Game, and I  
16 am concerned that proposals like this that could be years,  
17 if not decades in the implementation, are not going to be  
18 realistic in the event someone challenges this water quality  
19 plan and points to the very practical immediate population  
20 declines in terms of species in the Delta, and in order to  
21 avoid this Board losing any more lawsuits, I am looking for  
22 real solutions as opposed to *we are going to be flexible*.

23 And I am not picking on you, I have heard it  
24 repeatedly from all kinds of People, so I guess in terms of  
25 me anyway, if there could be a greater degree of specificity

1 in terms of the timing that you all anticipate for things  
2 like a salinity control plan for the San Joaquin Valley so  
3 that we can have a realistic discussion on what that  
4 actually means so that the agricultural interests that are  
5 present here understand that that may well mean a waste  
6 discharge permit for everybody that has an agricultural  
7 discharge into the San Joaquin Valley.

8 MR. WRIGHT: Let me just say one additional thing  
9 there, and that is, of course, when we published our  
10 proposed rule, we got two very different sets of comments on  
11 the issue of implementation.

12 One party said because EPA has no authority over  
13 implementation, we shouldn't say anything about it.

14 And another said that how can you possibly expect the  
15 parties or the Board to accept the standards without  
16 describing in excruciating detail exactly how it would be  
17 implemented.

18 What we are trying to do is also balance those two  
19 competing views. In doing that, we would certainly be happy  
20 to talk to you and your staff about what is realistic in the  
21 San Joaquin Valley.

22 That's about all I can say.

23 MR. DEL PIERO: I would hope that if there are  
24 proposals made not only by fed and the agencies that you  
25 all represent, but by everyone here, if there are proposals



1 being made that there be a degree of specificity so we  
2 understand what the practical implication of those  
3 recommendations is going to be.

4 Having had some discussion with the people from the  
5 San Joaquin Valley before in regard to the potential of  
6 their having to get a waste discharge permit for their ag  
7 drains, there may be some small amount of antagonism to that  
8 idea.

9 MR. WRIGHT: Let me just make one final point and  
10 that is, of course, we believe merely by setting a standard,  
11 even if the implementation plan is going to take quite some  
12 time, we strongly believe that setting the standard itself  
13 is a powerful incentive for those things to happen.

14 If you have been reading from the other parties',  
15 virtually all of the interests in the state agree that salt  
16 loading should be reduced and the standard provide the  
17 framework and a mechanism for that to happen.

18 MR. DEL PIERO: There are a lot of things everybody  
19 agrees on. Implementation is the issue.

20 MR. WRIGHT: We hear you.

21 MR. CAFFREY: Ms. Forster, and then Mr. Brown.

22 MS. FORSTER: I want to compliment you, Patrick, on  
23 the progress that you have made in this report today.

24 I have a question about what you mean here in the  
25 third paragraph where it says: *The first set of documents*

1 were contained in a notice of availability that was  
2 published in the Federal Register last Friday; the second  
3 set were part of a letter sent earlier this week from EPA to  
4 the Fish and Wildlife Service and the National Marine  
5 Fisheries Service as part of the Endangered Species Act  
6 consultation process.

7           It is my hope, and I guess I want you to respond to  
8 this, it is my hope that the Club Fed group, when you are  
9 working on your standards and the water that will be  
10 dedicated to your standards, that you are not just narrowly  
11 looking at the Clean Water Act, but you are also looking at  
12 the block of water that satisfies the Clean Water Act and  
13 the Endangered Species Act, and what you represent as the  
14 amount of water needed for fish and wildlife takes care of  
15 all of your issues, and then, that hopefully would translate  
16 into the certainty and the shelf life, the word that people  
17 use.

18           Is that how you are working at Club Fed?

19           MR. WRIGHT: We have been striving very hard to make  
20 sure that we try to integrate the federal actions as much as  
21 we can, and in particular, to make sure that standards,  
22 particularly State standards, will be driving the system  
23 rather than the Endangered Species Act, and the consultation  
24 process is the right vehicle for doing that.

25           We want to make sure that through the broader habitat

1 based approach that's represented by the standards, we can  
2 try to protect the needs of not only those species that are  
3 listed now, but the wider variety of species so we can  
4 preclude the need for additional listing and not have water  
5 supply impacts above and beyond what's required for the  
6 standards caused by either additional listings or take  
7 restrictions, or other mechanisms under the Endangered  
8 Species Act.

9           It's a bit of a challenge, but that's been our goal  
10 from the beginning.

11           MR. CAFFREY: I asked Ms. Forster if she would yield  
12 and she said she would.

13           I want to make sure I understand what you are saying.  
14 You seem to be saying that you would look to the State Water  
15 Board, and this is my inference, I can't remember the exact  
16 words you used, but you seem to be saying . . . you look to  
17 the State Water Board to pick up the pieces for the  
18 guarantee of the shelf life after you do what you do.

19           That worries some a little bit because I would like to  
20 think that the framework agreement reflects that when you  
21 produce your standards, that they will be represented by the  
22 Federal Government as a package deal, and that there will be  
23 a certification therein that there is a shelf-life guarantee  
24 of some specific amount of time, because I'm afraid if that  
25 doesn't happen, and I am not saying we are sending you off

1 by yourself to do that, but that if we are not able to use  
2 this mechanism that you have described this morning or some  
3 other mechanism in the near future to fashion something that  
4 we all understand and agree to provides us the needed  
5 reliability we need for all beneficial uses in terms of  
6 water supply, I am afraid that a lot of this will be for  
7 naught, so I really think that whatever is done really has  
8 to have all that happening at once because we won't have the  
9 reliability.

10 MR. WRIGHT: I didn't mean to imply that at all. I  
11 merely referenced the State, in anticipation that the State  
12 will be adopting approvable standards next spring so EPA's  
13 role and the role of the federal agencies under ESA therefore  
14 will be minimized.

15 MS. FORSTER: I just wanted to wrap up by saying in  
16 studying for the workshop today, Patrick, I was reading  
17 statistics and reports and numbers, and one of the things  
18 that worries me is that this year just the take costs 1.4  
19 million acre-feet.

20 Well, if we go with that and we come up with an  
21 allocation for fish and wildlife that greatly enhances the  
22 ecosystem productivity of the Bay-Delta and is a major  
23 increase in the goal that we are all working toward, and  
24 then we have this 1.4 million or whatever it is going to be  
25 every year, that doesn't work for either of us as serving

1 Californians, and so that's why those kinds of statistics  
2 make me nervous on how we are going to resolve that in a  
3 real prudent reasonable fashion.

4 MR. WRIGHT: It makes us nervous, too, and we are  
5 working around the clock to make sure we try to come up with  
6 an integrated package that doesn't have that result.  
7 Hopefully, by December 15 we will get there. We have a  
8 number of different processes going on as part of both the  
9 consultation process and the biological opinions that are  
10 being prepared to try to avoid that situation.

11 We are not yet prepared to tell you exactly how we  
12 propose to do that, but that certainly will be a major focus  
13 of our discussion in the next couple of months.

14 MR. CAFFREY: Mr. Brown had a question.

15 MR. BROWN: Mr. Wright, when you speak about return  
16 flow from the Central Valley Project and the State Water  
17 Project supplying irrigation water to the San Joaquin Valley  
18 at the rate of about one ton of salts per acre per year,  
19 there are several problems associated, of course, with  
20 agricultural drainage and we are concerned with water  
21 quality as it affects the ecosystem.

22 There is another major concern as to the accumulation  
23 of salts in the San Joaquin Valley and in the root zone  
24 where these kinds of problems have helped to destroy  
25 civilizations in the past, and it seems if you are going to

1 address the first part of improving drainage water quality,  
2 that the second part also needs to be addressed.

3           You can't continue to accumulate salts in a closed  
4 system without destroying the agricultural community, or  
5 certainly degrading those districts that are affected by  
6 this and who have worked hard over the years to improve  
7 their irrigation system.

8           They have closed off a number of tile drainage  
9 systems and practically all of the tail water recovery  
10 systems.

11           There's maybe some more improvements that you can do,  
12 and you talk about economic incentives and such, but it  
13 seems like until you develop a salt balance or until we  
14 develop a salt balance of this closed system and have some  
15 way of exporting salts as well as importing them through  
16 these plans, that the long-term solution will not be  
17 addressed. .

18           Have you given any consideration to a long-term  
19 solution to the problem?

20           MR. WRIGHT: Certainly a number of other people in  
21 EPA are working with the Board and other parties to try to  
22 address that issue, not only as I said before, to address  
23 salt loadings, but selenium loadings and other issues, and I  
24 certainly agree with most of the parties that any kind of  
25 implementation for this standard or any other standard

1 should be developed as a part of a broader comprehensive  
2 plan to try to deal with all of these issues.

3 I don't want to in any way minimize the complexity of  
4 the difficulty in trying to do that and we are participating  
5 in various efforts.

6 MR. BROWN: I am not concerned with the complexity --  
7 yes, I am concerned with complexity, but I am concerned with  
8 doing one without the other. If we just cut off drainage,  
9 and all the options that we are talking about does this, if  
10 we just cut off drainage, we solve half of the problem but  
11 we haven't addressed the other half.

12 Can we address half of the problem without addressing  
13 the whole?

14 MR. WRIGHT: Again, I am not personally involved in  
15 our efforts to deal specifically --

16 MR. BROWN: Well, that's what you are suggesting  
17 here.

18 MR. WRIGHT: No, I am suggesting that the Board adopt  
19 and work with the parties on an implementation plan for this  
20 standard, which is the same recommendation that you are  
21 hearing from the Association of California Water Agencies  
22 and the California Urban Water Agencies, that a salt load  
23 reduction program should be implemented as a part of a  
24 broader program in the valley to deal with agricultural  
25 drainage.

1           That's all we are prepared to say at this point.

2           I recognize, as other Board members have suggested,  
3 that we need to make more progress on specifics. We are not  
4 hearing a lot of specifics from any of the parties right  
5 now, but we would be happy to participate in discussions and  
6 work towards an implementation plan that is flexible and  
7 deals with the issues that you have raised.

8           MR. BROWN: Thank you, Mr. Wright.

9           MR. CAFFREY: Mr. Stubchaer.

10          MR. STUBCHAER: About three weeks ago, I believe,  
11 Secretary Babbitt issued a press release on a habitat  
12 conservation plan agreement for terrestrial species in  
13 Southern California that guaranteed a certain life of, he  
14 said 15 years or a decade.

15          I am wondering if Club Fed is considering such an  
16 agreement or such a plan, a conservation agreement to give  
17 the certainty that was discussed earlier in connection with  
18 the Bay-Delta proceedings.

19          MR. MEDLIN: I could try to answer that. We are  
20 acutely aware of that effort on the part of Secretary  
21 Babbitt, and I would like to indicate that was a national  
22 policy. It did focus on a wide area of planning issues and  
23 the ACP planning effort in the southern part of the State,  
24 but indeed, the concept that he is talking about is being  
25 looked at and implemented nationwide on all of the Service's



1 activities on the Endangered Species Act, so I would like to  
2 clarify that wasn't for just the southern part of the State.

3 And specifically to the Bay-Delta and to a long-term  
4 approach that I have visited with a little bit earlier, and  
5 Dan visited a little earlier on, that's indeed our hope that  
6 we can be planning ahead long enough in an areawide plan  
7 type of concept that we can address reversing the downward  
8 decline of the many many species that are on the proposed  
9 list or the candidate list for federal listing, and indeed,  
10 reverse that trend through the process we are talking about  
11 here, and I tried to emphasize the water quality standards  
12 are a very important part of that.

13 So, indeed, we are thinking along that line and we  
14 are looking to implementing those kinds of things.

15 MR. STUBCHAER: You emphasized the long-term  
16 process. What about a tie to the standards that we are  
17 working on and thereby gaining the certainty and shelf life  
18 we have been referring to, or maybe a couple of triennial  
19 reviews, not decades.

20 MR. MEDLIN: That is the point I was going to make.  
21 Indeed, I understand certainly the significance of setting  
22 this criteria this year and going through the consultation  
23 process with EPA's proposals. We have to do that. We are  
24 forced to move toward that but, indeed, we should look at  
25 the setting of standards in the near term over maybe a

1 couple of triennials, or whatever you call those, the three-  
2 year review, to get to where we have to be, and the litmus  
3 test for all of that is going to be reversing that downward  
4 trend of all the species.

5 MR. STUBCHAER: Thank you.

6 MR. CAFFREY: Just for clarification on that, does  
7 that mean, Mr. Medlin, that you would pretty much --  
8 regardless of what happened, let some agreed upon period of  
9 time expire to see what those results are, and I am talking  
10 about shelf life again?

11 I realize it is difficult for you in terms of the  
12 traditional approach of the Federal Government to listing  
13 and how you react to them, but I think this is really a  
14 critical point that there needs to be some certification for  
15 the sake of reliability that at least for some period of  
16 time we are going to observe what happens to the species. I  
17 don't know if they are going to dip slightly before they  
18 climb or what.

19 How are you going to deal with that?

20 MR. MEDLIN: I think the way we are visualizing that  
21 is to establish a monitoring program and try to understand  
22 through the framework agreement process and try to detect  
23 this reverse in the downward trend; in other words, that  
24 this will really assist in reversing that and actually  
25 conserve species and increase the species.

1 MR. CAFFREY: Mr. Del Piero.

2 MR. DEL PIERO: Mr. Medlin, let me suggest our staff  
3 has -- I saw them yesterday for the first time and they are  
4 very good -- has charted out the monitoring the California  
5 Department of Fish and Game has been doing on population  
6 declines on virtually large numbers of species, not just  
7 target species, and those are available from our staff.

8 If you would like to get those, they show over the  
9 last two or three decades what's been going on.

10 MR. MEDLIN: I am certain my staff has been involved  
11 in that and has copies already.

12 MR. DEL PIERO: You might want to avail yourself of  
13 those so you can see what the current situation is.

14 One question I have of Mr. Wright and then I have no  
15 more questions after that, Mr. Chairman.

16 Mr. Wright, in the event the Board chooses not to  
17 pursue the proposal that you have recommended, basically the  
18 Board chooses not to pursue addressing the salinity problem  
19 in as comprehensive a fashion as EPA would like, and whether  
20 the Board chooses not to pursue it through a permitting  
21 process or some kind of enforceable voluntary program,  
22 although that's a contradiction in terms, wouldn't EPA's  
23 recommendation for outflow go back up again?

24 MR. WRIGHT: No. The answer is no, it would not.  
25 Each of our standards are directed at protecting different

1 designated uses, although certainly there is overlap between  
2 them.

3           There is no mechanism under the Clean Water Act for  
4 us to specify any kind of implementation measures to begin  
5 with.

6           MR. DEL PIERO: I am not asking you whether or not  
7 you can specify limitation measures. I am asking about your  
8 recommendations. You have indicated a reduction in what you  
9 anticipated the outflow requirements were going to be, based  
10 on modifications to your proposal, one of which is the  
11 recommendation to us that we implement a salinity loading  
12 control program.

13           MR. WRIGHT: Right.

14           MR. DEL PIERO: Maybe I wasn't clear. In the event  
15 we don't do what you have recommended and what your  
16 subsequent modifications downward in terms of water  
17 recommendations are, will your recommendation for outflow go  
18 back up again?

19           MR. WRIGHT: Okay. Clearly, if the State Board  
20 chooses not to implement a program to reduce agricultural  
21 drainage and chooses instead to increase reservoir releases  
22 to meet that standard, obviously that would have an  
23 increased water supply impact.

24           We are not recommending that. In fact, I think it is  
25 probably safe to say that we would not recommend increased

1 reservoir releases to meet that standard under any  
2 circumstances.

3 Certainly, it's always been EPA's policy that you  
4 should not be using dilution essentially to meet a standard.  
5 You should be trying to control it at the source.

6 MR. DEL PIERO: Would you sue the Board then to  
7 enforce water quality standards -- I don't want to ask you  
8 that.

9 Is it likely that EPA would consider suing the Board?

10 MR. WRIGHT: I think it would be unlikely, but I have  
11 to defer that to our attorneys.

12 MR. DEL PIERO: Then, what is the impact of your  
13 recommendation on salinity standards?

14 MR. WRIGHT: Then, our recommendations on  
15 implementation measures have no legal or other impact. We  
16 have no authority over implementation. That is completely  
17 up to the State.

18 MR. DEL PIERO: I am not asking that question. I am  
19 not trying to pin you down to that. I am talking about from  
20 a substantive ecosystem standard.

21 If the Board chooses not to address the salinity  
22 problem, what would EPA's recommendation be?

23 MR. WRIGHT: Our recommendation would not change,  
24 just as it wouldn't change if --

25 MR. DEL PIERO: So, your recommendation would be fix

1 the salinity problem under any circumstances, and if the  
2 Board chose not to do it, then EPA has no other position  
3 other than fix the salinity problem?

4 MR. WRIGHT: I would say we wouldn't treat it any  
5 differently than a copper standard for South Bay. If the  
6 dischargers refuse to implement it, in that case, we have  
7 direct authority. In this case, we don't.

8 MR. DEL PIERO: You answered my question. Thank you.

9 MR. WRIGHT: I am not trying to evade your question.

10 MR. DEL PIERO: I don't think you are. You answered  
11 it. You said you would deal with it in the same way you  
12 would with the copper standard in the South Bay and we know  
13 how you dealt with that.

14 MR. WRIGHT: No, as I said, we would not because we  
15 do not have direct authority in this case, where in that we  
16 do have direct permitting authority. It is a very different  
17 situation. We have no direct authority, so in that case it  
18 is possible, I understand from our attorneys, that there  
19 could be some litigation under State law, but under Federal  
20 law, I don't know that we have any authority to require  
21 implementation of the standards.

22 MR. DEL PIERO: Okay. Then, let me ask the last  
23 question again. Under your water quality authority under  
24 the Clean Water Act where this process started, what  
25 recommendation could you make for water quality standards in

1 the Delta since as part of this recommendation you have  
2 reduced your recommendation for outflow on the assumption of  
3 certain things taking place.

4 MR. WRIGHT: I'm sorry, I don't follow the question.

5 MR. CAFFREY: I didn't follow it either.

6 MR. DEL PIERO: Mr. Wright, I will help you out. I  
7 will write it down and send it to you.

8 MR. WRIGHT: Okay, that would be helpful. We would  
9 be happy to discuss this with you further, and clearly, what  
10 we are trying to do here is --

11 MR. DEL PIERO: The one regret that I have is this is  
12 the last hearing where I get to ask the questions.

13 MR. CAFFREY: That is not the case. We are going to  
14 be meeting in October and hopefully on a positive note where  
15 the parties and the agencies bring back perhaps something  
16 that the Board can use as a preferred alternative.

17 MR. DEL PIERO: I guess the point I am trying to get  
18 to, Mr. Chairman, is that the recommendation here assumes  
19 that the Board is going to implement -- candidly I don't  
20 think there's any big secret here about what's been  
21 considered to be a very onerous process, a very onerous  
22 permitting process and permitting scheme by the farmers in  
23 the San Joaquin Valley for a good number of years, long  
24 before I arrived here, and if that is the key to resolving  
25 the water quality problems in the Delta from the standpoint

1 of federal agencies, the reduction in outflow being proposed  
2 by Club Fed may cause it to appear that Club Fed is being  
3 particularly flexible, and then putting the State Board in  
4 the position of regulating every agricultural discharge in  
5 the San Joaquin Valley.

6 I don't know if that's ultimately a particularly good  
7 position for the State of California to find itself in.  
8 It may be realistically the position we find ourselves in,  
9 but if it is, then I just hope everybody understands what is  
10 being recommended to us.

11 MR. WRIGHT: I am not sure that you are in any  
12 different position with this standard than you are with the  
13 existing selenium criteria in the same water bodies and the  
14 toxic pollutants that are there.

15 MR. DEL PIERO: I don't disagree with that at all.

16 MR. WRIGHT: Given that you will be receiving  
17 recommendations from a number of parties to include  
18 reductions in salt loadings as part of the comprehensive  
19 plan, perhaps it would be appropriate for the parties to  
20 hold a workshop on that topic and come back to you with a  
21 set of recommendations that provides the flexibility you are  
22 looking for.

23 We would be happy to participate in that kind of  
24 process.

25 MR. CAFFREY: Any other questions?



1 Ms. Leidigh has a question.

2 MS. LEIDIGH: My question is for Mr. Medlin. You  
3 were asked several questions by Mr. Stubchaer about the  
4 fishery agencies' process with the ecosystem protection  
5 habitat conservation plans, so I want to ask a little more  
6 directly with regard to the Delta whether you have any  
7 specific recommendations for requirements at times of the  
8 year other than those that you have already specified in  
9 biological opinions.

10 For example, you have other fish, in particular the  
11 splittail, that are under consideration for listing. If  
12 there were standards that would protect those, it seems  
13 possible that you might not have to list them, but we  
14 haven't heard from you as to what sort of standards might be  
15 needed in order to achieve that.

16 I think as part of the framework agreement and part  
17 of this proceeding, it would be helpful to the Board if you  
18 could tell us right away, as soon as possible, what  
19 potential standards would help with that overall ecosystem-  
20 protection approach.

21 MR. MEDLIN: I am not prepared personally today to  
22 answer that, but I agree conceptually with what you are  
23 asking, and certainly in the process that we are going  
24 through right now with EPA's consultation process on the  
25 standards, that's the very things that will be addressed.

1           On the candidate species, I agree, in fact, we need  
2 to be thinking ahead far enough so that we can look at the  
3 candidates and try to develop some standards and provide  
4 inputs on those measures that would actually reverse the  
5 downward trend.

6           Conceptually what's good for the Delta smelt are also  
7 going to be good for many of the other estuarine species  
8 that we are talking about, so that's the way I would answer  
9 that right now.

10           I agree with the need to provide additional  
11 information.

12           MS. LEIDIGH: Is there any change that in the fairly  
13 near future you would be able to provide the Board with  
14 additional information on that?

15           MR. MEDLIN: Yes, I think so.

16           MS. LEIDIGH: If you can, I think the Board would  
17 certainly appreciate that.

18           MR. MEDLIN: Okay.

19           MS. LEIDIGH: Mr. Caffrey outlined the method for  
20 sending copies to the Board and copies to the parties, and  
21 we would appreciate that as early as possible.

22           MR. MEDLIN: Okay.

23           MS. LEIDIGH: Thank you.

24           MR. CAFFREY: Any other questions from staff?  
25 Anything else from the Board members?

1           Mr. Brown.

2           MR. BROWN: Mr. Wright, I thought I was through with  
3 the salinity problem in the San Joaquin Valley until I heard  
4 you say, control salinity at its source.

5           Are you familiar with the evaporation box?

6           MR. WRIGHT: Generally.

7           MR. BROWN: You take the tailwater and tile water  
8 from agricultural drainage and growers have developed these  
9 large ponds through a drainage district and such to contain  
10 the drainwater, evaporate it off to control salts at the  
11 source.

12           Those ponds are under critical fire right now because  
13 of the accumulation of the toxics that are gathering in the  
14 evaporated water and the condensing of the salt and such to  
15 the point where there is considerable support from various  
16 communities to close the ponds off.

17           What ideas did you have in mind when you say *control*  
18 *it at the source?*

19           MR. WRIGHT: I was merely trying to say that we would  
20 certainly recommend that the standards be dealt with as part  
21 of a comprehensive plan to deal with the drainage issues  
22 rather than the reservoir releases, and certainly, we would  
23 be happy to work with you and your staff to talk about what  
24 EPA staff recommends would be on that long-term program as I  
25 talked about before.

1           But we don't have any specific recommendations today  
2 on how we believe the Board should implement the standards.

3           MR. BROWN: Okay. Thank you.

4           MR. CAFFREY: Let me just say to you gentlemen,  
5 you've heard concerns of some of the Board members today and  
6 I continue to be very hopeful that we are going to be able  
7 to work something out that all the parties can be satisfied  
8 with and provide reliability for all of the beneficial uses,  
9 and I hope and trust that you gentlemen and your agencies  
10 are going to participate in the meetings with Mr. Pettit,  
11 and then thereafter in the workshop with the Board again in  
12 trying to narrow the alternatives and come up with something  
13 that is acceptable.

14           We thank you very much for your exchange today and  
15 your presentation. We appreciate your being here.

16           MR. WRIGHT: Thank you.

17           MR. CAFFREY: Dick Daniel from the State Department  
18 of Fish and Game.

19           Good morning, sir.

20           MR. DANIEL: Good morning.

21           For your record, I am Dick Daniel California  
22 Department of Fish and Game. I serve as the Water Management  
23 Coordinator for the Department.

24           Very briefly this morning, it is our understanding  
25 that the recommendations that the Department of Fish and Game

1 has offered as the trustee agency for fish and wildlife for  
2 the State of California have been considered and are being  
3 modeled as part of your ongoing process of evaluation and  
4 consideration.

5           Therefore, we won't present any additional formal  
6 testimony today, but we do feel it is appropriate at this  
7 time to restate several of the basic principles that we have  
8 advocated through this summer's process in order to keep  
9 those in focus as you go off and commence your deliberation.

10           First of all, the interim goal: We stated very early  
11 on that we thought it was appropriate to use the population  
12 levels or the fishes in the Delta that were present during  
13 the mid-sixties and the early seventies as an interim goal.  
14 We want to continue to remind you that the overall objective  
15 should be restoration of the ecological integrity of the  
16 Delta.

17           We believe that is reflected in both State and  
18 Federal law in terms of the doubling objective that we have  
19 before us.

20           We very strongly continue to support the  
21 comprehensive ecosystem approach that we and others have  
22 advocated. We think that the regulations that are  
23 eventually implemented should use the basic mechanism of  
24 outflow and export restrictions in order to achieve their  
25 goals.

1           Further, we want to reiterate that year-around  
2 protection is particularly essential if we are going to  
3 reach our goals of ecosystem restoration.

4           We believe that in an effort to restore the ecosystem  
5 of the Delta as a whole, it will be necessary for all water  
6 rights holders who divert runoff which would otherwise reach  
7 the Delta to participate in an equitable allocation of  
8 responsibility for additional outflow.

9           This is particularly important on the San Joaquin  
10 side of the Delta and may well have a relationship to the  
11 problems associated with salinity.

12           We support the idea of establishing a Delta ecosystem  
13 restoration fund which could be used to purchase water,  
14 could be used to support water conservation measures, and  
15 which potentially could serve as part of the State's cost  
16 share for activities under the Central Valley Project  
17 Improvement Act.

18           Specific to the Suisun Marsh, we continue to support  
19 the existing Suisun Marsh Preservation Agreement and its  
20 standards. We believe that some refinements in terms of the  
21 day-to-day management and use of water would improve the  
22 quality of the habitat in the Suisun Marsh as it is driven  
23 by the Suisun Marsh Agreement.

24           We believe that something like a water master service  
25 could be instituted that would further improve habitat

1 quality under the existing standards.

2 We suggest that it is appropriate for you to admonish  
3 all State, local and Federal agencies who regulate or affect  
4 the Delta ecosystem to work together to develop a  
5 comprehensive plan and regulatory program that complements  
6 your efforts and those of the EPA, and hastens our eventual  
7 success.

8 Finally, it goes without saying that this is an  
9 urgent matter. Mr. Del Piero referenced the rather  
10 distressing statistics that have accumulated over the last  
11 three or four decades. This is not something that we can  
12 put off much longer. We urge you to go forward with as much  
13 implementation as you possibly can as soon as you possibly  
14 can.

15 Thank you, that's all I have to say. I would be  
16 happy to respond to any questions.

17 MR. CAFFREY: Thank you, Mr. Daniel.

18 Any questions from the Board members?

19 Mr. Brown.

20 MR. BROWN: Mr. Daniel, you stated all water rights  
21 holders should be responsible.

22 Do you think there should be any distinction made  
23 between junior and senior water rights holders?

24 MR. DANIEL: Frankly, the recommendation that we are  
25 making can't be implemented under the State water rights law

1 without very dramatic reformation of that law.

2 We believe it is essential that contributions to  
3 Delta outflow come from all its tributaries. Part of the  
4 problem that has not been comprehensively looked at is the  
5 fact that production of fishes upstream of the Delta hasn't  
6 been dealt with yet as well.

7 And our proposal for an ecosystem approach shows  
8 upstream issues are a part of the problem and have to be  
9 resolved.

10 There are a number of water rights decisions that are  
11 currently pending before your Board that go a long ways  
12 toward dealing with that problem, but it is going to be very  
13 very difficult within the context of our appropriative water  
14 rights system to go in and comprehensively re-evaluate the  
15 appropriateness of those original appropriations.

16 But we think it needs to be done and in doing so, I  
17 think you are going to have to under current law address the  
18 priority that the vast majority of the currently  
19 noncontributing water rights holders have.

20 MR. BROWN: A second question: I didn't understand,  
21 a water master service to improve the habitat?

22 MR. DANIEL: I really don't have the right term to  
23 present to you, but it is a fact that because the vast  
24 majority of the landowners in the Suisun Marsh are absentee  
25 landowners, because they rely on caretakers to manage the



1 water for them, there are inconsistent applications of  
2 water, inconsistent timing of use of water, and we are not  
3 deriving the full benefits of the standards that currently  
4 exist.

5 MR. BROWN: Thank you. That's very good. Thank you,  
6 Mr. Daniel.

7 MR. CAFFREY: Anything else from the Board members?  
8 Anything from staff?

9 Thank you, Mr. Daniel.

10 David Anderson, Department of Water Resources.

11 Good morning, Mr. Anderson.

12 MR. ANDERSON: Good morning, Mr. Chairman and members  
13 of the Board.

14 I am David Anderson representing the Department of  
15 Water Resources.

16 I have just delivered to Barbara 20 copies of  
17 comments. I neglected to provide those earlier.

18 I also provided 10 additional copies of the  
19 memorandum that I delivered to the Board yesterday and I  
20 will refer to in my comments.

21 MR. DEL PIERO: Mr. Anderson, does the Department  
22 have any agricultural drains that discharge into the San  
23 Joaquin River? I am just checking.

24 MR. ANDERSON: I am making no comment on that.

25 MR. DEL PIERO: Do you want any?

1           MR. CAFFREY: The record already shows that Mr. Del  
2 Piero said he wasn't being hard today.

3           Please proceed, Mr. Anderson.

4           MR. ANDERSON: Thanks, Mr. Chairman.

5           We have three points to make today on the topics that  
6 have been noticed by the Board for this workshop.

7           The first is the issue of the Board's authority to  
8 adopt planning objectives for flow and diversion.

9           The second is our specific request for the Board to  
10 adopt the suite of agreements for the protection of the  
11 Suisun Marsh and the Suisun Marsh area, and the related  
12 Suisun Marsh preservation monitoring agreement to satisfy  
13 the water quality objectives for the Suisun Marsh area.

14           And the third is support for the Board's recognition  
15 of the need for the Board to entertain a thorough and open  
16 discussion of the various control parameters and factors  
17 that are the basis of the various protective standards for  
18 aquatic resources that have been proposed in your  
19 alternatives solicitation.

20           The first two issues I think we can deal with in  
21 fairly short order. I refer to the 10 copies of the memo on  
22 the issue of Board authority that I gave to the Board  
23 yesterday and an additional 10 copies to Barbara.

24           I think that the authorities that are described in  
25 that memo enable the Board to develop and adopt a plan for

1 flow and diversion at the same time that it adopts a  
2 comprehensive water quality control plan for the estuary.

3 We have discussed this topic frequently with the  
4 Board twice in this workshop and I think the memo pretty  
5 much stands on its own.

6 I would note that we firmly believe that the Board  
7 may combine the water quality and non-water quality planning  
8 efforts into a single document under essentially an  
9 identical analytic approach.

10 I note that Mr. Del Piero was concerned when we  
11 talked about this originally, that this might create some  
12 obstruction or impediment to the Board's quickly proceeding  
13 with the business it has at hand.

14 I think looking at this rather deeply that this  
15 should not delay at all or otherwise create an impediment or  
16 complication to the Board's accomplishing the adoption of  
17 new objectives within the time frame that the Board has set  
18 for these purposes.

19 As we indicated in the first of these workshops in  
20 April, we are making specific recommendations to the Board  
21 on the Suisun Marsh. It is basically the same one I think I  
22 heard Dick Daniel make, and it is a recommendation that we  
23 made several times before to the Board, both in the context  
24 of water quality planning and in terms of implementation  
25 scenarios, one as a petition for an interim standard pending

1 the achievement of the Board's water rights phase Bay-Delta  
2 hearings, and then, again, as a recommendation for  
3 implementation in the D-1630 hearings.

4 We think that the agreement provides a flexible and  
5 cooperative planning and management approach by the four  
6 public agencies signatory to it and it is a process which is  
7 attended regularly by the Board staff, and it is an  
8 excellent approach for dealing with needs and uncertainties  
9 of the beneficial uses of this important wetland area.

10 I would note that we negotiated and entered into  
11 these agreements with the express purpose of their becoming  
12 a substitute for water standards in this area, and Congress  
13 specifically authorized the Bureau to execute and  
14 participate in them.

15 The third issue the Department wishes to address is  
16 the need for the Board and the parties to engage openly in an  
17 inquiry into the diverse factors and control parameters  
18 which have been put forward as the basis for standards, and  
19 this is the point that the Chairman addressed up front in  
20 introducing this workshop, and we certainly support what the  
21 Board is intending to do. We think it is absolutely  
22 warranted and it is going to be extremely beneficial to have  
23 the Board run through these things with the public, with the  
24 biologists mainly, and have them discuss the various aspects  
25 of these things and what they think of them.

1           We think we have prepared a matrix here which simply  
2 sets forth control parameters. It is attached to the back  
3 of the statement, a copy of it.

4           The various control parameters which are mentioned or  
5 used in the various alternatives which have in some sense  
6 come before us, not only the ones we mentioned in the recent  
7 Board staff memo requesting analysis, but also, includes the  
8 various EPA proposals, biological opinions for Delta smelt  
9 and for winter-run salmon.

10           These regulatory schemes and scenarios present  
11 different parameters for different seasons and different  
12 durations under differing degrees of restriction to protect  
13 fish and wildlife uses.

14           And we think that these differences reflect in great  
15 part the fundamental uncertainties which pervade our  
16 understanding of the Bay-Delta system, its condition and the  
17 effectiveness of measures proposed to protect it.  
18 And yet, it is from these proposed parameters that the Board  
19 must choose something which both affords reasonable  
20 protection to aquatic resources with some reasonable  
21 assurance of providing material benefit, and which gives  
22 urban and agricultural users a reliable and useful water  
23 supply.

24           We think that as the Board proceeds over the next few  
25 weeks to analyze its planning alternatives, we think it is

1 essential that it take this opportunity to hold this  
2 colloquy on the proposed factors to explore and understand  
3 with the biologists what they think is important.

4           It goes without saying that there's been a community  
5 of good scientists devoting virtually their entire  
6 professional lives to enhancing our understanding of the  
7 Bay-Delta system, and it also goes without saying that what  
8 they produce is what we call good science.

9           But unfortunately, good science has not produced  
10 scientific certainty, or putting it obversely, it has not  
11 diminished uncertainty, fundamental uncertainties in certain  
12 important areas. And it has not given us what I would call  
13 reliable solutions to the problems that we perceive exist.

14           We have said many times before that this uncertainty  
15 issue must be addressed directly as the Board considers  
16 alternative standards or objectives for the Bay-Delta  
17 estuary.

18           Decisions in systems as complex and uncertain as the  
19 Bay-Delta estuary certainly must be made notwithstanding the  
20 fact there is uncertainty. But, as we have said before, the  
21 Board's decisions must reflect, not mask, that underlying  
22 uncertainty; and to be reflected whether it is in the  
23 weighing and balancing processes of the Board's decision  
24 making or the in the ultimate decisions themselves, it must  
25 first be recognized and understood.

1           We propose this matrix as perhaps one vehicle that  
2 may be used, certainly it can be flushed out for the Board  
3 to look at. I think a number of the parameters that are up  
4 there give an indication of the kind of problems that we  
5 would like to see the Board discuss with the biologists.  
6 For example, one of the parameters is cross-channel gate  
7 closure and this is an issue on which most of us, I think,  
8 have thought we had some degree of consensus that it  
9 provides some benefits to anadromous species on the  
10 Sacramento site, although we will admit that the degree of  
11 benefit, I think, has always been an issue.

12           Today there seems to be a growing school of thought  
13 that closing may be detrimental. We would like to see that  
14 discussed as to what people think and what the consensus  
15 view is, where the uncertainty lies.

16           Pulse flows is another issue. A few years ago we  
17 were thinking it was a good sounding idea to transport fish  
18 to Suisun Bay by the mechanism of pulse flows. I think we  
19 even recommended trying pulse flows in our D-1630  
20 recommendations.

21           Now, I think the idea is greatly in question not only  
22 because we wonder how the management size of releases could  
23 overcome the effect of huge tidal flows slushing back and  
24 forth in the western part of the Delta, but also, because of  
25 our recent experience with Delta smelt.

1           Pulse flows were provided. It seemed that either the  
2 flows were inadequate, or which seems to me to be more  
3 likely, that the smelt did not respond to flow as a cue to  
4 move west.

5           QWEST is another one, which is another parameter that  
6 I think raises a lot of questions and a lot of uncertainties  
7 which we would like to see the scientists address.

8           What is QWEST really trying to accomplish? Is it  
9 intended to protect organisms from reverse flow in the lower  
10 San Joaquin River? Does it even stand for reverse flow at  
11 all times in this portion of the river? Is it a surrogate  
12 to control reverse flow in other portions of the channel?  
13 Is it really a mechanism for export control, or is it a  
14 mechanism for entrainment control?

15           We would like to hear these issues joined.

16           Another issue on QWEST is do the swimming fish,  
17 anadromous out-migrating salmon even recognize or respond to  
18 differences in QWEST, much less benefit from them.

19           We have a category there called Delta habitat and it  
20 lists a number of factors under that. Are those really  
21 habitat factors or is what is being described or attempting  
22 to be controlled there really an issue of direct loss as  
23 opposed to alterations of habitat?

24           Then, of course, there is X2. I am not going to say  
25 anything more about X2. We have talked at great length



1 about what it is really intending to accomplish. It looks  
2 for the most part that it is intending to be an outflow  
3 mechanism for transport or for removing organisms from the  
4 influence of diversions, but again, we need to make sure  
5 that people who propose X2 have a common view as to what  
6 they are trying to achieve by it.

7 We propose that at the workshops that the Board will  
8 be conducting, that parameters of this matrix if the Board  
9 chooses to use such a vehicle as this, be discussed with  
10 reference to at least these following points:

11 The nature and degree of biological benefit  
12 that the parameter is purported to confer;

13 The certainty of that biological benefit;

14 The ability to model or predict the benefit  
15 and/or cost of that parameter;

16 The existence of agreement or consensus of  
17 scientists on the scientific justification for  
18 the proposed parameter and how it is intended  
19 to work;

20 The impacts on water supply reliability of  
21 using a particular parameter;

22 And the efficiency of water use for the  
23 proposed benefit; that is to say, may we select  
24 a parameter that is less water costly than one  
25 which may perhaps be proposed.

1           This is all by way of addressing this question about  
2 certainty, an unenviable task by the Board but a necessary  
3 task.

4           It is also true that if uncertainty is central to the  
5 Board's arriving at standards for fish and wildlife uses, it  
6 gives reasonable protection based on best scientific  
7 understanding of the estuary, an absolutely equal concern,  
8 and one we have heard today already in your discussions with  
9 the federal representatives, is that the regulation of the  
10 Delta provide the greatest degree of certainty and  
11 reliability to other users of water in the Bay-Delta system.

12           This is one of the key themes of Governor Wilson's  
13 water policy statement of April, 1992, to restore stability  
14 to Delta water supplies.

15           We think water supply is an equally key point in the  
16 recently signed Federal-State framework agreement, and as  
17 Mr. Stubchaer noted, most recently Interior Secretary  
18 Babbitt sounded this same theme in regard to endangered  
19 species regulation. He announced a federal policy of no  
20 surprises, which we have heard discussed here. This is the  
21 cornerstone for agreements reached on habitat planning for  
22 endangered species. This policy recognizes the critical  
23 need for certainty and predictability for private, State and  
24 local decision making.

25           Finally, it embraces, first, the virtue and

1 importance of federal agencies actually entering into an  
2 agreement, planning agreement, with nonfederal interests,  
3 and then, it declares that the paramount rule to govern  
4 these agreements is that a deal is a deal, that federal  
5 agencies should not disturb but should respect the  
6 expectations and autonomy of nonfederal parties to the deal.

7           We believe that what the Board should now be crafting  
8 is an ecosystem management plan, and we see that phrase  
9 being used by CUWA and others, for the estuary, which will  
10 constitute a sensible and reliable deal with the federal  
11 interests which will allow California to resume fundamental  
12 control over its natural resources and its social, economic  
13 and environmental future.

14           To provide certainty and reliability for water users  
15 of the State, the deal must include the following essential  
16 features with respect to the role which is to be played by  
17 water users and the water angle of this recognizing, of  
18 course, that there are factors in parts of this deal that  
19 are broader than those things which may come directly under  
20 Board regulation.

21           First, it must allocate a specific quantity of water  
22 by water year type to the fish and wildlife resources of the  
23 estuary so that other users may plan based on the most  
24 reliable indices of water supply.

25           Second, it must have multiyear shelf life or freedom

1 from new restrictions attended, of course, with reasonable  
2 review and the possibility for minor real-time  
3 modifications, but shelf life.

4 It must satisfy us that as an ecosystem management  
5 plan, it will produce no jeopardy biological opinions for  
6 the water project in the Delta, the imposition of no  
7 quantitative take limits in the incidental take statements,  
8 and the assurance that new species listings will not impose  
9 new regulatory constraints on Bay-Delta water use.

10 We think those are the essential elements of what  
11 ought to be produced at the end of this process which ought  
12 to give us those benefits.

13 In closing, I would underscore the fact that we  
14 strongly support the Board's announced intention to hold  
15 further sessions to discuss and critique the parameters that  
16 appear in the various sets of proposed alternative  
17 standards; and second, I want to assure everyone here that  
18 it is our view that there should be no backing off the time  
19 frame the Board is currently working under.

20 We see these future sessions that Chairman Caffrey  
21 announced as not being an added step, but certainly an  
22 integral part of the Board's deliberation and consideration  
23 of planning objectives for the estuary.

24 Those are my comments. Thank you.

25 MR. CAFFREY: Thank you, Mr. Anderson. That's an

1 interesting matrix.

2 I think Mr. Stubchaer has a question.

3 MR. STUBCHAER: I want to thank you for the matrix.  
4 You have one column there called EPA Proposals, December  
5 '94.

6 That's three months in the future. How do you know  
7 that?

8 MR. ANDERSON: Obviously, this is a living document  
9 and something which we hope will get filled in.

10 MR. STUBCHAER: There must be some basis.

11 MR. ANDERSON: I am not sure exactly what the state  
12 of EPA's proposals is currently, but we understand EPA is in  
13 the process of making some new proposals, or as Patrick  
14 Wright said, modifying the ones that they have. That is  
15 what we intended by that.

16 Maybe that's not the best way to describe these  
17 proposals, but that's what is intended by it.

18 MR. STUBCHAER: Thank you.

19 MR. CAFFREY: Any other questions from Board members?

20 Mr. Del Piero.

21 MR. DEL PIERO: I have one question, Mr. Anderson.

22 In terms of the proposal that you put forward, you  
23 indicated the necessity for a degree of certainty, and you  
24 articulated the number of criteria that you felt were  
25 appropriate to be incorporated.

1           This Board is obliged to do a balancing act. The  
2 Department of Water Resources is obliged to represent the  
3 Department of Water Resources.

4           What would you consider to be the other criteria to  
5 be incorporated into your so-called proposal that would be  
6 sacrosanct and from which no deviation would be allowed in  
7 terms of environmental resources.

8           MR. ANDERSON: This is in terms of the ecosystem  
9 management plan?

10           MR. DEL PIERO: I'm talking about in terms of -- we  
11 are going through this process underlying the 1992 water  
12 policy statement made by the Governor in San Diego. It  
13 included a lot of things. The most often quoted line from  
14 that presentation is that the Delta was broken.

15           That's a reflection of the precipitous declines in  
16 the specific species.

17           In your proposal you articulated a series of criteria  
18 that you thought should not be allowed to be deviated from  
19 as part of your proposal. What criteria does the Department  
20 of Water Resources propose in terms of the environmental  
21 resources in the Delta so as to help this Board decide from  
22 a balancing standard what we should do?

23           MR. ANDERSON: I think that the word balance is  
24 exactly it. Maybe at this point it precludes the  
25 identification of hard and fast criteria.

1 MR. DEL PIERO: It didn't preclude you from those  
2 hard and fast criteria you articulated.

3 MR. ANDERSON: The reason I am a little bit confused  
4 is I had two sets of criteria, one with respect to the  
5 parameters and the other with respect to conditions we would  
6 like to see in the ecosystem management plan, the deal, and  
7 I am simply using that because a *deal is a deal* was the  
8 phrase that secretary Babbitt used. We will stop using it.

9 I certainly agree and I don't disagree whatsoever  
10 with the idea that the Board must balance, balance and  
11 achieve reasonable use which implies balancing. Obviously,  
12 there are a number of policies which have been announced by  
13 the Legislature and other sources which influence and which  
14 weight the factors in that balancing.

15 MR. DEL PIERO: I am looking for specific criteria.  
16 has the Department of Water Resources established specific  
17 criteria in regard to species?

18 MR. ANDERSON: No, sir.

19 MR. DEL PIERO: Thank you.

20 MR. CAFFREY: Any other questions? Anything from  
21 staff?

22 Thank you, Mr. Anderson.

23 Our next presentation will be by David Fullerton and  
24 Gregory Thomas. I believe these gentlemen are here.

25 Wait a minute, I am out of sequence here. I

1 apologize. I have got two stacks here and we are still on  
2 the public agencies.

3 I apologize to Mr. Thomas and Mr. Fullerton.

4 Our next speakers are Dave Whitridge and Alex  
5 Hildebrand. We will get to you other gentlemen.

6 MR. WHITRIDGE: Good morning, Mr. Chairman.

7 I am David Whitridge on behalf of the South Delta  
8 Water Agency.

9 We have commented at previous workshops on the  
10 implementation and the objectives, and I am not going to  
11 repeat those or further elaborate on them.

12 Today I just had one comment relating to the  
13 alternative standards which the Board has asked DWR to  
14 evaluate. And our concern with these is the fact, and we  
15 have confirmed this with your staff, that the model runs  
16 that are being done apparently place a 70,000 acre-foot cap  
17 on water quality releases from New Melones.

18 This, unfortunately, will result in overstating the  
19 amount of water that's available for fishery objectives  
20 which you are considering.

21 As you know, the Bureau this year has released well  
22 over 70,000 acre-feet for water quality from New Melones and  
23 will continue to do so, and in fact, is required to do so by  
24 your Decision 1422.

25 Mr. Del Piero mentioned earlier concern with losing



1 lawsuits. I don't know what he was referring to, but there  
2 is one which you won very convincingly.

3 MR. DEL PIERO: Take your pick.

4 MR. WHITRIDGE: One which you won very convincingly  
5 and rightfully is the one concerning Decision 1422, which  
6 the Board felt compelled to take all the way to the United  
7 States Supreme Court at great effort, and one of the  
8 conditions, as you know, in Decision 1422 is the release  
9 requirements without any 70,000 acre-foot cap to maintain  
10 500 parts per million salinity at Vernalis for agriculture.

11 MR. DEL PIERO: I was thinking about the inland  
12 surface waters plan. That was one that was sticking in my  
13 mind.

14 MR. WHITRIDGE: The United States Supreme Court  
15 overwhelmingly confirmed this provision and the Board's  
16 authority to impose it, and this certainly predated the  
17 CVPIA and many of the other statutes that we are analyzing  
18 now.

19 Our concern then relates to assumption No. 4 in your  
20 modeling handout which assumes then that water necessary to  
21 meet the pulse flow requirements on the San Joaquin River  
22 should be released from New Melones, so we would just  
23 caution the Board there's an error in the modeling, or at  
24 least are aware of the modeling with that limitation on it,  
25 and we don't believe that the modeling should entertain

1 studies that seriously violate Board standards and rely on  
2 that to determine the amount of water that's available.

3 Mr. Hildebrand would like to comment, I think, in  
4 regard to some of the discussions on drainage control this  
5 morning.

6 MR. HILDEBRAND: Good morning.

7 MR. DEL PIERO: I thought Alex was going to say  
8 something about drainage.

9 MR. HILDEBRAND: Before I get to that, let me comment  
10 a little further on the analyses that were requested by the  
11 Board staff of DWR.

12 It is our understanding that the studies do not  
13 provide Vernalis flows in June, July and August, that are  
14 sufficient to supply the riparian and other superior pre-  
15 1914 water rights in the South Delta. To the extent that  
16 these flows are not provided, the studies then overstate the  
17 availability of water in the watershed to meet the proposed  
18 fish flows, and this, of course, is superimposed in part at  
19 least on the error caused by the 70,000 cap.

20 Furthermore, it is our understanding that no New  
21 Melones water is assumed to be delivered to Eastern San  
22 Joaquin County for replacing groundwater overdraft in  
23 accordance with the Bureau contracts.

24 We believe that the assumption of noncompliance with  
25 these contracts for this purpose should be clearly

1 acknowledged and the consequences addressed.

2           If we are going to provide or is it proper to provide  
3 fish flows by continuing an unsustainable overdraft of  
4 groundwater in San Joaquin County? I think it is a question  
5 that should be recognized and not just swept under the  
6 carpet.

7           Now, on the question of drainage, in your discussions  
8 with Mr. Wright a while ago, you discussed this business of  
9 implementing a requirement that the salt load be kept in the  
10 valley, in effect. And Mr. Brown addressed the question are  
11 we going to give up all that food production down there as  
12 the only way to stop it, and Mr. Del Piero addressed some of  
13 the permit problems.

14           It was suggested by Mr. Wright this was a matter of  
15 implementing the interagency drainage program, but that  
16 program itself talks about retaining the salt in the valley.  
17 It doesn't address the question of how to create a salt  
18 balance. Neither does it address the effect of the measures  
19 in the drainage program on the salinity of the river.

20           Actually, I think it is pretty clear that if you  
21 carry out the proposals in the drainage program, you will  
22 actually increase the salinity in the San Joaquin River, not  
23 decrease it. It will decrease the load but increase the  
24 salinity. So, it works counter to the objective here.

25           Now, the opportunity is not just to hang on to that

1 salt or somehow fly it out to the ocean. There's another  
2 way to get around the problem at least in part, and that is  
3 to insist on more multiple use of water.

4 We previously testified that more than half of the  
5 annual water quality release requirement for New Melones  
6 typically occurs between March 1 and the late April start of  
7 the fish flows which are now proposed to be further  
8 increased. This need is almost all in order to dilute  
9 drainage entering the river from Salt and Mud sloughs during  
10 that time. That drainage comes in partly because of  
11 draining the wetlands down there of the material they have  
12 been holding through the winter, and that comes into the  
13 river at about 3,000 parts per million.

14 And then, at the same time you have the drainage that  
15 is mobilized from the other drainers which comes as high as  
16 4900 parts per million.

17 And now, in 1993, which was a wet year, it would have  
18 taken, according to the Bureau, about a 100,000 acre-foot  
19 addition of New Melones release to meet the standard in  
20 March and April if the standard had been met, which it was  
21 not.

22 If the salt in Mud Slough drain was retained from  
23 release during the spring fish flows, the annual New Melones  
24 water quality release requirement would, therefore, be very  
25 substantially reduced.

1           In view of the overcommitment of available water in  
2 New Melones and in the entire San Joaquin watershed, we  
3 believe it is important to adopt a requirement that drainage  
4 and fish flows must be managed so that fish flows serve also  
5 to dilute drainage flows.

6           If you use that approach, you will get rid of  
7 some of the salinity problems without exacerbating the  
8 problem of retention of salt in the valley. You may  
9 actually improve that situation.

10           So that's all I wish to comment.

11           MR. CAFFREY: Thank you very much, Mr. Hildebrand.

12           Ms. Forster.

13           MS. FORSTER: Alex, to do that, to try to manage the  
14 drainage and the fish flows so that the fish flows help  
15 drainage, it seems that the alternatives that are proposed  
16 are different months.

17           What months are you talking about?

18           MR. HILDEBRAND: You would only have to hold it up  
19 for a few weeks. Later in the year you still have and it is  
20 not as easily corrected then. But during this period of six  
21 or seven weeks in the spring, if you hold up that material  
22 for that short period, it is not going to cause the problems  
23 of evaporation ponds because it won't evaporate very much  
24 during that period, so that the material you drop in the  
25 river will be almost identical six weeks later than it is

1 when they do it at the present schedule, and it would come  
2 down then with ample dilution.

3           We have more dilution than we need during the fish  
4 flows by quite a bit. There are various ways to go about  
5 that, but it shouldn't be insurmountable or extremely  
6 difficult to just pond for that long a period and since  
7 there are no concentration problems and there are also  
8 opportunities which are a little less flexible than a  
9 discharge rate of hanging onto it subsurface and then  
10 discharging so far as the preirrigation mobilization is  
11 concerned.

12           In the case of the drainage off the wetlands, I don't  
13 know of any easy solution other than to either pond it or  
14 pump it back up to the DMC and hang onto it by recirculation  
15 during that brief period, but that's also a possibility.

16           There are various ways you might go about it, but it  
17 is a very different problem to merely hang onto it a few  
18 weeks in order to make these flow releases coincide than it  
19 is to have evaporation ponds or to get it out to the ocean  
20 some other way.

21           This would be much simpler, so it would seem to me  
22 that it is something that might be accomplished without all  
23 the permit implementation problems that Mr. Del Piero  
24 mentioned.

25           Somebody might have to put up a little money, but the

1 benefit would be very substantial.

2 MS. FORSTER: I'm trying to think what does it mean  
3 to planting cycles, but we will have to talk about it more.  
4 I mean, it sounds so reasonable to say, let's fix two  
5 problems with one slug of water. I just don't know all the  
6 other parameters to know how it works and when it works, but  
7 the --

8 MR. HILDEBRAND: I understand your reluctance that  
9 anything is reasonable nowadays.

10 MR. CAFFREY: That is our goal.

11 MR. HILDEBRAND: I don't really think it had anything  
12 to do with the planning schedule. The primary problem  
13 actually would be whatever you have to do to keep from  
14 draining off the wetlands during that period, and if you  
15 don't want to sacrifice a piece of the wetlands for six  
16 weeks or so to impound it, then they have the recycling  
17 alternative to get by that short period.

18 It's the period of year when the total demands on the  
19 system are not totally high, so there is a lot more  
20 flexibility than you would have in the later part of the  
21 season.

22 MR. CAFFREY: Mr. Brown.

23 MR. BROWN: The idea is very sound. I hope staff  
24 will take that under consideration and it may mean that we  
25 have to continue the evaporation ponds or something similar

1 thereto in the wetlands or someplace for a short interim  
2 period, but that might be more acceptable to the  
3 environmental concerns than the way it is being done now.

4 Certainly with drainage issues in the San Joaquin  
5 Valley, this is a good idea but we are to the point now that  
6 even bad ideas count in trying to figure out something.

7 MR. CAFFREY: Let's say less popular ideas, not bad  
8 ideas.

9 MR. BROWN: That's good, thank you.

10 MR. CAFFREY: Thank you, Mr. Brown.

11 Anything else from Board members? Anything from  
12 staff?

13 Thank you, Mr. Whitridge and Mr. Hildebrand.

14 Good to see you both.

15 Let me just say that there is one public agency left  
16 to speak and that's Kern County Water Agency, and they have  
17 asked to speak after lunch.

18 That, then, takes us up perhaps to the presentation  
19 by the panel of Western United Dairymen.

20 Is the panel here, Mr. Conover and the others?

21 Please come forward and make your presentation. We  
22 have Gary Conover, Jay Gould, Dwane Paul and Linda Wear.

23 While we are setting up for this panel discussion,  
24 let me announce to the audience what the schedule appears to  
25 be for the afternoon. We will try to break for lunch no



1 later than 12:30, which is about half an hour from now.

2 We have asked Mr. Del Piero to represent us at a  
3 meeting this afternoon for a while, so he will be leaving at  
4 that time and be back later.

5 In the afternoon there will be a panel discussion led  
6 by Kern County, I believe, and then we will go to Mr.  
7 Fullerton and Mr. Thomas, Mr. Bishop and Mr. Wodraska, Mr.  
8 Haroff and then Mr. Krautkraemer, Mr. Bobker, Mr. Hall, Mr.  
9 DuBois, Mr. Nelson, Dr. Brown, Mr. Vogel and Patrick  
10 Porgans.

11 That is the order of the cards we have thus far, to  
12 give you all a feel for what the breakdown is this  
13 afternoon.

14 Good morning, ladies and gentlemen. Good to see you.

15 MR. CONOVER: Mr. Chairman and members of the Board,  
16 my name is Gary Conover. I am Vice President for the  
17 Western United Dairymen.

18 We appreciate your allowing us to speak today.

19 When I spoke before the Board at your last workshop  
20 on July 13, I indicated that we were in the process of  
21 retaining an economic consultant that would provide us with  
22 a document that we do submit into the record which would  
23 assist the staff and the Board in their deliberation of the  
24 economic impacts of your decisions.

25 We feel there is an obligation by the Board to go as

1 deep as you can in securing that data. We are pleased  
2 today to present that document.

3 Western United Dairymen is a 1400-member milk trade  
4 association. We represent dairymen basically from  
5 Bakersfield to Humboldt. We represent 70 percent of the raw  
6 milk produced in the State. Therefore, we are the largest  
7 trade association in the State.

8 We have had concerns all along regarding the  
9 treatment of some of our many commodities within the  
10 discussions of the Board, certainly within some of the  
11 bulletins provided by the various departments, particularly  
12 alfalfa, the treatment as the lowest economic value crop,  
13 and we hope to present evidence that would throw away that  
14 concept.

15 We in the industry look at it not as a commodity but  
16 as a resource for our animals, which is really our link to  
17 our commodities which is the milk.

18 We have with us today Mr. Jay Gould on the far left.  
19 Jay is the Executive Vice President of Western United  
20 Dairymen. He has over 35 years in the business and has an  
21 immense amount of information.

22 Our presentation will be made by the economic firm  
23 that we retained, Northwest Economic Associates, and we have  
24 with us today Dr. Dwane Paul and Dr. Linda Wear.

25 MR. CAFFREY: Welcome to all of you.

1 MR. CONOVER: Dwane will carry on the conversation.

2 MR. PAUL: Thank you, Gary.

3 My purpose in being here today is to discuss the  
4 effects of the proposed Bay-Delta standards on the  
5 California dairy industry as a large representative part of  
6 California agriculture overall. In doing so, I would like  
7 to start with an overview of the California dairy industry,  
8 follow that with a review of our analysis of what the  
9 standards announced last December mean for agricultural crop  
10 production, and then, relate these to what this means for  
11 California dairy producers, both in general and particularly  
12 in the San Joaquin Valley as a regional example.

13 My objective is to demonstrate to you that decisions  
14 on water quality standards as they affect water availability  
15 will have major effects on the viability of regional crops  
16 and regional dairy production.

17 We believe that sound decision making in California  
18 water allocation requires more detailed rather than less  
19 detailed analysis. We believe that analyses which focus on  
20 very large geographic regions without regional  
21 considerations, or that generalize about an industry as  
22 large as California agriculture without realizing its  
23 diversity miss many critical institutional, social and  
24 economic issues that we feel have to be part of the water  
25 decision process.

1           Let me start with a brief overview of the California  
2 dairy industry. It is the single largest sector in  
3 California agriculture with annual farm-gate receipts of  
4 approximately 2.9 billion dollars. It represents about 14  
5 percent of California's agricultural cash receipts overall.

6           Employment in the dairy industry is about 42,000  
7 people considering both production and processing.

8           And annually the industry overall contributes  
9 approximately six billion dollars to the State economy and  
10 supports more than 80,000 jobs.

11           There are about 1.2 million milk cows in California. They  
12 produce annually about 22 billion pounds of milk. Milk cow  
13 productivity in California is the highest in the nation and  
14 near the highest for many reasons, but key among them are  
15 climate and availability of high quality feed.

16           The demands for California dairy products has grown  
17 dramatically in the last two decades because of the very  
18 rapid population growth and increases in consumer income.

19           The University of California in a recent study  
20 estimated that by the year 2010 the demand for California  
21 milk products will increase to about 36 billion pounds  
22 annually, about a 60-percent increase from current levels.

23           Feed costs represent about one-half of the total  
24 production costs in the dairy industry. The feed to go into  
25 the dairy rations include both roughages and concentrates.

1 High quality alfalfa is by far the most important roughage  
2 feed to dairy cows in California and is valuable because of  
3 its energy protein and vitamin and mineral content.

4 It is one of the most important factors that account  
5 for high cow's milk productivity in California.

6 The California dairy industry uses more than half of  
7 the alfalfa grown. The dairy industry also uses large  
8 amounts of agricultural by-products that would otherwise  
9 have limited use. For example, approximately one-fourth of  
10 the State's cotton is processed into cottonseed meal, and  
11 virtually all of that cottonseed meal is used in the dairy  
12 industry.

13 The industry also uses large amounts of sugarbeet  
14 pulp, citrus pulp, vegetable wastes and brewery and  
15 distillery grain waste products.

16 In the past, dairy producers in California relied on  
17 pasture for much of their forage requirements, but as the  
18 number of cows has increased per herd and as the cost of  
19 water has increased, the use of pasture for dairy cows has  
20 decreased, the notable exception being the Del Norte and  
21 Humboldt region of the State where herds are relatively  
22 small and where pasture will be maintained with little or no  
23 irrigation because of high rainfall.

24 Because there are many linkages to the crop  
25 production side of agriculture, the dairy industry has a

1 real interest in the California water situation and the Bay-  
2 Delta standards.

3 The standards have some very disturbing implications  
4 for crop acreage and crop availability, particularly south  
5 of the Delta.

6 One scenario in the U. S. EPA analysis concluded that  
7 the economic impacts of the standards on production  
8 agriculture would be relatively small and would be limited  
9 to a permanent idling of approximately 138,000 acres of hay  
10 and pasture.

11 The analysis assumed that those acres would be spread  
12 uniformly throughout the Central Valley and that water could  
13 be traded freely throughout the Central Valley. The  
14 analysis also assumed any cutbacks in surface water would  
15 not lead to increased groundwater pumping.

16 Our company did an analysis of standards and our  
17 analysis indicates that there would be much larger impacts  
18 spread across more crops but in a smaller geographic area,  
19 primarily the Southern San Joaquin Valley where the  
20 alternative water supplies are the most limited. Our  
21 analysis is, we believe, reflective of what actually happens  
22 in water shortage scenarios for at least three reasons.

23 First, water shortages affect different regions in  
24 different ways. As I mentioned before, California  
25 agriculture is so large that it can't be characterized as

1 one large homogeneous sector.

2           Secondly, not only is hay affected by water  
3 shortages, and in fact, in 1991, more than 250,000 acres of  
4 crop land in the San Joaquin Valley were idled, and this  
5 included 160,000 acres of cotton, 13,000 acres of  
6 vegetables, as well as substantial acres of hay and other  
7 crops.

8           Third, under the proposed standards, we believe that  
9 the occurrence, duration and magnitude of water shortages  
10 would all increase relative to the current operating  
11 requirements, and we believe as a result, impacts in  
12 agriculture would become increasingly worse over time.

13           Our estimated acreage impacts based on the standards  
14 show that State Water Project contractors can expect at  
15 least a 40 percent shortage four and a half years out of  
16 ten, and that's versus two and a half years out of ten now.

17           Central Valley Project contractors can expect at  
18 least a 40 percent shortage four years out of ten versus one  
19 year out of ten now, and at 65 percent shortage, which we  
20 call critically dry years, it can be expected two years out  
21 of ten.

22           When these water supply scenarios are incorporated  
23 into the analysis of impacts of standards on agriculture,  
24 the results are much greater than those indicated in the U.  
25 S. EPA analysis, and we estimate that instead of merely

1 identifying 130,000 acres of hay and pasture land, the  
2 standards would cause an idling of nearly 200,000 acres,  
3 including 21,000 acres of alfalfa, 104,000 of cotton, 41,000  
4 acres of vegetables, and 10,000 acres of permanent crops  
5 with a combined production value of approximately 250  
6 million dollars per year.

7 In a critically dry year much more land would be  
8 temporarily idled and total land idled would increase to  
9 about 460,000 acres, and this would include 78,000 acres of  
10 alfalfa, 227,000 acres of cotton, 43,000 acres of vegetables  
11 and 109,000 acres of grain.

12 These acreage impacts have onerous implications for  
13 farmers throughout the Central Valley, and for the many  
14 smaller economies in the valley where agricultural  
15 employment makes up to 40 percent of the total employment.

16 The acreage impact, I think, also has disturbing  
17 implications for the California dairy industry, particularly  
18 in the San Joaquin Valley where most of this idling would  
19 occur.

20 Because of the alfalfa acreage restrictions in that  
21 area, delivered alfalfa prices to dairies would increase by  
22 an estimated 15 to 20 dollars per ton in normal years, and  
23 up to 30 to 50 dollars in critical years as more alfalfa is  
24 shipped in from outside the area.

25 We estimate that alfalfa grower prices would increase



1 by anywhere from \$2 per ton in normal years up to about \$7-  
2 1/2 a ton higher in critically dry years.

3 Dairy production costs would increase, there would  
4 be a resultant decline in dairy income ranging from 5.1  
5 million dollars in normal years to 18.6 million dollars in  
6 critically dry years. Those figures are for the San Joaquin  
7 Valley.

8 And for a typical San Joaquin Valley dairy, the  
9 reduction in annual net income could range from 25 to 95  
10 thousand dollars, or roughly 15 to 57 cents per  
11 hundredweight of milk.

12 The dairy and production cost data from the  
13 California Department of Food and Agriculture showed that  
14 many peak dairy producers in the area under this environment  
15 would be marginal at best and nonviable at worst.

16 One additional note: Because of higher grower prices  
17 for alfalfa, all users of alfalfa would feel the impact. We  
18 considered only the dairy industry throughout California,  
19 but we estimate because of these increases and because of  
20 the increases in the San Joaquin Valley, the income and job  
21 impact would range from 20,000 to 20,000,000 and 250 jobs in  
22 a normal year up to an income effect of about 71 million  
23 dollars and a thousand jobs lost in critically dry years.

24 As you read through our report, you will see our  
25 analysis, our assumptions and our conclusions. We feel that

1 the estimated impact of water shortages on agriculture will  
2 be much greater than those typically believed.

3           While the focus of our report is in particular on the  
4 San Joaquin Valley, as an example of the importance of  
5 regional considerations, many other regions of California  
6 agriculture, we feel, are vulnerable as well, including the  
7 Sacramento Valley, the mountain regions and the coastal  
8 regions.

9           We tried to build reality checks into our analysis by  
10 looking at the types of adjustments that occurred in the  
11 last drought, by looking at differences in agriculture up  
12 and down the State, and by talking directly with water  
13 districts and growers to glean some insight into the ways  
14 they have adjusted to water shortages in the past.

15           We believe that the Bay-Delta standards will have a  
16 much larger effect than those originally presented and we  
17 believe that crop and livestock production will be both  
18 adversely affected; and finally, we feel that there's far  
19 more at stake than the idling of 100,000 acres of hay and  
20 pasture land.

21           There are, instead, entire subregional areas of the  
22 Central Valley that are looking at severe setbacks to both  
23 their regional economy and to their standard of living.

24           I thank you for your time.

25           MR. CAFFREY: Thank you. Does that complete your

1 presentation?

2 MR. CONOVER: We are available for questions.

3 MR. CAFFREY: We do have questions. We have Mr.  
4 Brown, then Mr. Stubchaer and then Mr. Del Piero.

5 MR. BROWN: Bulletin 160 of DWR estimates there's  
6 about 9.5 million irrigated acres in California. I believe  
7 that there are about 800,000 acres of irrigated pasture  
8 within the State. I don't recall the irrigated acres of  
9 alfalfa.

10 What is the payment capacity of alfalfa today?

11 MS. WEAR: About 800 to 1100 dollars.

12 MR. BROWN: And cost run?

13 MS. WEAR: It runs about, I think, 85 or 90 percent  
14 of that, so you are talking about margins to ownerships.

15 MR. BROWN: Alfalfa has a payment capacity in the  
16 neighborhood of 100 to 150 and maybe if you get six or seven  
17 cuttings, maybe up to \$200 an acre.

18 MS. WEAR: That would be returns to ownership land  
19 management, right.

20 MR. BROWN: It is a pretty good crop in California.  
21 I agree with what you are saying.

22 What would you estimate the payment capacity of  
23 800,000 acres of irrigated pasture on a per-acre basis?

24 MR CONOVER: I really don't know. I guess it depends  
25 on the animal unit.

1           MR. BROWN: Maybe \$50 an acre on irrigated pasture if  
2 you have a good year?

3           MR. DEL PIERO: Why don't you tell him it is more  
4 than he gets paid.

5           MR. CONOVER: I don't know.

6           MR. BROWN: Consumptive use of water on pasture is  
7 about four acre-feet?

8           MR. CONOVER: It used to be when it was much more  
9 prominent.

10          MR. BROWN: Alfalfa is maybe five?

11          MR. CONOVER: Two and a half to five up and down the  
12 valley.

13          MR. BROWN: If the State is short of water two  
14 million acre-feet today out of a 35 million acre-foot water  
15 usage referencing prior Bulletin 160 with projections going  
16 to five to seven million acre-feet of shortage by 2010, if  
17 we intend to pay our own way in water resources, do you  
18 think that water would probably come from agriculture -- pay  
19 our own way and quit mining groundwater basins?

20          MR. CONOVER: I think that obviously this is one of  
21 the whole issues of discussion in the Bay-Delta standards,  
22 is the reallocation of water between agriculture and the  
23 environment and urban. I think there probably will be more  
24 coming from agriculture.

25          MR. BROWN: Most people, unfortunately, think and

1 probably believe that we will eventually be making up the  
2 shortfalls out of the agricultural community.

3 Three major water groups in the community --

4 Three major water groups in the State, environmental  
5 needs, the domestic, M&I water and agricultural community  
6 needs make up the total combined 35 million acre-feet we use  
7 annually.

8 So, if there is a plan some day in the near future to  
9 pay our own way in water resources, many believe that would  
10 probably come from the agricultural community. If it comes  
11 from the agricultural community then, would the payment  
12 capacity of crops or on a per-acre basis be a good indicator  
13 of where to take that water?

14 MR. CONOVER: I think there are two ways to look at  
15 that. One, I think if you look at statewide averages, that  
16 probably gives a ballpark range of where things should come,  
17 but I also believe that the ultimate decision has to reflect  
18 as well regional considerations.

19 MR. BROWN: An acre-foot saved in Imperial  
20 Valley is one acre-foot less you have to export from the  
21 Delta.

22 MR. CONOVER: Right.

23 MR. BROWN: You made the statement here that the  
24 cutback in surface water would not lead to greater  
25 groundwater mining.

1 MR. CONOVER: That was one of the assumptions in the  
2 U. S. EPA analysis of the Bay-Delta standards they released  
3 in connection with that.

4 MR. BROWN: Do you think that was a good assumption?

5 MR. CONOVER: No, I think the drought has proven  
6 exactly the opposite.

7 MR. BROWN: If we were to make up some of the  
8 shortfalls existing and projected from the lower payment  
9 capacity crops and if that would be starting with the  
10 irrigated pasture, I think alfalfa, and I concur with your  
11 statement -- if we were to make up some of the shortfalls  
12 existing and projected from the lower payment capacity crops  
13 and if that would be starting with the irrigated pasture, I  
14 think alfalfa, and I concur with your statement that it's a  
15 higher payment capacity crop than some people believe it to  
16 be, but if we were to make it up with some of the hay,  
17 irrigated pasture and such, how much of the hay that we grow  
18 in the state right now is exported out of the state.

19 MR. CONOVER: Not very much actually.

20 MR. BROWN: Ten percent?

21 MR. CONOVER: A ballpark, probably 10 and roughly 85  
22 percent of the hay produced is alfalfa.

23 MR. BROWN: Can we buy hay?

24 MR. CONOVER: We can, although the last ten years  
25 average hay production in the states from which we buy has

1 averaged five to six million tons a year and not all of that  
2 is dairy quality alfalfa hay, and most of that hay is being  
3 used in those states for their own milk production sectors.

4 So, we don't feel that the California dairy sector  
5 can look at imports from other states as a gross part of the  
6 total supply.

7 MR. BROWN: That's important to know. Thank you very  
8 much for your presentation.

9 MR. CAFFREY: Mr. Del Piero.

10 MR. DEL PIERO: I have one question. You indicated  
11 during the course of your presentation that the impact, the  
12 average economic impact of the various proposals on the Bay-  
13 Delta decision would have greater effect on certain  
14 subareas, but you didn't indicate which of those areas of  
15 the San Joaquin Valley those subareas are located in.

16 Can you articulate where those are, where the  
17 greatest impact would be?

18 MR. CONOVER: I apologize for that oversight. We  
19 have it included in our analysis.

20 MR. DEL PIERO: I haven't had a chance to read it  
21 yet.

22 MR. CONOVER: We feel that the greatest impacts are  
23 going to be in the southwestern part of the San Joaquin  
24 Valley.

25 MR. DEL PIERO: Kern or Tulare County?

1           MR. CONOVER:   Probably more towards Kern.   We feel  
2 the main issue there is that many of the lands down in that  
3 area, particularly in that part of Kern, don't overlie a  
4 groundwater basin so they wouldn't have the option of using  
5 groundwater to fill the need.

6           Assuming that surface water shortages could not be  
7 made up long term from other surface water supplies, we feel  
8 those would be the most vulnerable areas.

9           MR. DEL PIERO:   Can I ask one more?

10          MR. CAFFREY:   Go ahead.

11          MR. DEL PIERO:   You would not recommend then  
12 permanent reliance upon imported water for permanent water  
13 uses in that area?

14          MR. CONOVER:   Let me get through that -- permanent --

15          MR. DEL PIERO:   From the standpoint of reliability,  
16 given the context of what's going on in terms of the Delta,  
17 in relationship to those areas that are mined or absent any  
18 groundwater resources readily available, you would not then  
19 from an economic standpoint recommend relying on imported  
20 supplies given what the potential consequences of this  
21 decision are for permanent uses in that area?

22          MS. WEAR:   You mean for permanent crops?

23          MR. DEL PIERO:   I mean for any uses, including urban,  
24 and maybe more importantly, specifically urban uses.

25          Mr. Brown was talking about converting water use from



1 agriculture to urban and one of the implications that we  
2 have seen is whether it is done directly, intentionally or  
3 negligently is probably the inappropriate term, probably the  
4 appropriate term is inadvertently.

5           There has been a transfer of water resources from ag  
6 to other uses. This process and the Club Fed process and  
7 the CVPIA process has redirected water from ag primarily to  
8 environmental uses. Less direct but more permanent is the  
9 redirection of water from agricultural uses to urban uses.

10           The question I have for you is in the event that  
11 transition is taking place, as Mr. Brown indicated, from an  
12 economic standpoint, is it a smart or not so smart thing to  
13 do to rely upon imported water supplies for alternative  
14 permanent uses in those areas of Kern County?

15           MR. CONOVER: I will be honest with you, I don't know  
16 how to respond in totality to that.

17           MR. DEL PIERO: Can you respond in part?

18           MR. CONOVER: I think one of the issues that comes up  
19 again is regionality, and I guess when you look at the  
20 regional economics in that part of the San Joaquin Valley and  
21 the fact that the economy that was created there was  
22 initially set up revolving around agriculture and continues  
23 to revolve around agriculture, I personally have kind of a  
24 difficult time in terms of potentially saying go ahead and  
25 turn the water off, and we allocate it to other places. I

1 have a hard time to do that.

2 I understand the difficulty that you all face in  
3 terms of making these decisions with what is a limited  
4 supply and almost an unlimited demand. I am appreciative of  
5 that.

6 I think, again, and not trying to be redundant at  
7 all, the --

8 MR. DEL PIERO: The wedge of cheese is getting  
9 smaller for us to carve off.

10 MR. CONOVER: The regionality issue, I think, is  
11 probably the most important and I think when you look at any  
12 one subregion of California agriculture, undoubtedly there  
13 are going to be certain crops that look less favorable in  
14 terms of their use of water and the value that can be  
15 imputed to that water than in others, but again, I think it  
16 has to be in the perspective of if the water is diverted  
17 away from an area that is so heavily dependent on  
18 agriculture, then what happens to the area?

19 I am not trying to beg your question, but --

20 MR. DEL PIERO: Other than Southwest Kern, is there  
21 any other area that is going to be hit, Southwest Tulare?

22 MS. WEAR: In the CVP the Westlands area because they  
23 have less access to groundwater.

24 MR. DEL PIERO: Thank you so much.

25 MR. CAFFREY: Mr. Stubchaer.

1           MR. STUBCHAER: I have a simple question. Is there  
2 any methodology in your report that would enable our staff  
3 to evaluate the cost, the economic cost to your industry at  
4 various levels of shortages?

5           MR. CONOVER: I think our method is generalizable, if  
6 that's the right word, and we would be happy to share that  
7 with you.

8           MR. STUBCHAER: Is it stated in the report in enough  
9 detail to be applied? Would it have to be obtained  
10 separately?

11          MR. CONOVER: There's enough detail in the report,  
12 although any questions you or your staff have, we are in  
13 Sacramento and we would be glad to provide any information  
14 you need.

15          MR. STUBCHAER: You have an address on Capitol Mall  
16 as well as Vancouver, Washington? Is that a full-time  
17 office?

18          MR. CONOVER: Our Vancouver office has been in place  
19 since 1977. We have been in Sacramento since 1991.

20          MR. STUBCHAER: Thank you.

21          MR. CAFFREY: Ms. Forster.

22          MS. FORSTER: I had a cost question to ask you.  
23 When you estimate your costs, do you estimate direct costs  
24 or do you throw in indirect costs when you are doing this  
25 analysis?

1 MS. WEAR: We did it both ways and we tried to be  
2 real clear which was which. There is only one table in  
3 there that estimates what we felt to be the linkage effect  
4 to the rest of the California State economy.

5 The bulk of the numbers that are in there are direct  
6 impacts to the dairy industry.

7 MS. FORSTER: I just ask because doing economic  
8 impacts on environmental issues is sort of on the cutting  
9 edge and I have been reading different papers and I just  
10 finished one from Harvard, and in reading there were 11  
11 recommendations they have.

12 It is my own feeling that to be able to get a  
13 layman's understanding of the economic impacts, we have to  
14 be more focused on direct costs so that people can  
15 understand and compare because the indirect costs just get  
16 you going in all different ways and they are pretty  
17 subjective in some ways.

18 So, that's why I was interested.

19 MR. CAFFREY: I believe that completes the questions  
20 from the Board members.

21 Anything from staff?

22 MR. HOWARD: No.

23 MR. CAFFREY: All right, Dr. Paul and Dr. Wear and  
24 Mr. Conover, Mr. Gould, we very much appreciate --

25 MR. CONOVER: Mr. Chairman, if I could make a

1 concluding remark, I think the purpose of the industry as a  
2 commodity and the submittal of the document is to insure  
3 that while there are many other commodities that you look  
4 at, cotton, rice and so on and so forth, the commodity here  
5 we want to make sure you pay attention to in addition to  
6 alfalfa is our commodity, which is milk, and milk is much  
7 like rice and cotton and other groups. Milk is a substance  
8 that both State and Federal legislators have identified as a  
9 substance that is needed by the Merced County people, so we  
10 want to raise that Merced County flag and have you look  
11 frequently at that product when you look at alfalfa.

12 MR. CAFFREY: We very much appreciate your efforts  
13 and we have copies of your report which we will look at with  
14 interest, and we also appreciate the local availability and  
15 perhaps you will be participating further in Mr. Pettit's  
16 public meetings on the various alternatives.

17 Thank you all very much.

18 Let me say we will now take a lunch break and we will  
19 resume the workshop at 1:30 this afternoon. Thank you very  
20 much.

21 (Noon recess)

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1 THURSDAY, SEPTEMBER 1, 1994, 1:30 P.M.

2 --o0o--

3 MR. CAFFREY: All right, we will resume.

4 Are the representatives from Kern County -- have  
5 they arrived yet? They were scheduled to go first. They are  
6 not in the room, so let's go with Mr. Thomas and Mr.  
7 Fullerton.

8 MR. GREGORY: We are actually here to praise Caesar  
9 rather than bury him. We wanted to respond to the CUWA  
10 recommendations.

11 MR. CAFFREY: Would you prefer to go later on?

12 MR. GREGORY: If that's convenient for them.

13 MR. CAFFREY: Okay. Let's go then with them. That  
14 would be Mr. Bishop, Mr. Wodraska -- why don't you gentlemen  
15 come forward.

16 Good afternoon, welcome.

17 Even though you are famous individuals, please  
18 identify yourselves first for the record.

19 MR. BISHOP: For the record, I am Wally Bishop,  
20 General Manager of Contra Costa Water District, but I am  
21 here today speaking on behalf of the California Urban Water  
22 Association which you probably have seen us at many  
23 meetings. We are comprised of 11 agencies that constitute  
24 service to over 20 million customers in the State of  
25 California and a large portion of the commercial and

1 industrial activities.

2 With us today on our panel will be the General  
3 Manager of Metropolitan Water District, William Wodraska,  
4 who I will introduce later, and inform the Board as to what  
5 we will be covering, and also, we have with us today  
6 Attorney Kevin Haroff, who will be making very specific  
7 presentations to the Board on our plan.

8 We have prepared for the Board for your  
9 consideration what we consider to be a coordinated  
10 comprehensive plan. That plan is dealing with a wide range  
11 of the issues before the Board.

12 We heard comments this morning and I thought I would  
13 address them up front, of concern about specifics.

14 We completely understand the scope which CUWA and  
15 the team of consultants have undertaken is a very  
16 comprehensive approach to the problems of the Bay-Delta.  
17 Consequently, we will as we present the plan, even though  
18 we have attempted where possible to provide specific  
19 comments, that in some areas with respect to, say, the  
20 standards, we are very specific, even to the point, if you  
21 look at the attachment, we have drafted a draft resolution  
22 the Board might want to consider for the standards.

23 MR. CAFFREY: We noticed that.

24 MR. BISHOP: We just want to be helpful, and in  
25 other issues that we have dealt with such as the operational

1 controls, you will see that we have proposed outlines and  
2 requests for some time for more information, all of this  
3 trying to be helpful, but giving the Board a full sense of  
4 the wide range of issues we want to deal with.

5 I will give the Board an overview probably in the  
6 next five minutes. Woody will be talking to the Board and  
7 what you are seeing is a phrase used often in our plan,  
8 ecosystem management plan, and we will also be talking about  
9 various management strategies that we see as ways to  
10 approach this both in terms of not only what to implement,  
11 but how to phase it, and the timing for that.

12 And finally, Kevin will follow and take the Board,  
13 depending on your time and how much you want to get into  
14 very detailed specifics, and really, at that point when  
15 Kevin makes his presentation, we will rely on the Board --  
16 if you feel we are getting too much into the details and you  
17 want to move on, by all means let us know.

18 At the last workshop CUWA expressed accord with the  
19 State Board's efforts to develop standards and other  
20 requirements. We stated that progress had been made for  
21 developing recommendations for the State Board but  
22 additional time is needed to make those recommendations more  
23 specific.

24 We think we have made considerable progress since  
25 the last workshop. Our scientists and staff have met not



1 only among ourselves but with other interested parties, both  
2 in the environmental and agricultural communities.

3 As you may have heard this morning, at least in the  
4 EPA presentation and others, the CUWA process at least with  
5 respect to the standards is getting mentioned in many cases  
6 as the approach that's being at least used as the baseline  
7 for others to consider.

8 We think that is a measure of success. Our  
9 recommendations contained in the plan incorporate several  
10 interrelated elements, what we call the coordinated estuary  
11 protection plan.

12 There are three components of that plan. The first,  
13 what we consider to be the fundamental baseline, is the  
14 recommended estuary habitat standards to be adopted by the  
15 Board in lieu of standards previously proposed by EPA.

16 While you may have heard various members of the  
17 testifiers this morning talk about consensus on that plan,  
18 we think there is consensus on the broad concept, what is  
19 referred to as the sliding scale. There are two ways to  
20 measure.

21 We are not here to tell you there is absolute  
22 consensus across the Board on very specific elements of that  
23 plan. So, we have consensus, we think, in areas  
24 particularly among the urban community that the way we are  
25 proposing the standards be implemented with the sliding

1 scale and the two ways of implementation, but we are not  
2 here to tell you all parties agree with all the aspects of  
3 that.

4           The second part of the plan is a recommendation for  
5 development and implementation of the operational  
6 requirements.

7           I am here to tell you we have a very broad approach  
8 in the report.

9           We are also asking that the administrative record in  
10 this particular area be kept open until the end of October.

11           We have a commitment inasmuch as we have spent  
12 considerable time on the standards and development of that  
13 because that was the original focus of this with the EPA  
14 proposal, that we would like to now turn our attention to  
15 looking at the various recent proposals that have come  
16 forward, both from the State Water Contractors as well as  
17 the agricultural community and DWR for various operational  
18 constraints for the operation of the Bay-Delta. We consider  
19 that to be an integral second part of this plan.

20           We do not have a specific plan for you today, but we  
21 feel if we could work in our consensus-building mode with  
22 our scientists at some time by the end of October we would  
23 be able to make a specific proposal to you.

24           And finally, a third part of our plan is a series of  
25 recommendations for the regulation of additional

1 biodegradational factors that have adversely affected the  
2 species abundance in the estuary.

3           Such things as poaching, you talked this morning  
4 about land-derived salt pollution discharges, restoration of  
5 habitat wetlands. These are all issues that we think need  
6 to be dealt with in the comprehensive plan.

7           In implementing CUWA's proposed coordinated program,  
8 we believe that a high priority should be given to the near-  
9 term adoption of standards. While standards alone are not  
10 sufficient, they would provide a necessary baseline against  
11 which the success of the other actions proposed can be  
12 measured.

13           CUWA supported the adoption of a broad estuary  
14 habitat standard and incorporates key aspects of the water  
15 quality standards proposed earlier this year by EPA. This  
16 includes the two parts per thousand salinity criteria.

17           At the same time, CUWA is making very distinctive  
18 changes and modifications to the EPA proposal that will  
19 allow the standard to be applied in a biologically more  
20 appropriate manner.

21           We have objected to the application previously at  
22 three locations in the Delta. After further analysis and  
23 discussion with EPA and others, CUWA's current position is  
24 that standards should be imposed at Rowe Island if  
25 implemented in the way that we have described with respect

1 to the sliding scale and three ways to measure compliance.

2 CUWA's recommended estuary habitat standard is  
3 designed to reflect actual conditions in the estuary while  
4 using the sliding scale approach and determining compliance  
5 on a month-to-month basis.

6 It also incorporates biological equivalent flow  
7 criteria, applied flexibility in achieving, and compliance  
8 has been measured as well as habitat protection.

9 We believe that the recommended standards should and  
10 can be adopted by the State Board in the near future. In  
11 doing so, however, the State Board needs to move forward in  
12 the identification of the operational requirements and we  
13 are committed to help you in that, and that's our request,  
14 that we be allowed to present by the end of October what we  
15 feel to be a consensus plan that can be derived from those  
16 requirements.

17 Without a determined effort to implement the full  
18 range of strategies identified by CUWA, it is necessary  
19 apart from the coordinated Bay-Delta plan that the future  
20 health of the estuary will continue to remain in doubt for  
21 years.

22 The second part of our proposal today is also  
23 dealing with the issue the Board was questioning this  
24 morning. We have a plan. There's clearly components of  
25 that plan that can be adopted now and there are still areas

1 of particularly the ecosystem management approach which need  
2 to be worked out. There has been a considerable amount of  
3 time in our testimony talking about how to phase in this  
4 plan.

5 We deal not only with the preparation, but the  
6 timing for phasing in various components. We start with a  
7 process for identifying criteria that the Board might use  
8 for identifying on an interim basis where the water would  
9 come from to meet the initial standard requirements. We  
10 talk about an approach that would implement a water impact  
11 cap using a restoration fund, and we also talk about an  
12 approach in which the Board would set up a banking system  
13 for logging mitigation credits.

14 In the beginning mitigation credits would be for  
15 water for the ecosystem plan, the overall plan to come  
16 together and it can be used for habitat restoration as well  
17 as water costs.

18 We urge the Board to consider the comprehensive  
19 nature of this plan. We will acknowledge that we need to  
20 come back to you with more information, particularly what we  
21 call the second part of the plan.

22 At this time, I would like to turn it over to Woody  
23 Wodraska, who will talk to the Board about the ecosystem  
24 plan approach and some of the strategies of both.

25 MR. CAFFREY: Thank you, Mr. Bishop.

1           I would just have one observation at this point.  
2   Certainly I don't want to jam your good work or stifle  
3   anybody, but the schedule that we are about at the Board and  
4   how long it takes to properly write and document a plan is  
5   problematic for us, and to the extent that you could maybe  
6   have this good work done even before the end of October,  
7   perhaps more in keeping with the series of meetings that Mr.  
8   Pettit is going to be conducting, it would be extremely  
9   helpful if you would go back and maybe take a look at your  
10  schedule and see if that's a possibility.

11           Hopefully it will be, and if it is not, we need to  
12  know that, too.

13           MR. BISHOP: On the operation requirements?

14           MR. CAFFREY: Yes.

15           MR. BISHOP: Maybe Woody can speak to this also.

16           We discussed how long it would take us. The key for  
17  us is not so much our putting together a plan and putting it  
18  before you, but trying to find a way if we can have some  
19  consensus between the various approaches we have seen up to  
20  now.

21           If the idea is for us to move as quickly as we can  
22  with our scientists to carve out what we think and maybe use  
23  another process, either at Walt's meetings or whatever, to  
24  bring consensus from that, I am sure we can move quickly.

25           We have not missed a schedule. We put our minds and

1 our money where we need to go so we can do it as quickly as  
2 we can, but we may not be able to build this consensus we  
3 are hoping for.

4 MR. CAFFREY: Some of this timing may be based on  
5 the success of the meetings where we discuss the  
6 alternatives.

7 MR. BISHOP: I would think so. If the parties are  
8 far apart and we are coming in with another plan that may  
9 not be in the envelope, then it may not help, but if we can  
10 come up with something that moves everybody to one position,  
11 it may help you.

12 But if the challenge is for us to try to get  
13 something in earlier, I can't speak for all the Board  
14 members, but I think we will consider it very strongly.

15 MR. CAFFREY: I appreciate that very much.

16 Good afternoon, Mr. Wodraska.

17 MR. WODRASKA: Thank you, Mr. Chairman and Board  
18 members.

19 It is good to be here and I will pick up on the  
20 point that you raised about where do we go and how do we put  
21 this together.

22 The last time I appeared before you was in April of  
23 '94, and I shared with you the Standard & Poor's, kind of  
24 described it as the morning shadow of doubt for California  
25 on how we have to come out of this gridlock that is

1 strangling the Bay-Delta and our future economy according to  
2 Standard & Poor's credit rating.

3           The other point I tried to make then was what I have  
4 come to learn is pretty unusual in California's recent  
5 history, and that is the urban interest, Northern and  
6 Southern California coming together and presenting a joint  
7 position through CUWA.

8           And the third question that I have been asked quite  
9 a bit, and I want to make the Board understand why CUWA did  
10 this. Why didn't we just wait and see what EPA comes up  
11 with and under the Clean Water Act had the CUWA alternative  
12 not been put on the table in response to the December 15  
13 federal proposal, there are restrictions on what the Federal  
14 Government can do and what they can consider, and the  
15 bargaining position that the State of California gained by  
16 having this alternative out there really gave us a lot more  
17 flexibility as we have gone forward, and I think in  
18 retrospect all those were right things and really put us in  
19 a key position today to move forward.

20           And the reason I am here before you today, I think I  
21 see a plan coming together, and under your leadership I  
22 think I see a way to get there.

23           Since my April testimony, three significant other  
24 events have occurred, all of which I would classify as very  
25 positive in helping us move in this direction.



1           The first was signing of the Federal-State framework  
2 agreement. Critical, and actually I want to change that  
3 around. I view that as a State-Federal agreement with State  
4 primacy, State leadership in this, and I see that coming  
5 together and I'm very optimistic about everything we hear in  
6 that regard.

7           The second thing, on June 30, 11 of the top  
8 businessmen in the state, in response to the Standard &  
9 Poor's letter, sent a letter to the President and the Gover-  
10 nor, and they said two things in the letter. They said,  
11 Mr. President, you have to do something about the Endangered  
12 Species Act. It has a stranglehold on the future of  
13 California and you have to provide some relief and some  
14 predictability and certainty in the Endangered Species Act;  
15 and they said Mr Governor, you need to provide leadership.  
16 We are looking forward to the State to assume the leadership  
17 role necessary to solve this problem.

18           On August 11, just less than a month ago, Bruce  
19 Babbitt announced in a press release in dealing -- we had  
20 several meetings with the Department of the Interior  
21 Secretary Babbitt on ESA related issues, and with the White  
22 House. The memo was called a deal was a deal.

23           Now, I have got to tell you that we were concerned  
24 in reading that press release.

25           It could be argued it was a terrestrial base and

1 more of a private property, which certainly is a problem  
2 with the ESA, but the question came up, does it apply to  
3 aquatic systems. Will this be applicable in the Bay-Delta  
4 related issues?

5           We received assurances, and I wrote a letter on  
6 August 18 to Secretary Babbitt saying I was planning on  
7 testifying on September 1 before the State Board, and it  
8 sure would be nice if I got the concurrence from the  
9 Secretary that his August 11 proclamation on ESA applied to  
10 the Bay-Delta.

11           We are assured by the Department of the Interior  
12 that this pronouncement on the deal is a deal, and in  
13 providing flexibility under the existing law under ESA, was  
14 intended to apply to aquatic systems.

15           Let me spend a moment and tell you why I think this  
16 is so important. As you know, the Federal Endangered  
17 Species Act was up for reauthorization. I believe the State  
18 of California should heighten this, and in the deliberations  
19 that are going to take place, and obviously it is not going  
20 to happen in this Congress, but it is going to happen at  
21 some point in the future, and if the Endangered Species Act  
22 can work, I would say, let's use the Bay-Delta as a litmus  
23 test.

24           I think we ought to say, here is the perfect example  
25 for the administration to show us, indeed, that the ESA has

1 the flexibility that they say is included in it as Congress  
2 goes through their deliberation about what should be the  
3 future of the ESA.

4 I think it is in our best interest to elevate it to  
5 that issue. It's a key part of the strategy that I think  
6 California should embrace.

7 Let me close by saying I have tried to put myself, as  
8 if I was sitting on the Board and I was listening to all the  
9 testimony and going through the different hearings, what  
10 would I do or how would I take all this information that you  
11 have gotten and what would I do with this? And although a  
12 clear plan hasn't emerged as to what is the clear path and  
13 everybody will tell you, by gosh, here is the right thing to  
14 do, but I think what is emerging, particularly using the  
15 standard as the starting point, I think there's a plan that  
16 you are going to hear or have heard from people in the  
17 environmental community. We are going to say, no, it is not  
18 the best plan, there are faults with it, but it is something  
19 we can work with, the sliding-scale concept, and how we can  
20 protect the important estuarine habitat. It forms the  
21 basis.

22 I think you will hear from people in the  
23 agricultural community who will say, no, there's still a lot  
24 of questions unanswered, but in looking at the science  
25 that's driven this and what we have come up with so far,

1 maybe represents a kind of a beginning point or foundation  
2 as we go forward.

3           And on the question of the time frame, Category 2,  
4 and how we deal with that, I think if we start coming  
5 together and rather than having a CUWA initiative and having  
6 an agricultural and environmental and various State agencies  
7 all working on alternative plans, if we can start narrowing  
8 down and saying, without making a commitment, but saying  
9 this is the direction we think will get us where we need to  
10 be, I think the proposal that Kevin is going to go through  
11 in some detail, and I want to tell you I have spent more  
12 hours than I care to, and we have details that will bore you  
13 to death, and we are prepared to go into them to any extent  
14 you want to.

15           My purpose is really kind of to lay out a strategy  
16 and we have challenged the people in the environmental  
17 community, agricultural, State agencies, tell us where the  
18 fatal flaw is in the plan CUWA has developed, and I think we  
19 can present to you a plan that would be the basis for where  
20 we go from here, and that would be my recommendation to the  
21 Board.

22           In closing, I am a newcomer to this, but one of the  
23 things that was really exciting and what brought me to  
24 California was the rest of the nation is looking at  
25 California for really deciding how we are going to deal with

1 these tough problems. It is happening in the water  
2 resources or natural resources management, it is happening  
3 in California. It can be part of making history. This is  
4 an exciting time.

5 You have a chance to seize control of California's  
6 future in the actions that are going to be coming out of  
7 this.

8 There's a game plan that I hear people who have been  
9 frustrated by this for more than a decade saying, I can see  
10 a light in this tunnel, but it is going to require what the  
11 businessmen ask of the State, show leadership, start  
12 channeling our efforts and attention on the focal point of  
13 where we end up, and I'm convinced we can do it.

14 Thank you very much.

15 MR. CAFFREY: Thank you, Mr. Wodraska.

16 MR. BISHOP: I should mention before Kevin gets up  
17 we also have Austin Nelson here, who was one of the primary  
18 authors of the sliding scale and the three components, so if  
19 you have any questions on that, he has also modeled the  
20 water costs relative to our position, so he is also here in  
21 case you have any questions.

22 MR. CAFFREY: Thank you, Mr. Bishop.

23 Mr. Haroff, good afternoon, sir.

24 MR. HAROFF: Thank you very much, Mr. Caffrey.

25 I think my presentation has been a bit overbilled in

1 terms of level of detail I am going to be going into.

2           What I will try to do is to go through some systems.

3           MR. DEL PIERO: I was looking forward to asking you  
4 questions.

5           MR. HAROFF: I think it might be more useful for us  
6 to skate through given our time constraints a little more  
7 quickly with some level of detail what we put together in  
8 the package of recommendations that we have submitted to you  
9 in the last couple of days, and I will be here, as well as a  
10 variety of other people who have participated in the working  
11 group that developed our recommendations, to respond to any  
12 questions that you may have.

13           Mr. Bishop, in particular, did a pretty good  
14 introduction and overview of the package which is why I  
15 hesitate to repeat too much. A lot of focus in that  
16 presentation really related to one of the key elements in  
17 the recommendations that we have prepared and that is our  
18 proposed estuarine habitat standard.

19           I'll talk about that standard a little bit, but one  
20 of the things I want to do is give you the flavor of the  
21 theme that runs through the recommendations that we propose,  
22 which is that standards alone are not the only answer. We  
23 have characterized our package of recommendations as a  
24 series of coordinated, or rather, as a coordinated estuarine  
25 protection program, Bay-Delta protection program, and we

1 think the different program elements that we have identified  
2 in our recommendations are all equally important to the  
3 success of the program.

4 After all, standards are important but they are not  
5 the only answer.

6 Walt, you can indulge me by putting on the first of  
7 several overheads. Walt is with the Santa Clara Water  
8 District. He should probably be doing this and I should  
9 probably be sitting there.

10 Again, the first component of the recommendations  
11 that we put together in our package is the estuarine habitat  
12 standard. That's set forth in detail in Appendix 1 of the  
13 materials we submitted to the State Board last week.

14 A couple of guiding principles have motivated us in  
15 thinking about estuarine habitat and putting together a  
16 standard. The first is an overall emphasis on the standard  
17 itself on general estuarine habitat protection, which is  
18 protection directed at the Bay beneficial uses to which the  
19 estuary is put, both fish, wildlife and other beneficial  
20 uses.

21 Second, a motivating principle is to recognize the  
22 natural hydrological variability of the system and not  
23 attempt to put together a regulation that ignores the  
24 variation on an annual basis and an interim basis.

25 Third, we have been guided in putting together our

1 recommendation by the desire to insure that the regulation  
2 allows for operational flexibility. The single focus on  
3 salinity that we have seen people look to in the past, we  
4 don't think is adequate.

5 I was at least encouraged to hear this morning some  
6 of the remarks from Mr. Wright recognizing that equivalent  
7 flow ought to be part of a regulatory standard. That is  
8 part of our standard and it is an important part of our  
9 standard.

10 As Mr. Bishop pointed out, our standard incorporates  
11 the EPA X2 approach with the three compliance locations,  
12 including compliance location at Rowe Island, which is not  
13 part of the original comments that we had submitted to you  
14 earlier this summer.

15 We do include within our regulation standard  
16 alternative salinity and flow criteria and we do include as  
17 an important part of our standard to recognize hydrological  
18 variability in the estuary, the use of the sliding scale  
19 approach.

20 On individual species protection, we are not  
21 recommending a specific standard to address a salmon smolt  
22 survival or striped bass as EPA has. We don't think an  
23 individual standard for individual species protection is  
24 appropriate.

25 We think that our estuarine habitat standard will go



1 a long way toward protecting individual species, plus we  
2 also think it is important to focus on the adoption of  
3 operational requirements which will also go a long way  
4 towards protecting a variety of different species that  
5 depend upon the estuary, which leads to the next overhead.

6 We have proposed in our package of recommendations a  
7 second program element for our coordinated program. This  
8 would address the water inflow/outflow in other management  
9 measures that people have talked about during the course of  
10 the testimony earlier today.

11 Again, we have been motivated by a couple of guiding  
12 principles in our thinking about this issue because we don't  
13 have as much of a specific recommendation as we do with  
14 respect to a habitat standard.

15 The guiding principles we believe are important in  
16 developing these management requirements are minimizing  
17 adverse impacts to water users consistent with biological  
18 requirements that will be reflected by and large in the  
19 estuarine habitat standard that we are proposing.

20 In addition, we think it is important to recognize  
21 the need for coordination with other agencies, other  
22 agencies like the projects that will be required to be  
23 involved in carrying out some of these activities, not just  
24 simply a process alone, although we think it is important  
25 for the State Board to exercise leadership in this issue and

1 move forward on that basis.

2 As we have already discussed, our proposal on this  
3 aspect of the program is not specific. We think we have  
4 made a lot of progress. CUWA scientists and staff have been  
5 meeting with representatives of agencies of organizations  
6 over the last few months. We think we have made a lot of  
7 progress in identifying specific management requirements we  
8 think will be part of the answer long term, but we do think  
9 additional work is required on that issue.

10 I think our plan is very much consistent with the  
11 schedule that the Board proposed earlier this morning in  
12 terms of allowing parties to get together to try to develop  
13 consensus, to work with State Board staff and try to get  
14 something that is specific and concrete by way of proposals  
15 to the State Board in accordance with the end-of-October  
16 deadline.

17 The third component of our coordinated estuarine  
18 action program is what we have called regulation of  
19 biodegradation factors. We had a hard time coming up with a  
20 good term for this part of the program. We started out by  
21 saying regulation of other factors. People didn't really  
22 like that because that suggested that some of the factors  
23 that we think need to be addressed in this component are, in  
24 fact, secondary in importance to salinity, flow and some of  
25 the other things we have talked about in the first two parts

1 of the program.

2 We don't think that. We think these are very  
3 important factors that need to be considered up front by the  
4 State Board.

5 Not all of the actions that may be required to  
6 address these factors can be done in the very near term.  
7 Some can. We think it is very important as part of the  
8 overall coordinated program to keep in mind the need to deal  
9 with some of these factors and move forward on that basis.

10 Again, the guiding principle behind what we propose  
11 in our recommendations is a recognition that salinity and  
12 flow are not the only factors that affect species abundance  
13 in the estuary, a recognition that estuary protection  
14 requires a multipronged and multiagency effort with the  
15 State Board exercising a leadership role, but recognizing  
16 the fact that other agencies will have to be involved in  
17 carrying out some of these requirements.

18 We have in our package, and I won't go into a lot of  
19 detail on what we set out in our written materials, but we  
20 have various recommendations, some with greater specificity,  
21 some with less specificity on a number of different factors  
22 we think are important to be addressed over time.

23 I have listed some of these up on the slide;  
24 unscreened diversions, pollution prevention and additional  
25 requirements on waste discharge, enhancement, control of

1 fishing, both legal and illegal, on the issue of land-  
2 derived salt which was an issue discussed at some length  
3 already this morning, control of exotic species and habitat  
4 control and restoration.

5           Again, in the interest of time, I think if the Board  
6 has specific questions about any of these, we do have myself  
7 and others who can respond to those questions and get into  
8 some level of detail.

9           The last part of the package of recommendations that  
10 we have submitted to the State Board has to do with  
11 implementation. Several guiding principles that motivated  
12 our thinking on this issue are.

13           A need for shared responsibility of all users whose  
14 use of the watershed have contributed to some of the  
15 problems the Bay-Delta is facing, a need for  
16 coordination among the different program elements  
17 that we have identified in our package, including  
18 standard, but also, operational requirements and  
19 the regulatory approaches to address biodegradation  
20 factors;

21           A need to facilitate water transfers in order o  
22 minimize impacts on individual parties;

23           And finally, consistency with the framework  
24 agreement to reflect, again, that the different  
25 regulatory strategies that will be required here

1           will involve different agencies at both State and  
2           Federal level, and will also require some phasing  
3           implementation approaches.

4           The phasing is an important concept of our  
5           recommendations. We think some things can be done earlier  
6           than other things. We think the adoption of an estuarine  
7           habitat standard can be done at an early stage as part of a  
8           water quality control plan adopted by the State Board in the  
9           beginning of next year.

10           We endorse the concept of the framework agreement to  
11           have the Board enter into negotiations with the State Water  
12           Project and the Central Valley Project to develop agreements  
13           about their contribution towards achieving estuarine habitat  
14           protection.

15           We recognize that in the long term there will be  
16           required a water rights proceeding in order to make sure  
17           that all parties are brought into the process in a fair and  
18           reasonable way.

19           The actions to address biodegradation factors, this  
20           will require, again, a range of regulatory strategies, but  
21           we think many of those strategies can be identified and  
22           addressed up front by the State Board, provisions adopted by  
23           the State Board to address some of these factors and  
24           specific recommendations the State Board can make to other  
25           agencies that may have more direct jurisdiction to deal with

1 those matters.

2           The last two items on the slide deal with a variety  
3 of issues that we have endorsed conceptually in the package  
4 of recommendations that we submitted to you. These relate  
5 to implementation and to issues dealing with the relative  
6 impacts to users that will have responsibility for  
7 implementation as time goes on.

8           We have included some discussion and recommendations  
9 on water impact caps, mitigation credits and mitigation  
10 funds. I think there might be a little confusion about what  
11 we are at least suggesting in terms of impact caps. What we  
12 are talking about here is a level beyond which other  
13 mechanisms may be required to allow individual users to meet  
14 obligations that they would otherwise be required to meet  
15 through purchase of water.

16           The concept of mitigation credits, we think, would  
17 be an important part of implementation initially to allow  
18 individual users to meet their obligations through money,  
19 but ultimately possibly also through other mitigation  
20 efforts.

21           That, basically, covers my quick and dirty overview  
22 of the recommendations that we put together. I appreciate  
23 the opportunity to appear before you this afternoon. I  
24 think the package of recommendations that have been put  
25 together is a good one. It reflects a lot of hard work by

1 CUWA's technical staff and others, and we are ready to  
2 answer questions.

3 MR. CAFFREY: Thank you, Mr. Haroff and thanks to  
4 the other gentlemen.

5 Let me ask the Board members if they have any  
6 questions.

7 Ms. Forster.

8 MS. FORSTER: Your submittal was outstanding, very  
9 thorough, very thoughtful, and I can tell you entailed lots  
10 and lots of hours of work.

11 MR. HAROFF: By a variety of different people.

12 MS. FORSTER: Very well done.

13 Did you pick up this table, I think it was a summary  
14 of comparative water supply impacts that was out on the  
15 front table?

16 MR. HAROFF: I noticed there was a table out there.  
17 I haven't personally had a chance to look at it.

18 MR. BISHOP: The way CUWA is organized, we have used  
19 the Contra Costa Water District modeling water resources  
20 group, using our Fisher model for most of the water costs.

21 I will give you two numbers we are using. The  
22 particular X2 standard that we are proposing has an average  
23 year water cost of 160,000 acre-feet and a critical year  
24 water cost around 300,000. Now, clearly that's not  
25 equivalent to some of the other numbers that you have heard

1 in the millions of acre-feet because the operation  
2 requirements are not plugged into that, and that's why it is  
3 critical we get the operational components, but you have  
4 heard water costs for some of the EPA X standard initially  
5 in the millions of acre-feet of water, so that's why we  
6 think the variability and flexibility of this particular  
7 approach with the 160,000 acre-foot on average and the  
8 300,000 on critical is something that we think the Board can  
9 look at in your balancing approach.

10 MR. CAFFREY: Mr. Brown.

11 MR. BROWN: Mr. Bishop, I also compliment you and  
12 your associates on the product that you presented and thank  
13 you for your interest and help.

14 I notice on the drainage issue that you also address  
15 that in the San Joaquin Valley and you have considerations  
16 in there for what some call the short-term solution, which  
17 is controlling the salt accumulation and releases into the  
18 streams and such, but there's nothing in there right now for  
19 the long-term solution which probably will require a salt  
20 balance of some sort.

21 Do you have some consideration or ideas that you  
22 might be able to submit in the final document to address  
23 that issue also?

24 MR. BISHOP: We can elaborate on what we have put in  
25 and Roger James, who at one time was Executive Director of



1 the Regional Board, participated very heavily in, but the  
2 Board has various tools available to them right now. You do  
3 have a nonpoint source plan which talks about a series of  
4 ratcheting it up, again the voluntary type program.

5 It is not the solution but it talks about how you  
6 start moving.

7 The Coastal Zone Act requires a revision of that and  
8 more ratcheting up, if you will.

9 There have been other techniques used in my old  
10 days. On the pollution side the Board has strong powers  
11 with respect to reimposing monitoring requirements on  
12 various people as part of either permits or other issues.  
13 You have a waste-to-land discharge permitting process which  
14 is not an NPDES process. There are various tools out there.

15 I think the issues that were asked about this  
16 morning, which is what is the solution, that's a little more  
17 difficult, but I can recall in days when water quality  
18 management plans were put in place and objectives  
19 established where people were building secondary, tertiary  
20 or whatever treatment plants, and the solutions came from  
21 goals, objectives, standards, but you do have tools  
22 available to start moving this problem forward without  
23 saying we have to know whether it is going to be an  
24 evaporation or trucked to the ocean or whatever.

25 MR. BROWN: I was wondering if you were going to

1 address it in your document?

2 MR. BISHOP: We have addressed what tools are  
3 available in terms of the solution, what the Board ought to  
4 do. We could go into more detail on how we see a scenario  
5 using available plans you have now in a phased approach. We  
6 could do that if you would like. We have touched around the  
7 edges. If you would like us to pull that together, that is  
8 something we could do.

9 MR. BROWN: I think the long-term solution needs to  
10 be to see what options, if indeed there are any, that are  
11 reasonable that might be available to you.

12 MR. BISHOP: I think we could provide that, say, in  
13 a technical memo to the Board.

14 MR. CAFFREY: Any other questions from Board  
15 members? Anything from staff?

16 MR. HOWARD: I had a question.

17 These X2 standards have generally been established  
18 at various levels of development. What was the level of  
19 development that's presently incorporated in CUWA's  
20 proposal?

21 MR. NELSON: This was based on the level of  
22 development that represents conditions in the late 1960s to  
23 early 1970s.

24 MR. HOWARD: I notice that you said that the X2  
25 standard alone costs 160,000 acre-feet of additional outflow

1 between the February and June period on average. Is that  
2 correct?

3 MR. NELSON: That's on average based on the historic  
4 period 1968 through 1991, yes.

5 MR. HOWARD: It just seems that would imply that  
6 there has only been between the late sixties and early  
7 seventies and the present approximately 160,000 acre-feet of  
8 additional water development between February and June.  
9 That seems to be what that number implies to me.

10 Is that your characterization?

11 MR. NELSON: I had not thought of it in those terms.

12 MR. HOWARD: Okay, thank you.

13 MR. CAFFREY: That seems to conclude the questions.

14 I want to thank you gentlemen for all your  
15 continuing efforts. We very much look forward to your  
16 participation in the meetings Mr. Pettit is going to hold  
17 with all the parties and the involved public agencies, and  
18 we think that you can be a very important integral part of  
19 forming some kind of an alternative that we can perhaps  
20 identify as a preferred alternative in our efforts here at  
21 the Board, so we commend you and all the other parties who  
22 are working in this way.

23 We appreciate very much your coming here. Thank you  
24 very much.

25 I think what we will do now, because Mr. Fullerton

1 and Mr. Thomas asked if they could follow the CUWA  
2 presentation, they have asked for ten minutes and we will do  
3 that next, and then we will go the public agency  
4 presentation of Kern County and Tulare Lake Basin right  
5 after this presentation.

6 Good afternoon, gentlemen.

7 MR. THOMAS: Good afternoon, Mr. Chairman.

8 MR. FULLERTON: I will start off. I am Dave  
9 Fullerton of the National Heritage Institute.

10 Greg Thomas, and Greg Thomas, my colleague.

11 We appreciate your willingness to hold another  
12 workshop to take more testimony on standards. We have  
13 already provided extensive comments in previous workshops,  
14 and what we want to do today is talk about the CUWA document  
15 which we have had a chance to review over the last couple of  
16 days, and we would like to give the most attention to the  
17 elements which we think are most pressing for you today,  
18 which are the standards.

19 But we also have a couple of words to say about  
20 implementation strategies.

21 The Bay Institute and the Environmental Defense Fund  
22 are also here today and I think that they will want to  
23 discuss some other elements of the other recommendations.

24 Over the past several months, the urban and  
25 environmental communities have worked diligently to narrow

1 our differences over the appropriate form of Bay-Delta  
2 standards and how those standards should be implemented, and  
3 we have made a great deal of progress.

4 In particular, we have achieved substantial, albeit  
5 not total, agreement on the details of an estuarine habitat  
6 standard, and we seem to agree in principle on how to set  
7 and implement a salmon smolt survival standard.

8 In general, I have to agree that we are very pleased  
9 and impressed with the CUWA recommendations.

10 The urban agencies have acted in good faith to  
11 provide scientifically based, proactive recommendations  
12 designed to help solve the problems in the estuary, and this  
13 is a major step forward and we are very appreciative of what  
14 they have done.

15 We don't agree with everything in the document, but  
16 we seem to be talking now more about how best to achieve a  
17 goal which is estuarine protection than whether or not it  
18 should be achieved.

19 We believe that this convergence provides a firm  
20 basis on which to erect standards. And in this regard, we  
21 particularly note the CUWA endorsement of the Rowe Island  
22 standards.

23 However, while acknowledging CUWA's constructive  
24 contribution, we would like to point out several areas where  
25 we have some differences with what they have put forward in

1 this document, and that is what we would like to turn to  
2 now.

3 With respect to the estuarine habitat standard,  
4 which is the X2 standard, we agree with almost everything  
5 which has been suggested by CUWA on the X2 standard and, in  
6 fact, we worked with CUWA to develop the methodology upon  
7 which the sliding scale was based.

8 We have basically two concerns that we would like to  
9 bring out with the standards.

10 One is the level of protection which is imbedded in  
11 the standards. CUWA proposes that the standard should seek  
12 to replicate salinity conditions at the three control points  
13 based upon 1968 to 1975 conditions, which in terms of the  
14 mathematics, natural setting days, our understanding is that  
15 translates into 1971.5 conditions. That's what you plug  
16 into the mathematical equation.

17 We believe that under the State's antidegradation  
18 policy, that the State Board cannot seek to replicate  
19 conditions based on any time later than the 1968 level of  
20 development, and that it may need to go to an earlier date  
21 in order to protect the resource, and we provided a great  
22 deal of testimony on this at length in our comments to the  
23 EPA, and those were provided as an attachment early on  
24 during these hearings; therefore, we don't support the  
25 numbers in the CUWA appendix, Tables 1, 2 and 3.

1           We think that the equations need to be rerun using a  
2 target date of 1968 or earlier. I don't think this would  
3 provide a major difference in the outcome, but it would, I  
4 think, put the State Board on firmer ground.

5           The second point on the estuarine standard is the  
6 question of the trigger, the Rowe Island trigger. We are  
7 not convinced that a trigger is needed to the extent that  
8 correlations are accurate between unimpaired flow conditions  
9 and the number of X2 days of Rowe Island. It is not clear  
10 to us that a trigger is necessary.

11           But if a trigger is necessary or warranted, we would  
12 like to see the Board move toward a standard which is based  
13 upon the natural hydrology, and then they cannot be  
14 manipulated through project operations.

15           The trigger as currently proposed could be  
16 untriggered. In other words, if you are on the borderline,  
17 it is possible to hold the water back in storage and,  
18 therefore, insure that the Rowe Island standard is not  
19 triggered, and this doesn't seem to be right. It should be  
20 independent of the project operations.

21           The second area that we would like to discuss is the  
22 striped bass standards. CUWA does not support such a  
23 standard, arguing that such a standard could have  
24 significant impacts on various native aquatic species.

25           We don't read the evidence this way, and in

1 addition, we think that there's an important regulatory  
2 principle at stake here in that discharges of agricultural  
3 drainage in the lower San Joaquin very clearly impair water  
4 quality in this reach and in the estuary, and that,  
5 therefore, to prevent impairment, we believe that the  
6 standard should be set at the levels suggested by EPA, not  
7 through dilution but through control of saline discharges  
8 into the river.

9 MR. DEL PIERO: Will you repeat that last thought?  
10 I am going to ask you the same question later on.

11 MR. FULLERTON: Yes, I ask time to prepare my  
12 answer.

13 The last point that I would like to bring up before  
14 I turn it over to Greg is the question of the salmon smolt  
15 survival standard proposed by EPA. I think we have  
16 agreement in principle with CUWA on how to go about that,  
17 which is to set a goal and then to set a standard -- well,  
18 the standard is a set of management practices which is  
19 designed to meet a goal, and compliance with the standard is  
20 compliance with the management practices.

21 Our provisos on our support for this formulation are  
22 the following:

23 That the management prescriptions should be  
24 calibrated to attain a preproject level of abundance  
25 of anadromous fish and should at least be sufficient



1 to attain the doubling goals of the Central Valley  
2 Project Improvement Act;  
3 And secondly, that the goal and the management  
4 measures should encompass the needs of all salmon  
5 runs, no just any one run, but should work for all of  
6 them. And in this regard, I would note that we  
7 presented a proposal for a spring-run standard in  
8 July, at the July workshop;

9 And the third condition that we think is important  
10 for such a formulation of a salmon standard is that  
11 the State Board should make clear that consistent  
12 failure to meet the abundance goal will trigger the  
13 development of performance standards at the next  
14 triennial review.

15 Those are basically my comments. We are certainly  
16 interested in participating in the workshops that have been  
17 suggested, both by CUWA and by the State Board. I think  
18 they have been very successful over the last several months  
19 and we would like to keep that ball rolling.

20 Now, I will turn it over to Greg.

21 MR. CAFFREY: Good afternoon.

22 MR. THOMAS: Good afternoon.

23 As you know CUWA has been giving some thought to an  
24 implementation strategy for State Board standards as have we  
25 at NHI.

1           I just wanted to trip lightly through some of our  
2 thinking, not by way of critiquing what you heard from CUWA  
3 earlier, although I do think some of their proposals have  
4 some practical difficulties with them, particularly the idea  
5 of the mitigation credit bank, but I do think it is  
6 important to begin now to look at implementation  
7 alternatives and strategies because the standards ought to  
8 be designed obviously in such a way as to lend themselves to  
9 ready implementation, and we have been quite interested at  
10 NHI in thinking through along with the water users a less  
11 cost approach, a less economic cost approach to  
12 implementation, on the theory that if a way can be found to  
13 put meaningful standards in place without significant  
14 economic relocations, we may finally be able to bring this  
15 standard-setting process that has been going on for so long  
16 to closure, and that's in everybody's interests to  
17 accomplish.

18           Our notion on how to do this was presented to you  
19 previously by Dave Sunding, our staff economist, who did an  
20 analysis, as you recall, of how implementation could be  
21 accomplished using market mechanisms whereby the water that  
22 was needed to comply with either EPA standards or State  
23 Board standards would be acquired through voluntary and  
24 compensated transfers from existing uses looking to those  
25 uses in California that are now providing the least economic

1 value, if you will, and indeed, one would expect the market  
2 to, first of all, tap exactly those uses and, as you recall,  
3 the numbers were pretty dramatic looking at the cost to the  
4 California economy of complying with EPA standards as a  
5 marker and with the ESA add-on, the numbers that we came up  
6 with were in a normal year less than 4 million dollars in  
7 lost economic activity in the State, and even in periods of  
8 sustained drought, less than 45 million dollars a year.

9           What I want to think out loud with you about just  
10 briefly this afternoon is how to get there. Can this be  
11 done? Is this a practical suggestion?

12           We have built on the notion that you, the Board,  
13 developed in 1630 the idea of establishing such a purchase  
14 fund through assessments of water users on some kind of a  
15 formula, and then using those moneys as you proposed, both  
16 to finance the technical fixes such as those that are  
17 envisioned in the Central Valley Project Improvement Act,  
18 but also, then, to have this funded money available for  
19 meeting the environmental water demands of these standards.

20           We support that approach very much.

21           The problem is engineering that around a legal  
22 barrier.

23           We believe from our research that it is permissible  
24 for the State Board to put in place an assessment program of  
25 a sort and to create a fund. The problem is controlling

1 those funds should you do so, and that's a function of a  
2 section of the Government Code that essentially provides  
3 that money coming into State hands from any sources has to  
4 be turned over to the general fund, and then appropriated if  
5 they are to be used for a particular purpose.

6           So, the narrow question is how to engineer around  
7 that. One obvious solution is to legislate around it, if  
8 the State Legislature could be induced to provide that  
9 authority specifically to the State Board, but let's not  
10 indulge in charitable assumptions here. Let's assume they  
11 won't do that. Are we dead in the water? We don't think  
12 so.

13           What we are playing around with conceptually at this  
14 point and wishing to invite the water users and State Board  
15 staff into a dialogue on is a process that would work  
16 approximately as follows: In a water rights phase, the  
17 State Board will of necessity need to make decisions as to  
18 how to apportion their responsibilities, the obligations,  
19 for meeting the estuary standards among the water users  
20 using whatever formula you may in your wisdom decide to use.

21           Once those individualized responsibilities are  
22 fixed, we think it should be possible to allow water users  
23 to either provide the water or an in-lieu payment of money  
24 instead into a fund. But that fund, of course, could not be  
25 a fund held by the State Board or any other governmental

1 entity as we view it.

2           Instead, it would appear to be necessary to create a  
3 nongovernmental agency to hold the funds and to actually  
4 engage in acquisition of the compliance water, if we can use  
5 that term.

6           We would think that this would be a nonprofit  
7 corporation, that it would acquire water per instructions  
8 from the State Board so that water could be acquired when  
9 and where, and in quantities that would be necessary to  
10 comply with these standards. And it might be called  
11 something like the environmental water trust or some such  
12 term.

13           Why do this? Can't the water users themselves, once  
14 they have this responsibility, go out into the market and  
15 pay somebody else to meet their share of the responsibility?  
16 Yes, they can, but a centralized approach might do two  
17 things that otherwise would be a problem. It can avoid the  
18 possibility that the price of the compliance water will be  
19 bid up through competitive attempts to acquire by water  
20 users, so this could be a lesser cost approach.

21           Secondly, it is important that this strategy be  
22 coordinated with the federal restoration fund that was  
23 created under the Central Valley Project Improvement Act.  
24 Again, a centralized entity would be a more practical way to  
25 do that.

1           Let me close with just a couple of design  
2 implications if we were to think seriously about an approach  
3 like this. One would think that it would be appropriate for  
4 those that contribute into this fund to have a measure of  
5 control over the entity that uses the funds to acquire  
6 water, so if it is a corporation, some number of seats on  
7 the Board of Directors it would seem ought to be set aside  
8 for the regulated community, if you will.

9           Secondly and maybe most problematic, what to do  
10 about the risk of failure of an alternative compliance  
11 scheme like this working? If it doesn't perform as  
12 expected, as advertised, whose problem should that be? We  
13 think that as a matter of both law and practicality, it has  
14 to remain the problem of those who have the regulatory  
15 obligation. In other words, this would not alleviate them  
16 of regulatory liability. But that may not be a show  
17 stopper.

18           Why couldn't this be set up in such a way as to  
19 carry with it something in the nature of an insurance  
20 premium where the funds would be initially set up through  
21 contributions that were designed to be more than adequate to  
22 purchase the necessary water, with the understanding that if  
23 that does end up being more than necessary, that premium  
24 could be rebated, if you will, to the contributors?

25           These are all just rough ideas at this point, but my

1 point in mentioning it to you at this stage is there does  
2 not seem to be a show stopper, practical show stopper in  
3 setting up an approach like this.

4 The benefits would be, indeed, to permit you to put  
5 in place a very aggressive program without concern about the  
6 economic dislocations in California, and we think that it is  
7 not too early to begin playing around with these kinds of  
8 alternatives and opening the dialogue.

9 End of message.

10 MR. CAFFREY: Thank you, Mr. Thomas and Mr.  
11 Fullerton.

12 Are there questions from Board members?

13 Ms. Forster.

14 MS. FORSTER: This is for Mr. Fullerton.

15 In reading different documents that have been sent  
16 in to us there is a little bit of lack of understanding  
17 about X2, or outflow, and I wonder if the outflow meant the  
18 same as X2, if you had problems with that, and the reason is  
19 I think outflow is a more understandable term than an X2  
20 isohaline sign standard, and one of the things that I hope  
21 when this process is done is that it is understandable to  
22 Californians.

23 I run into so many people who don't understand any  
24 of the lingo, so they don't even pay attention to what's  
25 going on.

1           To me, in reading it, the intent is there. It's the  
2 wording.

3           MR. FULLERTON: I like X2. In some ways I think it  
4 actually has advantages over flow as a management tool in  
5 that it allows you to essentially get credit for flows that  
6 come in in excess of a standard. A pure water flow standard  
7 doesn't allow you to do that.

8           This is a tidal estuary and my understanding is that  
9 it's really the salt gradient, it is the movement of water  
10 back and forth that really drives what happens out there.  
11 It is very difficult to even measure a flow in the areas  
12 that we are talking about.

13           I can understand the desire to look at flow because  
14 it is in a sense something people are more comfortable with.  
15 It is something that modelers like better because it is  
16 easier to put into your equations, but I think as a  
17 management tool X2 may end up being a superior approach.

18           MS. FORSTER: Thanks.

19           MR. CAFFREY: Other questions?

20           Mr. Del Piero.

21           MR. DEL PIERO: Mr. Fullerton said he wanted me to  
22 ask and he is just ready to deliver it.

23           MR. FULLERTON: It doesn't matter because I am going  
24 to refer to Greg anyway.

25           MR. THOMAS: Maybe we should put Marc to the trouble



1 of asking the question.

2 MR. DEL PIERO: Do you have an opinion on that?

3 MR. THOMAS: Yes. There are a number of ways to  
4 address it. One is, sure, you should be worried about it  
5 and why don't we have a workshop where we can all address  
6 it. We didn't think through just what we wanted to say  
7 about this for this workshop, but, of course, it is a  
8 problem.

9 As you know, some 60 million dollars and 5 years was  
10 spent looking at it by the Federal/State San Joaquin Valley  
11 Drainage Program. As you may know, we had a role in  
12 evaluating the legal and institutional opportunities and  
13 barriers. The result was a rather weighty tome, some 1100  
14 pages of analysis on both the problems and potential  
15 solutions.

16 I don't think you need to be thinking necessarily in  
17 terms of a permit program that has to be administered with,  
18 you know, several thousand discrete dischargers as a target.

19 MR. DEL PIERO: Pardon me, but I have to tell you,  
20 you know, I am sitting here talking to Ms. Forster after  
21 some of the comments this morning, and historically we have  
22 received advice that in order to resolve the salinity  
23 problem in the Delta, fresh water releases were necessary to  
24 meet the requirements, and then EPA comes in this morning  
25 and says they are going to back off what their recommended

1 flows are because they are recommending the State Board  
2 address the salinity problem on site at the source.

3           And when I raised my questions, then Mr. Hildebrand  
4 got up and said there's an easy solution. All you have to  
5 do is to reach 150,000 acre-feet of fresh water and you will  
6 resolve the salinity problems, and I sort of thought we went  
7 around in a circle on that.

8           That takes care of the problem for six weeks, and  
9 then the rest of the problem identified by EPA and everyone  
10 else in terms of salinity either is dealt with by more fresh  
11 water or desal plants at the end of Mr. Anderson's  
12 discharges.

13           So that's the concern that I have and I have had  
14 three people so far tell me you don't need to be concerned  
15 about the permitting process, except no one is really  
16 capable of giving me a guaranteed implementation schedule  
17 that is going to achieve the goals, and truly what, in  
18 effect, is taking place here, if we establish a goal and it  
19 is not achieved, we have a problem.

20           And all the proposals for voluntary compliance in  
21 the world won't save us from that problem if there's not  
22 voluntary compliance and if the goal is not achieved.

23           MR. THOMAS: It has been some years, really, since I  
24 have looked at this very much, but a couple of thoughts:

25           One is what may be needed here is some enforcement

1 action, not unlike the role that regulation played in  
2 developing technological solutions to automobile emissions,  
3 for instance.

4 In other words, perhaps you should purposely set  
5 standards that you are not sure can be met with current  
6 technology or institutions to force the development of them.

7 But having said that, I do think that a focused  
8 workshop on ways to approach that problem would be in order  
9 and, you know, talk about things like constructing a  
10 regional drainage management entity which could be the  
11 single recipient of a discharge permit, for instance, for  
12 the State Board.

13 MR. DEL PIERO: There are a number of statutes, as  
14 you well know, that are on the books that effectively  
15 preclude that.

16 MR. THOMAS: You may know more about that than I do.  
17 Without trying to figure out what the solution is, the so-  
18 called rainbow report that the drainage program produced,  
19 laid out a spectrum of fixes, some technical, some land  
20 requirements, some regulatory, some source control, and we  
21 probably ought to just feed that all into a more focused  
22 session on this subject.

23 We would be delighted to engage with you on that.  
24 We have never been chary about offering gratuitous advice,  
25 and we will be glad to do it on this subject as well.

1 MR. CAFFREY: Other questions from Board members?

2 Anything from staff?

3 Thank you, gentlemen, very much. We appreciate your  
4 input.

5 Then, Mr. Clark, Mr. Moss and Mr. Nordstrom,  
6 representing Kern, Friant and Tulare Lake Basin.

7 Good afternoon, gentlemen.

8 MR. CLARK: I am Tom Clark, General Manager of Kern  
9 County Water Agency, and appearing together as a panel today  
10 is Dick Moss, the General Manager of the Friant Water Users  
11 on my left, Mike Nordstrom, General Counsel for Tulare Lake  
12 Basin on my right.

13 I think you recall at your last workshop we all  
14 presented testimony separately, that type of thing. We had  
15 a meeting earlier this week where a number of San Joaquin  
16 Valley ag agencies met and discussed the various issues  
17 related to the State Board process. I can report to you  
18 that there's a community of interests now among the group.

19 I have got a written statement that I think should  
20 be in front of you, and we are working on a pretty short  
21 fuse in the ability to take these things through our Board  
22 of Directors. For example, the day we met, I followed the  
23 meeting with a meeting of my board, so I was actually able  
24 to get specific board action. Some of the others, for  
25 example, Mike and I think Dick, have not had board meetings

1 yet, so you have to take that into consideration.

2           What we would like to do today is I will start with  
3 the written statement that's prepared and in front of you,  
4 and then I will be followed by Dick first, and then, by  
5 Mike.

6           One thing so that you understand, we are three  
7 agencies, but yet, among the three we represent 47 different  
8 water agencies, public agencies, and that should be on a  
9 separate 8-1/2-by-11 sheet. Mike will probably elaborate on  
10 it, but you will notice with Tulare Lake is Dudley Ridge,  
11 Empire, Westside, County of Kings, Oak Flat Water District.  
12 They are not an organization per se. They are all San  
13 Joaquin Valley State Water Contractors, agricultural  
14 contractors, and I think they share a lot of work among  
15 themselves as a group, so Tulare Lake as a group, for  
16 example, works very closely with these other agencies.

17           With that, I will get started. I am going to try to  
18 make it quick because, frankly, I drove up this morning and  
19 I am trying to go camping. I've got a '76 Dodge parked out  
20 on the street with a car carrier on it. I have five kids  
21 and a labrador in the back seat, and the air conditioning  
22 just broke.

23           Okay, I don't want to leave it but that's a lie. I  
24 am by myself. I am going camping and I have got lots of air  
25 conditioning.

1           What I would like to do at this time -- sometimes I  
2 jump around too much, but I would like to start you through  
3 this written statement and then I will try to ad lib as I  
4 go.

5           But as I mentioned to you earlier this week, we did  
6 meet. I think there is a community of interest among the  
7 agriculture agencies, the urban agencies, and environmental  
8 groups, to try to come together with some type of common  
9 plan between now and December.

10           I see this is where I am going to get into trouble  
11 trying to read some of this and talk to you at the same  
12 time. I am not going to read this thing. I am just going  
13 to talk to you.

14           MR. CAFFREY: We will read it.

15           MR. CLARK: Okay, thank you.

16           We generally believe that there has to be a coming  
17 together. One thing I would like to clarify for the purpose  
18 of the Board, because I don't know if you are a party to all  
19 the same outside discussions that I am, but --

20           MS. FORSTER: No, we are not.

21           MR. CLARK: There has been some sense of -- I don't  
22 want to call it a debate, but if you will recall the last  
23 time Kern appeared in front of you, we didn't talk about a  
24 technical plan, and again, I am going to emphasize what I  
25 call the policy issues, but I would like to address for a

1 moment the technical plans.

2 CUWA gave you their presentation of what that group  
3 has put together. Without addressing specifics, I am  
4 certain there are many good points to the CUWA plan as well  
5 as holes in the CUWA plan.

6 I have representations out there and this is a rumor  
7 now, the so-called Hansen/Bratovich is what it is referred  
8 to, but basically Dave Schuster is kind of the sparkplug in  
9 the whole thing of trying to develop a plan that might gain  
10 acceptance by the Board, and ultimately EPA. I think some  
11 people are starting to perceive these things as competitive  
12 plans.

13 That is not the position of the Kern County Water  
14 Agency, nor do we, however, reject the work Dave is doing,  
15 and I have heard some statements that, well, Kern County  
16 Water Agency doesn't even support Dave's work. Absolutely  
17 wrong.

18 I think it is well known, and I don't have to repeat  
19 it in here in terms of Dave's technical expertise in the  
20 Delta. He is widely respected by everyone, but I would like  
21 to make it clear that although we think that it is good  
22 science and we have reviewed it with Dave and others, we  
23 didn't feel that it was appropriate or conducive to the  
24 process for us to come in and hang our hat on that plan and  
25 say, here is the answer, folks.

1           I don't think that CUWA is doing that even with  
2 their own plan, so I think most everyone is going in the  
3 same direction, and I did hear, I guess this morning, your  
4 are going to do something on the 21st which we actively  
5 support.

6           I would like to see a forum where the scientists get  
7 together and there is an open critique in front of the  
8 Board. I don't know if that's part of the plan or not, but  
9 I think you need to hear the debate so that ultimately what  
10 comes out of this is whatever everybody is talking about.

11           MR. CAFFREY: If I can interject, what we did say, I  
12 read in the statement, that on the 21st of September, Mr.  
13 Pettit will start a series of public meetings which will be  
14 announced in the next few days by public notice for all the  
15 parties who want to participate. Hopefully, all of them  
16 will come in and look at all the alternatives and features  
17 of alternatives for comparison, for modifying, combining  
18 whatever needs to be done, and we are very hopeful that that  
19 kind of process will maybe be the impetus for what several  
20 of the parties who have come this morning and this afternoon are  
21 talking about, as are you.

22           The Board will come back in a public workshop after  
23 that for presentations on, hopefully, a coming together to  
24 some degree, if not just one alternative, but a winnowing  
25 down of the universe so we will be back into it, and we see



1 that happening in the second half of October.

2           You understand and I know the other parties  
3 understand our problem with the timing it takes to draft a  
4 plan, so we don't want to jam you all, but we think all the  
5 work you have been doing is really outstanding and we  
6 appreciate your comments today, and if we can bring that all  
7 together by, say, mid-October, there is a chance and I feel  
8 strongly that the Board can put something out there as a  
9 draft that not only we and you, but the U. S. EPA and the  
10 members of Club Fed can hopefully embrace.

11           MR. CLARK: Just as an additional comment, take the  
12 National Marine Fisheries Service and the Fish and Wildlife  
13 Service, they are very clearly players in the process. They  
14 have their own technical people again with respect to their  
15 plans. Even though ESA is destroying us, I think they  
16 should be part of the process in terms of the feedback on  
17 the technical aspects so that hopefully, and I don't propose  
18 this necessarily myself as a negotiation, you know, among  
19 these people, but a technical critique so that hopefully out  
20 of that evolution comes the best plan.

21           So, I think that's great.

22           So, enough said about the technical aspects and Dave  
23 is authorized by our board to work in this process with you  
24 any time you want to access him or any of our other  
25 consultants, please feel free.

1           Now, I will go to the issues we had discussed at  
2 your last workshop, and I really kind of ad libbed from a  
3 list of items then and I felt it was really important to  
4 follow that up in writing so that you know specifically what  
5 we are talking about.

6           But again, where our Board of Directors are is that  
7 any plan must insure that the ESA will not be a wild card  
8 that continues to ratchet the amount of water even higher,  
9 and to create certainty as to the future water supply that  
10 will be available to use throughout the state.

11           Mike Nordstrom will talk a little more about the  
12 certainty.

13           One thing I would like to add to the issue of  
14 certainty, I don't want somebody in the process to get the  
15 idea that certainty is taking two million acre-feet from the  
16 water users and telling us what's left is pretty certain. I  
17 think you should be governed by Secretary Babbitt's  
18 statement that we should be meeting fish and wildlife needs  
19 with the minimum amount of water, so we are looking for  
20 certainty with the minimum amount of water, not the maximum.

21           Let's see, I will just read through a few of these.

22           Furthermore, on the issue of certainty, in Kern  
23 County we believe to all California water users certainty is  
24 a mandatory component of the Bay-Delta plan.

25           As I stated earlier, we recognize whatever the State

1 Board does in these proceedings and the water rights  
2 hearings to follow, California's consumptive use of water  
3 supplies will be significantly reduced and the economy  
4 suffers. Any Board decision will be unacceptable if it is  
5 treated by anybody else as merely another floor from which  
6 the next increase will be demanded.

7           The amount of water reallocated from consumptive  
8 uses to the environment would be treated as a specific  
9 allocation of additional water to meet all fish and wildlife  
10 needs, including ESA requirements. Once the extent of this  
11 new allocation is known, water users will know prior to the  
12 start of each water year, the specific obligation for fish  
13 and wildlife protection.

14           The concept that's being thrown out here is that if  
15 our objective is to really get certainty, as long as we have  
16 got take limits, in particular take limits, we view that as  
17 a real wild card in the process and I think you have had  
18 some discussion about it this morning.

19           Somehow you have got to develop allocation of water  
20 for fish and wildlife purposes, and once you have identified  
21 that block, whatever it is, then as we go into a water year  
22 the project will know how much water must be used for  
23 specific purposes.

24           Frankly, I don't see a way you can get to that point  
25 of being able to tell our water users what their water

1 supply is as long as the take limit issue is out there. And  
2 I would encourage you to develop mechanisms so that the take  
3 limit aspect is not governing in terms of operation with the  
4 federal agencies.

5 I point out here that both the Clinton and Wilson  
6 administrations have stated that their policies are to  
7 implement the Endangered Species Act on a multispecies,  
8 ecosystem-based approach.

9 We believe both groups are sincere, but in reality,  
10 Delta operations are currently controlled by single-species  
11 approaches for winter-run salmon and Delta smelt. According  
12 to the Department of Water Resources, that approach is  
13 costing the State Water Project and the Central Valley  
14 Project more than 800,000 acre-feet per year.

15 I might add and I think I reported at the last  
16 meeting, this year take limits alone prevented 1.4 million  
17 acre-feet from being pumped at Tracy and Banks. That  
18 translates not directly into a water shortage because some  
19 of that water could not necessarily have been used because  
20 it may have been in January, but I have got to think the  
21 shortage created this year and maybe this is something your  
22 staff could look into, is at least on the order of a million  
23 acre-feet.

24 So, so far take limits have been a footnote to  
25 everybody's plan. It's got to become dominant.

1           In going on, we believe that if the State Board's  
2 comprehensive plan passes muster as good science for a  
3 multispecies plan, the ESA agencies must agree that water  
4 project operations consistent with that plan will eliminate  
5 the need for jeopardy opinions and take limits under the  
6 ESA.

7           In addition, as to other identified species for  
8 special concern, the fishery agencies must provide assurance  
9 that no additional quality, flow, or operational  
10 constraints, in addition to the State Board's plan, will  
11 need to be imposed to protect such species.

12           If, in the future -- everybody has been asking the  
13 question, you know, let's assume that the ESA agencies don't  
14 weigh in on the State Board process and they say, well, ESA  
15 is there and we've got to do what we have got to do, how do  
16 you deal with it at the State Board level?

17           One possibility is that, as we say here, if in the  
18 future, in spite of these assurances the ESA regulatory  
19 agencies mandate the reallocation of more water for listed  
20 species, the Board should immediately adjust those elements  
21 of its Bay-Delta plan that are unrelated to endangered  
22 species so that the total water allocated to fish and  
23 wildlife does not exceed that amount determined through  
24 these current proceedings.

25           So, in other words, the allocation doesn't change,

1 but in terms of your standards, you adjust them to  
2 accommodate any new listing that comes in that might require  
3 more than the total allocation. I think that is worth  
4 looking into.

5 MR. DEL PIERO: I don't understand what you mean.

6 MR. CLARK: Let me give you an example. Let's say  
7 that --

8 MR. DEL PIERO: Why don't you go ahead and finish  
9 your presentation because I have a question to ask you. It  
10 will be the same question that I asked the representative  
11 for the Department of Water Resources. You are being real  
12 specific in terms of what Kern County Water Agency wants in  
13 terms of specificity, in terms of what the Board ultimately  
14 decides.

15 What are you prepared to accept in terms of  
16 specificity as to what this Board is advised to do in regard  
17 to its balancing?

18 MR. CLARK: How much water would we be willing to  
19 lose?

20 MR. DEL PIERO: No, what standard are you prepared  
21 to agree to meet in terms of sustainment of the endangered  
22 species? It is not only what are you prepared to lose, it's  
23 what are you prepared to do if the standards for the  
24 protection of the endangered species don't work?

25 MR. CLARK: I think if you had a situation -- let's

1 assume we all sit down in good faith and we develop a plan  
2 and let's say five years down the road -- what I am thinking  
3 is that the plan ought to include an allocation, specific  
4 quantity of water by year type so that you have this  
5 certainty.

6 And despite all our good faith and good science, it  
7 doesn't work. Then, what do you do? I think the whole  
8 program is blown at that point and to come back, and I think  
9 the Board will have to rebalance and address it, but I am  
10 saying if it happens in a major way, I personally don't  
11 think it is appropriate.

12 I think there is a lot of flexibility in ESA and, in  
13 fact, the agencies are saying that. So, let me give you a  
14 specific example. If, despite --

15 MR. DEL PIERO: I heard EPA say it today, the  
16 flexibility is there, but then, the tough decisions were  
17 left for the State Board to make.

18 MR. CLARK: Right. I just think what I would hope -  
19 - as far as the weigh in by the ESA agencies, that you have  
20 a basic working relationship with them, where if you set the  
21 allocation, that somebody has a wild card isn't going to  
22 come in, let's say, on the splittail, that you have got a  
23 plan that truly has Delta protection in it.

24 If Fish and Wildlife Service comes in after the fact  
25 and says, sorry, we need 400,000 more acre-feet, I think the

1 first step for the Board is to look at the existing  
2 allocation that you have got to fish and wildlife and see if  
3 you can accommodate the demands for this new species within  
4 the existing allocations.

5 If you can't --

6 MR. DEL PIERO: But I don't understand how that  
7 would work. If they are coming in demanding an additional  
8 400,000 acre-feet, they aren't doing that unless something  
9 is going very wrong in terms of the ecosystem, so where is  
10 this water that you are talking about going to come from?

11 MR. CLARK: I think what the ESA does is forces  
12 compromises that none of us wants to make. So far the  
13 compromises, and this is probably my bias, have come from  
14 the water users. Every time there is a new listing, every  
15 time there is a new action, it isn't, don't look at the  
16 existing uses of fish and wildlife water, let's take another  
17 block from the water users.

18 What we are saying here is, listen, the Board within  
19 its power to balance; in fact, your obligation to balance --

20 MR. DEL PIERO: This is why I keep asking what is  
21 the standard in terms of species.

22 MR. CLARK: I think it is scientific personally.

23 MR. DEL PIERO: I don't mean to interrupt your  
24 presentation, Mr. Clark, but --

25 MR. CLARK: You are struggling with an issue here.



1           MR. DEL PIERO: We are obliged to balance and we're  
2 having a group of people coming in telling us what they want  
3 one side of the equation, and sort of like my old algebra  
4 class, there has to be something else on the other side of  
5 the equal sign and I am having real difficulty discovering  
6 what that is that the parties --

7           MR. CLARK: Actually, if we can talk about this  
8 maybe when we get through, but I honestly believe that this  
9 isn't just a one-sided proposal. I think there is honest and  
10 sincere effort here to try to deal with the very difficult  
11 issue, which is ESA, and in discussions I have had even with  
12 federal agencies, they are all struggling with the same  
13 thing, and I think -- and I am not proposing this as an  
14 adversarial thing at all. It is to engage the federal  
15 agencies and try to make sense out of it.

16           MR. DEL PIERO: My concern is I saw a series of  
17 charts yesterday where some of the species declined that  
18 aren't even listed and are even more significant than those  
19 that have been listed. That's the problem we are going to  
20 be confronted with.

21           We are being faced with a situation where pursuant  
22 to the environmental evaluation that we are going to be  
23 doing, we are going to have to be doing a balancing act, and  
24 I really want to know. I just haven't been getting -- I  
25 know what you all want, but I am not hearing what anybody is

1 willing to accept on the other side.

2 MR. CAFFREY: Can I interject something? I haven't  
3 seen this list, but I think what you are saying really  
4 argues for the ecosystem-approach solution, and if I could  
5 for my own clarification try to understand your answer, I  
6 think when you were answering Mr. Del Piero's question about  
7 where is the water going to come from, I presume you were  
8 answering from the context of your supposition that we would  
9 have a block of water for the environment.

10 MR. CLARK: Right.

11 MR. CAFFREY: And you would look at that block and  
12 say, is it being properly managed?

13 MR. CLARK: Exactly.

14 MR. DEL PIERO: I thought that was the answer, too,  
15 but then, if the answer is yes, and the system is not  
16 working, and God forbid we end up with something listed  
17 going extinct, then what's the solution? Where does this  
18 Board find itself?

19 MR. CLARK: I think at that point in time, again I  
20 think you better talk to your lawyers and these people, but  
21 I would assume where you are is that you have got to reopen  
22 hearings and rebalance.

23 MR. CAFFREY: We are required to do a triennial  
24 review. That means every three years.

25 Although a lot of people don't like to probably hear

1 this, this isn't the last time this Board is going to  
2 establish standards for the estuary. We are here for the  
3 duration. And the point is that we have a process that we  
4 all understand and are parties to, and that is somewhat  
5 predictable, and that we set up a framework so that we can  
6 operate, and as some of the discussion centered around here  
7 today that if we put something in place and if we expect it  
8 to do something and it doesn't do that, then we have to look  
9 at it again and rebalance.

10 MR. DEL PIERO: Mr. Clark, I am asking, because  
11 hopefully over the course of the next several meetings that  
12 are held either by Mr. Pettit or the last meeting this Board  
13 has, we will be able to hear at least some suggestion as to  
14 what the other side of the equation ought to be.

15 MR. MOSS: If I might take a shot at that. It seems  
16 to me that all we have ever asked for is on the other side of  
17 the equation being good science and supportive of what Mr.  
18 Caffrey said.

19 If the best science that we have that we are willing  
20 to support isn't working, then we have got to go back and  
21 look at the good science again, and then rebalance.

22 But that's consistent with what we have always asked  
23 for. Tell us what is needed to fix the problem.

24 MR. DEL PIERO: I think the problem that we have is  
25 that there are a variety of opinions as to what good science

1 is.

2 MR. MOSS: True.

3 MR. DEL PIERO: And those choices that this Board  
4 has made in the past when this Board has chosen to make  
5 choices, have obviously not worked as effectively as some  
6 people would have hoped, and so the question as to whether  
7 or not good science really means the same thing to everyone  
8 remains to be seen.

9 I am trying to figure out what that definition is.

10 MR. MOSS: And that, quite frankly, is what has  
11 impressed me, what has gone on here over these last couple  
12 of months in these most recent proceedings is I see a  
13 coalescing, a convergence coming together of opinion as to  
14 what that good science constitutes, and that, to me, is very  
15 exciting and presents, I think, this Board with a unique  
16 opportunity to make some real progress in this debate.

17 MR. CAFFREY: I don't think that we can define what  
18 good science is. I think science is the interpretation of  
19 data. We hope the data is good.

20 I think the key here is the Board is going to have  
21 to act, and hopefully, the Board can do it in a way based on  
22 some developed consensus.

23 If we have all the parties and interests in this  
24 agreeing to accept some interpretation of the data and call  
25 that science, that is what we will implement and live with

1 as long as it works. If it doesn't work, we will be back  
2 here again all going through this process, hopefully in good  
3 faith again, but I think it is that process that if we stick  
4 to it, will allow us to protect the estuary and the  
5 beneficial uses.

6 I didn't mean to make a speech, but we are having a  
7 bit of a colloquy, if not a debate, up here about these  
8 issues and I think there's a lot of good faith in this  
9 effort, and we don't want to lose sight of that.

10 Ms. Forster, did you have a comment?

11 MS. FORSTER: Well, I just want to inject something  
12 that I think brings some optimism.

13 When the first Club Fed meeting happened when EPA  
14 was ready to come out with their December 15 standards, I  
15 remember several people questioning the attorney for one of  
16 the federal fishery agencies about this take formula and how  
17 it was developed and how sound it was, and she admitted that  
18 it was the best they could come up with.

19 They didn't know if it was perfect, one of the  
20 discussions that I thought was very valuable is every time a  
21 fish is in decline it doesn't mean you have to add another  
22 block of water. The goal would be to find that magic block  
23 of water mixed with when the Delta is fish friendly for  
24 spawning and looking at the habitat to make it work better.

25 So, even if there's charts out there today showing

1 things aren't doing too well, this whole process is moving  
2 towards how to make it measurably better.

3 MR. DEL PIERO: Maybe we ought to design a better  
4 screen.

5 MS. FORSTER: I just think that we are going to do a  
6 lot of work on how to make this whole process -- you have  
7 fish and wildlife and we're not even talking about the other  
8 beneficial uses because everybody agrees that they are  
9 pretty okay.

10 So, I think that a lot of work will be done and  
11 that's what we were talking about with Patrick today -- does  
12 their standard need this magical block of water that would  
13 show great increases in ecosystem productivity, and we will  
14 keep moving that way.

15 MR. CAFFREY: We are not trying to keep you from  
16 camping here.

17 MR. CLARK: Well, I appreciate that. I wasn't doing  
18 well in my talk anyway.

19 MR. CAFFREY: You were doing very well. We have  
20 taken a lot of your 20 minutes.

21 MR. CLARK: Maybe this is one of the congressional  
22 rules, can the gentleman from Kern County have another extra  
23 five minutes?

24 MR. CAFFREY: We have been stopping the clock for  
25 all interruptions in the presentations anyway.

1           MR. CLARK: I think we have actually had a very good  
2 exchange on this particular issue because I think it is  
3 fundamental to the whole thing and why we came in to talk  
4 about policy issues and not the technical merits of all the  
5 plans, because we want that debated in the right forum, is  
6 that our folks down there are taking, you know, Kern has a  
7 50-percent shortage this year, the federal agencies a 65-  
8 percent shortage. We have people that are going out of  
9 business, and I have to sell them the concept of taking  
10 shortages, taking even greater shortages for the sake of  
11 trying to settle the Delta issue.

12           MR. DEL PIERO: No wonder you are going camping.

13           MR. CLARK: It is up on the North Coast, by the way.

14           But I think it is really important that you focus on  
15 how you can provide this certainty to the water users  
16 because if we can't tell our water users that there's going  
17 to be certainty that comes out of this, what have we got to  
18 sell, because I will tell you that this take limit thing is  
19 absolutely something you can't operate with.

20           DWR, as they go into the water year, they don't know  
21 how many of these fish they are going to take and the  
22 scientists are continually surprised. If you take the  
23 counts on smelt earlier this year, the projects are wiping  
24 the smelt out. Remember that?

25           And then, they did the silver tow net surveys and

1 found out, my God, there's smelt everywhere, you know, and  
2 it wasn't a matter that the projects were wiping the smelt  
3 out, there were jut a hell of a lot more of them.

4           So, I think that as long as we have those take  
5 limits and the take limits are governing, then I just reach  
6 the conclusion in reviewing all of this, we just don't have  
7 certainty, so those of you that are sitting as the  
8 regulators, including EPA and the others, if you can't  
9 deliver on certainty, say it, because everybody has been  
10 saying it.

11           So, anyway, it's just an important issue and the  
12 time, I think, supports that.

13           I'm on page 4 now, but I am going to try to make  
14 this quick. I just got a report the dog passed out.

15           The linkage to a long-term solution, I know that  
16 BDOC is going to be involved in something else, but I have  
17 seen a few letters from some of the environmental groups  
18 that are already admonishing us that this proceeding is  
19 merely going to be the floor to the next step, and on the  
20 long-term plan it is going to go up.

21           We don't buy that. We think that ultimately when we  
22 get to the long-term solution that there should be a  
23 standard-setting process for long-term standards that are  
24 co-terminus with that, and those standards should be set  
25 objectively in a process based on the conditions that are



1 occurring at that time.

2           On the upstream Delta participation issue, I have  
3 got an upstream interest sitting here with me today in the  
4 form of Dick Moss. The Kern County Water Agency's position  
5 has been consistently that everybody that is tributary to  
6 the Delta does, in fact, contribute to the problem one way  
7 or another, and we do, however, continue to support the area  
8 of origin statutes, but we do not believe that those statutes  
9 absolve upstream and Delta interests from mitigating their  
10 own impacts.

11           In addition, we believe that water rights should  
12 definitely play a role in whatever decision-making process  
13 there is terms of the relative contributions by the parties.

14           On project flexibility again, I emphasize again that  
15 we are going to be losing a lot of water during the dry  
16 period, and those of us that operate projects are going to  
17 need to do everything we can to mitigate those impacts by  
18 moving water south of the Delta and moving it south during  
19 periods when it is not environmentally damaging, and moving  
20 it in such a way that we can store it in our groundwater  
21 basins and south of the Delta storage.

22           I don't know exactly how the staff is going about  
23 it, but I don't know if there are things you can put into  
24 standards where you can create some flexibility so if we  
25 get, let's say, we get a freshette during February, there is

1 a big slug of water, we have got tons of outflow, water is  
2 coming out of our ears, I would caution you not to have  
3 operational constraints that prevent us from pumping and  
4 moving the water. Somehow there should be flexibility in  
5 those standards.

6 South of the Delta facilities -- I brought this up  
7 before -- I am hearing from DWR in terms of their  
8 engineering experts and even our own, south of Delta  
9 facilities which were paired with standard setting by the  
10 Governor in 1992, are becoming increasingly important as the  
11 existing pumps become constricted.

12 As far as their pumping pattern, it becomes  
13 extremely important to be able to pump as much water during  
14 these short pumping windows as we can.

15 I realize the Board can't merely approve South Delta  
16 facilities, but I would ask you to use your influence in the  
17 standard-setting process to advocate construction of South  
18 Delta facilities and possibly consider marrying South Delta  
19 facilities with any kind of EIR/EIS process you might do  
20 here.

21 I see South Delta facilities as being an emergency  
22 project for water users in the same way I see standard  
23 setting before the Board this year to protect fish and  
24 wildlife.

25 Funding and monitoring -- we have not bought off on

1 the idea that it is an automatic given that you are going to  
2 set standards and an allocation for fish and wildlife where  
3 automatically there has to be a fund generated to go out and  
4 buy more water. Most people have seen this mechanism as a  
5 way to minimize the water impact to water users under  
6 standard setting while tipping our hat to the fish and  
7 wildlife people and saying, you can buy more water.

8 If that's absolutely necessary, then maybe look at  
9 it, but so far it has just been a negotiating chip in a big  
10 puzzle.

11 Talk to the Miller/Bradley people, the CVPIA and  
12 find out how well they are doing with their fund. I have  
13 heard actually from one of the environmental groups that 80  
14 new federal positions have been authorized using that CVPIA  
15 money that is supposed to be for environmental restoration.  
16 Maybe their idea is getting people off the street and  
17 working.

18 MR. CAFFREY: Mr. Clark, Mr. Brown has a question.

19 MR. BROWN: You've got to say that again -- 80 new  
20 positions have been authorized to the CVPIA environmental  
21 fund?

22 MR. CLARK: I won't identify my source and you have  
23 to consider it hearsay, but I definitely heard it from an  
24 environmentalist that is reviewing what they were doing with  
25 the CVPIA money in Washington. The exact number that I

1 remember was 89 positions, is what they found were  
2 authorized as a result of the CVPIA.

3 MR. DEL PIERO: They are hiring former CVP  
4 recipients.

5 MR. CLARK: Probably farmers.

6 MR. BROWN: We will check into it.

7 MR. CLARK: It is kind of a secondhand type thing.

8 MR. MOSS: It's a common thing between the  
9 environmental community as well as the CVP contractors and  
10 we are actually working together on beginning an overview  
11 and review of how the money is being spent.

12 MR. CLARK: Continuing on the funding, we do, on the  
13 other hand, see a need for a comprehensive monitoring  
14 program. We think you ought to conduct an across-the-board  
15 review of all the money that is being spent currently in the  
16 Delta.

17 I know that I have been working on the State  
18 contractors side. I can give you numbers on how much we  
19 spent. We are going to provide you a report on it. We are  
20 spending a lot of money already, more than 200 million  
21 dollars today on specific project type things, but why don't  
22 you review that, review how CVPIA money is being used, what  
23 money does EPA have and the ESA people, and let's see if we  
24 can get people together to decide how best to use the money  
25 we have got rather than immediately going out with another

1 funding source.

2 From the point of view of our water users we are  
3 paying 70 million dollars a year for our right to  
4 entitlement from the State Water Project, but we are only  
5 getting half of the water, and we have to pay the full bill.  
6 We are in bad shape.

7 If you come out with a plan that takes more water  
8 from our users, and then adds to our bill, I will ask you to  
9 come down and announce it for me.

10 On my last issue, voluntary compliance, after  
11 talking with you at the last workshop, we really gave this a  
12 lot of thought. I wouldn't take this statement in an  
13 absolute sense, but you are asking the question, will the  
14 Central Valley Project and the State Water Project  
15 contractors voluntarily comply for immediate implementation  
16 of standards.

17 I think my answer at the last workshop was, well,  
18 really, that depends on what are the standards. It's a hard  
19 question to answer right now, but having given it more  
20 thought, I believe that what there should be is a program  
21 for voluntary compliance commencing January 1, but that  
22 voluntary compliance include everybody across the board, not  
23 only the Central Valley Project and the State Water Project,  
24 but also include the upstream interests. The upstream  
25 interests have got to come into this process.

1           I mention at the end of this issue, I think if you  
2 can actually use this as a way of bringing in the upstream  
3 people on a voluntary basis, I'm sure that the upstream  
4 interests are very nervous about a water rights hearing, and  
5 I know that it will be controversial and bloody, but maybe  
6 this is a way of bringing people in so that they will agree.

7           MR. DEL PIERO: I will move down to Kern County and  
8 make that announcement if you want to come up here.

9           MR. CLARK: But the other thing about voluntary  
10 compliance is that you have got to have the ESA agencies,  
11 Club Fed, weighing in on this plan.

12           For us to agree in January to a State Board plan  
13 without any commitment from the federal agencies, then we  
14 are setting ourselves up to be doubled up by two regulatory  
15 agencies. So, voluntary compliance, I think it's great, we  
16 should all do it, and now is the time to pull it off and  
17 bring it together, and I honestly believe we are on the cusp  
18 of really putting something together that may mean  
19 something.

20           So, that's what I have got.

21           MR. CAFFREY: Thank you, Mr. Clark.

22           Do any of the other gentlemen have a comment?

23           MR. MOSS: Yes, we do.

24           MR. CAFFREY: I know Mr. Nordstrom was here this  
25 morning. I'm not sure about Mr. Moss, but we did have some

1 discussion about the positioning and the importance of the  
2 shelf-life issue, and you may want to consult with your  
3 cohorts on that and to give you an update on what some of  
4 the discussion on that was.

5 Mr. Moss.

6 MR. MOSS: Thank you very much, Mr. Chairman and  
7 members of the Board.

8 I very much appreciate the opportunity to appear  
9 before you today, especially alongside such distinguished  
10 company, I think.

11 My name is Richard Moss and I am General Manager of  
12 the Friant Water Users Authority.

13 I have not heretofore appeared before you in this  
14 most recent set of hearings and workshops, but that's not to  
15 say that our agency and our members are not very much  
16 interested in what is going on here.

17 Quite to the contrary, we have come to view this  
18 current set of workshops and the actions that this Board  
19 will take within the next couple of months as being quite  
20 critical to returning the State to control of its resources,  
21 critical to establishing some certainty in the State's two  
22 largest water projects, critical to answering some of the  
23 nagging questions that the bankers and others who would  
24 otherwise want to invest in California's future have been  
25 asking, and critical to halting the decline of the

1 biological resources of the State's most important estuary.

2 We have been impressed with the Board's effort to  
3 provide a forum for technical as well as policy-related  
4 exchanges of ideas, and more importantly, I think, your  
5 apparent desire to make interim standards work and work for  
6 everybody.

7 I speak today without the formal endorsement, as Tom  
8 mentioned, of my Board of Directors but I am confident, and  
9 I think this goes without saying, that what I will say today  
10 will be supported by all of our 25 member agencies; and Tom  
11 mentioned that it was only earlier this week that we got  
12 together and determined that it would really be of value to  
13 you and to the overall process to come collectively in front  
14 of you here today, and to tell you that we think we are  
15 getting close, close to a plan that truly makes some sense.

16 That is not to say that we have a plan or that we  
17 support anyone's particular proposal. It is to say that the  
18 differences we see between the various alternatives are  
19 growing smaller and smaller, thus allowing the Board to have  
20 a greater and greater confidence that they can select from  
21 all or part of the various alternatives and prescribe a plan  
22 that will be acceptable to a large number of Californians,  
23 and thus, enjoy a higher likelihood of being successfully  
24 implemented, because after all, implementation is where the  
25 true success of this effort will lie. We have no plan if it



1 can't be implemented.

2           It was interesting to listen to the discussion this  
3 morning of a deal is a deal. While I know everyone disdains  
4 the idea that there is a deal to be had, it clearly is an  
5 easy way for my constituents to understand what's going on  
6 here and, in fact, I often get asked when discussing the  
7 Bay-Delta issue, okay, what's the deal? In other words,  
8 what does the San Joaquin Valley get in exchange for  
9 agreeing to reduce water supply to a region that we know is  
10 critically and chronically overdrafted and water short,  
11 knowing that the water that we do get is going to be more  
12 expensive, and the bottom line, knowing that during this  
13 period there's going to be some        people that end up going  
14 out of business.

15           If I respond to them that we get nothing in return,  
16 then I can tell right now as far as we are concerned there  
17 is not going to be a deal.

18           However, if I respond to them that we see some true  
19 scientific validity to what's being asked for, that there  
20 will be a reprieve in the water wars over the Bay-Delta,  
21 that there will be some certainty and timely predictability  
22 about our water supply, and that that will immediately  
23 happen, and that there is some clear linkage to a long-term  
24 solution to meet our existing and future needs, I believe  
25 that then they will agree that there is the basis for a deal

1 here.

2           In order to provide the kind of guarantees that I  
3 just spoke of, it is clear that the deal, as Tom has  
4 mentioned, must extend to other entities that regulate or  
5 influence the operation of these projects and the diverters  
6 of water tributary to the Delta, in particular the Federal  
7 Government. Those agencies that are responsible for  
8 implementing endangered species protection must agree that  
9 project operations consistent with your plan will not  
10 jeopardize the continued existence of current and potential  
11 endangered species.

12           Additionally, it seems to me that you must be able  
13 to guarantee to us that if other regulators impose  
14 additional requirements on our projects for related fish and  
15 wildlife activities, adjustments will need to be made by you  
16 to the plan so that no more water will be allocated to fish  
17 and wildlife than is determined necessary as part of these  
18 proceedings.

19           As Tom has said, to state it another way, the  
20 agreements reached as part of these proceedings cannot  
21 become the new floor which subsequently will be used as a  
22 base to reach for additional water to be reallocated away  
23 from our region.

24           To speak a little bit about this allocation of  
25 responsibility -- as I know, you are well aware that

1 developing a plan is the easy part, and as you mentioned,  
2 the difficult part is going to be the allocation of the  
3 responsibility to the respective parties.

4           While this phase is not immediately in front of us,  
5 I think it is important to talk about it a little bit  
6 because it clearly does constitute part of the deal, if you  
7 will.

8           I have yet to hear any one of our constituents say  
9 that they would not be willing to contribute their fair  
10 share of scientifically sound fish and wildlife requirements  
11 for the Bay-Delta. Of course, the definition of a fair  
12 share is the difficult part and everyone has a little bit  
13 different idea of what exactly that is.

14           The implementability, if you will, of your plan will  
15 ultimately rest with your ability to be abundantly fair in  
16 your allocation of that responsibility. That includes the  
17 requirement that everyone who stores and diverts water  
18 tributary to the Delta be included as a responsible party and  
19 involved in its management.

20           It also includes consideration and acknowledgment of  
21 the legally established priorities of all water right  
22 holders. It further requires that consideration be given  
23 for the water and financial contributions that are already  
24 being made by the various parties.

25           In this regard, let me speak to one potential deal

1 breaker that I see on the horizon here that I haven't heard  
2 a lot of discussion about, and in some respects, this is out  
3 of your control, yet it clearly will have a major effect on  
4 your ability to find a fair allocation responsibility to the  
5 plan.

6           This concern lies in the Interior Department's  
7 determination as to how they are going to account for water  
8 that is provided by the Central Valley Project as a result  
9 of these proceedings.       The Central Valley Project  
10 Improvement Act provides 800,000 acre-feet of Central Valley  
11 Project yield for wildlife purposes of the Act and to assist  
12 the State in its efforts to protect the waters of the Bay-  
13 Delta.

14           The Central Valley Project also provides that the  
15 new obligations of the Central Valley Project that arise out  
16 of this and future proceedings of the Board are to be  
17 credited against that 800,000 acre-feet.

18           As I am sure you are well aware, there is active  
19 debate within Interior as to whether or not this credit is  
20 going to be provided as we believe it should be and as we  
21 believe it was called for in the law.

22           The ability of the CVP contractors to evaluate the  
23 fairness of any additional allocation of responsibility is  
24 going to be directly dependent and tied to that final  
25 determination as to how this 800,000 acre-feet of water is

1 going to be accounted for.

2           It would seem to me it would be clearly in your best  
3 interest as well as ours to have a final interpretation of  
4 this part of the law prior to finalization of your plan.

5           One other important --

6           MR. DEL PIERO: I seem to recall a provision for  
7 that in D-1630. Isn't that correct, Mr. Caffrey?

8           MR. CAFFREY: I seem to recall such a thing.

9           MR. MOSS: One other important note relative to  
10 implementation: I believe the success of the implementation  
11 of the plan will also depend on your ability, quite frankly,  
12 our ability to be creative and flexible in meeting these  
13 allocated responsibilities. Some regions could face  
14 tremendous difficulty in meeting their fair allocation of  
15 this responsibility. Consideration of alternatives must be  
16 provided for these cases. There must be reasonable ways for  
17 meeting these new obligations.

18           In summary, again we are getting close. The unique  
19 opportunities to make some historic progress in developing  
20 an implementable plan for the Bay-Delta are clearly before  
21 all of us. There are a number of reasonable conditions that  
22 I think we have collectively brought to you here today, and  
23 we acknowledge that all of these things may not be in your  
24 direct control, yet we believe that you will be instrumental  
25 in establishing the basis for a balanced solution to all of

1 these concerns.

2           It is our sincere hope that we can return control of  
3 California's water resources back to California by helping  
4 you develop a plan for the Bay-Delta system. We are here to  
5 help and I think that's perhaps the most important message  
6 that I bring to you today.

7           MR. CAFFREY: Thank you very much, Mr. Moss.

8           Mr. Nordstrom.

9           MR. NORDSTROM: Thank you, Mr. Chairman.

10           As Tom mentioned, I am General Counsel for Tulare  
11 Lake Basin Water Storage District.

12           The District has been coordinating our efforts with  
13 other districts that are listed on that sign-in sheet.

14           I won't reiterate everything that Tom and Dick said.

15           We have been coordinating our efforts with the Kern  
16 County Water Agency. I will highlight just a couple of  
17 issues mentioned in his presentation:

18           One, there is not a lot of discussion on certainty  
19 and reliability, and highlighting that fact, we desperately  
20 need that in the valley. As the water attorney I am getting  
21 more and more calls not only from the farmers trying to give  
22 answers to the banks, but now I am getting calls from the  
23 banks asking what kind of assurances can you give us as far  
24 as water reliability and what their supply is going to be,  
25 and with these take limits, it is becoming very very

1 difficult to give them any type of assurances, and all I can  
2 give them is a best estimate with a number of caveats on it.

3 I mean, that just highlights that we have got to  
4 move forward and get some type of certainty and reliability  
5 on the water supply.

6 The issue I really wanted to touch on a little bit I  
7 know is important in Kern, and also, Dick's clients and in  
8 Tulare is these long-term project effects that CUWA referred  
9 to as biodegradation factors. The projects have been  
10 bearing most of the brunt of these things and it is going to  
11 fall on the shoulders of instream users also as they start  
12 contributing to some of these outflow standards.

13 For instance, the poaching issue, we need to get a  
14 better handle on that. The State Water Contractors have  
15 been contributing money to the Department to buy a couple of  
16 boats, and also, funding wardens.

17 We need the help of both the Department of Fish and  
18 Game and U. S. Fish and Wildlife Service to get a better  
19 handle on this. These exotic species, introduction of them,  
20 such as the Asian clam, that's definitely going to have a  
21 continued effect in the Delta. And all the diverters from  
22 the Delta are going to have to solve that problem if we  
23 don't get a handle on it.

24 So, I believe that you ought to urge the Department  
25 of Fish and Game and the U. S. Fish and Wildlife Service to

1 do further studies on that, if there's some control  
2 mechanism to implement, or perhaps eradication programs that  
3 can be implemented.

4 And then, the last issue was the pollution and toxic  
5 issue. I believe we need to push forward to continue  
6 upgrading the water quality plans as far as discharges in  
7 the Delta for the pollution. It is definitely having an  
8 adverse effect in there, and again, all the diverters are  
9 going to bear the brunt of that if we don't get a handle on  
10 it.

11 That is all I have to add.

12 MR. CAFFREY: Thank you very much, Mr. Nordstrom.  
13 We appreciate your comments.

14 Are there questions from the Board members?

15 Mr. Brown.

16 MR. BROWN: Not a question so such as recognizing  
17 what I call an attitude which is very pleasing to see coming  
18 forward as groups have today with ideas and suggestions of  
19 how to agree and resolve the problems, and we are very  
20 appreciative of that.

21 I do have a question here. I heard, I think it was  
22 Mr. Moss, say 800,000- acre-feet of Central Valley Project  
23 water. It is actually probably closer to 1.5 million, which  
24 I am sure you recognize -- 200,000 acre-feet out of the  
25 Trinity, plus I think they are required to develop 120,000



1 acres of wetland, which would be about 400,000 or 500,000  
2 acre-feet.

3 MR. MOSS: Pretty close to that.

4 MR. BROWN: So, it could total a significant figure,  
5 as much as one and a half million, and did I hear you say  
6 that the 800,000 would be a portion of those requirements?  
7 Is that what I heard you say?

8 MR. MOSS: The way we understood it to work when the  
9 CVPIA was passed, there was 800,000 acre-feet provided for  
10 fish and wildlife purposes of the Act, as well as for  
11 helping the State with improving the Bay-Delta estuary.

12 And it was our understanding that there would be a  
13 crediting that if additional requirements are placed on the  
14 Central Valley Project after the passage of the law,  
15 additional requirements additive to what existed at the date  
16 of passage of the law, that the water to meet those  
17 requirements would be taken out of the 800,000 acre-feet for  
18 both endangered species as well as for additional water  
19 quality requirements.

20 What we are concerned about is the potential for  
21 Interior to take that 800,000 acre-feet and use it solely  
22 for fish doubling and allow the requirement under these  
23 State Board actions, or as a result of additional endangered  
24 species actions, to become additive to that and that would  
25 be very difficult for us to manage.

1           MR. BROWN: Have you received any feedback from the  
2 Bureau of Reclamation or ongoing EIS as to how that is going  
3 to be treated?

4           MR. MOSS: It has been a subject of active  
5 discussion within Interior. The Bureau, I believe, has a  
6 position very similar to what we see in the law, but we also  
7 hear that Fish and Wildlife Service has the exact opposite  
8 opinion, and it's been somewhat of a struggle for them. I  
9 know they have been intending to have some workshops and have  
10 tried to have some workshops.

11           It is a very complicated issue and a lot of times it  
12 gets wound up in a particular year's operations.

13           Again, it is very critical to our analysis of how  
14 big an additional impact would be suffered by the project as  
15 a result of any requirement coming out of this Board.

16           MR. BROWN: Thank you.

17           MR. DEL PIERO: The language of the Central Valley  
18 Project Improvement Act is ambiguous so there is a real  
19 question as what the intent of the Congress was.

20           The reference I made to Mr. Caffrey, earlier before  
21 you were on the Board was that the order indicated all  
22 800,000 acre-feet was to be credited for the Delta. That,  
23 obviously, didn't happen and the Federal Government  
24 allocated a large chunk of that water for wetland purposes,  
25 and at this point, there is a question as to whether or not

1 that can be credited to the Delta.

2 MR. CAFFREY: Other questions from Board members?

3 Anything from staff?

4 Gentlemen, thank you very much. We look forward  
5 certainly to your continuing participation.

6 MR. CLARK: I just want to apologize for the length  
7 of our testimony. I just got a report from my street that  
8 the dog died.

9 MR. CAFFREY: We do hope you have a nice camping  
10 trip.

11 We will now have a very brief break, five minutes,  
12 and then we will hear from Mr. Bobker and Mr. Krautkraemer.

13 (Recess)

14 MR. CAFFREY: If you would please take your seats,  
15 we will try to get as much of this as possible today. There  
16 is a possibility we may have to come back tomorrow.

17 Good afternoon, Mr. Krautkraemer. Thank you for  
18 your patience.

19 MR. KRAUTKRAEMER: I think I can confine my remarks  
20 to 45 minutes or so.

21 MR. CAFFREY: That will be helpful compared to some  
22 of the other presentations.

23 MR. KRAUTKRAEMER: My name is John Krautkraemer. I  
24 am Senior Attorney with the Environmental Defense Fund and I  
25 have submitted a written statement to the Board, and I will

1 do my best to be as brief as possible.

2 In fact, I think I will just refer you to the  
3 written statement based on what I have heard here today.

4 It is interesting to come to these things and end up  
5 talking about things you never thought you were going to  
6 talk about, such things as drainage.

7 MR. CAFFREY: You are entitled to 20 minutes and to  
8 make a showing if you need more time than that.

9 MR. KRAUTKRAEMER: I think I can make it in ten  
10 minutes.

11 I would just like to make a few key points:

12 The first is that I would agree with some of the  
13 other speakers today that I really do see movement toward at  
14 least some agreement on some of the key standards that are  
15 being discussed. For the first time, I have to say I am  
16 hopeful that this process will actually lead to State  
17 standards.

18 You know, having gone through or been involved in  
19 this process now for eight years and having gone through the  
20 1988 draft and D-1630, maybe I am crazy to say this, but I  
21 really do see that maybe things are coming together and we  
22 can finally get the State re-engaged in the standard-setting  
23 process.

24 I think one of the major potentials that has  
25 occurred is that recognition, I think, of a need for Rowe

1 Island standards.

2 In many ways we are very close on complete agreement  
3 with CUWA. Now, there are some details that we are not in  
4 complete agreement on and those have been talked about in  
5 some of the other statements.

6 I would say the key difference probably between  
7 where we are and where CUWA is on the estuarine standard is  
8 at the confluence, something that hasn't been talked about  
9 too much. But CUWA would propose a sliding scale at the  
10 confluence which would result in fewer than 150 days during  
11 the applicable period, whereas in our view, that 150 days is  
12 an essential override for any kind of concern about  
13 variability that is needed in order to move fish species,  
14 including certain endangered species, downstream of the  
15 Delta channels.

16 But as far as the sliding scale, we have always said  
17 we agree with that in concept and we haven't seen anything  
18 in the sliding scale used so far that would cause us to have  
19 a problem with that.

20 So, I think we have a lot of common ground with CUWA  
21 on that aspect of this proposal.

22 There is a major hole remaining in the proposal  
23 which I think they acknowledge and that is the management  
24 measures that would be developed for fish migration and  
25 other fishery protection measures.

1           We have been involved with the urban agencies in  
2 ongoing discussions for some time now. We have had the  
3 technical meetings that have been discussed and we hope to  
4 continue and plan to continue the dialogue with them on  
5 these management measures over the next couple of months,  
6 and I am hopeful that we can come to some agreement on  
7 those.

8           I would also note there has been a discussion of  
9 good science, at least in terms of estuarine standards, that  
10 we are starting to coalesce around the science that was  
11 presented to this Board back in 1987. It was a little bit  
12 different. The knowledge has been refined, but I think  
13 really the problem has been not so much the lack of good  
14 science, but too much bad politics, and I am hopeful that  
15 people will start coming around and recognizing it is good  
16 science and has been good science.

17           There are also a lot of areas of agreement among  
18 ourselves and the urban agencies at least, and I think  
19 perhaps some of the agricultural agencies, on some of these  
20 issues. Certainly one of the areas where we have agreement  
21 with the urban agencies is the concept of this restoration  
22 kind of approach. We see that as a mechanism for reducing  
23 the economic impacts on water users in allocating more water  
24 to the Bay and Delta.

25           Certainly, there are a lot of issues that need to be

1 worked out. The problems with the CVPIA restoration fund  
2 have been discussed, this rumor that 80 full-time  
3 equivalents have been hired with that money.

4 MR. DEL PIERO: Have you been talking to the same  
5 people as Mr. Clark?

6 MR. KRAUTKRAEMER: He works for our organization, I  
7 think, but we don't know for sure that that's the case, but  
8 the point I want to make is that last week we had a meeting  
9 that included representatives of the Central Valley Project  
10 Contractors, representatives of urban agencies and other  
11 stakeholders that have come together to try to make the  
12 restoration fund work, and there's a letter being put  
13 together. I don't know if it's gone out or not, and it is  
14 going to ask the Federal Government, what gives here, what  
15 is going on with this money, and identifies some of the  
16 other problems we see in the administration of that, and my  
17 point is I think this fund is something that various  
18 interests can coalesce around.

19 It's something that everybody has a stake in making  
20 work. We want to see it work because we want improvement in  
21 the environment. Water users want to make it work because  
22 they are paying the money and they want it to do  
23 environmental good because they are going to pay the money  
24 anyway, and they would rather it go to fixing the  
25 environmental problems than pay for bureaucratic salaries.

1           So, you know, there's a lot of common interest here  
2 and I think that's one of the major positive aspects of this  
3 kind of approach. I think it helps bring people together to  
4 try to identify how to make this fund work and how you are  
5 going to put the money where it will do the most good.

6           Another aspect of the implementation that I would  
7 like to mention that hasn't been talked about today is this  
8 immediate implementation, the notion that is embodied in the  
9 framework agreement that there's going to be some kind of  
10 immediate implementation in the coming water year.

11           If you can get a voluntary agreement on that, it  
12 would be great, and certainly, I think you should strive for  
13 that.

14           The question is, if you can't do that -- we view  
15 this as a very important part of the overall framework  
16 agreement between the State and Federal Governments, and  
17 indeed, I think the prerequisite to an effective long-term  
18 process where people can say, okay, we've got something in  
19 place now, let's start doing short term at least with the  
20 problems of the Bay-Delta, so I think we need to start and  
21 you need to start giving some attention to what happens if  
22 you can't get the voluntary agreement.

23           Are there other mechanisms out there for agreement  
24 in the immediate implementation by the State and Federal  
25 projects?



1           And I also urge you to focus more attention even on  
2 the longer-term implementation.

3           The Federal Government is going to have final  
4 standards in the middle of December. Your standards are  
5 going to lag several months behind that at best. I think  
6 you have got to be thinking about how we are going to  
7 implement these standards, putting in place the processes,  
8 the planning processes that have to go in place for the  
9 interim water rights allocation and the longer-term water  
10 rights allocation. You can't focus just on the standards.

11           In fact, I think your immediate priority should be  
12 how are we going to get things implemented as we move down  
13 the line? That's going to be a critical element of all  
14 this.

15           Certainly, there's a lot of discussion about  
16 certainty. You know, I'm sympathetic to the concerns that  
17 the water users have expressed. On the other hand, I am  
18 also hearing that, well, we want certainty, but we want to  
19 limit the amount of water we give up front. We want you to  
20 do the best you can with the amount of water we are willing  
21 to give, and in my view, that is not the way it works. You  
22 determine what is necessary to deal with the problem and you  
23 can't cut corners on the front end. You can't cut corners  
24 and say this is all we can live with.

25           If you are going to start talking about something

1 that is certainty, I don't think you will ever get complete  
2 certainty because you need to comply with the Endangered  
3 Species Act. You can't let species go extinct.

4 But at the very least, you have to make sure that  
5 your front-end plan is as comprehensive as possible.

6 I am going to steal an analogy that Gary Bobker made  
7 which I think is very good. Since he comes after me, I get  
8 to say it first. It's sort of like the difference between  
9 an adjustable rate mortgage and a fixed-rate mortgage. If  
10 you want an adjustable rate mortgage, you pay a little bit  
11 less at the front end, but you have a lot less certainty.  
12 If you want a fixed rate mortgage, you pay a little more at  
13 the front end, and I think that's not a terrible analogy.

14 If we are going to be talking about trying to put in  
15 place a plan that is going to avoid having to go back and  
16 revisit the plan in the future as much as possible, you've  
17 got to try to make it as complete as possible at the front  
18 end. You can't say, well, we have got to fudge here a  
19 little bit, and then be surprised when it doesn't work later  
20 on.

21 Finally, on this biodegradation, the other element  
22 of the CUWA approach, we would endorse the idea that  
23 certainly the adoption of the standards that are being  
24 contemplated here isn't all that's needed to be done by the  
25 Bay-Delta estuary, but we also stress and I know this is

1 consistent with what CUWA is saying, that there's an  
2 immediate need here for standards and you can't delay those  
3 standards while you are dealing with those other problems.

4           Let me say something specific about one of the  
5 factors that's listed in the CUWA document and that is  
6 drainage. First of all, there is a difference between land-  
7 derived salts in the San Joaquin River that come from  
8 drainage and the salt-water intrusion problem which I think  
9 is appropriately dealt with by flow.

10           The second point, I think, is a response to Mr. Del  
11 Piero about the problems of permitting all the drainage  
12 discharges. EDF has just come out with a report, maybe a  
13 month or so ago. I was not closely involved in the  
14 production of that report, so I am only generally aware of  
15 its contents, but one of the key parts of that plan would be  
16 to create a regional drainage district so that you create an  
17 entity that is charged with coming up with a plan for how  
18 you are going to address the drainage discharge problem.  
19 That then becomes the permanent entity.

20           We are cognizant of the administrative problems of  
21 having to permit every individual farmer out there. So, the  
22 Board or the Regional Water Quality Control Board would  
23 permit this regional entity which would then have an  
24 obligation for meeting whatever the requirements were of  
25 that permit, and they would be the accountable party.

1           It would be a party that the Board dealt with in  
2 terms of compliance and enforcement and those kinds of  
3 things, but that regional entity would be responsible for  
4 working with the landowners within its district to come up  
5 with a plan that's going to meet the requirements that are  
6 written into this regional permit, and you can do that.

7           With a drainage problem, it is somewhat easy to do  
8 that because the discharge points are consolidated. You may  
9 not be able to do that with every nonpoint source problem  
10 that exists.

11           And another aspect of that part of the analysis is  
12 the use of economic incentives such as effluent fees and  
13 allowing trading of allocations within the regional entity  
14 among the drainage dischargers. Those who can afford to do  
15 more might do more if we can sell part of their credit to  
16 other users who can't do as much, and it tremendously brings  
17 down the cost of compliance.

18           In this case, the cost is targeted on selenium.  
19 That's another key point. You've got a problem out there  
20 that's independent of the salt problem, and I think probably  
21 more important, at least as a first priority, is the  
22 selenium problem and the report is targeted towards how you  
23 address the selenium and other toxic contaminant issues, how  
24 you meet the water quality standards in the San Joaquin  
25 River for selenium, but I think the same kind of approach

1 would apply to the salt-loading problem as well.

2 That's really all I have and I would welcome any  
3 questions you might have.

4 MR. CAFFREY: Thank you very much, Mr. Krautkraemer.

5 Before I ask my fellow Board members, I would  
6 certainly agree with you that the voluntary implementation  
7 aspect of all this is critical. Otherwise, we look forward  
8 to being able to work out some kind of arrangement on that  
9 as well.

10 Are there questions of Mr. Krautkraemer from Board  
11 members?

12 Mr. Del Piero.

13 MR. DEL PIERO: Mr. Krautkraemer, I am going to ask  
14 you the same question I asked Mr. Anderson, and I want to  
15 know what the other side of your equation is, what  
16 commitment you are prepared to make to water contractors as  
17 to the issue of reliability.

18 MR. KRAUTKRAEMER: Well, under the Endangered  
19 Species Act, I don't think you can say a deal is a deal,  
20 that we are never going to revisit this if there is a  
21 problem. I think what you can do is sit down and try to  
22 come up with a package that you think is going to address  
23 the problem, and then do the best you can to try to develop  
24 a process and procedure for monitoring and identifying how  
25 things are working, maybe give some time period to see how

1 things are working, and then sort of contingent mitigation  
2 approaches if it doesn't work, so at least the process  
3 doesn't seem to be quite as ad hoc.

4 In other words, part of your plan includes, what are  
5 we going to do if this doesn't work? How are we going to  
6 adjust things? What might the impacts be?

7 Frankly, I think that's the best you can do because  
8 if the plan doesn't work and you have got species that are  
9 going extinct, you have got to do something, you know.

10 First of all, you can't ignore the Endangered  
11 Species Act. But beyond that, you don't want that to  
12 happen, so you can't ignore that problem.

13 I guess I would be as optimistic as I can and say  
14 that you really must sit down and try to put together a  
15 comprehensive plan that deals with the problem, and I think  
16 it is incumbent upon the environmental community to make the  
17 best use possible of water that they can, to figure out a  
18 sliding scale as an example of that.

19 I think it is a concept that we have come to accept  
20 because we acknowledge that it fits the hydrology better and  
21 avoids some of the anomalous kinds of year type that would  
22 lead to. It is incumbent upon us to try to do the best we  
23 can with the water we have, but you can't offer a 100  
24 percent guarantee that if this isn't fixing the endangered  
25 species problems, you are not going to do something else.

1           I think what you can try to do is think ahead as far  
2 as possible and find out how you are going to determine and  
3 what kind of steps you are going to take if it doesn't work.

4           Another idea I had, and this is only an idea, is you  
5 can get a restoration fund up and working, and you might be  
6 able to target some of those moneys as a priority or set  
7 aside for that if the plan doesn't work. Your first call is  
8 going to be on the restoration fund to try to buy additional  
9 water, try to pay users to reduce exports, so at least  
10 further steps would be compensated for by voluntary kinds of  
11 transactions rather than additional regulatory approaches.

12           But in order for that to work you need a restoration  
13 fund that was up and working and functioning in a way that  
14 it could be called upon quite readily.

15           Those are just my ideas and that's really the best I  
16 can do.

17           MR. DEL PIERO: What is your reaction to a comment  
18 by Mr. Moss in regard to credit on the CVPIA?

19           MR. KRAUTKRAEMER: First of all, I am not quite sure  
20 why Dick is raising that, but there is a difference of  
21 opinion on that between the environmental community and the  
22 water users.

23           Our interpretation of the CVPIA is that the primary  
24 purpose of that 800,000 acre-feet of water is to meet fish  
25 doubling requirements. Now, the reality, in my view, is there

1 is going to be a substantial overlap between what is needed  
2 for the doubling program and what is needed to protect the  
3 endangered species and what is needed for the Bay-Delta, and  
4 so, if you sit down and really put together a doubling program  
5 that incorporates the Bay-Delta needs, there is going to be  
6 a huge amount of overlap, and I am not sure that the problem  
7 ultimately is going to be as serious as people make it out  
8 to be, but assuming in terms of legal priorities, I think  
9 the priority is to put that water to be used as part of the  
10 doubling program.

11 MR. DEL PIERO: Thank you.

12 MR. CAFFREY: Mr. Brown.

13 MR. BROWN: Mr. Krautkraemer, on the issue of a deal  
14 is a deal, and I like your analogy on the fixed rate and  
15 variable rate mortgage. I think it is a good analogy. The  
16 problem is when you drive through Firebaugh and Mendota and  
17 towns like that through the valley, they have 40 percent  
18 unemployment and it is going higher.

19 If more water is taken away from the current  
20 contractors and that causes more consternation and  
21 environmental problems in those areas, would you be  
22 receptive if a water quantity was identified on the lower  
23 end for your variable rates, and that's going to take water  
24 away from existing water users at a real financial cost and  
25 burden, would you be supportive of maybe the State's next



1 best program to build a project if additional water was  
2 needed beyond that, a new project like Los Banos Grande Dam?

3 MR. KRAUTKRAEMER: It would depend on the project  
4 and the conditions on it, but I am not opposed to any new  
5 projects. There are certain ones we wouldn't want to see.

6 MR. BROWN: You don't want to see any new projects  
7 happen?

8 MR. KRAUTKRAEMER: No, there are certain projects --  
9 Los Banos Grande south of the Delta we support in concept if  
10 it could be done consistent with sound environmental  
11 standards. They have been talking about building Auburn Dam  
12 to supply flows to the Delta and I don't go for that.

13 But there may be other projects out there, yes.

14 MR. BROWN: Once these decisions are made to take  
15 water away from existing water users, which is one kind of  
16 consideration that has a negative impact associated with it,  
17 it is a tremendous hit if you live in those communities and  
18 if you rely upon that water for your job, to put your kids  
19 through school and pay the bills -- that quantity of water  
20 we are talking about identifying and using to meet the  
21 requirements environmentally that are needed, if there is a  
22 quantity of water beyond that, I guess the question is,  
23 could you identify a project that would not take water away  
24 from existing users that you could help support in order to  
25 meet the additional water requirements?

1           MR. KRAUTKRAEMER:  If I understand your question, it  
2 is actually something I was going to talk about and didn't,  
3 and that is that I think what you are suggesting is not  
4 unlike what was originally in the Governor's water proposal,  
5 and what I actually see playing out here is that you develop  
6 interim standards and then while those standards are in  
7 place, you start this long-term solution process that has  
8 been talked about, and in my view, one of the things that  
9 should be thrown in there is longer term protections and  
10 maybe there are projects that could provide water for  
11 consumptive use as well as provide additional water or  
12 additional protections for environmental uses, so I don't  
13 think I disagree with you in concept, but a lot of it  
14 depends on the specifics.

15           It depends on what are the standards that are put in  
16 place while we are going through this exercise.  It depends  
17 on what the project environmental consequences are that are  
18 attached to that project.

19           MR. BROWN:  Using your variable rating -- it's a  
20 good one -- going to the variable rate standard recognizing  
21 that there may or may not be additional water requirements,  
22 the point I am making is if you go into and you use your  
23 best science and come up with the best program we can, and  
24 we go into it in order to give some certainty which is  
25 really important to the water users right now when they are

1 having to go to the banks to get refinance and such, but if  
2 something then is needed beyond our best efforts today, if  
3 it could come from a new source, that could have a different  
4 kind of impact on the water users.

5 MR. KRAUTKRAEMER: That is very possible. I think  
6 there are certain minim requirements. I think these  
7 standards that you are setting now are going to have to meet  
8 minimum requirements of the State and Federal law, but --

9 MR. BROWN: Say that's done.

10 MR. KRAUTKRAEMER: The goal of this Board, the  
11 predecessor Board, the goal set back in 1978, was to fully  
12 mitigate the effects of the State Water Project in the  
13 short term and ultimately to go to recent historical levels  
14 -- my point is the longer-term goal was beyond what is being  
15 contemplated today.

16 We are just looking at the 1968 or before, but  
17 roughly that period of time. To go beyond that, it might  
18 entail some kind of facility. It might entail certain kinds  
19 of storage.

20 To my mind, it is going to work best if those are  
21 facilities coupled with strategies that are going to benefit  
22 everybody, provide more supply, enhance reliability of water  
23 supply, and also, provide additional environmental benefit.

24 Something like that could fit with the kind of  
25 ecosystem approach that CUWA has proposed where you are also

1 tackling other problems.

2           We have some concerns about their mitigation credit  
3 approach where you would allow credit for non-water kinds of  
4 approaches to substitute for flow or salinity. There are a  
5 lot of concerns about that, but yes, I see with this longer-  
6 term solution process that is being talked about, I see that  
7 as the kind of thing that would be on the table, not just  
8 the facilities but the whole range of management measures,  
9 you know, reclamation, a whole range of things. That's part  
10 of the whole plan, the setting of more protective standards  
11 now so we can get to the point where we are talking about  
12 those kinds of things and trying to find those longer-term  
13 kind of answers.

14           MR. BROWN: That would help.

15           MR. CAFFREY: Anything else from Board members?

16           Anything from staff?

17           Thank you very much, Mr. Krautkraemer. I hope you  
18 are going to participate in the future discussions with Mr.  
19 Pettit and back to the Board. Thank you.

20           Mr. Bobker, good afternoon.

21           MR. BOBKER: Good afternoon. My name is Gary  
22 Bobker. I am a policy analyst at the Bay Institute of San  
23 Francisco.

24           I think I will start by anticipating Mr. Del Piero's  
25 question to everyone, sort of approaching the balancing, by

1 saying that looking at what all the interested parties bring  
2 to the table as a balancing act relies on a premise that I  
3 am not sure I agree with, and that is the premise in the  
4 Governor's water policy of two years ago, and that is that  
5 every interest group and every part of the affected parties  
6 in the Bay-Delta arena can't have gains at the expense of  
7 others, they all need to be linked together, and I think the  
8 flaw there is that it presents an even playing field.

9           The point of the regulatory process that we are  
10 going through now, I think, is to make sure that one of the  
11 players stays at the table, and when we get to the point  
12 that we have a process of standards and other protections in  
13 place so that we have stabilized the Bay-Delta environment,  
14 then that's the point at which we can look at a broader and  
15 more rational approach as to how we manage water in the  
16 state using both broader water management measures than we  
17 have heretofore used in the state, as well as looking at  
18 physical solutions that may include both facilities as well  
19 as physical restoration of habitat.

20           There's a lot of things we can do, but I am not sure  
21 we are at the point where we are able to do those. What I  
22 want to do is summarize some of the concerns that we have  
23 presented in the past that are in a lot more detail in the  
24 written comment, and I will try to breeze through some of  
25 them.

1           But rather than do the old song and dance about  
2 continuing deferral by this Board of action and our  
3 continuing support of the federal standards, what I want to  
4 do is take this opportunity to say what should the Board do  
5 and not do with the resources that it has. What are the  
6 opportunities that are available in this process?

7           And as I have said before, I think one thing that I  
8 don't think that the Board needs to do is duplicate the very  
9 expensive process EPA went through in proposing criteria.  
10 Those criteria are based on the extensive technical record  
11 before this Board, the science that was presented to the  
12 Board, as Mr. Krautkraemer pointed out in 1987, the estuary  
13 project, workshops, and the other components of that  
14 process, and EPA has invited the comment participation of  
15 all stake holders.

16           What I think is the most appropriate use of the  
17 Board's resources is to supplement EPA's proposed criteria  
18 in the water quality objectives and measures that aren't  
19 addressed by EPA which will, therefore, assure we have  
20 protection of the estuarine resources, and to do it in a way  
21 that it doesn't delay the adoption of standards that are  
22 more important than the implementation process that follows.

23           The core element, as we and other groups have said  
24 over and over again, of any comprehensive water quality  
25 standard package is the provision of low salinity habitat in

1 Suisun Bay. The scientific basis for the standard is  
2 strong. I think that is reflected in the growing consensus  
3 that we are seeing among many different water users to  
4 support the standard.

5           There is a lot of agreement that the standard  
6 provide an adequate mechanism for the protection of the  
7 resource and we appreciate the movement of some of the water  
8 users that we have been talking with in the urban sector  
9 toward coming to a greater consensus on it.  
10 We obviously will have to disagree on some of the details  
11 which were talked about by one or two other speakers, and I  
12 would just detail a little more some of our concerns on the  
13 issue of the two parts per thousand salinity isohaline in  
14 the Sacramento and San Joaquin.

15           We believe that it is necessary to have that  
16 standard in place for the full period for protection of the  
17 aquatic organisms, and especially to protect the endangered  
18 species from unsuitable habitat that's upstream of the  
19 confluence.

20           It's been suggested by some of the parties that we  
21 have dealt with in our meetings and negotiations that that  
22 requirement would unacceptably limit variability in the  
23 estuary. We agree that variability is a key objective of  
24 standards, and a lot of the scientific work that was done,  
25 including the estuary project workshops, included that

1 variability on the seasonal, annual and interannual  
2 variability in salinity and other properties is  
3 characteristic of healthy estuarine ecosystems.

4           On the other hand, it was also concluded that while  
5 you shouldn't have constraints to the downstream position of  
6 your salinity isohaline, you did need upstream limits.

7           We believe that the confluence requirement is,  
8 therefore, consistent with the findings of the estuary  
9 projects and other scientific processes that have led to the  
10 standard.

11           We also have some concerns that the Rowe Island  
12 criterion may not be invoked adequately enough. I believe  
13 that NHI made some comments about that also. I am not going  
14 to go into the reason why we feel Rowe Island is  
15 particularly important. We have said again and again our  
16 concern is simply that periods of attainment of low  
17 salinity habitat at Rowe Island and downstream will be  
18 reduced in occurrence and duration under the proposed  
19 criterion.

20           We also have concerns, and this sort of relates to  
21 Rowe Island criterion, about the lack of direct protections  
22 for other important estuarine habitat areas such as the  
23 brackish tidal marshes of Suisun Bay and San Pablo Bay.

24           We are very encouraged to hear that EPA is  
25 considering narrative criteria to protect the brackish tidal



1 marshes.

2 I would like to point out that there is a foundation  
3 to build on to work towards numeric criteria both for the  
4 marshes and the downstream areas. Starting back in 1987  
5 environmental groups and urban agencies made a number of  
6 detailed recommendations on salinity and flow criteria to  
7 protect all these estuarine areas. Those recommendations  
8 for Suisun Bay were, in fact, the foundation for what has  
9 eventually become the X2 standard.

10 I believe that EPA and the Board need to go through  
11 the same process to develop a fully refined set of numeric  
12 criteria for these other estuarine habitat areas.

13 Another area of agreement that I am really pleased  
14 to see is over the nature of the kind of mechanisms that we  
15 need to protect fish migration. There seems to be pretty  
16 general agreement on the set of measures, closure of the  
17 Delta cross channel gates, minimum flows on the Sacramento  
18 River and the San Joaquin, and in my comments we provided  
19 some of our specific recommendations based on the Fish and  
20 Wildlife Service's submittals to you in the past and on our  
21 subsequent meetings with agency staff and with interested  
22 parties on what the specific levels for flow and periods of  
23 closure should be.

24 What we want to emphasize is that those protections  
25 should include protections for all salmon runs; otherwise,

1 you are postponing the day of reckoning.

2           Also, the use of the salmon smolt survival index as  
3 modified by EPA is an important way of measuring the success  
4 of a package of standards, and failure to achieve the index  
5 values should automatically trigger review by this Board.

6           I also want to make another point that CUWA and  
7 others have raised about the species, specific standards  
8 that address the needs of only salmon. There are a number  
9 obviously of other species whose eggs, larvae and juveniles  
10 are subject to diversion in the Central Delta entrainment.  
11 Chinook salmon represent the best data that we have in terms  
12 of protecting those fish.

13           So, salmon provide an adequate basis for standards  
14 which will protect overall fish migration.

15           The last time I was before the Board and just about  
16 every time environmentalists have participated in the  
17 workshops, we have mostly focused on the estuarine habitat,  
18 and the salmon standards. As Mr. Caffrey pointed out, you  
19 haven't heard much from us about striped bass spawning  
20 habitat, so I want to say a few things about that,  
21 especially as I know Mr. Del Piero is interested in this as  
22 well.

23           Number one is that I think the evidence remains  
24 uncontroverted that there is a salt-loading problem to the  
25 river which presents a spawning limitation for striped bass.

1 I haven't seen any data that suggests that is not the case.

2           The concerns that have been raised about that really  
3 relate to the other issues, not a scientific basis for  
4 standards themselves. Number one, there has been a concern  
5 expressed that enhancing the striped bass population will  
6 result in predation of the San Joaquin fall-run chinook  
7 salmon.

8           I believe, after looking at the data, that bass  
9 will prey on salmon in tributary waters or the scene of  
10 hatchery production, but generally you will find that salmon  
11 are not going to be a significant food item for them in the  
12 Delta. And there doesn't seem to be, therefore, a reason to  
13 think there's just going to be a major impact on native  
14 species.

15           We agree that if there were a conflict, the native  
16 species and the estuarine habitat would take a higher  
17 priority. I don't think that conflict is there and given  
18 the absence of such a conflict, this sport fishery resource  
19 represents a secondary beneficial use equal in importance  
20 to offstream water uses and should be protected.

21           I also think that akin to the salmon protection, the  
22 protection for striped bass also serves as an umbrella  
23 protection for other estuarine and fresh-water species in  
24 the South Delta.

25           One thing I want to focus on is that obviously the

1 problems that are associated with selenium and other trace  
2 elements to the San Joaquin River is well documented. We  
3 know the bioaccumulation properties of the trace elements  
4 and the biological problems they cause.

5           However, studies that have been done to look at the  
6 impacts of drainage water throughout Western water projects  
7 have shown that even when you take the trace elements out,  
8 the other constituents in drain water can be toxic to salt-  
9 tolerant organisms, so we are looking at a form of  
10 pollutants that's probably affecting a wide range of Delta  
11 fish.

12           We don't have data on those other Delta fish. We do  
13 on striped bass, so striped bass spawning habitat really  
14 serves as a surrogate for a number of other species, and I  
15 hope that we will be able to develop that data over time so  
16 we can, in fact, make sure we are protecting those other  
17 species as well as we are protecting striped bass.

18           The Board has included in its consideration of  
19 alternative water quality standards and their water supply  
20 impacts new outflow requirements, export restrictions and  
21 caps on the percentage of Delta inflow diverted and this  
22 would be operable during the summer, fall and early winter  
23 period not covered by EPA's proposed criteria.

24           We think that is a real important direction for this  
25 Board to go. The feeling is we are paying a lot of attention

1 to what we agree are critical winter and spring spawning and  
2 migration periods. We can't squeeze it all out of the rest  
3 of the year. It is hard for us to make specific  
4 recommendations about what the new restrictions for summer  
5 and fall ought to be, but I encourage you to go in that  
6 direction.

7 I think the idea of using percentages outside of the  
8 spring and winter periods is really a good one.

9 The final point I want to bring home is the  
10 ecosystem versus species specific protection. Kind of a  
11 very common theme that we hear is the preference for  
12 ecosystem management over protection of individual species.

13 I agree that ecosystem management is the highest  
14 priority. It certainly has been the position of the  
15 environmental groups that standards that protect overall  
16 estuarine and wildlife habitat and protect the needs of a  
17 range of different species in which you address ecosystem  
18 functions, are the highest priorities for a standard-setting  
19 process.

20 However, sometimes for an estuarine habitat standard  
21 we have science to be able to base standards on those kinds  
22 of habitat ecosystem-wide protections, sometimes we don't.  
23 When the data is not available to set water quality  
24 standards that incorporate the nonhabitat requirements for a  
25 range of different species, we have to base them on what is

1 the most sensitive understood use of the Bay-Delta waters  
2 and the measures to protect those species serve, as I said  
3 before, as an umbrella for protection of other species.

4 I believe that it is appropriate, therefore, to use  
5 striped bass in these formats to reach other species that  
6 are affected by Delta water project operations and salt  
7 loading.

8 And I have to emphasize that the failure to do  
9 either ecosystem or species specific standards is going to  
10 continue to lock us into enforcement of the Endangered  
11 Species Act, and we are going to continue to press for  
12 rigorous enforcement of the Endangered Species Act until  
13 these kinds of protections are implemented on the ground and  
14 I am not sure how long that is going to take, but right now  
15 the Endangered Species Act is what we have to rely on for  
16 protection of these species.

17 Having said that, let me also say that we are  
18 committed to a comprehensive ecosystem management. We are  
19 extremely encouraged by the sincere commitment that we feel  
20 comes from some of the other water users, especially the  
21 urban water users, and in our talks with them we know they  
22 are very serious about going ahead with comprehensive  
23 ecosystem management.

24 We look forward to working with both them and the  
25 regulatory agencies on that kind of management, and I think

1 that's all I have to say.

2 MR. CAFFREY: We appreciate your comments, Mr.  
3 Bobker, and your willingness to work with all of us in this  
4 very important process of standard setting.

5 Are there questions from the Board members of Mr.  
6 Bobker?

7 Anything from staff from Mr. Bobker?

8 Thank you, Mr. Bobker. We appreciate your being  
9 here.

10 Let me just say that depending on how the  
11 presentations go, we need to adjourn sometime between five  
12 and five-thirty. Some of the presentations that remain are  
13 somewhat lengthy. We will hear from at least the next two  
14 presenters, hopefully three, Steve Hall, Dan Nelson and Bill  
15 DuBois.

16 Good afternoon, Mr. Hall.

17 MR. HALL: Good afternoon, Chairman Caffrey and  
18 Board members.

19 I know the energy level is low and I will --

20 MR. CAFFREY: You are entitled to the same amount of  
21 time as anybody else.

22 MR. HALL: I appreciate that .

23 MR. DEL PIERO: I have a whole series of questions  
24 to ask.

25 MR. HALL: Actually, against my better judgment, I

1 am even going to mention a couple of things about which you  
2 have been asking questions while trying not to reignite the  
3 drainage debate.

4 For the record, I am Steve Hall, Executive Director  
5 of the Association of California Water Agencies.

6 I appreciate the opportunity and appreciate your  
7 endurance. I have noted, however, that Ms. Forster in  
8 particular, has been a little bit lower, a little bit lower  
9 as the day has gone by.

10 I will try not to make her disappear entirely.

11 I need to begin my presentation with an update and a  
12 clarification. The update goes back to your July 13  
13 workshop wherein we presented a rather comprehensive  
14 economic analysis of the EPA standards and we promised at  
15 that time to deliver to you at this workshop an analysis of  
16 the impacts of those standards, and frankly, all of the  
17 alternatives that were on the table, on the ability or the  
18 capacity to generate hydroelectric power within the state.

19 We continue to believe that's a very important  
20 component in the economic analysis. Unfortunately we are  
21 not able to present that today because that relies upon the  
22 hydrologic computer model runs that DWR is doing for the  
23 State Board and we don't yet have enough data to run our  
24 computer models to simulate what the hydroelectric impacts  
25 will be.



1           We expect to have that data very shortly and as soon  
2 as we have it and can run our runs, we will provide you with  
3 that information either at the September 21 technical  
4 meeting or at the workshop that you scheduled.

5           Next, the clarification of the record on the  
6 drainage issues. The U. S. EPA, I guess, started in this  
7 morning by alluding to factors such as land-derived salt  
8 discharges to the Southern Delta and we all know the  
9 discussion that has ensued. This referenced the Association  
10 of California Water Agencies as supporting that approach.

11           I just want to say that in the documents that we  
12 presented to the Board at the July 13 workshop we did  
13 include a list of what have now been called biosystem  
14 degradation factors, a fancy term for all of those nonwater  
15 factors.

16           Well, in the list that we presented is an item  
17 called land-derived salt discharges to the Southern Delta,  
18 and, in fact, we do favor looking at that.

19           We do not, however, favor a new regulatory process  
20 to somehow insure compliance with that because, frankly,  
21 this Board took a very thorough look at the Western San  
22 Joaquin Valley and the San Joaquin River specifically, and  
23 adopted a regulatory plan that, frankly, is working quite  
24 well and is being administered by the Central Valley Water  
25 Quality Control Board and we think if the State Board looks

1 at the results of that regulatory regime, what has happened  
2 is that the salt load and the selenium load have been  
3 substantially reduced primarily through BMPs on the farm and  
4 within the water agencies that serve that area.

5 So, we don't think you need another regulatory  
6 program to insure compliance. We think you are already  
7 seeing good results because the farmers and the water  
8 districts out there are doing their job.

9 So, let me, if I may, just add that clarification to  
10 the record about what we think on the issue of drainage.

11 Now, let me get to the main topic for the day. I  
12 was very pleased to hear what the Chairman said about  
13 continuing to keep the record open, and continuing to keep  
14 the process open and encouraging technical discussions about  
15 the merits and demerits of various alternative proposals.

16 We think that's an excellent way to go about the  
17 business of adopting this comprehensive plan about which  
18 there is an emerging consensus, and you have heard it over  
19 and over again today. People want to see a plan that's  
20 comprehensive.

21 In fact, let me anticipate -- I don't know that you  
22 plan to ask this, Mr. Del Piero, but let me anticipate the  
23 question by saying I don't believe, and I want to make this  
24 very flat-footed statement, I don't believe water quality  
25 standards will do the job. In fact, we have made that

1 pretty clear from the outset. We don't think water quality  
2 standards and operational constraints will do it either.

3           What this requires, in our view, and there is an  
4 emerging consensus, not just within the water communities  
5 but even the Secretary of the Interior has said what you  
6 need in these complex ecosystems is a comprehensive  
7 multispecies approach, and that's what we are supporting.

8           Certainly water quality standards and operational  
9 constraints will be components of that, but it cannot stop  
10 there. In fact, we believe that if it does stop there, the  
11 plan will fail and, in fact, we think this estuary is the  
12 perfect place to adopt the approach that the Secretary of  
13 the Interior outlined in his press release, that we have to  
14 know that a deal really is a deal.

15           A deal can't be one sided, as you and Mr. Del Piero  
16 have pointed out. It's got to require something from each  
17 side.

18           What we need, and we have said this repeatedly, is  
19 certainly not complete certainty, but a much higher level of  
20 certainty than we have today.

21           We are prepared to work with the Board in developing  
22 standards and operational constraints that we know up front  
23 will require some water, and we are going to leave it to you  
24 to decide who gives up how much.

25           We don't want you to prejudge that, but we know that

1 you will have to address that issue.

2 But on the other side of the coin, we must get  
3 ourselves out of the ESA trap we find ourselves in, and  
4 frankly, I think it is as much of a trap to the biologists  
5 as it is for us because we have dedicated enormous  
6 quantities of water to protect single species. It simply  
7 has not worked to preserve the habitat, as again, you have  
8 pointed out, Mr. Del Piero.

9 Species other than those listed have been declining  
10 in numbers. We are not getting the job done and a  
11 comprehensive plan is the kind of umbrella approach that we  
12 need in order to finally accomplish that complete  
13 protection, while at the same time, providing some water  
14 supply reliability.

15 Let me just tick off what we think needs to be in  
16 the Board's plan in order to accomplish this. First of all,  
17 we all agree it's got to be based on sound science. It's  
18 got to provide some shelf life.

19 I am just repeating some of the common phrases now,  
20 but I want to simply reiterate what others have said about  
21 them.

22 Finally, and the Chairman mentioned this earlier in  
23 the day, it has to be compatible with the comprehensive  
24 plan. It may or may not be possible within the window of  
25 time that you have to work between now and the end of this

1 calendar year, it may not be possible to fully develop a  
2 comprehensive plan, but we can certainly begin the process  
3 of developing that comprehensive plan and put the early  
4 stages of it into effect.

5           That means, though, that those early stages have to  
6 be compatible with the long-term plan. We believe that that  
7 can be done, that we can take some first steps that we know  
8 are not by themselves the comprehensive plan. What we need  
9 to do, though, is design them well enough so that they are  
10 compatible with that long-term plan.

11           Now, as I said before, we know that there will be,  
12 or are reasonably confident -- I don't want to put words in  
13 your mouth, but we are fairly confident it will include some  
14 standards, and when I say standards, that could either be a  
15 salinity standard or outflow requirement. We expect  
16 operational constraints will be a part of it.

17           But the clear goal of these requirements, in our  
18 view, must be to protect the habitat rather than focusing on  
19 single species. It needs to pre-empt the need for  
20 additional ESA requirements to the extent possible and as  
21 much as possible it should reduce the need for take limits  
22 at diversions.

23           Let me just say we are putting a lot on the table,  
24 we believe. Is it any wonder why we are willing to do that,  
25 when take limits have created so much uncertainty as other

1 have said today? They have cost so much water in such a  
2 short period of time.

3 We are willing to do this because take limits to us  
4 are simply an unacceptable way to manage this ecosystem, and  
5 certainly, to manage the water projects.

6 Obviously, we want to see it limit water costs and  
7 my job is fairly simple. I represent all of the water  
8 interests, most of the water interests you have heard from  
9 today. Most of them are members.

10 I, somehow, have to agree with all of them and still  
11 say something meaningful. Fortunately, that isn't all  
12 difficult because there really is this converging of ideas.  
13 There is an emerging consensus about the elements of this  
14 plan.

15 Not all my members would agree, but this is advice  
16 from ACWA that represents not only the exporters but those  
17 upstream. We think you should avoid prejudging any water  
18 rights allocations as a part of the water quality phase.  
19 It's tempting because you need to figure out what comes from  
20 where and things like pulse flows may be included in that  
21 water quality plan, but to the extent that you possibly can,  
22 we advise you to avoid that until you get to the water  
23 rights phase. It will be difficult enough then. We think  
24 it would be nearly impossible to do now.

25 MR. DEL PIERO: No, Tom Clark is going to do it for

1 us.

2 MR. HALL: Oh, that's right. But with as much faith  
3 as I have in Tom, I have to say even he should wait.

4 Now, I have made this point before, let me repeat  
5 it. We believe, and there is really no equivocation here,  
6 we believe that if you adopt water quality standards or  
7 outflow requirements and operational restraints and stop  
8 there, you will fail.

9 We want you to succeed, we need you to succeed. You  
10 have to look at all of the factors affecting the Delta  
11 because if you fail to do that, we believe you will not  
12 fully protect beneficial uses in the Delta and that that  
13 failure will lead to political and legal chaos where water  
14 interests seek to protect their legitimate interests, and I  
15 want to be careful in saying that because it could sound  
16 like a threat.

17 I don't mean it that way. It is an observation  
18 based on what I have heard from the water user communities,  
19 that if standards and constraints dedicate a lot of water,  
20 and we believe they are likely to do that, that once that  
21 water is dedicated, water users will resist further taking  
22 until those other factors are addressed and a list of those  
23 other factors laid out.

24 It may not be all inclusive, but they must be  
25 examined, those and any others that get added to the list as

1 a part of the overall comprehensive plan, or we believe the  
2 plan cannot fully be successful.

3           The Board is the central figure in this. You alone  
4 have the authority and responsibility to orchestrate the  
5 activities of all the parties, including the federal  
6 agencies, and you alone have the authority and the  
7 responsibility to balance the competing needs within the  
8 Delta.

9           You are fortunate in one respect because there is  
10 this emerging consensus that I spoke of. The recently  
11 signed State/Federal framework agreement and the broad  
12 support of that agreement is evidence of that, but the Board  
13 should not merely hope that the parties to that agreement  
14 carry it out.

15           We believe the Board should direct the parties to  
16 carry it out by directing them to do the various things that  
17 we and others have outlined that should be part of the  
18 comprehensive plan. It must be comprehensive in scope,  
19 focused on the habitat and balanced in the approach. If it  
20 is, the water community will support it.

21           But we are also going to be looking for the Board  
22 and the other parties to do their part in building this  
23 comprehensive plan.

24           I thank you and I trust I have responded to your  
25 questions before they are asked. At this late hour, I don't



1 imagine there will be all that many anyway, but I am happy  
2 to --

3 MR. CAFFREY: Don't presume too much, Mr. Hall. Let  
4 me see if you are right or wrong, only because of the  
5 thoroughness of your presentation.

6 Anything from staff of Mr. Hall?

7 Thank you very much, Mr. Hall.

8 Dan Nelson. Good afternoon, Mr. Nelson.

9 MR. NELSON: Thank you for this opportunity, Mr.  
10 Chairman and Board members.

11 The San Luis Delta Mendota Water Authority is  
12 comprised of 41 water agencies with contracts with the  
13 Federal Government through the Central Valley Project.  
14 These districts include nearly all the water users south of  
15 the Delta that receive water pumped through the federal  
16 Tracy pumping plant and represent over one million acres of  
17 prime farm land predominantly on the west side of the San  
18 Joaquin Valley from Fresno on the north to Kettleman City on  
19 the south and San Benito County.

20 It serves up to 150,000 acre-feet to urban users in  
21 the Santa Clara Valley Water District and over 100,000 acres  
22 of wetlands in the Pacific Flyway.

23 There probably isn't any group of water users in the  
24 State that has been impacted more through the current  
25 situation in the Delta. Because of this, we understand that

1 until Delta resource issues are addressed comprehensively  
2 and improved, we will continue to experience unworkable  
3 restorations in our water supply without real benefits to  
4 the Delta resources.

5           It is in this context that we submit these  
6 suggestions and ideas. As we have stated in previous  
7 workshops, we recommend that the State Board take a very  
8 broad and comprehensive approach to the Delta. Generally,  
9 what this means is that you should do as much as you can  
10 under your authority and that you weigh in or make  
11 recommendations on the rest, in general, continue to take a  
12 leadership role.

13           We suggest that we need to develop a package. This  
14 package needs to include three general components:

15           One, standards;

16           Two, Delta flow, flow and other requirements, and we  
17 commonly refer to these as operational stuff; and

18           Three, other factors such as storm drainage runoff  
19 and industrial pollution, poaching, et cetera.

20           The California Urban Water Agencies or CUWA has  
21 included as part of their comments the specific proposal for  
22 standards. We think there is a lot of merit in what it is  
23 that CUWA has proposed, but at this point in time, we can't  
24 commit to those standards until we see how they fit into the  
25 other components of the package.

1           We agree with the Association of California Water  
2 Agencies that there appears to be a strong potential  
3 developing for water users coming together to put together  
4 this package on a consensus basis. We will continue to  
5 strive for this comprehensive consensus approach prior to  
6 the October workshop with the goal of developing a complete  
7 and specific package.

8           As to the objectivity of the package, we believe  
9 that the package needs to include protection for Delta  
10 resources and needs to use a multipurpose habitat approach  
11 emphasizing the needs of endangered species.

12           The package needs to also include flexibility for  
13 project operations to maximize the ability to manage water  
14 through the Delta while meeting resource objectives.

15           Last, but not least, it must result in certainty for  
16 water users, certainty through shelf life, certainty through  
17 a better defined reliable and reasonable water supply, and  
18 certainty through a sustainable and healthy habitat.

19           Finally, we would like to thank the Board for their  
20 patience, and I would like to re-emphasize and thank you for  
21 your patience. This has not been an easy process. It's  
22 taken a lot of time, and as you know, it's been a struggle  
23 but I think we are making some real progress, and we believe  
24 that a consensus package can be achieved.

25           And, again, we remain committed to continue to work

1 with you and all other water users to accomplish this in a  
2 timely manner.

3 Thank you again and I remain open for any questions,  
4 and also, I have B. J. Miller with me, who has done a lot of  
5 our technical support.

6 MR. CAFFREY: Thank you, Mr. Nelson. Good to see  
7 you.

8 Are there questions from Board members?

9 Anything from staff?

10 Mr. Nelson, I realize you represent a public agency  
11 and you did have a long wait, and we apologize and thank you  
12 very much for your patience.

13 Bill DuBois. Good afternoon, Mr. DuBois.

14 MR. DUBOIS: Good afternoon, Mr. Chairman and Board  
15 members. Thank you very much for affording me the  
16 opportunity to appear before you.

17 I particularly want to compliment the Board because  
18 I have been monitoring these hearings since 1970, and I  
19 think this is the first time that I have heard the Board so  
20 obviously aware of the dangers of regulating the drainage  
21 from the San Joaquin Valley.

22 In my opinion, it won't be a shortage of water that  
23 does agriculture in. In the long run it's going to be the  
24 shortage of drainage, and I very much appreciated the  
25 questioning done by the Board members of EPA when they were

1 before you.

2 My purpose in appearing today is to present a long-  
3 held conviction that part of the fish problem is caused by  
4 overfishing.

5 A couple of weeks ago Stan Barnes gave me a copy of  
6 a book on the subject of ocean fishing resources. After I  
7 read it, I circulated it to several others and in the  
8 process became convinced it should be made a part of the  
9 present Delta proceedings. It is a study by World Watch  
10 Institute, Paper No. 120 by Peter Weber. It is titled *Net*  
11 *Loss, Fish, Jobs and the Marine Environment*.

12 My point in asking that this paper's conclusions be  
13 considered is that as I read it, it claims the fish problem  
14 will get worse in spite of what we do here on land to help  
15 the fish, unless much is done to implement a moratorium on  
16 fishing worldwide.

17 Our fear is that unless this is done and Mr. Weber's  
18 paper is correct and fish supplies continue to worsen,  
19 agriculture could be clubbed to death so that even more of  
20 their water could go to raise fish that cannot survive the  
21 fish harvesters.

22 We think that ocean fishing limits are one item that  
23 should be on the other side of the equation, as you have  
24 frequently asked the witnesses.

25 Thank you very much.

1 MR. CAFFREY: Thank you very much, Mr. DuBois. It  
2 is good to see you, and thank you for waiting.

3 Any questions from the Board members?

4 Mr. Brown has a question.

5 MR. BROWN: It is interesting, Bill, that you bring  
6 that up. I have just come from up in Washington where  
7 salmon fishing is usually very great, and it hasn't been for  
8 the last number of years, and they credit the loss to the 30  
9 miles of gill nets out in the ocean, and a lot of the blame  
10 is in that direction, so you bring up a very interesting  
11 point.

12 MR. DUBOIS: This book says that there is twice the  
13 fishing capacity than there is harvesting supply. There are  
14 twice as many fishermen in fish boats and equipment as the  
15 world supply of fish can satisfy.

16 MR. CAFFREY: Thank you, Mr. DuBois.

17 Let me say that we have a bit of a dilemma up here.  
18 We have certainly all day scheduled, but we are down to  
19 three presenters, all of whom are entitled to 20 minutes  
20 each. The Board has got about 15 minutes and we have other  
21 commitments that we must make tonight.

22 I will make an offering to the remaining three  
23 individuals that if they can limit their presentation to  
24 five minutes and supplement those presentations with a  
25 handout to be submitted later or now, we can give you each

1 five minutes now, or we would be happy to come back  
2 tomorrow.

3 What time are we scheduled for tomorrow, Mr. Howard?  
4 Is it ten o'clock?

5 MR. HOWARD: There is no scheduled time.

6 MR. CAFFREY: There has been no notice of the time,  
7 so we could state whatever the time is.

8 The third choice is probably not very attractive. I  
9 am speaking specifically to Dr. Brown, Mr. Vogel and Mr.  
10 Porgans. I don't want to give any --

11 MR. PORGANS: I can do mine in five minutes.

12 MR. CAFFREY: You can do yours in five minutes --  
13 why don't you come on up.

14 DR. BROWN: Dr. Brown and Mr. Vogel cannot do theirs  
15 in five minutes.

16 MR. CAFFREY: We will have to see them tomorrow  
17 because we are out of here in about 15 minutes.

18 MR. PORGANS: I appreciate being here. I am Patrick  
19 Porgans. I am an independent regulatory specialist and I am  
20 participating in these hearings as a member of the public.  
21 I am not representing anybody but myself.

22 I heard a lot of good things today and this word  
23 *comprehensive* is really coming home. I can remember talking  
24 *comprehensive* back in the seventies. I don't want to date  
25 myself, but nevertheless, I want to bring you up to date on

1 a couple of things about dating.

2 I talked with Bob Stackhouse over at the Bureau.  
3 He's the Chief Fiscal Division person, and what he says  
4 about those 89 positions, or how many positions, he said if  
5 anybody wants to volunteer for them, he is open -- his door  
6 is open and he is not hiring anybody.

7 As a matter of fact, they are talking about down-  
8 sizing over there.

9 MR. BROWN: That's not true then; is that what you  
10 are saying?

11 MR. PORGANS: That was as of 4:10.

12 MR. BROWN: So that's a bad rumor that's going  
13 around?

14 MR. PORGANS: According to him. He said they are  
15 reorganizing the Bureau, but in the end they are going to  
16 have less people.

17 The other thing that I talked to him about, the  
18 800,000 acre-feet because I was in another meeting this  
19 morning and I went to bed at 4:30, got up at 7:30 and  
20 attended that meeting until at least 10:30 on the CVPIA on  
21 the 800,000 acre-feet, and that's still up in the air, and I  
22 had brought up integrating the 800,000 into everything else  
23 everybody else is doing because we are not going to need  
24 800,000 plus 800,000 plus 800,000.

25 MR. DEL PIERO: Is that meeting over now?



1 MR. PORGANS: According to my sundial, yes.

2 Getting back to the issue at hand, I looked at the  
3 framework agreement and I am all for agreements, believe me.  
4 I have them with my wife every day. It's been going on 30  
5 years.

6 My point is, I have little faith in the agreement  
7 because the bottom line, this agreement has less teeth in it  
8 than I have in my mouth. It's a good concept and I think  
9 it's a framework, but it doesn't have any real -- you know,  
10 I am from the old school, I have to have teeth. They charge  
11 me with being a junkyard dog. Once I bite in, I am in  
12 there.

13 At any rate, I want to suggest to you, there were  
14 several issues brought up here today bout a comprehensive  
15 plan, but we need a transitional implementation plan in  
16 order to fulfill whatever the objectives are. By that I  
17 mean it would be very difficult for us to go out and get  
18 everybody in the counties and areas of origin to voluntarily  
19 come up with their share of water in order to meet the  
20 standards, whatever they may be.

21 That's going to take a little bit of time.  
22 Nevertheless, I suggest that under Federal and State law,  
23 and according to a document signed by Mr. Robert Potter, it  
24 says here that one of the reasons, and I am talking about  
25 the coordinated operating agreement, and it states that the

1 purpose of that proposed agreement and, of course, we know  
2 that's been signed back in the mid-eighties, is that both  
3 the Central Valley Project and the State Water Project bear  
4 the fair share of their obligation to protect beneficial  
5 uses of the Delta.

6 HR 3113 provides that the Federal Government will  
7 meet those standards.

8 Now, what I am suggesting, and I wish the Department  
9 and the Bureau were here because they are going to like  
10 this, I suggest that when you were talking 40-40-20 at one  
11 point on the amount of water that each particular -- give or  
12 take a couple of percents, who cares -- my point is that  
13 maybe what we should do is set an interim standard and say,  
14 okay, this is what the standard is going to be. It is not  
15 going to please everybody, but this standard could change  
16 with what the results of having that standard in place are.

17 Set the standard and set it at 50-50. Okay, 50  
18 Bureau, 50 DWR. Now, in the interim, you set the process in  
19 motion to get all the other upstream depleters based upon  
20 the amount of water they have or the amount they are using,  
21 and you start surcharging them. They are going to be  
22 surcharged for that water because the State and Federal  
23 water projects aren't going to be putting that water up, and  
24 over time, they are going to be required to pay this water  
25 back, sort of like a water banking concept, but it is a

1 delayed water banking concept based upon the actual  
2 implementation of what amounts of water they are required to  
3 provide for the project.

4 MR. BROWN: I don't follow, Patrick. Try it again.

5 MR. PORGANS: I know it is late. Under the current  
6 law, and this is not taking fully into account Racanelli.  
7 Racanelli says let's get everybody in and everybody is going  
8 to have their fair share.

9 HR 3113 and the water rights conditions that are  
10 attached to both the Bureau and the Department's permits, if  
11 this Board sets new standards, they are going to meet those  
12 standards and they will provide that water.

13 I am suggesting to you that they shouldn't bear the  
14 full responsibility over time to meet those standards  
15 because we all know there are other users.

16 I am suggesting that if you set a standard, whatever  
17 the standard is, that both the Departments in the interim  
18 share the responsibility to meet that standard knowing full  
19 well that in time the other depleters are going to have to  
20 make good for whatever water they put up. It is a water  
21 banking concept, but a delayed water banking concept.

22 Now, the last thing, because I'm getting pretty  
23 close to my time -- I did two things: One, I'm going to  
24 give the Board a copy of a report I put together against my  
25 wife's best wishes. This is one of the dreams that didn't

1 work out and this is on the state of the State Water Project  
2 supply, demand, financing and management.

3 I present six options in here on how we can create  
4 more flexibility in the operation of the State Water Project  
5 and increase water supply yield with existing facilities.

6 The other things that I am saying in this particular  
7 report is we can provide a source of revenue to help us  
8 sustain those water contractors, especially in the ag sector  
9 that are having financial problems. That is all in here.  
10 It is all within the existing source of funds.

11 The other thing I would like to mention -- I mean a  
12 lot of people come back in and say we didn't know back when  
13 that this project would only have about 1.8 million acre-  
14 feet of yield, the State Water Project.

15 I have every Bulletin 132. I try to get my wife to  
16 read to me because my eyes are bad. Bulletin 132-82 states  
17 that by mid-1985, or shortly thereafter, the firm yield of  
18 the State Water Project would be at 1.6 or 1.8 million acre-  
19 feet of water and that would be attributable to increased  
20 demands from the areas of the counties of origin.

21 So, we are talking about 1.6, 1.8 now, but the 1.6  
22 or 1.8 is for different purposes. It is to protect these  
23 public trust resources.

24 The last thing I have done in my spare time --

25 MR. CAFFREY: Are you going to leave the report with

1 us?

2 MR. PORGANS: I am going to give you one.

3 MR. CAFFREY: Do you have copies for the other  
4 parties and the 20 that we have asked for?

5 MR. PORGANS: I don't. This report is not for  
6 everybody.

7 MR. CAFFREY: Could you get us more copies in the  
8 next couple of days so we can fulfill the fairness -- I am  
9 not trying to give you a bad time.

10 MR. PORGANS: I appreciate that, Mr. Chairman, but I  
11 would have to talk to my wife because she also handles the  
12 budget.

13 MR. CAFFREY: You are going to have to bring your  
14 wife to one of these proceedings because we would like to  
15 meet the power.

16 MR. PORGANS: She will beat me up for that.

17 At any rate, the last thing I did, just so that you  
18 can appreciate, I did a report for some people in the marsh  
19 and this establishes a report on what has happened this year  
20 for water deliveries. It is interesting to note with all  
21 restrictions that are imposed with ESA, et cetera, the State  
22 Water Project was able to provide almost as much entitlement  
23 water this year as they did in 1987, which is a good sign,  
24 and we are suggesting now that we don't have a plan in the  
25 event we go forward because that rule curve is out there

1 somewhere, and I realize these biologists -- I can't find  
2 out who they are, but they are running the projects -- have  
3 them contact me.

4           What I am suggesting is that there's latitude here  
5 and if somebody really wants to sit down, you know, and work  
6 towards the short- and long-term integrated solution to deal  
7 with this problem, call my wife and see if she can book me  
8 in.

9           Thank you for your time today, and I didn't have an  
10 actual written presentation, but I can get you something. I  
11 will call Alice Book and have her give you a copy, and then,  
12 I will give it back to you.

13           MR. CAFFREY: Thank you, Mr. Porgans. If you can  
14 get some more copies of your handout, that would be helpful.  
15 I realize that you're a single representative of the public  
16 and your funds are limited.

17           Thank you, Mr. Porgans.

18           Let's see, we will be back tomorrow. Let's resume  
19 at 9:30.

20           Mr. Pettit; is that correct. Mr. Pettit is  
21 reminding me that we will proceed across the street tomorrow  
22 morning at 9:30 in our hearing room at 901 P Street.

23           (A brief off-the-record discussion was held.)

24           MR. CAFFREY: We are going to have a little change  
25 in plans. We have had a consultation and there are

1 apparently two more presenters. We don't expect any more  
2 sign-ups tomorrow, so we will finish tonight. We are going  
3 to give each of the presenters 15 minutes and we are going  
4 to hold to that pretty carefully, and that won't include  
5 questions, but are Dr. Brown and Mr. Vogel still here? Yes,  
6 they are.

7 Dr. Brown, why don't you come forward and I believe  
8 you wanted to go first. I think Mr. Vogel wanted to follow  
9 you.

10 MR. VOGEL: If we can switch them around, I would  
11 appreciate it.

12 MR. CAFFREY: All right, Mr. Vogel, why don't you  
13 come forward.

14 MR. VOGEL: Good afternoon. My name is Dave Vogel.  
15 I am President of the Natural Resources Control Science,  
16 Incorporated.

17 I am here today on behalf of Delta Wetlands  
18 Corporation. Specifically, I am here to discuss the value  
19 of real time monitoring and informational standards as  
20 useful tools for the Board to consider in protecting Bay-  
21 Delta estuarine resources.

22 We are presently working on a technical report which  
23 we will provide to the Board staff in the next several  
24 weeks. It describes some of the important facets of how  
25 real-time monitoring and informational standards would be

1 employed by the Board to protect the resources, and I am  
2 here to talk about some specifics.

3 I know a lot of the time today people talked about  
4 generalities, and fluff, and so forth and policies. I am  
5 here to talk about real fish and real water.

6 Specifically, real-time monitoring, you have heard  
7 it mentioned a few times today and it's sprinkled throughout  
8 many of the documents within this summer's workshops, and I  
9 am here to tell you it is not a misnomer.

10 A lot of folks say you can't do it. I am here to  
11 tell you we can do it. I can give a very specific example.  
12 Again, this is just a highlight. I am going to give you an  
13 example to perk your attention and other aspects of this  
14 will be presented in the technical report.

15 I believe you have a copy of an analysis that is  
16 dated July 24, 1985. You should have that. This is a  
17 letter that describes the very first pulse flow that was  
18 ever utilized in California back in May of 1985. I wrote  
19 the letter. It was signed verbatim by the Regional Director  
20 of the U. S. Fish and Wildlife Service in Portland. It  
21 describes each and every phase of how that pulse flow effort  
22 worked in moving salmon from the upper Sacramento River out  
23 through the Delta estuary.

24 It was a three-day pulse-flow effort and to  
25 characterize why it came about and how it came about, you



1 have to think about what 1985 represented. It was a drought  
2 year, there were very adverse conditions present throughout  
3 the Central Valley. We had very low winter flows at that  
4 time.

5 Many of the monitoring programs which I was in  
6 charge of on behalf of the U. S. Fish and Wildlife Service  
7 on the upper Sacramento River demonstrated there were  
8 literally millions of salmon still holding and rearing in  
9 the upper Sacramento River and have yet to migrate down  
10 through the river system and Bay-Delta estuary.

11 I was also responsible for programming about 8  
12 million salmon out of the Coleman National Fish Hatchery,  
13 the largest federal hatchery we have in California.

14 And at that same time, because it was a drought  
15 year, agricultural diversions came on line early and we had  
16 very severe conditions in fish passage at the Red Bluff  
17 diversion dam.

18 Also, at the Glenn-Colusa Irrigation District  
19 because of riverbed degradation conditions and a  
20 dysfunctional fish screen, there were very adverse  
21 conditions present as well, so the State was set for an  
22 environmental disaster.

23 Working with the Bureau of Reclamation at that time  
24 in a very creative proactive fashion and working with all  
25 the State and Federal agencies, specifically Fish and

1 Wildlife, the Bureau and Fish and Game, we were able to  
2 develop a pulse-flow idea and put it into practice.

3 But it would have been employed -- the Bureau told  
4 us, you have got to demonstrate this is going to work,  
5 because it is 50,000 acre-feet of water. So we employed a  
6 real-time monitoring program.

7 The first graph you see here is the monitoring I did  
8 at Red Bluff. It was all orchestrated to time the passage  
9 of these fish and the release of millions of fish from the  
10 Coleman Fish Hatchery in concert with this pulse of water  
11 out of the Shasta Dam.

12 The data points you see here are a result of our  
13 hourly monitoring at Red Bluff diversion dam and we timed it  
14 so when those fish were released, they hit the confluence of  
15 Battle Creek where Coleman National Fish Hatchery is located  
16 at the same time the increased flows from Shasta came down  
17 the mainstem of the Sacramento River.

18 To do that we had to get the hatchery people out  
19 there at three o'clock in the morning and pull the screens,  
20 and that wasn't a random haphazard scheme. It was based on  
21 a lot of years of research that demonstrated that we knew  
22 the time when these fish would pass downstream, we knew the  
23 rate of travel, and the Bureau knew the rate of water  
24 movement, so we tried to integrate real life biology with  
25 water management and get them to converge on behalf of the

1 resource.

2           It worked extremely effectively, such that we were  
3 able to plan the water release and fish release to get fish  
4 past Red Bluff Dam at night. You can see in that graph  
5 there the peak of the movement occurred about ten o'clock at  
6 night. The following night we continued monitoring and  
7 confirmed that the bulk of the fish had passed.

8           We also found that it had dramatically reduced  
9 predation at the dam and that is described in detail in the  
10 letter.

11           But moving downstream to the Delta, the arrows on  
12 the left identify key sites within the upper Sacramento  
13 River where these fish passed downstream.

14           The fish were released, like I said, at three  
15 o'clock on the 13th, and then, on the bottom you see the  
16 dates in May, until ultimately when the bulk of those fish  
17 -- and we knew those were our fish because we tagged about  
18 200,000 of them at the same time they were released. We  
19 released nearly eight million fish at the same time.

20           You can see about a five-day window. About eight  
21 days after the release, they passed River Mile 0 down at  
22 Chipps Island, a passage of nearly 300 miles.

23           Now, since then, there have been subsequent  
24 modifications to this technique, the addition of additional  
25 sites to monitor these fish and we have demonstrated that it

1 does work, and so, I simply throw that out as an example to  
2 give you the background of the pulse-flow concept, and I am  
3 not intending here to say the pulse flow is the answer. The  
4 intent is to talk about real-time monitoring as a useful  
5 tool.

6 MS. FORSTER: Do the fishery agencies do real-time  
7 monitoring now?

8 MR. VOGEL: I would have to say no, not by the way I  
9 would define real-time monitoring. They do monitoring, but  
10 it is monitoring to pretty much monitor the status of the  
11 resource. Much of what you hear about good science, bad  
12 science -- I'm a believer that it is good science, but the  
13 design of the monitoring programs isn't designed to  
14 accommodate what you need to achieve, and that is how to  
15 react to a situation before you have a problem.

16 You always hear about the problems of the take  
17 limits. Well, take limits are down here. That is the worst  
18 place to monitor because then it is too late.

19 The salmon of the Sacramento River have already  
20 migrated down there. The San Joaquin River fish have  
21 already been pulled toward the pumps. The Delta spawn, the  
22 striped bass spawn have all been pulled down in the South  
23 Delta. It's too late. By the time you react and shut off  
24 the pumps, the fish are already in the South Delta.

25 What I am suggesting with this type of real-time

1 monitoring program is to place your sites to allow the  
2 reaction time to occur before you have a disaster -- this  
3 point right here.

4           So, their study sites are not set up at an  
5 appropriate location such as in the Sacramento River where  
6 you can respond in sufficient time to avoid the entrapment  
7 of the fish into the South Delta.

8           So, the monitoring they are doing is good, but it is  
9 not designed to allow reaction time and that's what this  
10 technical report will cover. Daily acquisition is possible.  
11 We even do it on an hourly basis.

12           I won't go through all of these, but the key item  
13 that you just brought up there is item No. 2. Throughout  
14 the Delta, throughout the San Joaquin and many of the rivers  
15 that I am currently working on in the Central Valley, the  
16 techniques and the abilities are there to do it. But it  
17 won't work unless people want it to work, so it is a  
18 different type of a monitoring program than you have heard  
19 about in the past.

20           Again, I won't go through each one of those in the  
21 interest of time, but I want to talk briefly about the last  
22 three.

23           One is nighttime sampling. All the monitoring  
24 programs you have heard discussed, almost none of those are  
25 conducted at night. You hear of problems with hazards to

1 people, boat traffic and so forth, but the irony is that  
2 that's where the action is. That's when the fish movement  
3 occurs, and that's when you get the least amount of gear  
4 avoidance by the fish.

5 MR. DEL PIERO: That's when you have to pay people  
6 time and a half.

7 MR. VOGEL: You are absolutely right. That's  
8 probably the biggest stumbling block. When I said getting  
9 the hatchery people out there at three o'clock, it took me  
10 two weeks to get approval. We had to pay them double time.

11 It's a serious problem. I can do it now in private  
12 practice. My employees all worked at night, but I can do  
13 it; but in the government, it's a real problem.

14 We will discuss the importance of that. It's  
15 critically important for the resource, and obviously, it is  
16 important for the water supplies, but that's when the real  
17 action in nature happens. That is when you really discern  
18 what is happening in fish movement.

19 Now, the thing about this real-time monitoring, it's  
20 worthless if you don't have a quick way of entering the data  
21 in the format that anybody here can use, the Board can use,  
22 I can use, Fish and Game and Fish and Wildlife. They have  
23 got to be able to do that. They are doing it on the  
24 Columbia River.

25 In the last workshop I discussed some of the most

1 sophisticated tools that they are using, such as passive  
2 integrated transponders, detection devices in each of the  
3 dams. Just recently, in fact, two or three days ago, I  
4 found out that Fish and Game was up there looking into the  
5 possibility of developing a parallel database at the  
6 Portland fish passage center using such things as passive  
7 integrated transponders.

8           It will work. In California perhaps the best tool  
9 would be to CDEC, the California Data Exchange Center. That  
10 information is available to anybody. All you have to do is  
11 call up, give the password, it is free. Call up on your own  
12 phone, access the microcomputer and you can have  
13 instantaneous readout on immediate real-time data such as  
14 streamflow gages and hourly readings.

15           The same thing can be achievable with biological  
16 data.

17           MR. CAFFREY: Where is that phone number based?

18           MR. VOGEL: I believe it is right here in Sacramento  
19 but it is accessible anywhere -- it's upstairs.

20           MR. CAFFREY: You just use your phone Complus and  
21 plug in and away you go?

22           MR. VOGEL: Exactly. It's a beautiful system.

23           But the biological data can all be entered in the  
24 same fashion and what we would envision with the real-time  
25 monitoring station is to establish key modes or control

1 points and every night this data could be up-linked or down-  
2 loaded into the computer, and literally by the next morning  
3 anybody can access that database.

4 It is not just a pie-in-the-sky dream. I mean,  
5 people are doing it right now.

6 Think of the value of that and how water operation  
7 folks could respond when they see these peak movements of  
8 the fish going through the Delta. They can make management  
9 changes and you could open and close gates or reduce  
10 pumping, increase pumping, and so forth, and again, a lot of  
11 fish would be saved and a lot of water could be saved.

12 Anyway, that's the key aspect of the presentation  
13 and we are going to put all this down in a technical report  
14 and bring it to the Board.

15 MR. CAFFREY: Mr. Vogel, have you had any  
16 opportunity to present your findings, your actual  
17 experiences into the CUWA development effort and some of the  
18 other parties?

19 MR. VOGEL: No, I haven't.

20 MR. CAFFREY: You haven't.

21 MR. VOGEL: No, I would like to, though.

22 MR. CAFFREY: Have you approached them at all?

23 MR. VOGEL: This was all news to me. I just  
24 recently got a copy of the draft plan. These are techniques  
25 that we are working on in four states throughout the West;



1 Idaho, Washington, California and Oregon.

2 MR. CAFFREY: I have heard your presentation before  
3 and I, for one, have been impressed with the practicality of  
4 your approach, and so, I commend you for your continuing  
5 efforts and I just think it is fascinating.

6 It would be good, I think, if some of the others  
7 could have the benefit of some of your thinking and some of  
8 your actual data.

9 MR. VOGEL: Sure.

10 MR. CAFFREY: It's too bad the way things get  
11 scheduled, the way the cards get submitted, and we have you  
12 on late in the day because it probably would be good for  
13 some of them to hear this.

14 I can't tell you what to do, but I suggest you show  
15 them some of this data.

16 MR. VOGEL: I will.

17 MR. CAFFREY: I imagine you all agree.

18 MR. BROWN: I agree. I would like you to make it as  
19 strong as you can.

20 MR. CAFFREY: And certainly, please participate in  
21 the meetings Mr. Pettit is going to be holding starting the  
22 21st.

23 Does anybody have any questions of Mr. Vogel?

24 Anything from staff?

25 MR. HOWARD: I had a question. I was just glancing

1 through the memo. I guess it was written in response or as  
2 part a study you have done, and I notice that on the 14th or  
3 so you increased the flow from 9,000 to 14,000, and then you  
4 track it through the graph, as you indicated.

5 Has this same monitoring program been done without  
6 the pulse flow? I mean, if you had done it without the  
7 pulse flow and you had the same monitoring program, would  
8 you have seen essentially --

9 MR. VOGEL: Yes, it was. In fact, it was done many  
10 years preceding that. That is what prompted this type of  
11 monitoring program, and that is how we knew when to release  
12 the fish. All these years historically the hatchery would  
13 release the fish during daylight hours, usually in the  
14 morning, and the way they track these fish downstream, they  
15 tend to move in spurts. During the daylight hours they tend  
16 to hold back and move very slowly, and when nighttime hits,  
17 at twilight, they start moving to the center of the channel  
18 and start moving very rapidly, and by midnight they are  
19 really moving downstream at a very rapid rate.

20 So, based on that prior monitoring without pulse  
21 flow is how we were able to schedule release of the fish and  
22 the actual release of the water out of the reservoir.

23 MR. HOWARD: So, it's a good idea to release them at  
24 night, or during a pulse flow, or both?

25 MR. VOGEL: Definitely both in my mind. In fact,

1 getting back to scheduling people at night, I tried for  
2 years when I was with the Fish and Wildlife Service to get  
3 all hatcheries in the entire Central Valley to release all  
4 their fish at night, and I ran into a brick wall because of  
5 this double time and overtime, and so forth.

6 MR. CAFFREY: Maybe we ought to think about a  
7 recommendation to the Fish and Game Commission.

8 MR. VOGEL: You heard, I think at one of the last  
9 workshops or one of the publications where striped bass  
10 fishermen know where to go fishing in the Delta is when the  
11 hatchery trucks are there. There's a reason for it. The  
12 fishermen wouldn't be there just to get their lines wet.  
13 They are there for different reasons.

14 MR. CAFFREY: Anything else of Mr. Vogel?

15 Thank you very much.

16 Dr. Brown.

17 DR. BROWN: . Is there any chance of getting this in  
18 the morning or do you want me to go through it tonight?

19 MR. CAFFREY: There is no chance tomorrow now, and  
20 you have 15 minutes tonight.

21 Let me point out that as stated in the notice, when  
22 you give us your written material, we read it. It may seem  
23 amazing, but we do read everything, so what you tell us  
24 verbally is not the limit of what we consider as your input.

25 DR. BROWN: I understand.

1           So, I want to just review some of the concepts we  
2 have introduced at the previous workshops, but remember I am  
3 leading to a full set of recommended standards that we came  
4 up with that illustrate adaptive management.

5           And we are hoping that by running through what these  
6 particular objectives are, that you would get a better  
7 understanding of what we are suggesting.

8           Remember from previous testimony, we are suggesting  
9 a very different set of standards than what appears in D-  
10 1485. We have introduced the concept previously that the  
11 idea of looking ahead by water year type and by month, and  
12 presetting flows or salinity standards for fish and wildlife  
13 is not going to be an efficient, and may not even be  
14 effective for managing the fish.

15          So, leading off from what Dave Vogel has just  
16 presented, we have come up with the tic-tac-toe diagram  
17 which says there are basically three major beneficial uses  
18 of concern, the water supply, the salinity control which now  
19 includes estuarine protection and fish protection. And to  
20 provide protection, the comprehensive -- all those words,  
21 there really are three types of standards.

22          Dave has just been talking about the daily  
23 information needs, and really, all we are suggesting  
24 different than the monitoring plan which appears in D-1485  
25 or appeared in the D-1845 draft, or the D-1630 draft, is

1 that beyond requiring that the monitoring go on, you should  
2 literally require that that monitoring data show up in CDEC  
3 the very next day, or soon as possible, because one of the  
4 problems that we observed is that the monitoring is going on  
5 but it has no chance of affecting the Delta management  
6 because those reporting requirements are out.

7 I think it would be similar to an NPDES permit that  
8 did not require monthly compliance reports. They didn't  
9 have a mechanism for being able to go from monitoring to an  
10 evaluation to incremental management.

11 The middle screen of tic-tac-toe are the minimum  
12 protective standard that everyone is sort of talking about  
13 that just have to be there. Once they are decided on, they  
14 are fixed ahead of time, and we have broken them down in our  
15 written document in terms of what you would be providing for  
16 water supply, and the two that we are suggesting there is  
17 that the riparian diversions that occur sort of get built  
18 in. Those are happening. Those may have prior water  
19 rights, and that's happening in the Delta.

20 The other one that you might consider is a fixed  
21 minimum pumping limit, as this was in the D-1630. Almost no  
22 matter what is going on, there is some minimum amount of  
23 pumping that ought to be going on and similar for salinity  
24 control, you can come up with salinity minimums and these  
25 would be the base Delta outflows that would be required to

1 prevent salinity intrusion, and we have attached some  
2 numbers to those in our recommended set of standards that  
3 are in the document and that are one of other alternatives  
4 considered for Tom's work.

5           We have a minimum protective estuarine habitat that  
6 is essentially the confluence part of what people are  
7 suggesting which is in the order of 7,000 cfs for the five  
8 months. And similarly, for fish protection, what would be  
9 the minimum operational changes that may be required?

10           Well, two things that people are talking about would  
11 be the cross channel closure, and what they are thinking is  
12 you have to close it this whole time since we don't know  
13 when the fish will be there.

14           What Dave Vogel is saying is that if you had good  
15 daily information standards, there is some opportunity for  
16 the real-time monitoring to come across and actually reopen  
17 the cross channel when it was free of fish at some  
18 designated density, but in general, you could imagine some  
19 absolute changes to the Delta that would be fixed and  
20 required.

21           You could add up the water cost of this and this may  
22 amount to, just making up a number, five million acre-feet  
23 of water. Well, that's about the requirement under D-1485.  
24 So, perhaps that's what we are talking about in this middle  
25 category.

1           We have the actual numbers that we are suggesting in  
2 the document.     Then, there would be these adaptive  
3 allocation objectives, and now we are getting down to what  
4 we really suggest that you implement.

5           Rather than working on the monthly time scale, all  
6 of this adaptive allocation would be done on a daily basis by  
7 the Executive Director, as was suggested in D-1630, or we  
8 are using the term Delta master to refer to that operation.

9           If we could have the next slide -- and I want to  
10 just briefly go through the idea here.     These adaptive  
11 management standards can no longer be specified as salinity  
12 or flow for a given month in a given year type.     That is not  
13 in enough specificity for what will actually be required.

14           Rather, what is needed is that there be daily  
15 monitoring of the Delta conditions and the fish responses  
16 that are going on, then some evaluation activity happening  
17 in this Executive Director's office or the Delta master's  
18 office.

19           The sort of things that he would be doing is what we  
20 people have been talking about, adding the fish protection  
21 and habitat analysis to the already very exact water  
22 analysis, evaluating habitat conditions, estimating these  
23 transport patterns, like Dave showed the example on the  
24 Sacramento River, estimating the distribution and abundance  
25 of fish, the early warning he was suggesting, knowing when

1 spawning is happening is another, and actually estimating  
2 entrainment losses as is done with the salvage records,  
3 although we are agreeing with some of the fish folks as to  
4 the adult or juvenile fish that you think you are salvaging,  
5 and that's too late in the life history. It's the eggs and  
6 larvae that should probably trigger pumping cutbacks.

7           There are just a limited number of things that these  
8 adaptive standards could then actually control, and we're  
9 saying put a person in charge of it. That water quality  
10 plan will not have the ability to live through the future  
11 and make the adjustment, but we are hoping that there would  
12 be a way to put these objectives in the standards with this  
13 structure for decision making in place to sort of take the  
14 comprehensive control and the balancing on a day-to-day  
15 basis and take on that responsibility.

16           The only thing we can do is control the salt  
17 gradient location with outflow, and that's very expensive in  
18 water to provide an extra day at Rowe Island, for example.

19           Schedule the transport flows -- that's the kind of  
20 things that Dave Vogel was mentioning, and almost all of the  
21 recommended standards, all six of them, if you have already  
22 looked at them, have a San Joaquin transport flow.

23           The only trouble with that is that they have already  
24 chosen the dates for such and such. The dates that you  
25 would want to do the San Joaquin flushing flow, as you



1 already wrote in D-1630, will depend on conditions that  
2 year, and just as you made that a function of the Executive  
3 Director's, coordinating with the fish agencies deciding, we  
4 are saying that is the kind of daily decision making I want  
5 for every aspect of the Delta control:

6           We do operate the gates and facilities, we do  
7 control the pumping and scheduling of hatchery releases, or  
8 doing other sorts of things.

9           We are just about out of time, but I wanted to  
10 emphasize -- will you put up our next overhead. This,  
11 again, is a review graph. Perhaps this works into the next  
12 workshop where we can consider these alternatives.

13           In our paper we are saying that evaluating these  
14 potential alternatives with monthly water supply models is  
15 impossible because it does not provide the right  
16 information. The monthly water supply model knows nothing  
17 about the fishery benefits that might result.

18           If you take the matrix that DWR just released this  
19 morning giving you the water costs, you will notice that  
20 four out of five alternatives that they have evaluated all  
21 have approximately the same water costs. That is sort of  
22 curious to me, but let's say that is true, they are each  
23 going to cost 500,000 acre-feet a year.

24           My question is, how would we decide which of the  
25 four to go with? They have equal water costs, they have

1 unknown fish benefits, and we are suggesting that one of the  
2 reasons that you can't go any further with the monthly water  
3 models is that it doesn't even consider the realistic  
4 hydrology and operational constraints, let alone try to  
5 calculate the effect on fish.

6 We introduced two workshops ago our initial version  
7 of a daily Delta operations model called Daily SOS. I don't  
8 have time to show it to you, but we are now introducing at  
9 this workshop the existence of a daily fish transport model  
10 that sits right on top of the Daily SOS model. We call it  
11 Daily Move.

12 And what you can do with that is bring up a year of  
13 real daily data, apply a set of standards to it, and  
14 determine what the channel flows throughout the Delta are.

15 This is an example for three months where the main  
16 important ingredients of the three months are the water  
17 coming into South Delta through the San Joaquin, the east  
18 side or cross channel. This is with the cross channel  
19 closed and almost full exports going on in early April, and  
20 then, as the water supply is limiting, they had to fall off,  
21 and then the current standards applied 6,000 cfs pumping in  
22 May and June. During that pumping cutback to six, it  
23 provided a little bit of QWEST flow, which is the white  
24 line.

25 What we then did is open the cross channel gates.

1 Now under the current set of standards when they are telling  
2 you close it for a month, open it for a month, the cross  
3 channel would have remained closed, and so the following  
4 situation would exist.

5 Show us the next one. We are just contrasting the  
6 idea of opening or closing the cross channel gates. They  
7 would normally be closed with the current set of  
8 recommendations because we are still talking April and  
9 there's the possibility of salmon, so they are just shut.  
10 So, what that does is it leads to a stagnation of the San  
11 Joaquin.

12 So, what we did with our daily fish model, this is  
13 simply to prove that it exists and that it is available for  
14 other people to look at, is we spawned 10 million eggs a day  
15 of salmon for the first ten days of April. That's the  
16 little black line coming across, and then watched where  
17 those larvae ended up.

18 Coming out of the lower San Joaquin, there are only  
19 two exits. You can either exit to the confluence, and for  
20 striped bass it's their preferred habitat and safety, or you  
21 can exit to the South Delta, in which case they have  
22 approximately a two-day shelf life, we might say.

23 And what we find is that --

24 MR. DEL PIERO: That's not a long enough shelf life.

25 DR. BROWN: When the cross channel is closed as in

1 the top diagram, as it would be to protect the salmon, the  
2 ending of those hundred million fish spawned in the first of  
3 April was that 54 percent made it to the confluence, to  
4 relative safety, but 28 percent made it to the export pumps.  
5 An additional 4 percent made it to the ag diversions.

6 For the same period of time, when we opened the  
7 gates, we are now providing more outflow to the confluence  
8 because we held pumping constant, and in that case a higher  
9 fraction, approximately 10 percent more, made it to safety,  
10 so here is an example where we find a 10 percent difference  
11 in fish survival which might be a significant number simply  
12 by opening the cross channel gate, which would be against  
13 conventional wisdom because they are to be closed for the  
14 salmon.

15 So, we are introducing the idea that there is  
16 conflict in running the Delta and specifying month-long  
17 closure or opening, and again, when we are talking day-to-  
18 day decision making, the timing of when salmon are there and  
19 when striped bass are there, it might be able to work out.

20 One last point. We spawned 100 million fish, but at  
21 the end of 10 days the most fish that we see in the San  
22 Joaquin is 30 million. What this means is that 70 million  
23 of the fish within the 10-day spawning period are already  
24 transported to wherever they were going to go.

25 This is to emphasize that right on top of the

1 spawning peak is when transport is working. So, setting  
2 average monthly flows at a month's time may not have given  
3 the conditions that were needed right then.

4 I have my story now for you. You may have wondered  
5 what this is. This is my monitoring equipment and this  
6 little thing on me is my pump. It is a very little pump,  
7 but I take daily measurements of my blood sugar since this  
8 is an insulin pump, and based on those measurements and what  
9 I want to eat and what I know my blood sugar needs to be, I  
10 control my pump, and I do this every day for every meal that  
11 I eat, and it gives me a peak of insulin.

12 My story is that we have some big pumps and setting  
13 them at a certain level or the gates leading to them for a  
14 month at a time is not going to be adequate.

15 There will not be any set of prespecified monthly  
16 standards that will provide efficient fish protection. But  
17 if you set up a Delta master, daily information, and the  
18 flexibility to work day by day, it is possible we can  
19 protect fish at the lowest possible water cost.

20 So, thanks for the late time and you have my stuff.

21 MR. CAFFREY: Dr. Brown, thank you very much, sir,  
22 and I would observe that Mr. Brown was very impressed by  
23 your ability to count millions of fish and he can't find one  
24 to catch.

25 DR. BROWN: These are computer fish.

1           MR. CAFFREY: We know you have done a lot of very  
2 interesting work and I think I would ask you the same  
3 question I asked Mr. Vogel before: Clearly, we are the ones  
4 that have to make a decision, but have you had any exchange  
5 of information or discourse with some of the other parties,  
6 like the CUWA folks that are working on their packages?

7           DR. BROWN: No, we don't get any kind of notice from  
8 CUWA or the Department. I know they have been having some  
9 premodeling deliberations and you will notice our  
10 alternative isn't even on their matrix, so we do not have  
11 any kind of direct interaction.

12           MR. DEL PIERO: Let me suggest that you contact the  
13 CUWA representative, and also the representative of the  
14 environmental organizations. I think they would find it  
15 very interesting.

16           I understand DWR has been somewhat reluctant to  
17 spend time doing evaluation of the model. Nonetheless, this  
18 Board is not hamstrung by any predispositions one way or the  
19 other, and I think the Chairman's suggestion that you all  
20 get in touch with CUWA and share that information may well  
21 prove to be beneficial evidence.

22           MR. CAFFREY: You are basically presenting to us a  
23 well stated and very creative technique for operating the  
24 system, and that is a methodology for attaining or keeping  
25 a standard that is set.

1           You know, if we could, in a real world, operate that  
2 way, I'm sure that besides water quality benefits, there's  
3 certainly water quantity benefits, too.

4           How this Board plays a role in implementing that  
5 kind of management scheme, good as it is and interesting as  
6 it is, is somewhat problematic. That's why we say to you  
7 that it might be worthwhile for you to also try to enter  
8 into this process through those other avenues with the  
9 people who are charged with doing the operation.

10           If they can be intrigued or interested in this as we  
11 develop our standard which cost water, it might heighten  
12 their interest on how to save some of that water.

13           MR. DEL PIERO: One more additional thing. Dr.  
14 Brown, do you afford Mr. Howard the opportunity to see your  
15 model runs and how you do your evaluations?

16           DR. BROWN: We remain interested and are able to do  
17 runs on our model for Tom in addition to having DWR SIM runs  
18 using these fish effect models. That is certainly possible.

19           MR. DEL PIERO: Does he take advantage of that?

20           DR. BROWN: Well, he has just gotten started with  
21 the six cases released a couple of weeks ago. So, the offer  
22 is in the paper.

23           MR. CAFFREY: Does staff have any questions of Dr.  
24 Brown?

25           MR. HOWARD: No, we have already seen Dr. Brown's

1 stuff.

2           MR. CAFFREY: All right, thank you all very much.  
3 That concludes this fifth workshop and we will have a public  
4 notice out shortly describing the proceedings and the scope  
5 of the proceedings on the meetings that we have announced  
6 for September 21 that will be chaired by our Executive  
7 Director, Mr. Pettit.

8           Thank you all for your attention and thank you all  
9 for your input.

10           (Proceedings concluded)

11



1 REPORTER'S CERTIFICATE

2 ---o0o---


3 This is to certify that I, ALICE BOOK, a Certified  
4 Shorthand Reporter, was present during the Workshop of the  
5 STATE WATER RESOURCES CONTROL BOARD, STATE OF CALIFORNIA,  
6 held in Sacramento, California, on September 1, 1994;

7 That as such I recorded in stenographic writing the  
8 proceedings held in the matter of Review of Water Quality  
9 Standards for the San Francisco Bay/Sacramento-San Joaquin  
10 Delta Estuary;

11 That I thereafter caused my said stenographic writing  
12 to be transcribed into longhand typewriting and that the  
13 preceding Volume VII, pages 1 through 261, constitute said  
14 transcription;

15 That the same are true and correct transcriptions of my  
16 said stenographic writing for the date and subject matter  
17 hereinabove described.

18 Dated: September 18, 1994

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20 

21 ALICE BOOK  
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