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IN RE THE MEETING OF THE)
BAY-DELTA ADVISORY COUNCIL)
_____)

ORIGINAL

TRANSCRIPT OF PROCEEDINGS
Sacramento Convention Center
13th and K Streets, Room 204
Sacramento, California 95814

Thursday, April 25, 1996 at 10:10 a.m.

REPORTED BY: SUSAN PORTALE, CSR NO. 4095, RPR, CM

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1 COUNCIL MEMBERS:

2 MICHAEL MADIGAN, Chairman, California Water
3 Commission

4 LESTER SNOW, Executive Director

5 SUNNE McPEAK, Bay Area Economic Forum

6 ERIC HASSELTINE, Contra Costa Council

7 STEVE HALL, Association of California Water
8 Agencies

9 JACK FOLEY, Metropolitan Water District of
10 Southern California

11 ALEX HILDEBRAND, South Delta Water Agency

12 TOM MADDOCK, California Chamber of Commerce

13 BOB RAAB, Save San Francisco Bay Association

14 RICHARD IZMIRIAN, California Sportfishing
15 Protection Alliance

16 DON BRANSFORD, Glenn-Colusa Irrigation District

17 ROGER STRELOW, Beveridge & Diamond

18 ROSEMARY KAMEI, Santa Clara Valley Water
19 District

20 DAVID GUY, California Farm Bureau Federation

21 TOM GRAFF, Environmental Defense Fund

22 JUDITH REDMOND, Community Alliance with Family
23 Farmers

24 ROGER THOMAS, Golden Gate Fishermen's
25 Association

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COUNCIL MEMBERS: (cont'd)

- HARRISON (HAP) DUNNING, Bay Institute
- ROBERTA BORGONOVO, League of Women Voters
- LELAND LEHMAN, California Waterfowl Association
- TIB BELZA, Northern California Water Association
- MARY SELKIRK, East Bay Municipal Utility
District
- ROGER PATTERSON, Council Member
- MIKE STERNS, Council Member
- MARCIA SABLAN, Council Member
- ANN NOTTOFF, Council Member
- MICHAEL MANTELL, Council Member

---oOo---

1 (All parties present, the following proceedings were
2 had at 10:10 a.m.):

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CHAIRMAN MADIGAN: Good morning.

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The hour of ten o'clock having arrived and passed ever so slightly it's time for this regularly scheduled meeting of the Bay Delta Advisory Council to get underway.

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10

We have a full day so we shouldn't dally any longer.

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13

I want to start off by thanking those of you who had the time and opportunity yesterday to take the Cosumnes River tour.

14

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18

I went on it, thought it was excellent.

I want to thank the Nature Conservancy as well as the CalFed and the resource staff for their time in putting together the trip and making it as helpful and as informative as it was.

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22

For those of you who weren't able to make the trip I understand that we will have information packets to you either here today or shortly. Shortly is not exactly the same as here today but it is shortly.

23

24

25

Let's see here. I have here a chair that is reputed to have been sat in by Jackie Kennedy at a meeting -- what am I bid? One million, a million five,

1 God, unbelievable. That's right. That's how we are going
 2 to pay for the program.
 3 I also want to thank those of you who have
 4 taken the time to attend the scoping meetings and Workshop
 5 Number 6, and we are going to have an opportunity on the
 6 Agenda today to discuss those further.
 7 Let me ask members of the BDAC, those who went
 8 on the tour yesterday, if you have any comments about what
 9 we did or saw?
 10 MS. SELKIRK: I think one of the most
 11 interesting parts of the tour yesterday was that it gave us
 12 an opportunity to see up close and personal, or whatever
 13 they would say on ABC sports, the difference between a
 14 managed and a natural quote unquote natural process with
 15 restoration. It was really fascinating.
 16 Both clearly had their qualities that were
 17 worth looking at.
 18 It was magnificent. It was really, really
 19 magnificent. I had never seen the kinds of stands of
 20 valley oak riparian forest before anywhere in California
 21 and that in itself was magnificent.
 22 I think it really gave us a sense of what the
 23 Delta can look like.
 24 CHAIRMAN MADIGAN: Yeah, I agree with you.
 25 Thank you.

1 to help or to fix it, not to sabotage the process.
 2 And I've been through other kinds of scoping
 3 processes in the past where people come to indicate that
 4 they are not going to let you go forward, they don't like
 5 the whole thing, and that's not what happened.
 6 We had a lot of people expressing, as I
 7 indicated, concerns and ideas, but there was a general
 8 feeling, in my opinion, in all of the scoping sessions that
 9 people want to see this program move forward and be
 10 successful.
 11 Now, as you might expect, different people in
 12 different locations define success differently, and that's
 13 the challenge that we have always known that we've had in
 14 this program, is finding that common ground for the
 15 definition of success.
 16 What I want to do is have Mary give a kind of
 17 an overview of what we did and what we heard and then I
 18 want to make a few kind of closing comments on the scoping.
 19 And, as Mike indicated, a number of you
 20 attended the Scoping Meetings and you may want to share
 21 your thoughts about it.
 22 Mary.
 23 MS. KELLY: Well, as Lester indicated,
 24 April was a big month for public outreach.
 25 We held nine public outreach events, for a

1 It really was -- it was a good one and for
 2 those of you who weren't able to go yesterday, I suspect
 3 that the Nature Conservancy would be happy to arrange some
 4 sort of opportunity for you to see it. It's well worth
 5 seeing.
 6 Moving on to item number 2 on the Agenda,
 7 "Summary of Issues and Concerns from Scoping Meetings and
 8 Workshop Number 6", I'm going to ask Lester to kick this
 9 off and Mary Kelly is here and then I will invite comment
 10 from those of you who attended.
 11 Lester.
 12 EXECUTIVE DIRECTOR SNOW: Mary, why don't
 13 you go ahead and get ready. I'll make just a few
 14 introductory comments.
 15 As many of you know, we finished scoping last
 16 week in Bakersfield on Thursday, and hit quite a few
 17 locations in a relatively short period of time.
 18 I guess the general comment I would make it was
 19 highly successful in that we got a good turnout. We got a
 20 lot of comments.
 21 We got criticism. We got people who actually
 22 were angry with some of the things that we had proposed.
 23 We, certainly, got some helpful suggestions on
 24 improvements to make, but perhaps most important from a
 25 broader perspective is that even those who were upset came

1 total of 26 hours of public involvement opportunities, and
 2 more than 600 members of the public attended and
 3 participated.
 4 We had eight Scoping Meetings from Red Bluff to
 5 San Diego. The purpose was to get the public's ideas about
 6 issues to be studied in the environment for review and at
 7 the same time we took a lot of public comments on the ten
 8 alternatives.
 9 Attendance of the Scoping Meetings ranged from
 10 23 people to 84 people, with all of the traditional
 11 stakeholders groups represented.
 12 Between Scoping Meetings we hosted one
 13 technical workshop to get more detailed input on the
 14 alternatives and that was attended by more than 200 people,
 15 and it took place here in Sacramento, as many of you know,
 16 because you were there.
 17 Here is a list of the Scoping Meetings, and, as
 18 you can see, the meeting in Pasadena drew the smallest
 19 crowd, of 23 people, and the meeting -- excuse me, that was
 20 Long Beach, 23 people -- and the meeting in Red Bluff drew
 21 the largest crowd with 84.
 22 As Lester mentioned, there were a variety of
 23 concerns, and it varied according to where we were.
 24 However, as Lester mentioned, all of the input
 25 was constructive, even when it was critical, and people

Page 9

1 were impressively well-informed on the issues.
 2 There were some basic agreements on basic
 3 issues and, naturally, there was disagreement, strong
 4 disagreement, on some other issues but the bottom line is
 5 we felt welcome everywhere we went.
 6 We received input on a huge range of issues
 7 relating to the Bay-Delta but a few topics emerged as what
 8 I would call key concerns either because one group felt
 9 especially strongly about it or because the issue came up
 10 from many groups and many locations and usually for both
 11 reasons.
 12 Here are some of the hot scoping topics, and
 13 let me qualify this by saying that this is by no means an
 14 exhaustive list of issues that were discussed at the
 15 scoping meeting nor is it really a definitive list of the
 16 things that everybody who was there would consider hot.
 17 It's just the beginning of an overview for you,
 18 a first taste.
 19 As you can see (indicating), we had nine
 20 issues, and we'll go over them in detail in a moment.
 21 It started with, in alphabetical order, for
 22 want of a better system, area of origin concerns, cost of
 23 alternatives, demand management and all of the different
 24 forms of demand management, ecosystem restoration, equity
 25 and the idea that stakeholders should move forward

Page 10

1 together, levee stability, storage, water quality and water
 2 supply.
 3 Let me go through those in a little bit of
 4 detail to give you an idea of the some of the things people
 5 said.
 6 Starting with the A's, area of origin, the high
 7 attendance in Red Bluff suggested to us a high level of
 8 interest in this program up in the north state and in how
 9 it relates to the people who are there.
 10 There was some concern among speakers that
 11 those communities have in the past made sacrifices for
 12 water improvements, such as providing sites for reservoirs,
 13 but not felt much benefit from those sacrifices and they'd
 14 like to see that situation changed.
 15 There was also talk from the Rural Counties
 16 Association that we need to broaden our vision of an
 17 ecosystem.
 18 The gentleman who spoke felt we were looking at
 19 an ecosegment rather than an ecosystem.
 20 As for cost, there was universal concern about
 21 cost and a little bit of sticker shock as we described the
 22 very broadly defined projected costs of the alternatives.
 23 Probably the most commonly asked question of
 24 the day was -- or of the week was who was going to pay.
 25 There was general agreement that costs should

Page 11

1 be shared and there were some suggestions about how costs
 2 should be allocated.
 3 One of them was that we put together a Delta
 4 environmental trust fund to make sure that the costs are
 5 widely allocated.
 6 A number of people said that they wanted to
 7 experience some kind of tangible benefit from the program
 8 if they were to make a contribution.
 9 Well, along with cost demand management was
 10 probably the most hotly discussed issue.
 11 There was very broad support for the idea that
 12 we need to use water more efficiently in order to control
 13 demand on the Delta, but there was some disagreement about
 14 how much water can be saved and who can do the saving.
 15 A number of urban agencies are obviously very
 16 committed to conservation and reclamation and a number of
 17 them describe in great detail their programs in that area.
 18 However, at least one urban representative said
 19 that he felt that there was so much going on in terms of
 20 water conservation that virtually no more water could be
 21 saved in urban communities.
 22 Among the agricultural representatives
 23 attention regarding demand management focused on the
 24 proposed land retirement.
 25 Agricultural representatives across the board

Page 12

1 opposed the levels of demand management called for, land
 2 retirement, called for in the current alternatives.
 3 In Bakersfield where we heard the most about
 4 land retirement virtually no one supported any level of
 5 land retirement with the possible exception of the hot
 6 drainage lands.
 7 There was concern about the economic and social
 8 impacts of land retirements, and people from all
 9 stakeholders mentioned that as something that needs further
 10 analysis.
 11 However, there were people at the meetings who
 12 asked that land retirement remain in at least some of the
 13 alternatives and some concern that perhaps CalFed might be
 14 backing off on that. So there were a variety of strong
 15 feelings on that subject.
 16 But, again, there was concern -- or interest
 17 across the board in conservation and reclamation.
 18 Ecosystem restoration was also naturally a very
 19 popular topic. Particularly in Oakland there was interest
 20 in having more information about the program's ecological
 21 vision as well as specific projects that we're planning and
 22 what their intended results are, and there was a desire for
 23 more assurance that the recommended ecosystem projects
 24 would have the intended results.
 25 Some speakers in several locations asked for an

1 ecosystem wide approach rather than concentration on
 2 specific species, but there was universal support for the
 3 idea that we need to improve the ecosystem for a lot of
 4 different reasons.

5 There was just a little bit of concern about
 6 equity and that seemed to come primarily from speakers who
 7 were focused on water supply and water reliability issues,
 8 and there was a perception that perhaps water supply
 9 benefits do not begin to accrue in the program until the
 10 later stages, and some folks felt that that perception was
 11 inequitable because all of the stakeholders should move
 12 forward together.

13 Particularly in Walnut Grove, but actually
 14 throughout the State, there was concern about the stability
 15 of the levees, and probably everywhere we went somebody
 16 asked about how peat soils react in earthquake and wanted
 17 us to look at that more closely.

18 People in Walnut Grove were concerned about the
 19 high projected cost of levee repair and the possibility
 20 that that would make potential funding sources not want to
 21 support the program.

22 They asked us to recalculate those costs. They
 23 felt that it could be done for less money.

24 There was also at least one mention in
 25 Walnut Grove of the concern that if an isolated facility

1 quality source water rather than reliance on treatment.
 2 And, finally, almost uniformly in Southern
 3 California speakers asked for more water supply
 4 reliability, and that was a concern that was shared in the
 5 north as well and there were some speakers, particularly in
 6 Long Beach and Bakersfield, who said that they need more
 7 water supply and they are hoping that this program will do
 8 something to address that need.

9 Now, since all of us are from somewhere in
 10 particular I thought you might be interested in knowing a
 11 bit more about the concerns affecting the people from your
 12 region.

13 We've talked about that a little bit but let's
 14 quickly look at this overhead (indicating).

15 In Red Bluff the overwhelming concern was with
 16 area of origin issues.

17 In Sacramento people talked about environmental
 18 protection, land retirement, pro and con, and urban water
 19 quality.

20 In Walnut Grove, moving down the state
 21 geographically, levee stability was the hot topic.

22 In Oakland environmental protection and urban
 23 drinking water quality was very important.

24 In Bakersfield many, probably most of the
 25 speakers, spoke about land retirement, a couple people in

1 were built around the Delta, then widespread support for
 2 Delta repair, for levee repair, would dwindle and that was
 3 a problem.

4 There is also -- they wanted to emphasize their
 5 concern that we need an emergency response program, not
 6 just the general maintenance and daily maintenance of the
 7 levees.

8 It was interesting that very little negative
 9 was said about the concept of adding new storage.

10 However, the first choice for many speakers was
 11 groundwater storage.

12 People saw storage as benefiting a number of
 13 different segments and sectors.

14 Some folks saw it as a benefit to source
 15 counties because it might reduce the burden on them.

16 Others saw it as a benefit to the ecosystem.
 17 Others saw it simply as a way to capture wet year runoff.

18 All over the State, from Red Bluff to San
 19 Diego, urban water agencies are concerned with water
 20 quality.

21 Many speakers cited the rising water quality
 22 standards in California and expressed some concern that in
 23 the future they may not be able to provide top water
 24 quality.

25 They also seemed to share a desire for highest

1 favor of keeping it in at some level, many people very
 2 opposed to it.

3 And there was also a concern with agricultural
 4 water supply in Bakersfield.

5 In Pasadena there was concern about the cost
 6 of the alternatives, urban water supply and storage,
 7 support for storage.

8 In Long Beach there was a lot of discussion
 9 about urban supply and reliability, especially from the
 10 prospective of businesses, as well as urban water quality.

11 And, finally, in San Diego there was concern
 12 with urban and agricultural supply and conservation as well
 13 as cost and a number of people in San Diego wanted to
 14 remind us that San Diego is an important agricultural
 15 center.

16 Obviously, all of these concerns are very
 17 important to us, and let me qualify this overhead before I
 18 go on.

19 This is, again, by no means a definitive list.
 20 All kinds of issues came up in each of these
 21 locations, but this is just some of the things that were
 22 hit hardest in each location.

23 Anyway, as I say, these are very important, and
 24 we'll be considering them as we refine the alternatives and
 25 as we move into the environmental review phase.

1 I know at this point Lester had some more
2 things he wants to tell you about the implications of this
3 public input.

4 EXECUTIVE DIRECTOR SNOW: Actually, Mary
5 has done such a thorough job I have little to add.

6 I'll make a couple general comments.

7 We received, you know, a lot of information
8 and so we are still trying to put it together into a
9 scoping report.

10 We hope to have a summary available next week
11 and that will take a little longer to put together a
12 detailed report, but, you know, there are a wide range of
13 just the kinds of issues.

14 Some people focused on policy implications,
15 such as the guarantees and assurances issue.

16 Almost not focusing on what it is we are doing
17 but just raising the issue that whatever we do, how are you
18 going to assure that it holds together for 30 years or 40
19 years, and, of course, that's something that's actually on
20 the Agenda later today.

21 Also, a lot of technical comments and calls
22 for us to do more detailed work.

23 People posing technical questions about water
24 supply and that came up in a number of locations, you know,
25 tell us exactly the water supply differences between the

1 mean, I think we heard that a number of times.

2 And a lot of people made that comment, not say
3 that there should not be significant agricultural
4 conservation, just indicating that -- indicating that for
5 us to prescribe it has to be ag retirement is not the best
6 way to proceed with agricultural conservation.

7 And surrounding that issue in general no matter
8 what we do with land retirement we need to pay attention to
9 the broader rural community impacts, and that came from all
10 sectors.

11 That was not even just an ag comment that was
12 made to us. That came from a lot of sectors, that if we
13 are going to evaluate a program or component like that,
14 make sure you're evaluating all of the impacts of such a
15 component.

16 Cost, all I would add on the cost
17 consideration, was there really were two things that play
18 there, how much was often the first question asked, but I
19 think the most important question that they asked usually
20 second was who pays.

21 So people were concerned about the total costs
22 of projects but probably that was secondary to knowing
23 exactly who gets to pay for different components.

24 And I think we've recognized for some time here
25 at BDAC that that's an important issue, both of those

1 alternatives, and, of course, we are not at that level of
2 detail; people wanting to know exact amounts of habitat and
3 why that amount of habitat would be selected.

4 Also, interest in evaluating the alternatives
5 by the water quality constituents that would result from
6 the project, what would have to be treated for.

7 So there is a lot of those kind of issues that
8 I think we can make some improvement on but basically can't
9 answer those detailed technical questions until we are into
10 Phase II.

11 And I think Mary did a good job of summarizing
12 the other types of issues of area of origin.

13 One that I would add that tended to be an area
14 of origin concern is the issue of watershed management
15 where we have in as a core action watershed management but
16 largely for water quality purposes and it was pointed out
17 very specifically that watershed management has been
18 demonstrated from the past to have specific water supply
19 benefits and we need to reassess how we are looking at
20 watershed management.

21 Land retirement, of course, was a big issue,
22 as Mary already indicated, and the general tone was as a
23 water quality management tool perhaps it has its role in
24 the program.

25 As conservation I think it's not a tool. I

1 questions.

2 I think, you know, actually, I think Mary has
3 provided a pretty good general overview.

4 And, Mike, perhaps you might want to see what
5 some of the BDACers thought.

6 CHAIRMAN MADIGAN: Okay, BDACers, it's
7 your turn.

8 Let me ask if there is anybody here on the
9 Council who want to make comments either from your own
10 attendance at those meetings or from questions that you
11 might have?

12 Yeah, Stu?

13 MR. PYLE: My question is about how did
14 the scoping sessions serve your identification of the
15 purpose and needs statement?

16 Do you feel that from the comments you got
17 that you're going to stay with the purpose and needs
18 statement as it is or are there changes that are going to
19 come or how is that?

20 I kind of felt at the Bakersfield program that
21 that was kind of glossed over and that there was just kind
22 of a slipping into the issues of the day and the
23 alternatives rather than focusing on what I view as the
24 legal process of the initial step in the EIR/EIS process.

25 MR. SNOW: I guess the best answer to

1 that question is we did not get in any of the Scoping
 2 Meetings specific comments about purpose and need.
 3 We got what I would consider to be some
 4 indirect comments about purpose and need and then probably
 5 more direct issues took place at the Workshop, comments
 6 that have been made in relation to the Workshop, and so I
 7 think as a result or part of this entire scoping process in
 8 our evaluation we do need to review the purpose and need
 9 statement.
 10 So I think that's for us to consider as we move
 11 forward.
 12 CHAIRMAN MADIGAN: It's also appropriate
 13 at this point for those of you in the audience who want to
 14 ask questions on this particular subject to do so or to
 15 make statements.
 16 I would ask you at some point today to make
 17 sure that you sign up.
 18 And this goes for those of you who wish to make
 19 general comment at some point during the day as well so
 20 that we have a sense of how many people would like to say
 21 something on a general subject at the end of the day, but
 22 you are welcome to make specific comment at each point
 23 during the deliberations of BDAC, and it would be nice if
 24 we had your name on record and knew how to spell it.
 25 Is there anybody in the audience who wants to

1 Ann.
 2 MS. NOTTOFF: Just another process
 3 question, and, that is, that from looking over this summary
 4 of concerns it seems as though there is -- while there may
 5 be different emphasis on several elements and what's
 6 presented to people that the general subject areas are
 7 subject areas that are being evaluated and included in
 8 planning documents by CalFed.
 9 But so how will you -- I guess that my
 10 next -- my question is is there -- are you going to revise
 11 the emphasis that you give on the levels of analysis on
 12 some of these in response to this public scoping and where
 13 will we see that?
 14 EXECUTIVE DIRECTOR SNOW: I think there
 15 is several things that can happen as a result of the
 16 scoping and, again, we are not finished reviewing that.
 17 One would be, and it's a primary purpose of
 18 scoping, we would add to our analysis process specific
 19 issues that people brought up.
 20 Let's say, for example, we weren't planning
 21 extensive economic analysis.
 22 As a result of scoping when we hear all of
 23 these comments about the impacts of land retirement and
 24 transfers and we say, gee, we forgot that, we need to add
 25 it into the analysis, and so we'll go through that effort.

1 ask anything or discuss anything in regard to either
 2 workshops that were just described as well?
 3 (No response)
 4 CHAIRMAN MADIGAN: Okay. Anybody else on
 5 the BDAC?
 6 Yeah, Roberta.
 7 MS. BORGONOVO: I would follow-up on
 8 Stu's question and ask if you do redo the statement and
 9 needs, purpose and needs, would that come back to BDAC
 10 again?
 11 Is it a matter of shading it or actually
 12 changing it?
 13 EXECUTIVE DIRECTOR SNOW: I'm not sure at
 14 this point.
 15 We have not focused a lot on the purpose and
 16 needs statement.
 17 It's kind of -- particularly for a
 18 programmatic EIR/EIS it tends to be a lot more general at a
 19 Project Level and I don't think we've really taken a look
 20 at the comments and figured out what impact that could have
 21 on purpose and needs, but I think the answer to your
 22 question is any type of substantive change that would in
 23 any way indicate a change in the mission or basic
 24 objectives of the program, that needs very broad scrutiny.
 25 CHAIRMAN MADIGAN: Anybody else?

1 The other thing that we will do as a result of
 2 scoping is to try to take these comments and concerns and
 3 use them to help us formulate what goes into a short list,
 4 and we got a lot of comments that can help on that, and
 5 there is a lot of comments that would lead us to believe
 6 that some of the components are not in question.
 7 People want, say, at demand management
 8 component and all of the alternatives, there is some
 9 disagreement at what the level is and so we may look at how
 10 we structure these, call them more common elements between
 11 the alternatives and that could be one result of it.
 12 So that's kind of the two ways that we will use
 13 the scoping data.
 14 CHAIRMAN MADIGAN: As usual your comments
 15 in writing are encouraged on this and any other matter.
 16 And that would be equally true for those of you
 17 in the audience who have organizational or individual views
 18 that you want represented.
 19 It's very helpful to the CalFed people to get
 20 those written comments and so you are encouraged.
 21 Before I forget, the next meeting of the Bay
 22 Delta Advisory Council is May 29th.
 23 I think some of us are sitting around with
 24 May 22nd on our calendars but it is the 29th and, I gather,
 25 that we do not absolutely know for sure where that meeting

1 will be yet?
 2 MS. GROSS: Correct.
 3 Your schedule says the Sterling Hotel but we
 4 may have to change it to get a larger room.
 5 CHAIRMAN MADIGAN: All right. So you
 6 will be informed as soon as that decision is made.
 7 Also, the CalFed people will be getting to us
 8 a schedule for this next year.
 9 That schedule, as you can all appreciate, has
 10 been difficult to conclude because of the nature of the
 11 process and the development of the various program
 12 products, but they are in the process of developing that
 13 and we should all have that here pretty shortly.
 14 All right. Is there anything else that
 15 anybody wants to talk about in terms of the Workshops?
 16 If not, then we will move on with the next
 17 item on the Agenda, which is the Process for Moving to the
 18 Short List.
 19 Lester.
 20 EXECUTIVE DIRECTOR SNOW: I would like to
 21 kind of provide a general overview of how we got to the ten
 22 and how we move beyond that and then also you can see under
 23 this discussion to have a discussion of the alternatives,
 24 and I guess we are prepared to discuss the alternatives as
 25 much as you want to discuss the alternatives.

1 now?
 2 EXECUTIVE DIRECTOR SNOW: Yeah, we have
 3 some focus.
 4 And I guess what's good about that, as I
 5 indicated, is that with this kind of focus we still have
 6 people who even though they are concerned, they want to see
 7 something good happen, and so I think the challenge for us
 8 is to keep everybody in the tent and moving forward.
 9 One of the things that has become clear to me
 10 is perhaps we are not giving BDAC as much information or as
 11 much care as we need to in this program, and what I
 12 realized is that a number of BDAC people participate in
 13 other processes so we run into you there and so we make an
 14 assumption that BDAC is aware of all of these things when
 15 it's only a subset of BDAC that has been at all of these
 16 other meetings.
 17 And so we are going to try to increase the
 18 level of briefing that we give BDAC so you are all on the
 19 same plane.
 20 And so for some of you that may mean that you
 21 see the same information two or three times because you've
 22 been at another meeting, but I think for the sake of
 23 consistency and kind of common understanding we probably
 24 need to do a little better job of staff briefing on what's
 25 going on and why we are at a given point and not assume

1 Specifically on that item, though, we thought
 2 we would discuss these operational concepts that we have
 3 developed and probably use three of the alternatives as
 4 examples.
 5 The purpose of the operational concepts is to
 6 show how these things work together, and that's basically
 7 comments we receive from BDAC and other sources.
 8 One can look at the collection of actions but
 9 it's still not clear how they operate and so we are trying
 10 to start filling in that part of the equation as it were.
 11 I guess even to get into this I want to stress
 12 just how many things are going on with respect to this
 13 program.
 14 There is an awful lot of activity. There is a
 15 lot of different groups to talk to.
 16 One of the things that we've been able to
 17 achieve in going to this list of ten is we really have
 18 people's attention now.
 19 When we were talking process and long lists of
 20 actions and even when we were at the 20 level, a lot of
 21 people's eyes still glazed over on "What's this all about
 22 and what are you trying to accomplish?"
 23 Now that we are down to ten I think we have
 24 all of the attention that we really need on this program.
 25 CHAIRMAN MADIGAN: You have some focus

1 that everybody knows everything that's going on at other
 2 meetings.
 3 Clearly one of the benefits or one of the
 4 reasons we need to do that is in a lot of individual
 5 meetings there is position taking.
 6 A specific interest group needs to articulate
 7 what they need out of this process, and what we, of course,
 8 depend on BDAC for is the kind of the broad focus on the
 9 bigger picture and try to bringing everything together.
 10 So again that makes it incumbent on us to give
 11 you a complete briefing on everything that's going on in
 12 other arenas.
 13 Maybe a couple of side details here that I
 14 forget when Sharon told me I was supposed to bring these
 15 up, but we have scheduled another Public Meeting because we
 16 realized after scoping that we really only had one meeting
 17 in the San Joaquin Valley and yet we have a lot of actions
 18 that have dramatic impact on certain locations so we have
 19 scheduled an evening meeting in Los Banos on May 6th.
 20 I guess that's still tentative at this point,
 21 but we are fairly sure that it will happen in the evening
 22 of May 6th, from seven to nine p.m. in Los Banos.
 23 And I don't know if any of you have been to Los
 24 Banos but there is a wonderful restaurant there called
 25 the -- I can't remember now.

1 A SPECTATOR: The Wool Growers.
 2 EXECUTIVE DIRECTOR SNOW: I always want
 3 to call it the Shepherds or something like that.
 4 So if anybody wants to join us there, we can
 5 all drive down before that meeting.
 6 And maybe I'll surprise staff here a little
 7 bit, but we've been talking about we need to extend the
 8 comment period because we are having another meeting and
 9 there has been a lot of requests. We've extended our time
 10 period.
 11 We originally set up April 30th as the
 12 deadline and I think we need to let people know that their
 13 comments will be useful to us and of equal value if
 14 submitted by May 20th to give an extra period of time.
 15 Now, those of you who have thoughts, the
 16 sooner you get them in the more useful they will be to us,
 17 but, nonetheless, I think to be fair on this that comments
 18 submitted by May 20th would be useful to us.
 19 With that I want to kind of go through some
 20 basic process stuff on how we got to the ten and kind of
 21 where we go from here and then get into the alternatives.
 22 I notice the effect that I'm having. I go to
 23 the overhead projector and everybody just scurries.
 24 CHAIRMAN MADIGAN: They are moving toward
 25 the coffee machine. That is a clue.

1 refinement of the 20, ended up with the ten alternatives,
 2 which we discussed in Workshop 6.
 3 Now, looking forward we are already talking
 4 about Workshop 7, which would deal with how we have dealt
 5 with the comments we have received on the ten, the
 6 additional analysis that we have done to produce some sort
 7 of short list that goes into the EIR/EIS.
 8 And I have another slide later that will show
 9 where BDAC has its critical meetings to move through this
 10 process.
 11 Again, just for kind of the broad context of
 12 what we are doing, we started this with the four conflicts
 13 to try to look at the different ways of approaching those
 14 conflicts and generated the starting points, which are just
 15 groupings or bundles of actions.
 16 We utilized those starting points to start
 17 generating when we call preliminary alternatives, but they
 18 are really just pieces of alternatives.
 19 We looked at solution principles and
 20 performance measures and tried to develop some basic themes
 21 to pull these together to produce the 20, went through the
 22 refinement process and produced ten, and are now looking at
 23 how we move to a short list in the EIR process.
 24 Something I want to stress, we used this slide
 25 earlier (indicating) and it's actually some components of

1 EXECUTIVE DIRECTOR SNOW: This is my
 2 strategy. One of these days I'm going to slip in a new
 3 overhead and it's going to be totally different and you
 4 won't be paying attention.
 5 Just to kind of remind you of where we are in
 6 the process, the six step process that we've talked about,
 7 we are at step 6, at that point in the program where we are
 8 evaluating and refining and trying to get to the short list
 9 to take into EIR/EIS.
 10 Perhaps almost a stroll down memory lane in
 11 terms of -- here in the context of the Workshop process,
 12 which parallels the kinds of things that we discussed.
 13 We started off simply trying to define the
 14 problem and did that here at BDAC as well as in the first
 15 Workshop, working through a mission statement and trying to
 16 develop objectives.
 17 The first place that we introduced something
 18 called principles, which are becoming more and more
 19 important in the process; Workshop 3, identifying the range
 20 of actions, and in Workshop 4 these solution strategies or
 21 how do you start forming the actions together.
 22 In Workshop 5 we took the -- kind of the
 23 solution strategies and we developed the core actions and
 24 kind of the first glimpse of the 20 alternatives, reviewed
 25 those in a number of sectors, including here at BDAC, did

1 it are becoming more and more important.
 2 There's a lot of ways to address water
 3 quality. There's a lot of ways to deal with water supply,
 4 and we have developed these into components, and, as we
 5 discussed several meetings ago, we formed those first 20 by
 6 pulling different components together and went through a
 7 refinement and ended up with one of the ten by getting a
 8 lot of input.
 9 What's happened in the Workshop and also in
 10 scoping is people are really starting to look at these
 11 components in a more focused way, that this is not so much
 12 the key.
 13 This is an example of how you can utilize these
 14 components, but one of the things that came out of the last
 15 Workshop, it also came up in scoping, is people saying,
 16 "Yeah, we're not crazy about any of the ten. They don't
 17 really get us going but if you just made a few changes in
 18 some of these components it would really work."
 19 And so I think that's a very important thing to
 20 observe, is that we do want to relook at these components
 21 as we go through additional refinement.
 22 And so, once again, none of the ten may end up
 23 on the short list. There may be some modification to it
 24 and I think that's not only possible but likely.
 25 In fact, even getting to the ten we really

1 went through a lot of that where we had the 20, and you may
 2 remember, those were all by numbers, and when we formed an
 3 alternative, in this case, B, we really were taking
 4 components from these different ones that were on the
 5 original ten list to form a hybrid to try to get better
 6 interaction between the different components.

7 We discussed at the Workshop how we use
 8 numbers, the alternative one, and now we have alternative B
 9 and the proposal was to name them and so we'd have
 10 alternative Bob.

11 I forget who recommended that but . . .

12 It's the truth, Mary. It's the truth.

13 This looks busy, but actually, I think it's
 14 important to focus on this a moment (indicating).

15 What we tried to do in Workshop 6 and also in
 16 the Scoping Meetings is give a sense, obviously, not
 17 quantified it, a qualitative sense of the strengths and
 18 weaknesses with respect to each of these alternatives and I
 19 think that's important to us to help focus on the
 20 components.

21 I think again what happens is if you pick any
 22 given alternative and you start to look at the negative you
 23 say which component is producing the negatives or is there
 24 a component that you can bring in that offset the negatives
 25 that are associated with that?

1 but we take these basics solution principles, and as you
 2 look at an alternative you can kind of see in any given
 3 alternative, alternative X, you take a look at it and you
 4 say it's not really reducing the conflicts in the system
 5 very well and why is that, which components seem to be
 6 causing that or not responding to it and is it possible to
 7 make revisions to that alternative so it reduces conflicts
 8 better?

9 Same with equitable; is the alternative
 10 treating the different interests in a fair fashion or is
 11 all the burden being shifted to one of the particular
 12 interests and so it could be inequitable and it may be
 13 shifting significant impacts and again you would evaluate
 14 what is it that's doing that and can you fix it?

15 And so you kind of think of this as the kind of
 16 process of using solution principles to help refine the
 17 alternatives.

18 The other thing I want to stress about
 19 components, this is the way that we have described the
 20 alternatives in a number of our publications.

21 This actually is the table from the scoping
 22 document and then if you have the yellow workbook, there is
 23 even a more detailed matrix, and so we show the components
 24 and then we show what each alternative consists of.

25 Again, what I think is happening as part of

1 Or is it better to pick some of the positives
 2 out of one and combine it with another one and all of a
 3 sudden you are starting to get it to be heavily positive
 4 and very few negatives left anymore.

5 But with that kind of information we want to
 6 look at the solution principles, which again are becoming
 7 more and more important as we evaluate these packages; also
 8 evaluating the program objectives that we set and then get
 9 into this kind of refinement process, which, again, is
 10 trying to pull probably the best components from these
 11 existing ten alternatives and forming new alternatives that
 12 are more than likely to be all hybrids of what is there.

13 And in this process you may end up losing some
 14 basic components. There may be something you decide it's
 15 just not working, there is no way we can fit this in, it's
 16 violating solution principles or it's not meeting
 17 objectives and so you can move forward and perhaps in going
 18 to the short list you may lose some of the components.

19 That's up in the air at this point.

20 Again, our Workshop, which would be in June,
 21 we then would be kind of discussing our process, what we
 22 think ends up in being the short list.

23 I keep mentioning the solution principles, and
 24 you can kind of think of the effort like this, and again
 25 it's a qualitative effort at this point, not quantitative,

1 this analysis is kind of shifting away a little bit from
 2 the detail of each of these alternatives and rather
 3 focusing on these particular components, you know, how does
 4 surface storage work, when would you utilize it, what can
 5 you combine it with to get the most benefits?

6 And so part of the analysis of the ten really
 7 is looking at the strengths and weaknesses of the
 8 components and we have even had comments and
 9 recommendations that on something like a component for
 10 reducing demand, which people have also suggested we change
 11 the name of, to -- now I can't remember what was
 12 recommended -- water use -- efficient water management
 13 practices, right.

14 Demand management often has some real specific
 15 definitions that we have violated a little bit in the way
 16 we have used it so we may need to change the name of it.

17 But, nonetheless, getting comments that this
 18 really isn't necessarily a variable across here.

19 There needs to be a demand management
 20 component that's in every alternative and similar types of
 21 comments about certain components of levee stabilization is
 22 not an option, that it really needs to cut across all the
 23 alternatives.

24 And one of the things that may happen is that
 25 we'll see fewer components as variables and they are

1 developed to be consistent across the alternatives and then
2 really focusing in on what are the basic variables that we
3 are dealing with.

4 Now, to try to work through this in the
5 timeline, as you know, we have extended -- we originally
6 had anticipated getting to the short list at the end of
7 May. Now it looks like the end of June, early July.

8 We have here in April had the six Workshop
9 Scoping Meetings.

10 This BDAC Meeting in May, we have a BDAC
11 Meeting scheduled for the 29th, which, in fact, I think
12 will end up being a very important meeting.

13 That's the meeting that will bring in this
14 component stuff I was just talking about.

15 We'll work through, sift through the scoping
16 information we've got and the rest of the comments, kind of
17 even bring back up all of the old comments that we've
18 gotten and relook at this and that's really what we'll be
19 bringing to BDAC on the 29th, is, you know, after
20 synthesizing all that we've heard and evaluating these
21 alternatives here is what we think works and so it will be
22 a very important meeting.

23 From there we move then to a Workshop in June,
24 and we have not picked that date yet, have we?

25 We are looking somewhere in mid-June, mid to

1 there is these three clear alternatives you are going to
2 study and you are going to pick one of them and it's more
3 kind of optimizing the combination of the components.

4 CHAIRMAN MADIGAN: Alex.

5 MR. HILDEBRAND: In talking about these
6 components I think we have a problem in that almost any
7 component you come up with has both upsides and downsides
8 to it, and the upsides get mentioned in all these volumes
9 that come out but there is very little said about the
10 downsides, and I think we have to have some reasonable
11 analysis of both the upsides and the downsides of each
12 component before we can decide whether they are good or bad
13 or belong in some alternatives and not in others and I
14 don't see us moving in that direction very fast.

15 EXECUTIVE DIRECTOR SNOW: well, I think,
16 and the reason that you would never just evaluate
17 components is the issue that you raise, is that, you know,
18 theoretically any one of these isolated conveyances can do
19 good things and you can focus on the good but it's only
20 when you are combining it with other things and you
21 evaluate it in some fashion do you know how it all performs
22 together, and I think we need to do that, and that's why
23 even though there is a component focus you can't abandon
24 the way that you combine it with other actions.

25 MR. HILDEBRAND: No, but taking your

1 third week of June, if I remember right, and then have a
2 BDAC meeting probably in early July, I believe.

3 Because of the holidays I think we have had a
4 little extra time in there unless you want to have it on
5 the 4th of July and then we could have fireworks when we
6 celebrate the short list.

7 We'll probably have fireworks no matter when
8 we have it.

9 MS. MCPEAK: Lester, you have July 19th
10 in the packet.

11 Is that firm?

12 MS. GROSS: (Affirmative nod)

13 MS. MCPEAK: I want to make sure we have
14 it. It's a Friday.

15 MS. BORGONOVO: Will the short list then
16 not be made by the May 29th BDAC Meeting but more likely by
17 the July 19th meeting?

18 EXECUTIVE DIRECTOR SNOW: Right.

19 The question was will the short list be at the
20 July meeting versus the May 29th meeting?

21 What we would like to have at the May 29th
22 meeting is perhaps not the short list but kind of a clear
23 indication of where we are headed, and, again, with the
24 focus on the potential focus on components it starts to
25 take less of an appearance of a definitive short list where

1 example of an isolated conveyance, the main objective there
2 or one of the main objectives is to take the good water and
3 export it, which means you leave the bad water in the Delta
4 so you gain water quality for some water users and you
5 degrade the water quality in the Delta inevitably in some
6 degree and at several locations and there is none of that
7 indicated in the analysis as to what's the price you pay
8 for doing that.

9 And not just to pick on that one item, but
10 similarly with other things and then there is this business
11 I mentioned before, that you've got your habitat components
12 in there that to me were put in there obviously without
13 going out and looking at the terrain to see if it's
14 appropriate.

15 So I think we have to have a lot more analysis
16 of the pros and cons for these before we can choose among
17 them.

18 EXECUTIVE DIRECTOR SNOW: Yeah, there is
19 no question about that.

20 We always have this general discussion at
21 Workshops and BDAC and Scoping Meetings about when certain
22 kinds of information becomes available and certainly before
23 we get to a preferred alternative we have to have all of
24 that type of analysis done at a program level and then even
25 like in a case of habitat then you still have to do the

1 site specific analysis after that.
 2 And so, I mean, at this stage we are just
 3 trying to get together packages that seem to perform
 4 properly so that we then can get on with some of the
 5 modeling to do the more detailed work in Phase II of the
 6 program.

7 MR. HILDEBRAND: But if we beat down the
 8 alternatives before we know whether a given set of
 9 components is really good or bad, you may weed out
 10 something that could really be good or leave something in
 11 that clearly isn't going to fly later on.

12 EXECUTIVE DIRECTOR SNOW: One of the
 13 issues, I guess, on balance, the kinds of comments we have
 14 been getting would have us leave all of this in and analyze
 15 it which is kind of difficult from a resource standpoint.

16 But the first example you used with isolated
 17 conveyance and impact on water quality, I mean, if there is
 18 any form of isolated conveyance, that's a given of needing
 19 to have detailed analysis of that.

20 So there is no question that you cannot make a
 21 decision about that until you understand how it's operated
 22 and what the impacts are.

23 CHAIRMAN MADIGAN: Sunne.

24 MS. MCPEAK: Mr. Chairman, I wanted to
 25 ask Alex if looking at the ten now options what would be

1 and then look at the components that have been tossed into
 2 those alternatives here and ask first is there any reason
 3 why a given component isn't either so good that it should
 4 go in all of them or so bad that it should be thrown out of
 5 all of them or that it belongs in some others for a good
 6 reason.

7 And until we do that I don't think that we
 8 ought to be whittling this down very much further.

9 MS. MCPEAK: and I was asking the
 10 question, not because -- I was asking you to, if you will,
 11 share a personal opinion or introduce any bias but really
 12 to tap your expertise, since it's difficult to analyze all
 13 of the options until we get maybe a further combination
 14 that can be analyzed in detail.

15 Because the detail that's ultimately going to
 16 be needed in order to do the analysis correctly requires a
 17 further cut, a further determination of the combination,
 18 and so the next step of analysis I am hearing you're asking
 19 for that should maybe apply to all of the alternatives
 20 across the board I'm hearing Lester say, well, we might not
 21 be able to do all of that because it's really going to
 22 change when we get to site specific components or options,
 23 anyway.

24 So what I was trying to get at was if based on
 25 your technical expertise and knowledge, Alex, what would be

1 the perhaps top three detractors or negative aspects of
 2 those proposals that you think are not now analyzed?

3 MR. HILDEBRAND: Well, I don't want to
 4 put my personal biases at this point into whether I think
 5 one basic approach is better than another. We've got to
 6 put them all on the table.

7 But the analyses we have in here, in my
 8 judgment, don't -- wouldn't permit a total objective choice
 9 among the alternatives because it doesn't show what are the
 10 downside of doing some of these things, what's the
 11 feasibility of doing them, what's the feasibility of
 12 assuring that a given facility be operated as planned and
 13 that sort of thing?

14 And so to me it's sort of tossed together a lot
 15 of stuff.

16 I agree with what Lester said earlier. I'd be
 17 very much surprised if any one of these alternatives that
 18 is now designated would survive the scrutiny, but I don't
 19 like to whittle it down to two or three or four
 20 alternatives until we know about what it is we are
 21 whittling.

22 I think we could do something such as to take
 23 sort of the basic concepts of through Delta with a north
 24 stub, a dual part isolated, part through, and the grand
 25 Peripheral Canal and then have some alternatives to those

1 three of the downsides really to be looked at that you
 2 think have the most potential for negative impacts if not
 3 analyzed at this point?

4 MR. HILDEBRAND: I think really we are
 5 talking about a matter of degree here.

6 I would agree with Lester you can't go at this
 7 point over everything you have for a final EIR, but I don't
 8 think it's reasonable to look at the isolated facility
 9 without at the same time saying in some broad analysis, not
 10 a detailed analysis, but what does that do to water quality
 11 in the Delta, and what does it do if you do that without
 12 correcting the salt load that's coming down the San Joaquin
 13 River from the west side service area?

14 MS. MCPEAK: Okay.

15 MR. HILDEBRAND: And what does it do if
 16 you don't restore some of the flow in the San Joaquin River
 17 which now doesn't even reach the Central Delta half the
 18 time?

19 And so these things are somewhat interrelated
 20 and I am not talking about a detailed analysis but we
 21 aren't even acknowledging these problems and the way they
 22 are now.

23 MS. MCPEAK: So those would be the three
 24 that you think really need to have some further analysis
 25 and assessment or at least stipulated to that they need to

Page 45

1 be analyzed at this point?

2 MR. HILDEBRAND: In concept, yeah.

3 I could come up with some others but those

4 would be illustrative at least.

5 MS. MCPPEAK: Okay. Good.

6 CHAIRMAN MADIGAN: Roger.

7 MR. STRELOW: I've found that it's

8 helpful in an exercise like this not that any one is

9 directly comparable but in similar kind of activities it's

10 helpful to keep in mind that as much as we are focusing in

11 on possible alternatives we are at least indirectly equally

12 focusing on excluding alternatives and so what we are

13 really doing at this stage is partly saying what are

14 possible options that really seem just infeasible.

15 That is, we can't -- there is not a way that we

16 can see that a particular option is going to meet all of

17 our criteria, which has been a vital thing to have, and I

18 think that's been one of the keys to potential success

19 here.

20 And then on the kinds of options that you are

21 addressing, Alex, any of the ones that keep surviving the

22 cut, at least tentatively at any stage you have to

23 recognize that something may come up as you get further

24 focused on them that may knock them out of the box or in,

25 hopefully, many more cases, there will be conditions that

Page 46

1 you have to come up with or offsetting requirements.

2 So it really is kind of a sifting process and

3 it seems to me we are asking about the right questions at

4 this stage.

5 We ought to be concerned if there is some

6 option that keeps showing up that there is really, you

7 know, a knock out punch out there that we ought to be aware

8 of and eliminate it earlier, but I think the way we are

9 going about it is the right orderly process and absolutely

10 the kinds of questions you are raising or the concerns that

11 you raised, for example, about an isolated conveyance is

12 exactly what we'll have to look at either before we get to

13 the actual EIR/EIS stage, if it looks like there is a fatal

14 flaw, or at least make sure we analyze that carefully in

15 the EIR/EIS so that the right conditions are attached but

16 it seems to me we are on the right track.

17 CHAIRMAN MADIGAN: Thank you.

18 Lester.

19 EXECUTIVE DIRECTOR SNOW: What I'd like to

20 do now is get into the alternatives.

21 You've had them in several different forms.

22 One is in the progress report of the scoping

23 document and the other is Workshop 6, the Workshop packet.

24 Do we have extras of the Workshop packet?

25 Does anybody know?

Page 47

1 Do we have extras of the Workshop packets?

2 MS. GROSS: Big yellow books?

3 Yeah, we have extras here.

4 EXECUTIVE DIRECTOR SNOW: So if any of the

5 BDAC members would like a copy of that in front of them

6 raise your hand and we will get that for you.

7 Just to remind you of the alternatives and

8 their titles and general focus, I want to put this up.

9 But I want to have Steve Yaeger and Dick Daniel

10 come up and pick a couple of these and talk through the

11 operational concepts because -- and Alex touched on

12 this -- you could put together some things that in theory

13 would be very nice but it all depends on how you operate

14 them and how you control them and so we started putting

15 together some basic concepts to show how some of these

16 things would work and I think that as we move forward this

17 will become more and more important because then it also

18 helps to point out guarantees and other kinds of issues

19 because if you show you can operate something to provide

20 just the benefits and not the negatives, how do you know

21 it's going to be operated that way?

22 So it raises a lot of these institutional

23 questions.

24 So, Steve, are you starting off?

25 CHAIRMAN MADIGAN: Mr. Yaeger, good

Page 48

1 morning.

2 MR. YAEGER: Good morning.

3 What Dick and I wanted to do this morning was

4 to walk you through some of the operational concepts of

5 about three different alternatives because these

6 alternatives, I think, help to demonstrate the concepts

7 that are common to the rest of the alternatives.

8 You have this in your pack, this document

9 called "Operational Concepts", alternatives A through J

10 (indicating).

11 We won't be getting into this much detail this

12 morning, but you may want to review that at your leisure

13 and we'll be talking more about these concepts as we move

14 forward in the process.

15 You've seen this during Lester's presentation,

16 but these are the basic components that we have identified

17 in the ten alternatives.

18 We are going to be talking some about the

19 operation of these particular components.

20 I'm not going to walk through each one, but we

21 are going to be focusing this morning on some of the

22 habitat components, such as Bay and Delta habitat

23 restoration, Sacramento River restoration, some of the

24 Delta and Suisun Bay restoration.

25 And Dick's going to walk you through

1 alternative F, which demonstrates, I think, how all those
2 components work and that's a common type of interaction as
3 you look at the rest of the ten alternatives.

4 And then I will come back and talk a little bit
5 about the operation of alternatives B and C, and that will
6 be focused on the operation of channel capacity components,
7 isolated conveyance components, surface and groundwater
8 storage components.

9 So, again, the intent is to try to give you a
10 sense of how we are looking at the operation of all of
11 these components because it's -- I think the way we are
12 looking at that is a little bit different than they have
13 been viewed and used historically.

14 So with that, Dick, why don't you walk us
15 through alternative F.

16 MR. DANIEL: To refresh your memory a
17 little bit, alternative F is probably -- is the most
18 exemplary of our ecosystem restoration strategy.

19 It's a comprehensive ecosystem restoration
20 program, runs from the upper Sacramento River just below
21 Keswick or Shasta Dam down to and through the Delta into
22 the Suisun and San Pablo Bays.

23 On the San Joaquin side we've got elements that
24 run from the mouth of the Merced River down to and through
25 the Delta again down into the Bay.

1 described as wetlands but often more complex than a
2 standard duck marsh.

3 These are the nooks and crannies where fish
4 have an opportunity to rear, where they can escape
5 predators, where they can feed with some degree of safety.

6 It's also the productive areas that produce the
7 nutrients which are the base for the food chain for the Bay
8 and Delta system. So at the first level we took a hard
9 look at that.

10 We made some estimates as to how many acres of
11 this kind of habitat we ought to try to produce, what it
12 ought to look like.

13 We found opportunities to combine efforts to
14 restore levees and rebuild levees with opportunities to
15 build shallow water berm habitat, which appears to have
16 decreased in its volume and complexity in the Delta over
17 time.

18 We looked at the desirability of opening up
19 lands to tidal action. Primarily in the Suisun Bay area
20 where a lot of land has been diked off and used for
21 agricultural purposes, perhaps not high value agricultural
22 purposes but those areas that we can look at in terms of
23 restoring tidal marshlands.

24 In the Delta itself we are focusing primarily
25 on edge habitat, those narrow strips that were left after

1 The first thing I'd like to bring to your
2 attention is the fact that the core action associated with
3 this and all of our ecosystem restoration alternatives are
4 pretty much based on existing programs, primarily the
5 Center Valley Project Improvement Act and the myriad of
6 restoration activities that are associated with that, the
7 activities that are already approved and activities that
8 are being funded right now through the Central Valley
9 Project Impact Act restoration fund.

10 So that's the foundation of all of this.

11 As we looked at need for restoration of habitat
12 the first element that we looked at, the first level that
13 we looked at, focused on the Delta itself, and the upper
14 portions of the San Francisco Bay area (indicating), areas
15 that are roughly in this area.

16 A couple of different reasons for that, all of
17 the anagamus (phonetic) fish that we are concerned about in
18 the system pass through that area so all of the different
19 races, all of the different runs of anagamus fish, the
20 salmon and steelhead, striped bass, sturgeon, and American
21 shad, were all dependent on habitat that's available to
22 them or has been available in the past in the Delta and in
23 the upper Bay. We also focused primarily on shallow water
24 habitat, which appears to have been lost over time.

25 This is the complex mix of habitats often

1 the levees were constructed around the turn of the century
2 appear to be very important but we are also looking at
3 opportunities to construct setback levees and open up areas
4 of greater expanse as part of the overall mix. So that's
5 part of the foundation.

6 In the next level of things that we looked at
7 we started going up the rivers, up the Sacramento and up
8 the San Joaquin River, looking at known problems there.

9 We took a look at the opportunities that might
10 be available to restore habitat on the levees of the lower
11 end of the Sacramento River.

12 That would be between Sacramento and
13 Collinsville, roughly.

14 Opportunities there are limited but apparently
15 there was a reasonable amount of habitat along those levees
16 during the early part of the century, in the '20's, '30's
17 and '40's, we've seen some photographs that suggest that
18 there were riparian corridors along there after the levees
19 had been constructed.

20 We've talked with the Army Corps of Engineers,
21 they've done a reconnaissance level study. They conclude
22 that the study has sufficient merit to go to the
23 feasibility level and if we can complete a feasibility
24 level study in which the Army Corps of Engineers concludes
25 that it's safe to reconstruct vegetated habitat along that

Page 53

1 portion of the Sacramento River, that will help to provide
 2 the kind of rearing habitat that, particularly juvenile
 3 salmon seem to be dependent on, as they are moving
 4 downstream and preparing to move into the salt water
 5 environment.
 6 On the San Joaquin side we have a system that
 7 seems to have changed rather dramatically, not because of
 8 increased flows but rather decreased flows.
 9 There is an accumulation of sediment in the
 10 lower end of the San Joaquin River that has degraded the
 11 habitat value in that area.
 12 We are looking for opportunities to redevelop a
 13 more defined channel, a channel that could be shaded by the
 14 restoration of riparian vegetation, a channel that would
 15 maintain the natural hydrologic dynamic of sediment
 16 accumulation and sediment dispersal as a function of flow.
 17 This also provides opportunity to create some
 18 benefits relative to water elevation and availability in
 19 the South Delta where many of the channels there have
 20 degraded, quite possibly as a result of reduced flushing
 21 flows.
 22 When we looked at the San Joaquin side of
 23 things, we concluded that it would be very desirable to
 24 have access to water supply that could be used to expedite
 25 the downstream movement of juvenile salmon over the flow

Page 54

1 regime that's currently allocated to the San Joaquin.
 2 We also looked at a lot of the problems that
 3 Delta smelt have encountered in relationship to exports
 4 during the latter portion of the spring.
 5 Very often Delta smelt accumulate in the South
 6 Delta, thus making them very vulnerable to entrainment and
 7 a loss at the existing export facilities.
 8 In the past biologists have requested export
 9 curtailments or flushing flows in order to move Delta smelt
 10 further down into the system.
 11 So, again, at sort of the base level or the
 12 second level of ecosystem restoration we are calling for
 13 about 100,000 acre feet of water that could be used on a
 14 discretionary basis by environmental managers, either for
 15 additional flow for salmon out migration, perhaps the
 16 traction flows for salmon that would move upstream in the
 17 fall of the year, or on a case by case basis it could be
 18 utilized to deal with the problems with Delta smelt and
 19 occasionally splittail as they are being impacted by the
 20 pumps.
 21 And the third and most comprehensive level we
 22 move further upstream on the Sacramento River. We get into
 23 the area above the city of Sacramento where the river is
 24 levee.
 25 In this area many locations of the levee is set

Page 55

1 back such that it's only full of water bank to bank in the
 2 highest flood events.
 3 There is some riparian vegetation along this
 4 portion of the river. This runs roughly from Verona up to
 5 Chico Landing, something like 80 miles of river in that
 6 reach.
 7 The major problem, the major deficiency there
 8 is that although the levees are set back riparian
 9 vegetation doesn't have a chance to grow or revegetate
 10 itself naturally due in large part due to the fact that
 11 there are artificially high flows in the summertime.
 12 These high flows cover the sand bars, which is
 13 where you get natural regeneration of willows and
 14 cottonwoods. The natural cycle of riparian vegetation,
 15 degradation and loss due to floods and then regeneration
 16 has been interrupted and interrupted in large part due to
 17 these high summer flows.
 18 In this area we would propose going in and
 19 artificially reestablishing riparian vegetation, probably
 20 not a terribly intensive program in terms of annual effort
 21 but one that would have to be ongoing through time because
 22 of the fact that the way we use the Sacramento River for
 23 water conveyance this natural process has been interrupted
 24 and probably can't be regenerated.
 25 In this alternative F, which has the most

Page 56

1 extensive habitat restoration, we go all the way up to the
 2 Keswick Dam where we take a look at the meander zone of the
 3 river. In this area above Chico landing up to Red Bluff
 4 the Sacramento River is not levied except in a couple cases
 5 where serious problems have occurred.
 6 The river does move back and forth on roughly a
 7 100 year cycle. It goes through the natural process of
 8 building soils through sediment deposition and then the
 9 loss of riparian vegetation. It keeps the dynamic going so
 10 that we have mature riparian forest and young forest being
 11 developed virtually all of the time.
 12 In this area what we would do is work with
 13 willing sellers to acquire lands that are subject to
 14 flooding and erosion, such that the need or the economic
 15 incentive to protect this land against erosion would go
 16 away and eventually the river would move it. The river
 17 would move it downstream and probably to the other side of
 18 the river, which is the typical process that goes on.
 19 We would also buy easements that would allow
 20 landowners to forego the opportunity to reclaim land that
 21 the river has deposited.
 22 Very often what happens is that a landowner
 23 upstream loses his orchard. The landowner downstream has
 24 an opportunity to plant an orchard and so this natural
 25 process of riparian vegetation restoration and regeneration

1 doesn't happen because it ends up being somebody's prune
2 orchard.

3 We find our discussions and the much longer
4 discussions have been going on through the very
5 collaborative SB1086 program that many of you have heard
6 about. Landowners are willing to do this as long as they
7 are compensated and as long as it's a voluntary program on
8 their part.

9 An awful lot of this land that we are talking
10 about here has already been acquired through the efforts of
11 the U. S. Fish and Wildlife Service to establish a
12 Sacramento River refuge complex that would run along the
13 strip of the river up in this area.

14 There remains about two or three thousand acres
15 that has not been acquired and we are proposing to finish
16 that job.

17 Another element of alternative F is the
18 development and utilization of fairly significant amount of
19 storage in the Delta itself.

20 The proposal here is to accumulate somewhere
21 between three and four hundred thousand acre feet of
22 storage on an island or couple of islands in the Delta.

23 These islands would be reinforced as their
24 levees would be reinforced on the inside and the outside
25 and they would be used as storage reservoirs.

1 This water could extend those numbers of days.
2 If continuing research shows that that's a very critical
3 component and if the existing standards fall short of what
4 is absolutely needed.

5 It could be used for other outflow purposes
6 during other times of the year. One of the concepts that
7 many biologists have utilized is the idea that on certain
8 occasions we need to expedite the out migration of juvenile
9 fish from the Delta system into the bays. They call it
10 flushing flows.

11 This water could be used in that purpose. That
12 could be carried over from year-to-year, although this
13 amount of storage doesn't generate an enormous amount of
14 water it could be carried over.

15 The basic concept here is that at the
16 discretion of a group of environmental managers working in
17 all probability with the existing CalFed Ops group,
18 decisions could be made, risks could be taken to use this
19 water for fisheries enhancement or wildlife enhancement on
20 a discretionary basis.

21 We hope that that would then result in a much
22 more flexible system where a good deal of certainty is
23 returned to the system in terms of export supplies that are
24 used for urban uses and agricultural uses.

25 That's it in a nutshell.

1 Ideally it would be located in the southern
2 portion of the Delta where one could connect it up directly
3 with the existing export pumps at Clifton Court Forebay.
4 This would allow a great deal of utility.

5 The three to four hundred thousand acre feet
6 along with the hundred thousand that we are talking about
7 on the San Joaquin side represents design increments. Each
8 hundred thousand acre feet represents about the amount of
9 water that is exported by the two State and Federal pumping
10 plants from the Delta in a typical spring week.

11 So what we are looking at here is four, perhaps
12 five, weeks' worth of supply that could be utilized either
13 to forego pumping but without an interruption because they
14 would be using the environmental water from the storage
15 facility, rather than pumping inflow to the Delta.

16 That could provide a great deal of utility in
17 terms of additional protection for juvenile salmon, other
18 out migrants and resident fish such as Delta smelt.

19 If it was deemed appropriate, that flow could
20 be used to add days of X-2, the entrapment zone that's
21 located in Suisun Bay.

22 Right now the existing Delta water quality
23 control standards require a certain specific number of days
24 of X-2 to be in a certain location in the Delta or in the
25 lower Delta.

1 You can see that we built components, pieced
2 these components together on sort of a priority basis
3 starting with concerns about the Delta and the upper Bay,
4 which are areas that support virtually all the fish species
5 of concern and a very large complex of wildlife.

6 We've moved up the river system in increments
7 doing what's feasible and practical in some areas and then
8 moving all the way up in the final instance to the head
9 waters or the remaining head waters of the Sacramento
10 system and on the San Joaquin system we move up to the
11 confluence of the Merced River and the San Joaquin River.

12 And all of this is based on the foundation
13 that's established by the Central Valley Project
14 Improvement Act, the Winter Run Recovery Plan, the Delta
15 Native Fisheries Recovery Plan, some components of the
16 North American Water Fowl Habitat Management Plan and a
17 document put together by the California Department of Fish
18 and Game, which is called the Central Valley Action Plan
19 For Restoration of anagamus Fishes.

20 Shall I entertain any questions?

21 CHAIRMAN MADIGAN: Yes. Sunne.

22 MS. McPEAK: Alternative F that you've
23 just gone through, is there any other alternative that's in
24 the packet that is in conflict with this or conversely is
25 this alternative impaired or in some way impossible to

Page 61

1 implement the rest of it if any of the other alternatives
 2 were entertained?
 3 MR. DANIEL: in the first instance, no.
 4 I don't see any other alternative that is in
 5 conflict with this.
 6 As we put together the various alternatives,
 7 components of alternative F are built into each and every
 8 one of them.
 9 Alternative F is embodied in alternative J
 10 almost in its entirety. The difference is the storage
 11 component.
 12 MS. McPEAK: Right.
 13 MR. DANIEL: And in that instance the
 14 analysis suggested to us that if you had a full isolated
 15 facility you may not need these flushing flows or extra
 16 days of X-2 because you'd be dramatically reducing the loss
 17 of the fish to the screened isolated facility.
 18 The alternatives work in different ways in
 19 terms of where you might place this habitat.
 20 Alternatives that have an existing through
 21 Delta facility we would focus on the Sacramento side of the
 22 Delta in terms of habitat restoration simply to avoid the
 23 attractive nuisance component of rebuilding a lot of
 24 habitat in close proximity to the pumps.
 25 If you have an isolated facility, whether it's

Page 62

1 a full or partial isolated facility then you have different
 2 options in terms of how you'd space things out, how you'd
 3 connect habitat in other areas.
 4 MS. McPEAK: And the storage component, is
 5 the location of -- the location of storage based on what
 6 you just said also has impact there or is related to the
 7 conveyance -- a conveyance facility, but with respect to
 8 optimizing habitat restoration this proposal has the
 9 in-Delta towards the southern part because of them being
 10 able to draw upon that for continuing -- without
 11 interacting with exports but not drawing on outflow during
 12 critical times.
 13 Is the location of storage for habitat
 14 restoration an issue that we sort of need to highlight or
 15 better understand?
 16 MR. DANIEL: It's an issue that we are
 17 trying to understand better.
 18 In alternative F, because it's sort of the
 19 isolated ecosystem restoration program, and it doesn't have
 20 too many other components in it, the only storage in this
 21 particular alternative is environmental, and we took a look
 22 at Delta Island as being a pretty good place to do that.
 23 It generates quite a bit of utility.
 24 In other alternatives -- in virtually all of
 25 the other alternatives that contain storage there is an

Page 63

1 ecosystem allocation to that storage, and in those cases
 2 it's most practical if you're going to build in one
 3 alternative as much as six to eight million acre feet of
 4 additional storage.
 5 The wisest thing is to allocate some of that
 6 storage to environmental purposes so we've mixed and
 7 matched in that way.
 8 There are problems -- environmental problems
 9 associated with storage in the Delta. In so doing you can
 10 impact existing wildlife benefits and how you use that
 11 storage, how you fill it and how you withdraw from it can
 12 create problems as well.
 13 We are hoping that we can overcome those. If
 14 it turns out that they are insurmountable problems or
 15 unmitigable problems, we are at a stage where we've got
 16 enough flexibility that we can earmark storage at some
 17 other offstream location.
 18 CHAIRMAN MADIGAN: Stu and then Alex.
 19 MR. PYLE: Dick, I have kind of two
 20 questions about the operation of export water.
 21 Would this plan allow any differences in
 22 operation of the pumps at Tracy and banks in regard to the
 23 limitations under the '94 accord?
 24 Would it allow you to move any closer to the
 25 D1485 pumping limitations. And then the other question

Page 64

1 kind of along with that is are there any channel
 2 improvements, you know, enlargements -- you would call
 3 improvements as far as habitat restoration but are there
 4 any channel enlargements that would enable water to move
 5 through the Delta for some of these purposes?
 6 MR. DANIEL: In the first part of your
 7 question, if we have to we will continue to add or refine
 8 this alternative to the point where those who are
 9 responsible for the recovery of the existing endangered
 10 species feel comfortable that this will lead us down the
 11 right road towards recovery and eventual delisting.
 12 I can't tell you that that will change the
 13 existing export restrictions or volumes of water per unit
 14 time that are exported from the Delta but it certainly
 15 would lend credence to the idea that if it has been exports
 16 that's caused the decline of these fisheries in the past
 17 and if this habitat restoration program meets the needs of
 18 those endangered species such that they recover and could
 19 be eventually delisted, then it certainly should then
 20 result in reduced constraints on the exports.
 21 At the very least we believe that
 22 implementation of this alternative will result in
 23 considerably reduced frequency and duration of unexpected
 24 export curtailments due to the presence and risk associated
 25 to endangered species in the Delta.

1 We'll be testing this against the recovery
 2 plans that are in place.
 3 We'll be inspecting this alternative using the
 4 understandings of the recovery teams that are in place, and
 5 we'll refine it based on their continuing recommendations.
 6 With regard to channel modifications that are
 7 specifically oriented towards increasing the efficiency of
 8 export through the Delta this alternative doesn't currently
 9 contemplate that, but that could be part of the multiple
 10 objective concept involved in here.
 11 We are looking at some levee setbacks that
 12 would increase channel width and capacity, primarily for
 13 shallow water habitat restoration, but it doesn't cost a
 14 whole heck of a lot more to move them a little further back
 15 and actually facilitate some increases and movement of
 16 water through the Delta, although from an environmental
 17 standpoint we'd be more interested in maintaining some
 18 target velocity, which is actually probably less than the
 19 velocity of water moving across the Delta right now, but
 20 all of that could be built in.
 21 CHAIRMAN MADIGAN: Alex.
 22 MR. HILDEBRAND: Two questions.
 23 First, can you show us which islands you have
 24 in mind for the storage in this case?
 25 And, secondly, can you summarize for us the

1 too seriously, Alex.
 2 MR. HILDEBRAND: But it does make a
 3 difference to the community in the Delta where you pick
 4 these islands that you put the storage on, and that's a
 5 pretty broad line you've got there. It doesn't tie down
 6 very much.
 7 MR. DANIEL: It's broad on purpose at this
 8 point.
 9 My personal preference would be to avoid an
 10 island that grows asparagus.
 11 MR. HILDEBRAND: You like asparagus.
 12 MR. DANIEL: In terms of the benefits
 13 dealing with the other resource issues, this alternative
 14 has sort of a basic component of demand management or
 15 efficient water management use. It builds on the CVPIA
 16 suggestions that it would be prudent to retire some lands
 17 in the San Joaquin Valley that are currently presenting a
 18 tremendous challenge in terms of drainage and the toxic
 19 materials and salts that come off of those lands.
 20 So there would be a significant reduction in
 21 the salt load and heavy metal load in the San Joaquin River
 22 as a result of that.
 23 This alternative also contains a fairly
 24 extensive program of source control toxicants; those that
 25 come from the application of herbicides and pesticides and

1 benefits of this plan for purposes, other than habitat?
 2 What's the balance here between the
 3 environmental objectives and the export objectives and that
 4 sort of thing?
 5 MR. DANIEL: Okay.
 6 The islands or island that we'd be looking at
 7 for storage are included within this sort of hatched line
 8 (indicating).
 9 MR. HILDEBRAND: I thought you said they
 10 were going to be toward the southern portion, though.
 11 MR. DANIEL: Yeah. We haven't picked any
 12 particular spots. We are not at that level of detail.
 13 As I mentioned a few minutes ago, I'm not even
 14 certain that Delta Island storage is the ideal way to go.
 15 The concept, the concept, is to obtain some
 16 storage which can be used on a discretionary basis for
 17 environmental purposes and I'm not prepared to talk about
 18 any given island.
 19 CHAIRMAN MADIGAN: Alex, where is your
 20 farm?
 21 MR. DANIEL: Hildebrand Island is way up
 22 here (indicating) someplace, isn't it?
 23 MR. HILDEBRAND: I'm outside your circle
 24 so I'm not worried about that.
 25 CHAIRMAN MADIGAN: Don't take that line

1 also a particular focus on acid mine drainage with
 2 particular emphasis on Iron Mountain mine in the upper
 3 Sacramento River drainage.
 4 From a levee stability or levee vulnerability
 5 standpoint working on the basic precept that if there are
 6 islands in the Delta that need to have their levees
 7 stabilized, that need to have a better maintenance program
 8 and the utilization of an emergency response program in the
 9 event of a failure, for those levees that are stabilized or
 10 rebuilt, it's expensive but not outrageous to add a
 11 waterside habitat component to those levees.
 12 Also, in terms of the maintenance program, if
 13 we can increase habitat, base habitat levels in the Delta,
 14 if we can increase the populations of the many rare plants
 15 that occur in the Delta then the conflicts between routine
 16 maintenance of levees and wildlife habitat and rare plants
 17 in particular, goes down substantially and those how those
 18 two work together.
 19 In terms of water supply I sincerely believe
 20 that we will reduce, perhaps eliminate over time, the
 21 unexpected curtailments and exports that currently crop up
 22 as a result of concern over endangered species and their
 23 entrainment into the pumps.
 24 We fully expect that this alternative will
 25 result in considerably more robust populations of those

1 species of concern, more robust because they have more
 2 habitat, more robust because they have better improved
 3 opportunities to spawn and rear, more robust because they
 4 have places to avoid predators, less loss because we've got
 5 an extensive program of screening currently unscreened or
 6 inefficiently screened diversions throughout the system.

7 That ought to reduce the existing conflict
 8 right now. I can't tell you that that will result in a
 9 much larger long-term average annual export from the Delta,
 10 but if the conflict is the fact that these fish, fish in
 11 particular are at low population levels, such that they've
 12 been put on the endangered species list, then this sort of
 13 a program is supposed to bring them back to where they can
 14 tolerate at least some level of continued export and loss
 15 associated with those exports.

16 I know Steve has to get in a couple more.

17 MR. HILDEBRAND: I don't question at all
 18 that this is very good environmentally, but it's clearly a
 19 downside for agriculture and the upsides for export and
 20 water users seems to be pretty nebulous.

21 CHAIRMAN MADIGAN: Okay. Let me get a
 22 couple more questions and then we need to move on.

23 These are good questions, though, and this is
 24 beginning to focus people's attention so I'm encouraged.

25 I have Sunne and then Tom.

1 that it would be relatively simple to develop additional
 2 water on the San Joaquin base through land management in
 3 the upper watershed.

4 We've not go through an in-depth analysis of
 5 that but that does generate its possibility.

6 The other alternatives are additional land
 7 retirement, changes in water use such that we get some
 8 conservation, and perhaps the development of small scale
 9 storage on one of the streams tributary to or the main stem
 10 of the San Joaquin. There is a variety of alternates.

11 MR. HILDEBRAND: It sounds to me like
 12 squeezing blood out of a turnip.

13 CHAIRMAN MADIGAN: Thank you for that.
 14 Tom.

15 MR. MADDOCK: I agree with Alex on the
 16 last one.

17 I'm interested in where are you going to find
 18 that water?

19 First, is a couple of observations.

20 I gather that we are dealing -- well, we are
 21 dealing with ten alternatives and then there is eight
 22 components and so I suppose if you relate those to, and
 23 I've forgotten the mathematical probabilities, but you'd
 24 probably have then 80 some combinations here that are
 25 potential and which makes it hard to analyze.

1 MS. McPEAK: Dick, the questions earlier
 2 that Alex had raised about what wasn't analyzed and two of
 3 the three issues had the upper San Joaquin and the lower
 4 San Joaquin, I think you were addressing some of the
 5 benefits that you saw in F, but could you elaborate on how
 6 you're dealing with salt load and the flow issues of San
 7 Joaquin in the F?

8 MR. DANIEL: The primary way that we are
 9 dealing with salt load again is through the retirement of
 10 lands that have contributed a large portion of the salt in
 11 drainage discharge.

12 In addition to that, I mentioned that there is
 13 a hundred thousand acre feet of water that would be
 14 acquired or developed on the San Joaquin side.

15 It's conceivable that you could match that up
 16 with a managed discharge rate into the San Joaquin River
 17 and provide some dilution, not large scale dilution, but
 18 some, but the export of salt in the Delta to agricultural
 19 lands in the San Joaquin Valley would continue and would
 20 continue quite probably at the same rate as it is right
 21 now.

22 MR. HILDEBRAND: How are you going to
 23 acquire this water without further reducing the summer flow
 24 of the river?

25 MR. DANIEL: It has been suggested to us

1 The other thing that I think would be helpful
 2 is that on some of these alternatives is that -- like Dick
 3 has been talking about here, is does this alternative meet
 4 100 percent of the objective of the ecosystem restoration?

5 It meets only ten percent, which is back to
 6 Alex's question, for example, of the water reliability, and
 7 it meets 20 percent of the water quality and so on.

8 I mean, it's a little hard to really get your
 9 hands on this, but I suppose on any of those, any of those
 10 judgments, and, for example, on this particular one, how
 11 predictable is it really from the standpoint of the biology
 12 and the technical information that this particular

13 alternative would meet the objectives that we have set out?

14 I mean, is it 80 percent predictable?

15 Is it 90 percent predictable?

16 Or do we then embark on an alternative and say
 17 we can't predict it and we'll see what happens and then
 18 we'll address it?

19 I mean, can you address the predictability of
 20 these alternatives and the level of confidence from a
 21 technical standpoint that we would meet the objectives in
 22 these four fundamental areas?

23 CHAIRMAN MADIGAN: Dick, go ahead.

24 MR. DANIEL: Let's see, how do I predict
 25 water supply reliability?

1 MR. MADDOCK: You've got to have enough
 2 water.
 3 MR. DANIEL: There are existing models of
 4 the basin's hydrology that have been used to predict water
 5 supply from day one.
 6 There are models and mathematical formula that
 7 tell you that performance standards of a given levee in
 8 terms of its construction and its durability in the event
 9 of an earthquake of X magnitude. Water quality gets to be
 10 a little more difficult to predict.
 11 It's a function of how much you know about a
 12 particular toxicant that you are targeting, how efficient
 13 your treatment might be or how effective your source
 14 control might be.
 15 With regard to the ecosystem stuff
 16 predictability is very difficult. Biological systems are
 17 not predictable, and in fact we are focusing on the
 18 restoration of natural functions, which are -- which can be
 19 described but can't necessarily be predicted.
 20 We know that we had robust populations of fish
 21 and wildlife in the middle part of this century.
 22 We know to some extent what kind of habitat and
 23 what mix of habitat was available then.
 24 We are going to try to do our best to
 25 reconstruct that.

1 conjunctive use and groundwater banking, conveyance type
 2 components.
 3 And I'd like you to try and focus as I move
 4 through this on the way that these particular components
 5 are overlaid on the habitat components that Dick previously
 6 described to you.
 7 We are going to -- as a way of illustrating
 8 these components I want to walk through alternative B,
 9 which is focused on existing -- using existing conveyance
 10 systems and then alternative C, which brings in a new dual
 11 transfer conveyance system along with storage, both
 12 offstream, conjunctive use groundwater banking and try to
 13 demonstrate how those components work together and can be
 14 operated in a way that benefit not only ecosystem quality
 15 but also water quality and water supply.
 16 So what I'd like to do is walk through both of
 17 those first and then we can field some questions because I
 18 think we need to look at both of those to understand all of
 19 the components.
 20 Alternative B, as I said, is focused on
 21 changing the timing of Delta diversions, the timing of
 22 Delta outflow through storage, and through reoperation of
 23 the existing pumping facilities at Tracy.
 24 This alternative also besides the habitat
 25 component contains a moderate level of flood protection and

1 We talk a lot about adaptive management and
 2 what that amounts to is having the ability to monitor
 3 progress, as you go along and make changes as you go along
 4 within some sort of envelope or boundary, but in terms of
 5 standing here and being able to tell you that it will
 6 generate X number of fish or that this one will come off
 7 the endangered species list at some predictable time in the
 8 future, we can't do that. And that's associated not only
 9 with uncertainty regarding habitat restoration and response
 10 but hydrology fits in there as well.
 11 If we continue to have the sort of water years
 12 that we've had in the last couple over the next ten we'll
 13 be in awfully good shape, but if we get in another drought
 14 cycle we'll be starting all over again.
 15 So I can't give you a straight answer in terms
 16 of numbers or when or even how much.
 17 CHAIRMAN MADIGAN: All right. Thank you.
 18 Let's keep it moving.
 19 Mr. Yaeger, you are up next.
 20 Thank you, Dick.
 21 MR. YAEGER: Dick has walked you through
 22 the habitat portion of the components of many of the
 23 alternatives.
 24 I'm going to focus a little more on components
 25 related to water supply and storage, both offstream storage

1 levee stabilization, a moderate level of water quality
 2 components and some functions of water diversion
 3 management, particularly improvements to screening at the
 4 pumping plants at Tracy.
 5 The storage components that this particular
 6 alternative includes are a half a million acre feet of
 7 storage north of the Delta, a half a million -- that is a
 8 half a million to one million acre feet north of the Delta,
 9 another half a million to one million acre feet south of
 10 the Delta.
 11 It includes a moderate level of conjunctive use
 12 and groundwater banking both north and south of the Delta
 13 and it also includes a moderate level of water system
 14 efficiency elements, and we have developed a concept that
 15 wraps all of those water storage and water system
 16 efficiency elements together.
 17 The way that the storage is operated is
 18 demonstrated on this particular hydrograph.
 19 This is a water year hydrograph from 1961
 20 through 1969, which we have used to demonstrate our
 21 concept.
 22 On the vertical axis is the total flow of Delta
 23 outflow.
 24 Now, the concept that we are demonstrating here
 25 is that in all the storage, that is, not only conjunctive

1 use in groundwater banking but also offstream storage we
 2 would be filling that storage off of the receding limb of
 3 flood hydrographs, that is when the flows are very
 4 high -- the Delta outflows are very high we'd be filling,
 5 first, the conjunctive use and groundwater banking
 6 components of the alternative and then moving to storage in
 7 offstream storage both north and south of the Delta off of
 8 these receding limbs of the hydrographs.

9 This particular one is so high that you can't
 10 really differentiate the fill cycle but you can see it a
 11 little bit right there and this one goes off the graph
 12 there (indicating).

13 As far as the operation of the facilities this
 14 is a little operational diagram. It's typical of the
 15 groundwater storage components conjunctive use.

16 Again, this is the filling leg off of that
 17 flood hydrograph and we would be drawing it down during dry
 18 and critical years.

19 The basic operating assumption here for this
 20 particular study is that we would be allocating 50 percent
 21 of storage, both conjunctive use, groundwater banking and
 22 offstream storage to ecosystem quality and the other 50
 23 percent to water quality and water supply.

24 Those percentages, of course, can change. We
 25 just adopted that for the purpose of this particular

1 these packages of groundwater banking, conjunctive use,
 2 offstream storage both north and south of the Delta.

3 MS. BORGONOVO: I guess what I'm looking
 4 at is the total number.

5 Is it three million acre feet combined storage
 6 and conjunctive use or is conjunctive use part of one to
 7 two million acre feet?

8 MR. YAEGER: We've laid out ranges of
 9 about a half a million to a million acre feet of offstream
 10 storage both north and south plus I believe it's
 11 about -- I think it's 200 to 400,000 acre feet of
 12 conjunctive use, groundwater banking both north and south
 13 so you have a pretty wide range there.

14 I just wanted to show you some of the benefits
 15 that you can accrue from this in a joint dedication of
 16 storage.

17 Again, these are very preliminary studies but
 18 the indications that we get from these studies are that you
 19 can effectively increase Delta outflow during spring
 20 critical months for fisheries by utilizing the storage
 21 north of the Delta and south of the Delta to both offset
 22 pumping and also dedicated to Delta outflow.

23 This particular graph shows you the components
 24 working together, the dark lines are offstream storage that
 25 could be releases or offsets made to increase Delta outflow

1 example, but I think it demonstrates our overall concept is
 2 that any storage is going to be jointly used for ecosystem
 3 water supply and water quality.

4 MR. HILDEBRAND: Steve, can you put the
 5 water underground that fast?

6 MR. YAEGER: Of course, any of the
 7 groundwater banking conjunctive use programs have a much
 8 more restrained filling cycle than you see with the
 9 offstream storage, but we would first dedicate the rate to
 10 the groundwater banking and conjunctive use programs and
 11 whatever additional water we are moving out of the flood
 12 hydrograph then would go into offstream storage. And by
 13 operating those together you can, I think, effectively use
 14 both of those banks.

15 Sometimes, of course, it requires transferring
 16 surface offstream storage to groundwater banking and
 17 conjunctive use to make full use of that but there are ways
 18 to coordinate those operations.

19 MS. BORGONOVO: When you take the upstream
 20 and downstream storage and then you have conjunctive uses
 21 is conjunctive use part of that up and downstream storage
 22 based on what you said or is it in addition to?

23 MR. YAEGER: They are really a package.

24 Conjunctive use works a lot more effectively if
 25 it has offstream storage tied with it so we've developed

1 and the white bars are the conjunctive use and groundwater
 2 banking component of that.

3 So together you can generally increase the
 4 spring month Delta outflow utilizing this joint operation
 5 by about 20 to 40 percent in any dry and critical year.

6 On the improvements in Delta outflows for
 7 fisheries you also provide additional water supply
 8 opportunities from the offstream storage north and south of
 9 the Delta and the conjunctive use and groundwater banking
 10 and this is demonstrated on this graph with the dark line
 11 being the offstream storage south of the Delta, the hatch
 12 line north of Delta offstream storage and the white bars
 13 the conjunctive use component of that.

14 Those particular graphs demonstrate some of the
 15 improvements both in water supply and water quality and
 16 ecosystem quality that you can get from the storage
 17 component.

18 I wanted to walk through alternative C now
 19 and --

20 MR. MADDOCK: Excuse me.

21 MR. YAEGER: -- and try to draw the
 22 distinct on the conveyance.

23 CHAIRMAN MADIGAN: Tom.

24 MR. MADDOCK: Steve, you know, it would
 25 help in doing this from the standpoint of showing what

1 achievements would be realized by virtue of the storage,
 2 and I realize you've got a wide range here but it really
 3 would be helpful rather than showing the amount of storage
 4 if you could reduce it to showing what is the Delta
 5 outflow, say, under existing conditions, and then what
 6 would be the Delta outflow with this storage available
 7 under the condition of implementation of the storage.

8 I mean, I realize you've got to get it through
 9 the Delta and so on but I mean that would make it easier to
 10 analyze, at least for me it would.

11 I mean, I find it hard to analyze what you're
 12 showing here as to the benefits of Delta outflow in CFS
 13 during specific months, critical periods that are critical
 14 to the habitat.

15 MR. YAEGER: That's a good point. We'll
 16 try to take that on in the next round, anyway.

17 CHAIRMAN MADIGAN: Good.

18 MR. YAEGER: I don't want to go back over
 19 the storage components and their particular operational
 20 criteria. I want to focus more on the conveyance portion
 21 of alternative C.

22 Alternative C is very similar to alternative B
 23 as far as the storage components.

24 The difference with C is that it provides a
 25 dual transfer facility; that is a five to seven thousand

1 That same kind of operation would apply to the
 2 through Delta transfer component, be subject to realtime
 3 monitoring for fisheries.

4 The general operation of the through Delta
 5 portion would be at its kind of peak diversion rate between
 6 about November through February. The dual transfer -- the
 7 isolated transfer portion of that would be operated the
 8 remainder of the year from about July on through February
 9 with some limited in diversions during the critical
 10 fisheries months of February through June.

11 This again is just another hydrograph that
 12 demonstrates that same type of concept of diverting water
 13 off the receiving leg of the flood hydrographs.

14 This portion in the blue right here
 15 (indicating) demonstrates the amount of additional Delta
 16 outflow that can be provided by withdrawals from the
 17 storage and from offstream storage and from conjunctive use
 18 portion of the program.

19 Again, that ranges from about 20 to 40 percent
 20 augmentation of existing Delta outflows during the spring
 21 months on that facility.

22 Now, the thing that, again, is unique about the
 23 dual transfer facility is that it does provide you
 24 additional opportunities for water transfers during late
 25 summer months and during critical years in which there is

1 CFS isolated conveyance facility around the Delta, plus
 2 additional through Delta conveyances in the existing Delta
 3 channels in the order of eight to ten thousand CFS.

4 Now, both of those facilities would be screened
 5 on the Sacramento River. The proposal is that the
 6 diversion would be somewhere around the location of Hood to
 7 Freeport.

8 There would be a separate screen facility for
 9 the dual transfer facility and then another screen facility
 10 for the -- I'm sorry -- for the isolated and a separate
 11 screen facility for the portion of the conveyance that goes
 12 through the Delta and enters the Delta channels.

13 The intent there is to try to keep the anagamus
 14 fish and the other fish in the Sacramento River, not to be
 15 drawing them into the Central Delta where predation is
 16 higher than in the Sacramento River.

17 So the conveyance then would be operated in a
 18 mode that would in nearly all portions of the year devote
 19 the isolated transfer facility to moving water out of the
 20 Sacramento, the diversions at the screened facilities would
 21 be subject to realtime monitoring, looking for especially
 22 critical fish -- critical fish populations that are near
 23 the screens and during those periods you would be
 24 throttling back the operation of the isolated facility to
 25 try to minimize fisheries' impacts.

1 additional capacity left in the aqueducts.

2 Using the dual transfer facility you can move
 3 good high quality water from the storage north of the Delta
 4 down to the aqueduct facilities in the Tracy region.

5 There are real considerable water quality
 6 benefits from the dual transfer facility. Again, the high
 7 quality water during the summer months would produce higher
 8 quality irrigation water to the agricultural interests
 9 south of the Delta as well as the drinking water quality
 10 for urban users.

11 It will have an impact, though it's not a full
 12 impact, a full benefit, but there will be considerable
 13 benefit to the water quality in the San Joaquin River. As
 14 you are increasing water quality to the irrigation
 15 interests, it also then reduces the salinity in the ag
 16 drainage.

17 Again, very substantial benefits to drinking
 18 water quality for the urban interests and that's mainly
 19 achieved by scheduling water through the isolated facility
 20 and the storage withdrawals south of the Delta so that you
 21 maintain high quality water in the aqueduct during the late
 22 summer months.

23 MS. NOTTOFF: What about ecosystem
 24 restoration benefit?

25 MR. YAEGER: Both B and C include all of

1 those components that Dick discussed earlier for
 2 alternative F.
 3 They are implemented at a somewhat lower level
 4 than F does but you have all of those habitat restorations.
 5 The water that can be added from offstream
 6 storage and conjunctive use to augment Delta outflow and
 7 provide pulse flows for fisheries we believe provides a
 8 substantial ecosystem quality benefit.
 9 MR. HILDEBRAND: You've illustrated my
 10 point by not mentioning the effect on the water quality in
 11 the Delta.
 12 MR. YAEGER: Are you referring to the
 13 South Delta specifically or the Delta in general?
 14 MR. HILDEBRAND: The Delta in general.
 15 MR. YAEGER: Okay. In general I think
 16 it's our belief that the water quality in the Delta in
 17 general is protected by the through Delta portion of the
 18 conveyance facility.
 19 We would schedule water through the isolated
 20 facility and the through Delta component so that we'd
 21 maintain the freshness and quantity of water in the Delta
 22 itself.
 23 South Delta channels require kind of a special
 24 treatment, I think, over the Delta channels in general from
 25 a water quality standpoint, and we are going to be looking

1 pressure to take all the water through the isolated
 2 facility and take none through the Delta.
 3 CHAIRMAN MADIGAN: Lester.
 4 EXECUTIVE DIRECTOR SNOW: Yeah, Alex, I
 5 think you raised a fundamental crosscutting issue and that
 6 is the guarantees or the assurances in this case around an
 7 isolated facility and like in the earlier example if you do
 8 all of the habitat restoration, how do you know some
 9 benefit accrues from it, and so I think that's why we've
 10 identified on the afternoon Agenda the potential need of
 11 even forming a work group to start discussing that.
 12 Because almost any alternative you put together
 13 some group is saying "How do I know you'll do what you say
 14 you will?" So I think that's a real fundamental
 15 crosscutting issue.
 16 CHAIRMAN MADIGAN: Okay.
 17 Other questions?
 18 I saw Stu and Don, Mary.
 19 MR. PYLE: My question, Steve, was about
 20 the sizing of the isolated facility.
 21 Is there something definite about the five to
 22 seven thousand acre size put in this or as you go through
 23 will there be consideration of larger sizes as listed in
 24 alternative J?
 25 MR. YAEGER: Well, the size ranges that

1 into that in a lot of detail as we move forward with the
 2 alternatives to try to develop methodology to protect the
 3 water quality in stages there in the South Delta.
 4 MR. HILDEBRAND: How will you resist the
 5 political pressure to take all of the water through the
 6 isolated facility whenever that can be done and take none
 7 across the Delta.
 8 MR. YAEGER: Well, the way that the
 9 isolated facility is sized five to 7,000 CFS in general
 10 that is not sufficient capacity to meet most of the needs
 11 of the project diversions.
 12 MR. HILDEBRAND: How about the periods
 13 when they are restrained from pumping more than that,
 14 anyway, in any year and the critical years when there isn't
 15 that much water?
 16 MR. YAEGER: Let me see if I understand
 17 your question.
 18 You're saying what about the periods when they
 19 are constrained because of fishery constraints from
 20 pumping?
 21 MR. HILDEBRAND: Yes.
 22 Where it's not going to pump at a higher rate
 23 than the capacity of this canal all the time. There are
 24 going to be periods when you aren't pumping at any more
 25 than that and at those times there will be great political

1 we've included for the isolated portion of the conveyance
 2 is kind of a conceptual sizing just to indicate, you know,
 3 a range that seems reasonable.
 4 Now, we'll be looking in more detail at that
 5 particular sizing as well as the sizing of the offstream
 6 storage and the groundwater banking and so forth in more
 7 detail as we get into Phase II, and it's likely, I think,
 8 that those sizes will change when you start looking at the
 9 operational efficiencies and how best you can meet the
 10 ecosystem needs as well as the water supply needs and water
 11 quality needs.
 12 It's kind of an illustrative range at this
 13 point.
 14 CHAIRMAN MADIGAN: Don.
 15 MR. BRANSFORD: Operationally flows in the
 16 upper Sacramento River stay the same in this type of
 17 configuration and water is just diverted through the new
 18 facility or are you increasing upstream flows so that you
 19 provide sufficient water to both of these facilities?
 20 MR. YAEGER: You can kind of use these
 21 peaks on the hydrographs to see that these are kind of
 22 illustrative of the flows at Collinsville.
 23 As we were trimming off water off of the
 24 hydrograph that would be taken out and into offstream
 25 storage north of the Delta somewhere probably from Verona

1 north.
 2 We haven't really sited that particular
 3 facility, but so to the extent that we'd take off
 4 these -- trim off these little flows into offstream storage
 5 it would reduce the flow in the Sacramento River from the
 6 point where that is taken out on down to Collinsville.

7 But I think you can see from the hydrographs
 8 that it's a very small percentage and ends up, I think,
 9 being like three to five percent of the rate when you have
 10 these high flood hydrographs moving through the system.

11 MR. BRANSFORD: So that's the period in
 12 which you're utilizing both facilities at its max, but what
 13 about when the river flows are not at those elevated
 14 levels?

15 I mean, you have potential to use offstream
 16 storage, right, to accomplish something similar to this?

17 I'm just curious if you were anticipating high
 18 river flows in periods when you would not normally expect
 19 to see them to accommodate these facilities?

20 MR. YAEGER: These facilities, as we
 21 proposed them, will only been trimming water at peak flood
 22 flow times.

23 There will be some periods, of course, when
 24 you're using the isolated transfer facility when you'd be
 25 bringing water out of storage, not only to augment Delta

1 that integrates both this issue of institutional guarantees
 2 and I don't know whether you're thinking that there will be
 3 a work group that will have been up and running by then
 4 that will have some ideas on that issue, whether that might
 5 be an appropriate time before we start talking about fewer
 6 alternatives to really look at whether what we
 7 have -- whether the components, let's say, rather than the
 8 individual alternatives, but the components that you've
 9 been identifying meet the test of the solution principles.

10 CHAIRMAN MADIGAN: The answer to your
 11 first question is I think that we are at the point where we
 12 are probably going to have an assurances working group.

13 Lester, I'll let you address that.

14 EXECUTIVE DIRECTOR SNOW: Utilizing the
 15 solution principles against the components does not work as
 16 well because there are components that have single
 17 objectives, and so you can get a feel for it but it's
 18 really when you start putting together packages that you
 19 can start leveraging the solution principles, as it were.

20 And I think on the guarantees issue, you know,
 21 that effort can get started through a work group but I
 22 envision that as something that's probably going the play
 23 out at over nearly over a year and you keep refining as you
 24 get closer to a preferred alternative so you really have
 25 the institutional stuff outlined as you get to the end. So

1 outflow but also provide a flow rate into the isolated
 2 facility.

3 So it would increase the flow in the Sacramento
 4 River between the offstream storage location and the Hood
 5 to Freeport area where you are moving that into the
 6 isolated facility during those periods.

7 CHAIRMAN MADIGAN: Mary.

8 MS. SELKIRK: I wanted to make a process
 9 comment in response to Alex because I think he's raising a
 10 really important point.

11 And I'm thinking in terms of how in this
 12 process that we are -- in this point in the process where
 13 we are now where we are going to be looking at a further
 14 refinement of alternatives over the next couple of months
 15 it seems to me we need to think carefully how to address
 16 the very kinds of issues that Alex was raising, and I think
 17 there is embedded in the process that we developed so far
 18 in the solution principles themselves they are the test
 19 that any of these alternative needs to meet in order to, I
 20 think as Roger was saying before, not get thrown out and
 21 the first solution principle is any alternative has to
 22 reduce fundamental conflicts over water quality, land use
 23 water supply, et cetera, which is a pretty tall order.

24 So my question is might there be some way in
 25 the -- in our May meeting that we can have some discussion

1 I think we start and we bring information into the process
 2 but it will take a while to work through that.

3 CHAIRMAN MADIGAN: Roberta.

4 MS. BORGONOVO: I just wanted to go back
 5 to what both Alex and Mary said.

6 I think it's helpful if we just have the
 7 thinking of the team because I know that that's what is
 8 going on when you move from 20 to down to ten and ten down
 9 to three to five. You are actually looking at the pros and
 10 cons and you are bringing in those negatives and then you
 11 are trying to find ways to address them.

12 So if some of the thinking of the team can be
 13 out there at our May meeting it doesn't mean that you
 14 resolve it. Maybe you have this great big institutional
 15 guarantee question that's left and one of the alternatives
 16 hinges upon being able to solve that, but having that kind
 17 of thinking there I think also helps the public process so
 18 we can follow the way in which the alternatives are moving.

19 CHAIRMAN MADIGAN: All right. Thank you.

20 Let me ask if there are members of the audience
 21 who have questions or comments that they would like to make
 22 at this point.

23 All right. Seeing none, we have run for some
 24 time here. Why don't we try to get back together at one
 25 o'clock.

1 For those of you who are BDACers, we are eating
2 in room 103 so as to keep you in the vicinity.

3 I am told that from either the stairs or the
4 elevator you can go to the left and down the last hall.

5 MS. GROSS: It's actually to the right.

6
7 (Whereupon the noon recess was taken at
8 12:18 p.m., after which the following
9 proceedings were had at 1:15 p.m.:)

10
11 CHAIRMAN MADIGAN: Good afternoon.

12 We are back.

13 Before we move on to reports of the various
14 work groups and get into key issues I want to take a few
15 minutes and go through the role of the BDAC working groups
16 because we have now appointed two and we are going to
17 probably do a couple of more today, and this is not only
18 for those of you who are or will be chairs of these groups
19 but for those of you who are otherwise participants in them
20 as well.

21 Your role is to be a fact-finding group for
22 this entity.

23 I don't expect you to come up with the answer
24 in your groups. I expect you to come up with the
25 information and I expect you to come up with it in a

1 encourage any of you on the BDAC who have time and I know
2 most of you don't but to the extent that you have time to
3 try to attend those meetings, and Lester and the CalFed
4 staff will be staffing these working groups. So you will
5 have that support level that I know you are going to need.

6 As you individually want to serve on some of these work
7 groups I would encourage you to let Sunne or me know.

8 Sunne and I will make the appointments of the
9 chairs, but both of us want to know who among you want to
10 participate in these things and want to see you involved.

11 It is our hope then at the end of the day that
12 your working groups become the kind of effective forum that
13 will produce the options and recommendations for this
14 larger group in terms of the policies that you are looking
15 at.

16 Are there questions from among the members of
17 the BDAC on this?

18 Okay. Good.

19 We are going to move on.

20 I did tell Judith Redmond that she could have a
21 couple of minutes to make an announcement.

22 This would be a good time to do that.

23 MS. REDMOND: Thank you.

24 I simply wanted to invite BDAC members and
25 members of the audience to a field day that is going to be

1 focused kind of way so that this larger group can get into
2 the policy kind of reviews that it's charged with doing,
3 and give you the opportunity in your groups to do things in
4 a level of detail that I don't think can be done around
5 here.

6 I want you to develop strategies. I want you
7 to analyze issues. I want you to develop policy options
8 that this larger group can look at.

9 But it's important to remember that the
10 decisions and the recommendations are going to come from
11 this full group and so I don't want you to feel obligated
12 to narrow it down to one option out of a series of
13 recommendations. I want you to bring back to this larger
14 group all of those reasonable options or recommendations
15 that you develop within your group.

16 I want you to again, as is the charge of the
17 BDAC, I want you to worry about the policy issues.

18 You have a CalFed staff that is going to spend
19 a great deal of time on the technical issues and it's
20 certainly appropriate for you to ask for information, but
21 our job around here is policy. I want you to include in
22 your work groups not only people who are on the BDAC but I
23 want you to include stakeholders, agency representatives.

24 I want you to make sure that your meetings are
25 open to anybody on the BDAC who wants to attend and I would

1 held on May 31st, which is a Friday.

2 We have been working for several years with
3 almond growers in six Northern California counties to
4 reduce the use of dormant sprays and other chemical
5 pesticides in almond production systems.

6 Almonds at the moment are one of the major
7 sources of dormant sprays that run off into the Delta
8 causing serious water quality problems, and we have a
9 program with these -- with almond growers in these six
10 counties to as a team reduce their use of these chemical
11 sprays.

12 We work with a team of cooperative extension,
13 the UC researcher, a pest control advisor and farmer
14 advisors to provide technical assistance to a whole group
15 of farmers in each of the counties who are reducing their
16 chemical use.

17 And the program has been very successful and
18 was this year awarded a Category III grant by the
19 Metropolitan Water District to expand into additional
20 counties, and on May 31st, which is a Friday, we're going
21 to host a tour of some of the farms and orchards in Merced
22 County where the program has been successful.

23 On these farms, you know, there is a whole
24 series, it's a whole systems approach where a whole series
25 of ecological techniques are implemented.

1 It's always very exciting to see on a farm,
 2 where they've enrolled a few acres in the program and in
 3 contrast it with the acres nearby that haven't been
 4 enrolled, because there is a whole series of that we
 5 implement, cover crops, the use of beneficial insects, all
 6 kinds of things get implemented and it ends up feeling very
 7 different, the plots that have been using these techniques
 8 for several years feel very different and look very
 9 different and are very inspiring to visit.

10 So the tours that we've done, we've done these
 11 field days several years in sequence and they've always
 12 been really, really fun and inspiring for people to see how
 13 a farm can change, and with a partnership approach
 14 reduce -- do source reduction, reduce the use of these
 15 chemicals that are causing problems.

16 So we would really love the staff and BDAC
 17 members to come to this field day and we will be sending
 18 all of you invitations in the mail. May 31st.

19 The name of the project is the Biologically
 20 Integrated Orchards Systems Project.

21 CHAIRMAN MADIGAN: Good. Thank you.

22 Questions?
 23 Bob.

24 MS. McPEAK: Judith, how did the farmers
 25 that are participating oft in, what -- and how many acres

1 bios farms.
 2 CHAIRMAN MADIGAN: Bob.
 3 MR. MATTHEWS: I just wanted to say amen
 4 to what Judith is asking you to participate in.
 5 I went on a tour, which a few of the family
 6 farmers were a part of two weeks ago in the Lodi Woodbridge
 7 wine growing area and to see what the experimental sections
 8 of these vineyards are doing, in the way of integrated pest
 9 management and other environmental activities and there is
 10 just nothing like getting your feet on the ground to see
 11 what they are doing, and the results, the positive results
 12 they are getting so it's really a worthwhile way of
 13 spending a day and they really treat you good, the goodies
 14 they serve, including the wine.

15 CHAIRMAN MADIGAN: Thank you, Bob.
 16 Okay. Let's move on to item five, which is
 17 noted as reports from the finance and ecosystem restoration
 18 work groups.

19 Eric.

20 MR. HASSELTINE: Thank you, Mike.
 21 The finance working group has had two meetings
 22 within the last month, and I think that I have several
 23 comments to make on the progress to date.

24 It's not as coherent a stream of information as
 25 I'd like to give to you so the points may or may not be

1 totally get involved?
 2 MS. REDMOND: We describe to them the
 3 kinds of techniques that we are used to implementing. It's
 4 all completely voluntary, and we offer a whole array of
 5 technical services.

6 We have businesses participating that reduce
 7 the cost of some of the inputs, like cover crop seeds and
 8 compost and beneficial insects. So there is a whole suite
 9 of -- a set of technical assistance things that we are
 10 offering.

11 We are basically teaching these techniques to
 12 the farmers and we always work with the co-op extension
 13 person in the county and co-op extension person actually
 14 does most of our outreach in terms of explaining to farmers
 15 what this is all about and inviting farmers to participate,
 16 and the program takes on a very different form depending on
 17 the county and the specific conditions there. So it's
 18 completely voluntary.

19 Farmers are -- they enroll ten acres or more
 20 from their farm into the program and usually we advise not
 21 to enroll the whole farm at once but to just start small.
 22 And each year the farmers that have enrolled, it's been a
 23 very successful program and the farmers that have enrolled
 24 have increased the acreage under this management on their
 25 farms. So there now are several farms that are completely

1 particularly directly related and the order in which they
 2 come are not as yet -- is not particularly important
 3 because they are not as yet developed fully, and then I
 4 think maybe Zach McReynolds can amplify my comments with
 5 some more substantive information.

6 But basically we've been looking first of all
 7 at the nature of the problem of attempting to finance
 8 whatever solution comes forth out of this process, and in
 9 order to figure out how to finance something you really
 10 have to understand what the various components are, and I
 11 think that to date we've been pretty much overwhelmed by
 12 the magnitude and the complexity of this issue, not just
 13 the solution itself but then as a corollary to that the
 14 ways of breaking down every part of that solution into some
 15 sort of cost formula and, therefore, financing mechanism.

16 But as you all know you get into a subject like
 17 that that at first seems overwhelming and the more you keep
 18 working around the same loop the more familiar you became
 19 with things and so you get to the point pretty soon where
 20 you can begin to absorb additional information, and I don't
 21 know if we are really there yet but we are already into
 22 trying to attempt to bring into this process the
 23 information that is currently being generated other places
 24 within the state at this time from the various other groups
 25 who are interested in this subject, and I think it would be

Page 101

1 a real mistake for us to try to just do it by ourselves.
 2 There is a lot of expertise out there that is
 3 looking at this particular problem, and in order for us to
 4 come up with something that I think would be useful and
 5 hopefully reflective of sort of the state of the art it's
 6 going to be critical for us to know what else is going on
 7 out there, and I know that the circles that are covered by
 8 the various members of BDAC are pretty broad collectively.
 9 And I would simply request each of you as you
 10 come across efforts that are being done out there that
 11 would reflect back on the financing issue, to make that
 12 known to us or at least let us know about it so we can
 13 research it.
 14 But we know that there is a group from the
 15 California Round Table and Farm Bureau and some other
 16 organizations that are working on a paper. We know that
 17 the stakeholders group is looking into the finance issue.
 18 I don't know what documentation may be
 19 available from that. We'd really be interested in that,
 20 and it also came to our attention within the last couple of
 21 days that the CUWA group is also looking at some aspects of
 22 the financing as part of their meetings and considerations
 23 of some of our alternatives and what might make sense, you
 24 know, from there point of view.
 25 So all of that needs to come in and we need to

Page 102

1 avail ourselves of whatever we can.
 2 Now, it's not just what's going on now either.
 3 In attempting to work this problem through we
 4 are, of course, cognizant of the fact that quite a few
 5 years ago the State of California went through a similar
 6 exercise in developing a State Water Project and trying to
 7 figure out how to assign the costs of that and how to
 8 finance that particular project and we are going to spend a
 9 little bit of time with the help of the California Research
 10 Bureau, working through the sort of the decision treaty
 11 that was followed at that time of what decisions were made
 12 and how costs were allocated and how the ultimate financing
 13 was developed in that process and learn as much as we can
 14 out of that.
 15 So our group is concerned at the moment with
 16 trying to develop some financing principles that we
 17 would -- we think should apply to this process.
 18 We've got three or four at the moment that we
 19 think are extremely important.
 20 We've got probably a half a dozen others that
 21 may or may not have applicability, and through the
 22 development of a set of principles we want to proceed to a
 23 methodology by which we would work through the process of
 24 starting with the alternative that we have and, more
 25 importantly, the individual actions that comprise that

Page 103

1 alternative and work through to a financing mechanism for
 2 the entire solution.
 3 And whether or not that can be done in a
 4 consistent way, I think is an issue to us.
 5 Obviously, some of the costs are very
 6 quantifiable. Others aren't.
 7 Some of the values of what we end up with are
 8 very quantifiable. Others aren't.
 9 And so there is going to have to be probably a
 10 combination of qualitative and quantitative analyses done
 11 during this process.
 12 We've looked at the sort of two different
 13 approaches.
 14 One is the bottoms up approach, where we start
 15 with the individual actions. We try to look and see how
 16 those benefits are delivered, both to the various
 17 objectives that we have set forth as our basic objectives
 18 and at the same time how the benefits are spread to
 19 specific beneficiaries, what then is the nature of the
 20 amount and timing of the various funding requirements to
 21 make that action happen, how should the costs of that be
 22 allocated back amongst the beneficiaries.
 23 Getting back to sort of the subject that Alex
 24 first touched on this morning, for every benefit there are
 25 also some impacts and, therefore, other costs that have to

Page 104

1 be brought into the formula.
 2 And when you finally get down to some sort of
 3 cost allocation formula then you have to bring in
 4 questions, such as ability to pay and not the least of
 5 which is when you get done with all of this do all the
 6 costs add up to a figure that is even within the realm of
 7 reason?
 8 In other words, can you really afford to do
 9 what you're trying to accomplish?
 10 The reverse of that is to start with the last
 11 question first and you just say how much money are we
 12 really going to have to work with, what's the realistic
 13 number and then try to work it back down to see how much
 14 can be applied. So in the first case you may have a great
 15 way to allocate costs for all of the actions that you've
 16 proposed to undertake in your solution but you may never be
 17 able to pay for them all.
 18 In the second case you may take whatever money
 19 you have but you may not be able to put together that
 20 effective a solution because you can't -- you don't have
 21 enough money, again, to pay for it all.
 22 So those are the sort of the things that we are
 23 wrestling with.
 24 And then there is also the costs of how you
 25 bring in the comparison of operating costs of the various

1 alternatives and how that figures into the overall
 2 financing picture.

3 And with that I think just to let you know the
 4 things we are thinking about and we are just getting into
 5 now -- I really don't have any sort of solid report to
 6 bring back in terms of what we've accomplished because,
 7 again, we are just getting in the midst of this.

8 I think maybe Zach can spread some light on
 9 perhaps a more orderly explanation of why we've done what
 10 we've done to this point and where this is all leading in
 11 terms of the next few steps and I think that -- I don't see
 12 David Guy, who's been to our meetings and Roberta is here,
 13 who may have some comments on that as well, but in
 14 follow-up, too, with what Mike Madigan issued in terms of
 15 an invitation to the working group meetings, we'd certainly
 16 like to second that. We'd be delighted to have
 17 participation by as many BDAC members who are interested in
 18 this subject and from the other agencies and the general
 19 public.

20 The next meeting is going to be sometime in the
 21 middle of May, probably a couple weeks before the next BDAC
 22 Meeting, and our next meeting will probably be here in
 23 Sacramento. The time of that is not firmly established
 24 yet, but, as you know, these are all public meetings and so
 25 those times will be announced and communicated to the

1 short-term issues are important, that the purpose of this
 2 group really was to focus on the long-term policy issues
 3 and we wouldn't try to do a bunch of fire fighting. We'd
 4 try to look at what the big long-term policy issues would
 5 be.

6 We decided to start with the cost allocation
 7 issue. If you remember, two of the bigger issues that we
 8 were sent away with, one was cost allocation and the
 9 second -- there were several -- but the second one that was
 10 of major importance at the time was statewide alternatives
 11 to GO bonds, otherwise to get money from a broad pool of
 12 people if you're not going to use GO bonds. So we decided
 13 to start with cost allocation and to use setback levees as
 14 a specific example to help illuminate some of the issues
 15 with cost allocation.

16 It turned out to be a pretty good example. It
 17 has a lot of potential for addressing multi-objectives
 18 within that particular type of action.

19 So at our second meeting we focused on that
 20 example and focused on cost allocation.

21 We went through the example to try to make sure
 22 that the people at the meeting understood what we were
 23 talking about so we'd all be on the same page and then we
 24 went through a list of some of the multi-objectives that
 25 setback levees might address as a way of sort of tying the

1 interested parties.

2 So, if I may, Mr. Chairman, unless there's
 3 questions, maybe hear briefly from Zach on it.

4 CHAIRMAN MADIGAN: Thank you.

5 Zach.

6 ZACH MCREYNOLDS: Thank you, Mr. Chairman.
 7 Thank you, Eric.

8 In order not to duplicate what Eric's already
 9 said I will respond to his request directly, which is just
 10 to provide you with some of the details of some of the
 11 things we talked about.

12 In our first meeting we spent the beginning of
 13 the meeting in any case in sort of an organizational mode
 14 trying to determine how we wanted to approach these
 15 problems.

16 If you'll recall before we had our first
 17 meeting you sort of sent us off with a list of issues which
 18 we might consider so we talked about those issues.

19 One of the first things that came up was
 20 whether or not we should deal with short-term sort of fire
 21 fighting efforts on immediate issues of importance or
 22 whether we should take a longer term view and try to
 23 approach the policy issues that are really going to affect
 24 the long-term financing program, and the direction the
 25 group decided to take was to recognize that all other

1 example to the policies we were going to try and consider,
 2 and then we started to try to talk about what kinds of
 3 principles you generally need to establish in order to move
 4 towards a cost allocation method.

5 What we immediately came to is that there are
 6 some fairly big issues out there in terms of these
 7 principles.

8 Your principles about cost allocation have to
 9 address several things about which there is currently not
 10 really good agreement.

11 One of those is you have to address as a matter
 12 of principle how you are going to look at causes of
 13 problems as opposed to beneficiaries of solutions.

14 That's a policy issue that's going to need to
 15 be discussed.

16 A second one is the general issue of subsidies
 17 and this is related to the ability to pay but if you decide
 18 you are going to make a cost allocation and if it
 19 incorporates a subsidy known in front or if you get to an
 20 ability to pay problem which is going to sort of back into
 21 subsidy, they want to be able to talk about that and
 22 address that in policy.

23 And the third one that keeps coming up is the
 24 question that Eric already mentioned about how do you value
 25 what you're doing and that's really a cost effectiveness

1 type question. So those are some of the specific issues on
2 cost allocations, which we think principles are going to
3 need to address, policies are going to need to address.

4 I would expect at our next meeting we would be
5 talking more about these principles and doing what our
6 charge is, which is to come up with alternatives to
7 alternative ways of talking about these policies and
8 principles and when some of the pros and cons are of those.

9 What's left is my to do list so I'll stop
10 there.

11 CHAIRMAN MADIGAN: Questions?
12 All right, Zach, thank you very much.
13 Eric, thank you. Let me ask the members of the
14 audience if there are any questions on that subject.

15 All right. Then we will move along. Mary.

16 MS. SELKIRK: I am Chair of the ecosystem
17 restoration work group.

18 We had our first meeting just this previous
19 Monday morning.

20 The focus of this work group has -- will
21 include addressing some specific policy issues now facing
22 the CalFed staff in developing its restoration strategy.
23 The first one being what is the CalFed vision for Delta
24 restoration and that's sort of the umbrella issue that we
25 are addressing, trying to address it with an increasing

1 overall ecosystem function.

2 I would say by and large that there was
3 agreement that the limiting factors approach that the staff
4 is using is one that there was general support of.

5 Obviously, they are going to be increasingly as
6 we start to deal with differing species and ecosystem
7 functions that there will be differences that will arise in
8 terms of the numbers and indicators that people in the room
9 could agree to.

10 That's on the Agenda for next time, and I would
11 say by and large there was a general acceptance of the
12 concept of adaptive management as an approach to be used
13 certainly in the interim in the first phase of ecosystem
14 restoration.

15 The Agenda for the next meeting will address
16 this major issue of benchmarks and target indicators, how
17 and whether they should be reflected both in the interim
18 Phase 1 staging of the ecosystem restoration strategy and
19 also in the long-term picture, and also I think we are
20 going to be addressing obviously within that the question
21 of well how do we -- can we agree to what a healthy
22 reference condition looks like in the Delta?

23 What is that going to -- what do we know and
24 what do we don't know so far about that?

25 We had quite an array of participants, and

1 specificity.

2 From that what's the best reference we have for
3 identifying a restored and a healthy system.

4 What use is there for historical data? If so,
5 which data should the CalFed staff be focusing on historic
6 function, historic numbers? These are all the kinds of
7 fact finding issues that the members of the work group are
8 grappling with and how should adaptive management be
9 defined for CalFed.

10 At the first meeting we focused primarily on a
11 draft of the ecosystem strategy, the most recent iteration
12 of that that's come from the CalFed staff. I think all of
13 you saw a draft at our March meeting. I would say in
14 general that following a presentation and discussion of the
15 concept of ecosystem limiting factors approach along with
16 some comments from Lester on the outcome of the Scoping
17 Meetings, there is a general discussion of the CalFed
18 ecosystem strategy as a whole, with differing levels of
19 specificity.

20 We had a room full of biologists from all over
21 the state who all had their own particular areas of
22 interest and expertise.

23 And I would say by and large that -- and there
24 was also discussion of how to integrate the limiting
25 factors approach that was described, with restoration of

1 there are a lot of BDAC members who are on this work group.
2 It's obviously one of great interest to everyone here; Stu,
3 Tib, as well as Lee, Bob Raab, Pat McCarty and Ann Nottoff
4 were not able to attend so we had a pretty solid
5 representation from the BDAC participating in the work
6 group.

7 Our next meeting -- we are anticipating that we
8 will be meeting about once a month between now and the end
9 of Phase 1 but we'll probably continue to meet through some
10 part of Phase II.

11 Lester has assured me today that we'll be
12 getting a little more intensive staffing from CalFed which
13 I think will be good.

14 There is just, as you can imagine, an enormous
15 amount of material to distill in this group. So it's going
16 to be quite an interesting undertaking.

17 Our next meeting is scheduled for Monday, May
18 the 20th. It will be in the morning here in Sacramento so
19 anyone who is interested in attending is invited to come.

20 And I'm wondering if anybody who here on BDAC
21 who was at this meeting wanted to add some comments.

22 Stu.

23 MR. PYLE: I'd kind of like to repeat just
24 briefly some of the observations I had at the meeting last
25 Monday, and I probably insulted all of the biologists

1 there.
 2 I have to apologize and tell you it's nothing
 3 personal.
 4 If I had been an economist, I might have said
 5 the same type of things -- but my concern is that I felt
 6 this work group is pointed more, as Mary said, to the
 7 policy aspects and I felt we were being presented with a
 8 great detail, particularly in the discussion amongst
 9 biologists, on how to approach the solution of a specific
 10 problem in a specific area, and I think that's kind of the
 11 wrong road for at least this group to be taking for a
 12 recommendations to BDAC.
 13 And I would like to see the recommendations
 14 follow more of a programmatic approach and what I mean by
 15 that is included in a letter that I sent to Lester and
 16 which is included in the meeting notes for this period.
 17 But I think we should be, rather than in trying
 18 to define the specific reaches of the channel or acres of
 19 habitat restoration or other technical detail, I think we
 20 should be trying to describe the program that will enable
 21 this process to move forward.
 22 Things in that program should be, once you get
 23 into an established program how were approvals made for
 24 projects? How do you implement these projects? How do you
 25 fund them? How do you collect data? How do you carry out

1 Do you have a sense of what that criticism
 2 might be and what are we addressing -- I would have guessed
 3 that you're addressing the entire ecosystem but --
 4 MS. SELKIRK: You mean that
 5 comment --
 6 MS. MCPEAK: That comment from the public
 7 about the ecosegment approach. Can you shed any light on
 8 that?
 9 MS. SELKIRK: I don't actually understand.
 10 Maybe someone who was at the meeting could.
 11 EXECUTIVE DIRECTOR SNOW: The comment that
 12 we received at several of the Scoping Meetings has a couple
 13 of nuances to it.
 14 One is you may recall that we set up the
 15 problem area, we defined the problem area fairly tightly
 16 around the Bay Delta system and Suisun Marsh and Bay, and
 17 the solution area flows beyond that and so there's two
 18 concerns that was raised by the term ecosegment.
 19 One was that perhaps the problem area should be
 20 the same area as the solution area, but more specifically
 21 the concern has been that our ecosystem, the way we are
 22 looking at it, stops at the dams and does not go up into
 23 the watershed, and so the -- again, several times the
 24 comment has been made you have -- if you're going to look
 25 at the ecosystem, you need to look at the entire ecosystem

1 the adaptive management?
 2 But I'm looking more at the program for
 3 structuring the accomplishment of this, recognizing that
 4 once you get that program going then there will be ample
 5 opportunity to argue the technical details of which
 6 specific projects you should go forward and then along with
 7 that I also have concerns about the extensive detailing of
 8 information in the core actions and think it should, as
 9 related to the essential elements and think that there
 10 should be a turnaround and the detail should be related to
 11 only a first stage of items that go forth under these
 12 programs once they are implemented so you can itemize and
 13 fund the first stage but recognizing that the program will
 14 then set up all those successive steps that make the
 15 process work over the next five, ten, 15, 20 years.
 16 CHAIRMAN MADIGAN: Thank you, Stu.
 17 Anyone else?
 18 MS. SELKIRK: Any other comments?
 19 Sunne.
 20 MS. MCPEAK: Question, Mary. One of the
 21 slides that Mary put up earlier this morning about the
 22 comments and the workshops had the term ecosegment. We
 23 were talking about an ecosegment, not an ecosystem.
 24 I do not quite understand the whole impact or
 25 implication of that comment.

1 including the watershed above the dams and not just stop at
 2 the foot of the dam.
 3 MS. SELKIRK: Okay. Any other
 4 staff -- Sharon, did you want to make any
 5 comments --
 6 MS. GROSS: No.
 7 MS. SELKIRK: -- about the meeting?
 8 All right.
 9 MR. RAAB: Well, Stewart said something at
 10 the meeting that resonated with me. He said he felt it was
 11 time to move into a management mode and suggested at the
 12 next meeting that staff actually give us -- did I hear this
 13 correctly, Stewart -- that you actually give us something
 14 in the way of a project, let's say, a small project, but
 15 something that we could start putting management
 16 perspectives on, and is that something that is going to
 17 happen?
 18 Did I hear you correctly, Stewart?
 19 MR. PYLE: I'm thinking more from the
 20 management point of view of describing this program that I
 21 just mentioned that's outlined in the letter of what I
 22 would call the programmatic approach of how to establish a
 23 program of functions that results in the various habitat
 24 restoration actions that we are seeking.
 25 So I'm looking for some description of the

1 managerial approach to establishing a program, whereas
 2 the -- we have the emphasis on the financing, then you need
 3 the -- to extend that into a system which covers the
 4 administration and implementation of these projects.
 5 MS. SELKIRK: I think as we develop the
 6 Agenda for the next time we'll have to work real closely
 7 with the staff to make sure that, you know, that we address
 8 both this issue but also get real specific direction in
 9 terms of what they are really looking for.
 10 I think that's a long with -- I think Eric has
 11 some of the same comments, that we are still trying to
 12 formulate, you know, what very specifically is going to be
 13 the most helpful fact-finding or recommendations that come
 14 out of this group to help the staff in defining the
 15 strategy. I think that's a real vital dimension of it, but
 16 I also think that there are some other issues that we also
 17 need to include.
 18 CHAIRMAN MADIGAN: Roberta.
 19 MS. BORGONOVO: I was going to make almost
 20 the same comment.
 21 It was interesting in our own finance group we
 22 had somewhat the same approach, should we do the principles
 23 first and then do the case study or should we do the case
 24 study and then the principles emerge as you really get into
 25 it and get into details, and I think we decided that we

1 And so if we could start with demand
 2 management.
 3 As I mentioned this morning we are still using
 4 that term, although it's been clearly pointed out in
 5 Workshop process that people think that that is a confusing
 6 term and in reference to how it's classically used in water
 7 communities so we will look at some other configuration
 8 there. But we'd like to start with Rick Soehren posing
 9 some basic questions that have come up to us in our process
 10 that you may want to consider and then add to.
 11 CHAIRMAN MADIGAN: Rick.
 12 MR. SOEHRN: Thank you.
 13 As Lester mentioned, even the term demand
 14 management is one that has some controversy around it.
 15 It's an issue that we've been talking about
 16 since the beginning of the program.
 17 We've used the term demand management. Some of
 18 the stakeholders have pointed out to us that perhaps water
 19 use efficiency would be a better term to use.
 20 One of the elements of demand management that
 21 we've included is water recycling or water reclamation, and
 22 that's a way to increase the efficiency of water use but it
 23 really doesn't reduce demand. It's really a new source of
 24 supply.
 25 On the other hand, fallowing is a measure that

1 would come up with both but that would be one way to
 2 approach it, is to actually walk through something and we
 3 started that with the setback levees, but I think also the
 4 implication is it's going to take us at least a year to
 5 work all the way through it so . . .
 6 MS. McPEAK: Don't have that time.
 7 MS. BORGONOVO: At least.
 8 CHAIRMAN MADIGAN: Okay. Thank you very
 9 much. Again, Mary, thank you. Members. Audience. All
 10 right. Then we will on to the key issue overview.
 11 Mr. Snow.
 12 EXECUTIVE DIRECTOR SNOW: I don't think I
 13 need to provide too much introduction.
 14 I think we've seen from our discussion this
 15 morning and also from the discussion of these last two
 16 items that we clearly have crosscutting issues on all of
 17 these alternatives and it almost doesn't matter how you put
 18 the components together. There are some real basic issues
 19 that we need to run to ground and whatever the preferred
 20 alternative will be and certainly finance and ecosystem
 21 restoration are two of them that we've identified, but even
 22 at our last meeting we identified other issues and what we
 23 wanted to do was discuss at least three of those additional
 24 issues that you and other Workshop participants in the past
 25 have brought up.

1 is going to reduce the demands and really doesn't increase
 2 the efficiency of use at all.
 3 So whatever we call it, there are probably
 4 three central issues that surround demand management or
 5 efficiency of use.
 6 And those issues are generally, first, should
 7 efficiency concepts be included in our alternatives at all
 8 and, second, at what level should the implementation occur
 9 and finally how should measures be implemented?
 10 The first point we've pretty much gotten past.
 11 There was a little discussion early on in the
 12 program of whether demand management or efficiency of water
 13 use should be a part of our alternatives. We've generally
 14 moved past that point.
 15 As Mary mentioned this morning one of the
 16 things we heard frequently at our Scoping Meetings was that
 17 efficiency water use should be a part of every one of our
 18 alternatives.
 19 Moving on to the second two points, at what
 20 level should implementation occur and how should measures
 21 be implemented?
 22 There are quite a few issues or questions
 23 surrounding each of those points that we could talk about.
 24 In staff discussions preparing for this meeting
 25 it was easy to come up with a dozen questions that might be

1 appropriate for a work group, appropriate for pretty
 2 considerable discussions.
 3 I've narrowed that down to four of perhaps the
 4 most central policy questions and I'll go over those.
 5 These were also reproduced on a sheet that was
 6 in the packet that you got this morning and there were
 7 sheets on the outside table that had these four questions
 8 as well.
 9 First of all, is what approach should we take
 10 in implementing water efficiency measures, a regulatory
 11 approach, a market approach or some kind of combination of
 12 the two?
 13 And there is a good example in the recent past
 14 about approach on that it's sort of a combination that
 15 started off regulatory and turned into market and that's
 16 the best management practices.
 17 The way those practices and the Memorandum Of
 18 Understanding that implements them got its start was with
 19 decision 1630.
 20 In draft form the State Board proposed a lot of
 21 mandated conservation measures as conditions of water
 22 rights.
 23 A lot of water users were extremely
 24 uncomfortable with mandated conditions from the State
 25 Board, sort of a one size fits all approach, and their

1 demand.
 2 Some people are strong supporters of that
 3 alternative and that kind of approach.
 4 Others have suggested that perhaps that
 5 alternative is more appropriately a component of other
 6 alternatives.
 7 Another question sort of related to that is
 8 should the level of efficiency vary? Should we have
 9 different amounts of water conservation or different
 10 numbers of measures in the different alternatives?
 11 Right now we do have that variation.
 12 As Lester mentioned this morning, some people
 13 have suggested that perhaps efficient water use should be
 14 more of a component. That's the same in all of our
 15 alternatives.
 16 If we use that approach as a component, what's
 17 the appropriate level?
 18 We have best management practices that are
 19 being implemented. We have efficient water management
 20 practices on the ag side. Are those the appropriate levels
 21 or is something else more appropriate for consideration?
 22 And, finally, the last point should efficiency
 23 measures be specified?
 24 At the programmatic level we specify only in
 25 general terms what the measures are, but we have included

1 response was to ask the Board, well, let us see if we can
 2 come up with a better way.
 3 And through a negotiated process over several
 4 years working with public interest groups and environmental
 5 organizations water suppliers came up with best management
 6 practices, a set of 16 conservation measures that could be
 7 implemented at specified levels over time.
 8 As it turned out, the Board did not follow
 9 through with 1630 but the process that water suppliers and
 10 public interest groups had come up with was a very well
 11 planned and well considered one and it survived, anyway.
 12 So there are about a hundred and twenty-five
 13 water suppliers today that are implementing best management
 14 practices, working with environmental organizations and
 15 public interest groups to fine-tune the way implementation
 16 takes place.
 17 So it started off as the thread of regulatory
 18 action and has turned into a voluntary sort of market
 19 driven approach based on the cost effectiveness of best
 20 management practices in particular areas.
 21 Another question is whether water use
 22 efficiency should be a primary approach of any of our
 23 alternatives.
 24 As it stands now alternative A, extensive
 25 demand management is centered around the idea of managing

1 water conservation, water reclamation, and temporary and
 2 permanent land fallowing.
 3 Some people have suggested that instead of
 4 calling for the retirement of land with the third party
 5 impacts that that would have, it might be a better approach
 6 to say "Here's how much water we want to conserve" and let
 7 the agricultural community or the other water users figure
 8 out the best way to do that, the most cost effective way
 9 with the least impacts.
 10 So that's sort of a background of the issues.
 11 Mike, I'll turn it back to you.
 12 CHAIRMAN MADIGAN: Thanks, Rick.
 13 Are there questions?
 14 Alex and then Tom.
 15 MR. HILDEBRAND: Couple of comments.
 16 First to get into the question of the
 17 definition of efficiency, retiring land in order to save
 18 water isn't a matter of efficiency. That's a matter
 19 of -- a different kind of thing than having the best
 20 management practices.
 21 And then when you get into the question of what
 22 is efficient in the way of management practices, you have
 23 to be talking about efficiency in water application, which
 24 doesn't necessarily relate to the availability of water for
 25 the State or for the environment or are you talking about

1 efficiency in terms of the availability of water in the
 2 stream system or otherwise?
 3 In the agricultural community there is already
 4 an enormous amount of work going on in the way of best
 5 management areas, in those areas who receive imported water
 6 at high cost and whose drainage is a problem.
 7 On the other hand, it makes very little sense
 8 for a farmer, say, on the Tuolumne or the Merced or the
 9 Stanislaus river basin to spend a lot of money on more
 10 efficient water application because his drainage water when
 11 he over applies all goes back and is reused and goes back
 12 at high water quality so it's no problem.
 13 And it would be just an expense with no benefit
 14 to anybody to do a lot of work to try to improve his
 15 application efficiency. In fact, what tends to happen if
 16 you do that, is that the water diverters and the resident
 17 fishery along the main stem of the river in the south Delta
 18 are almost totally dependent on the return flows from the
 19 agricultural use of water in those basins.
 20 And if they apply less water, if they have less
 21 return flow and then if that decrease in applied water ends
 22 up being let out for fish flows, say, the fish pulse in the
 23 spring you have a substantial decrease in the flow in the
 24 river in the summer and this leads to also the high
 25 temperatures in the river because of the low flow and

1 in and of itself has become a part of an important
 2 assurance, and as the back drop was 1630, the reporting
 3 back to the State Water Resources Control Board of what we
 4 determined to be over a decade the potential for
 5 conservation in the urban sector and that which we expected
 6 that the Water Board would take into account in the water
 7 rights proceedings and future allocation we thought was
 8 trying to get past an important debate, which was could it
 9 all be done by conservation or efficient water practices or
 10 could it -- could that not contribute significantly and
 11 would it all be done by water development?
 12 And basically we were trying to get past that
 13 nonproductive debate and get to a certain level of
 14 concurrence about what was feasible in the urban sector on
 15 conservation.
 16 Now, having said that I'd sort of be reluctant
 17 to try to redo that. Having gone through that I also think
 18 that the mechanisms of relationships are an important model
 19 as Tom just said on assurances, that you build in the new
 20 institutional mechanism that really is not an old demand
 21 control regulatory approach, but it's more collaborative
 22 with the stakeholders at the table.
 23 Lastly, I know what the number was that we came
 24 up with, and it's a third of what's in this -- in
 25 alternative A.

1 shallow waters.
 2 CHAIRMAN MADIGAN: Okay.
 3 Tom.
 4 MR. GRAFF: I wondered whether there
 5 wasn't a third category beyond market and regulatory, which
 6 would be something like agreement -- efficiency by
 7 voluntary agreement, and this relates to the institutional
 8 guarantees question that at least one possible vision as we
 9 get to the point where some interests will want facilities
 10 of one kind or another that are threatening to other
 11 interests, they might, and I emphasize might, be more
 12 acceptable to those interests if they were coupled with
 13 volunteer agreements to limit water use.
 14 CHAIRMAN MADIGAN: Makes sense, sure.
 15 Okay.
 16 Sunne?
 17 MS. MCPEAK: I wanted to actually start
 18 where Tom had just commented about the example that Rick
 19 used since I spent three years of my life with it and so
 20 did Roberta and so did Joan and a few others in this room
 21 on just the urban conservation, VMP's, that the approach
 22 that then finally was reached has a lot of benefits and
 23 value to build a pond, that it ended up being able to
 24 embrace some flexibility but with a mechanism for continual
 25 review and input and that that arrangement of relationships

1 Now, I realize that alternative A is a lot more
 2 things, but what I really wanted to know then as a point of
 3 clarification is our estimates were as about a million acre
 4 feet of potential conservation, when all VMP's were
 5 implemented over that decade, that decade ending some time
 6 after the year 2,000.
 7 So how much on alternative A is that in the
 8 three to three-and-a-half million acre feet, is there any
 9 part of that million acre feet that is in there, if so, how
 10 much?
 11 CHAIRMAN MADIGAN: Rick.
 12 MR. SOEHREN: Yes, there is part of that
 13 million that's in there, but most of it would be additional
 14 conservation.
 15 What we are seeing with best management
 16 practices is that as a voluntary process about a hundred
 17 and twenty-five of the State's 350 largest agencies have
 18 actually signed the agreement and agreed to implement
 19 measures, and those represent maybe 40 percent of the
 20 State's population.
 21 Implementation has been a little slower than
 22 has been called for in the schedule in the MOU.
 23 Some agencies have signed the agreement and not
 24 done much beyond that.
 25 Other agencies just haven't kept up with the

1 schedule. So there is a lot more potential within what was
 2 originally envisioned as full implementation of the MOU and
 3 I believe there is additional potential beyond that with
 4 new conservation measures. There is a lot of room for
 5 additional conservation in the landscape area. There is
 6 new technology, clothes washers, dishwashers coming along
 7 that were not part of the VMP's.

8 MS. McPEAK: Are you going to be reporting
 9 to the assurances group the experiences of the MOU
 10 oversight process and what has caused the delay in the
 11 schedule that we all agreed to?

12 MR. SOEHREN: I'd be happy to work with
 13 them.

14 I think probably Roberta who has been involved
 15 in the Cal-Urban and Water Conservation Council and the
 16 Reporting Committee might be a better source for that.

17 MS. BORGONOVO: I would comment that I
 18 really do believe in the cooperative relationships. I do
 19 think that you have to look at some of the other issues
 20 you've put out there, the demand management, the assurances
 21 in water quality, and I am struck by Tom's comment on some
 22 of the arrangements that might come about.

23 When we formed the MOU, it exceeded all of our
 24 expectations. We thought we would have ten or twenty
 25 agencies signing on and we suddenly have this huge

1 mechanism that reduces this continued demand or impulse to
 2 go to the Delta for more water is beneficial. So we see
 3 demand management defined in that broad sense and water
 4 agencies seem to define it narrowly. That's not the issue.
 5 It does help however if you start to really explain those
 6 terms so that wherever we are in the state when we are
 7 talking to the public everybody realizes that, no, we are
 8 not talking about this. We are talking about that.

9 CHAIRMAN MADIGAN: Byron, did you want to?

10 MR. BUCK: Yes, thank you, Mr. Madigan.
 11 I'm going to wear two hats here, one as Executive Director
 12 of the California Urban Water Agencies but also my other
 13 hat is the Administrator for the California Urban Water
 14 Conservation Council.

15 Just to amplify a little bit on what's going on
 16 with the Council right now, they are very much cognizant of
 17 the CalFed process, they are very much cognizant of demand
 18 management conservation, urban conservation being very much
 19 a part of this process.

20 They, after having gone through this 1630
 21 experience and get the Council up and running and get the
 22 VMP list together the first few years of implementation,
 23 which is going on at a pretty high level in many of the
 24 urban areas, although there's certainly room to improve in
 25 a lot of others, they are looking at how this process is

1 proportion of the agencies in the state, but there was a
 2 drought on and during the drought there was a lot of
 3 implementation.

4 When the drought seemed to go away there was a
 5 shift in the perception of where conservation is, and so I
 6 think that if you have outside forces that move you into
 7 the cooperative relationship, that's always best, and we've
 8 talked before of are there financial incentives that move
 9 us that way?

10 Will that come out of the financing packaging?

11 We've talked about some of these arrangements,
 12 if you do this then you agree to do that and you put an
 13 implementation practice in place, a whole process so that
 14 you have some sort of independent evaluation so that those
 15 who are really implementing feel that they are getting the
 16 credit and those who want, realize that they don't just get
 17 to ride on the coattails of everybody else.

18 So I think that all those things need to be
 19 explored in part of this demand management.

20 When we use the term "demand management," I did
 21 ask Byron to give me his chapter of his new book on why
 22 demand management is defined differently than you have in
 23 your alternatives and I think the way that those of us who
 24 want to safeguard the Delta and want to move agencies away
 25 from dependence on Delta water see it as we see any sort of

1 going to affect them now.

2 There are certainly some implementation issues
 3 that they have to deal with, how many agencies are making
 4 schedule, measurement to the VMP's themselves and
 5 particularly the reporting issue.

6 The Council is pretty much a volunteer staff
 7 organization.

8 The VMP reports are produced. It comes into
 9 the Council and then it goes on to the State Board.

10 It is recognized that there needs to be a
 11 better job done of reporting to ferret out those people who
 12 have signed the MOU and maybe aren't necessarily doing
 13 anything, the free riders as we call them and versus the
 14 ones who are doing a real good job and should certainly be
 15 rewarded for that. The Council is addressing that issue
 16 pretty much front and center in a strategic planning
 17 process they are going through now.

18 I would expect what they are going to be going
 19 through there, they are going to be looking at developing a
 20 better analytical framework for defining the VMP's for one
 21 and defining whether you are doing a good job with them or
 22 not, which will then produce a way for the Council to
 23 analyze the reports that are coming in that can then go to
 24 the State Board.

25 That would make the whole VMP process work

1 better because you've got a reasonably rigorous and
 2 identifiable analysis of people's performance then the
 3 whole concept of the MOU with the group two people in the
 4 environment that the public advocate organizations can
 5 point out to the State Board and whoever else needs to know
 6 who's doing a good job in the urban conservation world and
 7 who's not.

8 Right now the level of reporting that goes on
 9 doesn't allow that feature of the MOU to work as well as we
 10 would all want it to do. So the message I've got is
 11 certainly the Council is very much aware of the processes
 12 here and is very much aware that they want to improve the
 13 level of conservation in the urban sector and be front and
 14 center on this issue and help CalFed to the extent that
 15 this is a component of the overall solution.

16 To the point of what can conservation do in
 17 this problem, the California Urban Water Agency has taken
 18 this issue on itself, since it serves the vast majority of
 19 the urban areas of California and has perhaps been the most
 20 aggressive as a whole, as a unit in terms of pursuing
 21 conservation and just to give you an order of magnitude,
 22 the CUWA agencies are spending over \$42 million a year on
 23 implementing best management practices so it is no small
 24 effort that is going on.

25 The CUWA group is producing a report that is

1 documenting what is going on, how conservation is used in
 2 resource planning, how much of future water demands is
 3 going to be taken up by the conservation issue because
 4 these agencies all look at it as a part of integrated
 5 resources planning, as a way of meeting new demands. They
 6 look at it just like any other new water source. They look
 7 at the cost and the benefit of it and the environmental
 8 benefits as well.

9 A lot of agencies are spending much more per
 10 acre foot of incremental water on the conservation side
 11 than they are on the traditional water development side so
 12 hopefully this report will be a useful piece for the group
 13 that I understand is going to be formed to deal with this
 14 issue.

15 Thanks.

16 CHAIRMAN MADIGAN: Thanks, Byron.

17 Tom.

18 MR. GRAFF: I guess I'm not as impressed
 19 by that 40 million dollar figure when we are looking at a
 20 minimum cost for this program of four billion.

21 MR. MADDOCK: It's 40 million a year.

22 MR. BUCK: This is \$42,000,000 a year so
 23 you look at that, and it's probably -- there's more money
 24 going to that than there is much more in the resource
 25 development with the exception of a couple of large capital

1 projects, Metropolitan Stomanigonic (phonetic) for one but
 2 that's a pretty substantial increase over four years --

3 CHAIRMAN MADIGAN: You'll like it.

4 MR. BUCK: So look at that over the long
 5 term. It's still quite a bit of money.

6 MR. GRAFF: Well, the annual cost on a
 7 four billion dollar program are 400,000,000.

8 CHAIRMAN MADIGAN: Okay.

9 Roger.

10 MR. STRELOW: I agree with some of the
 11 comments that you made. I was going to add that I think
 12 we've got an awfully good model that we'd be well advised
 13 to look at it and that is in the electric utility sector,
 14 in the era of oil embargo there has been an extraordinary
 15 amount of energy conservation, particularly in the
 16 industrial sector but really across the board.

17 And if you're looking for terminology, I mean,
 18 they've kind of come to the concept of conservation energy
 19 that very much emphasizes the fact that a gallon of water
 20 saved or, you know, a kilowatt of electricity saved and not
 21 used is just that much more supply.

22 So the notion of conservation energy and how
 23 the utilities and their customers have dealt with that I
 24 think would be a very good model and in particular I think
 25 there is nobody who has done more of it or been commended

1 more than PG&E, which is right in our back yards here. So
 2 perhaps a cross commodity thinking there would be useful in
 3 structuring a conservation water component to this.

4 CHAIRMAN MADIGAN: Thank you.

5 Ann and then Roberta.

6 MS. NOTTOFF: Not yes, I think those are
 7 good thoughts, certainly NRDC has been very involved in the
 8 demand side management issues and I think contributed in
 9 this.

10 I think kind of the disappointing rate of
 11 participation of urban water agencies in signing the VMP's
 12 is cause for concern in terms of looking at expanding that
 13 type of solely voluntary approach to any CalFed process.

14 That would cause me some concern.

15 Are you saying that there is -- you have
 16 developed some recommendations now that you think will
 17 enhance the rate of participation and there are some
 18 lessons there that we can learn and apply to CalFed so that
 19 we don't get just a 40 percent participation rate?

20 MR. BUCK: That is indeed the issue that's
 21 before the Council, how to get greater participation.

22 In terms of the 40 percent I don't know that I
 23 agree with that number, that the larger agencies are
 24 covering the vast majority of the people that are doing a
 25 good job but there are a lot of smaller agencies that are

1 having a lot of trouble finding a reason to sign on for a
 2 lot of various reasons. Smaller agencies don't necessarily
 3 have the staff they can put to it, they look at the upfront
 4 costs of getting into VMP's and the fact that it will lower
 5 their water sales and gives them revenue problems.
 6 Also, to be honest there was certainly a
 7 credible threat out there in the D-1630 days that people
 8 had to do something, and Roberta's point about the drought
 9 being there and giving people impetus to do it, that
 10 brought a lot of people in and we perhaps don't have that
 11 as much as we do now.
 12 The Council though, the core group that is
 13 doing the VMP's is I believe going to take the approach and
 14 this is part of their strategic plan that they are going to
 15 emphasize on doing better analytical work on those who are
 16 doing it, servicing the members who are doing a good job
 17 and also pointing out through a reporting process those who
 18 aren't doing a good job and at that point it can be the
 19 State Board or groups such as this and others that are
 20 going to shed light on those who aren't doing it and there
 21 will be hopefully pressure brought to bear on them to get
 22 with the program and to come into the group that is doing a
 23 good job.
 24 CHAIRMAN MADIGAN: Roberta.
 25 MS. BORGONOVO: I wanted to just go back

1 to again Roger's point. Certainly in the Urban
 2 Conservation Council that's exactly what we were trying to
 3 do. We were trying to bring those lessons that were
 4 learned in the electric utilities over, but there were some
 5 policy decisions that were made that allowed the electric
 6 utilities to move in that direction.
 7 And I just wanted to touch upon a key issue and
 8 it does turn up in some of the alternatives and that's
 9 pricing, the relationship of the pricing of water.
 10 And so when you have pricing signals that can
 11 change the user, it can be customized to every agency, but
 12 in effect you then allow the users to make the local
 13 decision, what is their best way to change their water use,
 14 and it's why it's been consistent in both the Urban
 15 Conservation Council and those of us who have participated
 16 in the Ag Council that there be some sort of pricing
 17 mechanism.
 18 So that's the opposite side of the regulatory
 19 approach, is you have these financial incentives that move
 20 you in this direction.
 21 CHAIRMAN MADIGAN: Thank you. Mary.
 22 MS. SELKIRK: I just want to raise a point
 23 that I know I have expressed before.
 24 I am hopeful that there will be in kind of
 25 synergy between efforts of -- on the CalFed side with

1 regard to demand management and CUWA and the other urban
 2 agencies throughout the state because there is still a
 3 fairly dramatic range in terms of how different water
 4 districts by policy define their long-term water supply
 5 need -- their long-term demands and their long-term needs.
 6 And I think we have to find some way and I'm
 7 hopeful that one of the issues that will be addressed in
 8 this work group is what from a policy perspective from
 9 CalFed are the important issues that can be agreed upon
 10 that urban districts should be considering as they develop
 11 their long-term demand forecasts, and I think
 12 underlying -- or even in the context of that process each
 13 district is obviously going to have some great variation.
 14 There is still enormous room for a range of
 15 alternate activities that any district may want to commit
 16 themselves to, including pricing, but it concerns me that
 17 we -- I want to see us get on board with encouraging some
 18 sort of agreed upon standard of performance on the demand
 19 side from the urban water districts so I'd like to serve on
 20 that work group by the way because I don't have enough to
 21 do.
 22 CHAIRMAN MADIGAN: That's what I was just
 23 going to ask. Okay.
 24 Sunne.
 25 MS. MCPEAK: I want to make two different

1 points, although they are related to this process.
 2 First, is Mary was commenting about hoping that
 3 we could get to a specific performance standard.
 4 I want to endorse that and suggest that we can
 5 come a lot farther today probably than we could three or
 6 four years ago when all of that was being negotiated and we
 7 need all the districts to participate and I think your
 8 leadership with East Bay Mud in this role will make a lot
 9 of difference.
 10 We could have used that before.
 11 But the other comment you had made, and Eric, I
 12 think, was also alluding to is that there was a lot of
 13 discussion going on in many different arenas and to the
 14 extent of who it is working on those things I would hope
 15 that we could rely upon or borrow from that work into the
 16 various work groups here with BDAC.
 17 In other words, that we get some kind of direct
 18 input. We've got our own members meeting, Mike, but then
 19 there is other arenas that are working on habitat
 20 restoration and others that will be working on efficient
 21 use or demand management and on financing, and I think that
 22 was the point that Eric was saying, let's get that input
 23 and I was hearing Mary say the same thing.
 24 Leaving that aside and moving to the second
 25 point, as Ann was commenting on that a voluntary approach

1 we needed something more than that. I just wanted to also
2 underscore that we expected there should be very
3 significant incentives and rewards for opting into a
4 voluntary program.

5 It was an alternative to mandates that didn't
6 fit particular situation where you have the inability in a
7 legislative approach to take into account peculiarities or
8 differences or constraints that could be recognized, could
9 be worked out in a collaborative process but that we
10 couldn't rely only on the good faith and will of several
11 hundred districts out there to achieve what is the
12 potential.

13 Therefore, you would want a couple as you go
14 through this process, Lester, of looking at the combination
15 of packages what is the reward and incentive in those
16 packages programatically for efficient water
17 practices by both the urban and I would say agricultural
18 sector.

19 That's how it would then work and relate. We
20 just never got that far for a variety of reasons.

21 CHAIRMAN MADIGAN: Tom.

22 MR. MADDOCK: Yeah, a question for Byron.
23 Byron, you mentioned the 40 percent participation. Now, is
24 that 40 percent of the urban water users that represent
25 CUWA or what does that represent, in other words, or is

1 I quoted are from the last report of the Council on
2 participation by signatories. And what the report says
3 that a hundred and twenty-five urban water suppliers out of
4 the 350 largest suppliers in the state are signatories and
5 those 125 agencies serve water to 40 percent of the State's
6 population. So that's how those numbers fit together.

7 MR. BUCK: I would also mention that a lot
8 of people who haven't signed are doing the VMP's and for a
9 variety of reasons have decided not to sign the MOU so you
10 can't look at just the one number.

11 CHAIRMAN MADIGAN: Okay.

12 Lester?

13 Anybody. All right.

14 Rick, thank you very much.

15 We'll move on, but before we do, I know that
16 there is one person up here at the front table that's been
17 taking more careful notes than anybody else in terms of
18 this discussion of efficient use and that's because she is
19 about to be appointed to the Chair of the work group
20 dealing with the question and that's Judith.

21 Thank you for taking such good notes and for
22 listening so carefully.

23 For those of you who are interested in serving
24 on this work group please let Judith know. She and Sunne
25 and Lester and I will be trying to come up with the

1 that just the number of agencies?

2 MR. BUCK: Rick mentioned the 40 percent.

3 MR. MADDOCK: Oh, okay.

4 MR. BUCK: And correct me if I'm wrong,
5 that may be of the 300 or so urban districts, that many are
6 signatories. Not all of those signatories are doing
7 everything, but if you look at the larger agencies that are
8 covering the vast population of California, which would be
9 the CUWA an agencies, the ten biggest ones, they are all
10 very active.

11 MR. MADDOCK: Give a ballpark percentage,
12 in your opinion.

13 MR. BUCK: We'll be covering 20,000,000
14 people basically, which is two-thirds of the State's
15 population.

16 MS. McPEAK: It's the 60 percent we
17 thought of the population covered by the MOU which doesn't
18 mean that the signators were all implementing it. That's
19 why you had the Council to continue to review, to report,
20 to have mechanisms and then to have the relationship with
21 the State Water Resource Control Board that would provide
22 appropriate incentives and rewards.

23 CHAIRMAN MADIGAN: Rick.

24 MR. SOEHREN: A lot of the larger agencies
25 as Byron said are doing a very good job. The numbers that

1 appropriate group here and get this underway and as there
2 are institutions that should be a part of it, she would
3 also absolutely appreciate your assistance in bringing them
4 in so that we have the benefit of their knowledge and
5 experience.

6 Thank you for taking it on.

7 Assurances. Lester, do you want me to just go
8 straight to -- there he is -- Zach, you're on.

9 ZACH McREYNOLDS: I think you were given a
10 one page sheet this morning either in your packet or on the
11 table, which is sort of a summary of an outline of this
12 presentation.

13 I apologize for the -- it was sent by E-Mail so
14 you didn't get all of my great formatting but maybe these
15 overheads will compensate for that. Maybe not.

16 I'm not sure if this is a useful paradigm for
17 you to use to think about the assurances or not.

18 It's helpful for me is that when we're talking
19 about the alternatives and the long-term solution you have
20 the physical or the tangible components which is the first
21 thing you started to see and that earlier today the second
22 part of that is sort of the intangibles of the alternatives
23 which is the operational policies.

24 So you have what we are talking about doing and
25 how it's supposed to work together and how it's intended to

1 be operated, but then you have the third part which a lot
 2 of people have already brought up concerns about but are
 3 pretty critical and that how do we know you are going to do
 4 it that way? You've told us what you are going to do and
 5 how you plan to do it but we don't believe you or we think
 6 that the political pressure is going to be such that even
 7 despite your best intentions that you're going to be unable
 8 to do that some time in the future.

9 So that if you have -- these relate back to our
 10 solution principles of, first of all, implementability, and
 11 we think people have to believe it's going to work for it
 12 to be implemented to begin with, and second that it needs
 13 to be durable and if things are going to break down in the
 14 future then it's not a durable solution and that's another
 15 one of our important principles.

16 And the thought is is that in order to make
 17 sure that you can meet these solution principles you need
 18 to have some sort of assurances.

19 You've heard these called institutional
 20 guarantees or guarantees or assurances. I don't think it
 21 matters what you are talking about. I think we are all
 22 sort of familiar with the concept of what we are trying to
 23 address here.

24 This concept has been addressed before, and we
 25 just talked about -- you just talked about one of them,

1 alternative or a component there is at least two ways to
 2 address that. One is you change physically what you're
 3 going to do. You change the physical or tangible
 4 components and that's what you're talking about.

5 Another way is to say, well, we just can't
 6 change anymore physically or it's not smart to change
 7 anymore physically so let's look for sort of an intangible
 8 or a softer way to address that. So I agree that that's
 9 clearly a way that you can solve a solution principle
 10 problem.

11 This is a way if that's not the best choice.

12 You're done with all your physical changes and
 13 you've still got something that you are not quite sure you
 14 can trust. This is the way to address that kind of a
 15 problem.

16 But I'm sure that I've left some off this list
 17 but that's okay because this isn't the final draft of this
 18 stuff.

19 Hopefully, in your meetings and the working
 20 group you'll be able to add lots of things to that kind of
 21 list.

22 We've also heard about either the components or
 23 alternatives depending on what you're talking about that
 24 give rise to these concerns. You've raised some of them
 25 but there's others.

1 which is sort of the voluntary compliance, but there are
 2 some other types of possible assurances.

3 One of the ones that seems to work pretty well
 4 is alignment of interests.

5 What we mean by that is that if people have the
 6 basic motivation, either economically or otherwise, to
 7 behave the way that you want them to behave, then that may
 8 be an assurance enough all by itself.

9 Other types of assurances that we might
 10 consider to address these problems, Federal law, State law,
 11 regulatory powers, powers and private contracts and
 12 included in the private contracts may be bonded provisions,
 13 bond covenants.

14 So there are a number of different types of
 15 assurances that might work.

16 And I think it's --

17 MR. HILDEBRAND: Zach, I think there is
 18 one more that you missed there, and that is having a
 19 physical configuration such that it is incapable of being
 20 misoperated.

21 ZACHZACH McREYNOLDS: Well, I think we
 22 talked about that, I can't remember if it was the last
 23 meeting or the meeting before, and this is, again, I'm not
 24 sure if this is useful to think about, but if you have a
 25 problem with one of our solution principles, vis-a-vis an

1 One of the things I keep hearing is funding,
 2 how do we share the money that's going to be there when we
 3 need it.

4 You're talking about doing this over 20 or 30
 5 years. How do we know that stage three or stage four is
 6 ever going to be paid for or implemented?

7 Another big concern you get is regulatory
 8 predictability. How can we be sure that, for example, we
 9 don't put all of this money into something and then five
 10 years down the road we don't get a new regulatory decision
 11 or a new policy that blows the whole thing up and makes it
 12 all worthless?

13 We've heard comments in this forum before about
 14 third party impacts. How can we make sure that if we do
 15 something that ends up affecting a particular region or a
 16 particular community, how are we going to be sure that
 17 those people are going to be taken care of in an
 18 appropriate way.

19 You've mentioned the isolated facility type
 20 concerns of how do you make sure that's going to work
 21 right. And another one that you hear is how do we know
 22 that what you are going to do is going to fix the
 23 ecosystem. How can we be sure that we are going to end up
 24 with a healthy ecosystem when you are done with this sort
 25 of thing or you are going to change what you're doing so

1 that we do get a healthy ecosystem so that we're sure that
 2 whatever you do that's going to be the eventual result.
 3 And once again this isn't meant to be an
 4 exhaustive list. It's really a brief presentation that's
 5 meant to leave you with I think two questions, what are the
 6 components and alternatives that give rise to these kinds
 7 of questions?
 8 And what kinds of assurances work?
 9 What kinds of new institutions or existing
 10 institutions or new laws or new structures will work to
 11 address these kinds of a problem and those are two very big
 12 sorts of issues that I think are going to have to be
 13 grappled with.
 14 CHAIRMAN MADIGAN: Questions?
 15 All right. Again, members of the audience?
 16 Anybody?
 17 All right. Thank you, Zach.
 18 We will also be having a working group dealing
 19 with that question of assurances so stand by. The third
 20 issue before us, and I understand there are several of you
 21 in the audience who may wish to speak to this, and again I
 22 hope that you have taken the opportunity to leave your name
 23 and address off at the table in front, is the question of
 24 water quality.
 25 Mr. Yaeger, you're on.

1 upstream and downstream issues.
 2 Within the Delta there's issues related to
 3 toxics, their impacts on the food chain and possible
 4 impacts on fisheries.
 5 That's an issue that's related to herbicides
 6 and pesticides. It has linkages to volume of flow,
 7 concentrations, and in many ways our alternatives. We'll
 8 need to address some of those issues.
 9 Nutrients is an important issue related to
 10 ecosystem quality. Input of nutrients into the system is a
 11 way that it's usually discussed, and that has certain
 12 implications, of course, to fisheries within the Delta. We
 13 have major concerns related to heavy metals in the
 14 sediments within the Delta.
 15 It really focuses on the mercury issue and
 16 striped bass and some of the restrictions in the use of
 17 recreational fisheries there in the Delta related to heavy
 18 metals.
 19 Bioaccumulation of selenium is an issue that
 20 focuses in two distinct areas; one is in the refinery area
 21 in Martinez, and in some of the impacts in the fisheries
 22 there that Fish and Game has been following for many years,
 23 and another geographic area relates to ag drainage from the
 24 west side of the San Joaquin Valley and some of the hot
 25 spots there that contribute selenium to the system.

1 MR. YAEGER: The issue of water quality is
 2 one that really crosses over the boundary between several
 3 resource areas.
 4 In our scoping sessions and our review of
 5 literature that's been prepared in past programs and in
 6 discussions with experts in water quality we've identified
 7 a list of issues under ecosystem water quality, a list of
 8 issues under agricultural water quality, and issues under
 9 urban drinking water quality.
 10 We've provided in your packet a little bullet
 11 sheet summary of some of those issues.
 12 This is not comprehensive in any way but only
 13 meant to kind of highlight those that are most commonly
 14 discussed.
 15 I'm going to give you kind of an overview of
 16 ecosystem water quality issues and ag water quality issues,
 17 and when we get to urban drinking water quality, we have an
 18 expert in that area, John Gaston, who is with us, who is a
 19 consultant that works with many of the urban water agencies
 20 and we are fortunate to have him as part of our consultant
 21 team working in the program, and he is going to lead you
 22 through some of the real technical issues that lead to this
 23 dilemma in urban water -- urban drinking water quality.
 24 In the ecosystem water quality area we have
 25 kind of a geographic breakdown of in-Delta issues and

1 The dissolved oxygen issue is really related to
 2 a diosag condition that occurs in the San Joaquin River as
 3 a result of urban runoff in that area as well as discharges
 4 of treated waste water. It becomes a problem for migration
 5 of anagamus fish at times during the year.
 6 In the upstream and downstream areas we've got
 7 the temperature and turbidity issues, mine drainage issues,
 8 which pretty much revolve around the Iron Mountain mine
 9 problem.
 10 There's been some discussions recently about
 11 more effective ways of dealing with that by offering
 12 credits to urban agencies for their contribution of dealing
 13 with Iron Mountain mine and applying credits to their own
 14 discharge requirements related to heavy metals.
 15 It seems that it's a more effective use of
 16 money for urban agencies to deal with the mine drainage
 17 issue than to work on the minute amounts of removal that
 18 are required by their own discharge permits.
 19 Bay stratification, that's an issue related to
 20 both water quality and ecosystem health. We've been
 21 talking mainly about stratification in San Pablo Bay and
 22 that relates to a lot of our alternatives. We are going to
 23 need to look at that carefully as we analyze our
 24 alternatives or its impact on stratification. There are
 25 some that would like us to look at the stratification in

1 the South Bay, also, as kind of a related issue.
 2 MS. MCPPEAK: Steve, before we leave, on
 3 Bay stratification, how do you -- how will you be
 4 approaching the impact of the various alternatives on Bay
 5 stratification or how do you evaluate that?

6 I'm not looking for the answer. I'm really
 7 trying to understand the methodology and what causes the
 8 difference in the Bay stratification. I'm ignorant on that
 9 point.

10 MR. YAEGER: Well, we are certainly not
 11 experts in that. However, we have been discussing this
 12 with some of those that are. Larry Smith at USGS is
 13 pulling together a group of experts in the area to give us
 14 some advice on how we can approach the analysis of the
 15 alternatives to look at the impacts on stratification. We
 16 haven't yet had a report back from them, but we expect that
 17 they will be giving us some pretty specific advice soon
 18 about how to approach that issue.

19 MS. MCPPEAK: Do we know what we think is
 20 at least qualitatively a desirable stratification based on
 21 science?

22 MR. YAEGER: From a very rough qualitative
 23 approach I think in general you can say that that's
 24 preserving the high peak flood flows in the winter period
 25 is a desirable type of approach to stratification in San

1 water quality issue.
 2 I know there are many efforts underway at this
 3 time to try and address that, but we will be following
 4 those efforts and making sure that our alternatives wrap
 5 into the actions that come out of those efforts.

6 Total salt load is an issue in the San Joaquin
 7 Valley, and many of our alternatives address that in
 8 specific ways by bringing higher quality water out of the
 9 Sacramento Valley into the irrigation canals.

10 Others address it by trying to work on timing
 11 and in diversions to try to divert water at times when the
 12 water quality is better, but salt load is an issue that
 13 needs to be on the radar scope as we go through the
 14 alternative analysis because it has important long-term
 15 implications.

16 Under the urban drinking water quality area,
 17 the dilemma there is really between --

18 CHAIRMAN MADIGAN: Hang on a second,
 19 Steve.

20 Tom, did you have a question?

21 MR. MADDOCK: A quickie before you leave
 22 the water quality in the salt load, Steve. I presume there
 23 is going to be some analysis that would indicate, okay,
 24 well, if the TDS could be reduced a hundred parts per
 25 million of the, let's say, the ag export water, then that

1 Pablo Bay, especially.

2 And so since we are concentrating our
 3 alternatives on looking at taking water out of the system
 4 after the peak flood flow has passed, our hope, I guess, is
 5 that that will lead to an analysis that shows that there is
 6 no great impact on Bay stratification. But we're going to
 7 have to look at that in a lot of detail and I may have some
 8 implications for modifying our strategy and moving our
 9 offshore storage water diversions to later on the
 10 hydrograph might be one implication, but we are aware of it
 11 and are pursuing it.

12 In the general area of Agriculture water
 13 quality we have some kind of key issues, and again I think
 14 there are probably more on the list but salinity is a major
 15 issue for agriculture. It really relates directly to crop
 16 yield as well as relates to several other items on the
 17 list, such as agricultural drainage, especially in the San
 18 Joaquin Valley.

19 It becomes an issue because of not only water
 20 quality impacts on the Delta itself, but the recirculation
 21 that takes place through the existing pumping system where
 22 you are drawing water out of the San Joaquin that's already
 23 high in agricultural selenium discharges and recirculates
 24 it through the recirculation system again and again.

25 Circulation in the South Delta channels is a

1 would reduce the salt balance problem, which is already a
 2 big problem, but it would make it less of a problem than in
 3 the export areas of the CVP and in the San Joaquin Valley
 4 and so it's got to have some beneficial effect, I would
 5 gather.

6 MR. YAEGER: That's exactly right.

7 MR. MADDOCK: So that's part of the
 8 assessment, huh?

9 MR. YAEGER: Right.

10 We are aware of some previous studies that have
 11 been done looking at that specific issue, and we'll be
 12 working from those as a foundation to look at total salt
 13 load as part of our alternative analysis in Phase II.

14 In the urban drinking water quality area this
 15 whole issue really revolves around two concepts; best
 16 available source of water or higher levels of end user
 17 treatment, and it's -- it's a real dilemma for the urban
 18 water agencies and it has, I think, major implications for
 19 the alternatives that we have.

20 And so with that I would like to -- with that
 21 introduction I would like to introduce John Gaston who is
 22 going to lead you through some of the more specific
 23 technical issues there and then both John and myself would
 24 be available to answer further questions that you might
 25 have.

Page 157

1 This is John Gaston with the firm of CH2M Hill.
 2 Again, he is a consultant working on our
 3 program team, specifically, in water quality.
 4 We've got a little handout we are going to
 5 bring around to you. We apologize for not getting it to
 6 you in advance but we had some technical problems in
 7 transmitting that. But we'll hand that out.
 8 CHAIRMAN MADIGAN: Thank you.
 9 Mr. Gaston, welcome.
 10 JOHN GASTON: Thank you very much, nice to
 11 see you again. Seems like I've been here forever.
 12 My focus is on the, which should come as no
 13 surprise to many of you, is on the urban water quality
 14 issues as they relate to drinking water quality, and I just
 15 want to run through a few items and you're going to get a
 16 handout here with some bullet items on here.
 17 As we mentioned here in the overhead urban
 18 water utilities traditionally have tried to obtain drinking
 19 water from what's known as the best available source.
 20 That's a historic principle.
 21 The Delta is not considered to be the best
 22 source but it is the best available source, and so the
 23 utility industry has, especially since about 1979 been
 24 trying to make the Delta a better available source by
 25 improvements in water quality issues.

Page 158

1 Having sorted through all of the various
 2 drinking water constituent issues the two that come to the
 3 front in terms of drinking water quality are total organic
 4 carbon which is a naturally occurring substance and
 5 bromide, which is contributed by sea water.
 6 The Bay-Delta hearings the latest round which
 7 started in 1987 identified the TOC in the bromide as the
 8 water quality problems and concluded in reports submitted
 9 there that the bromide was contributed by sea water
 10 intrusion.
 11 The total organic carbon or TOC increases come
 12 from water coming into the Delta and then is dramatically
 13 increased as it passes through the Delta. The total
 14 organic carbon medium concentration approximately triples
 15 as it passes through the Delta. Total organic carbon and
 16 bromide are problems because they produce disinfection
 17 by-products, much to our dismay.
 18 When you chlorinate drinking water for
 19 disinfection, it reacts with the organic carbon and forms
 20 disinfective by-products such as Trihalomethanes, a
 21 suspected human carcinogen.
 22 They are current regulated by the US EPA at a
 23 hundred parts per billion, and that regulatory level is in
 24 the next few years going to be dropped down to about 80
 25 parts per billion and probably go considerably lower than

Page 159

1 that.
 2 The bromide is a problem because of all of
 3 those disinfection by-products. The brominated forms are
 4 perhaps the most virulent carcinogens and so controlling
 5 bromide is a very important issue for us.
 6 Treatment on the two subjects, treatment for
 7 bromide is really impractical because the kind of treatment
 8 you'd have supply for bromide would be a membrane process
 9 such as reverse osmosis and remembering on reverse osmosis
 10 for every ten gallons you take in and treat you produce
 11 somewhere between eight and nine gallons of drinking water
 12 and one or two gallons of brine. So your average water
 13 treatment plant operating at ten million gallons a day
 14 would therefore produce somewhere between one and two
 15 million gallons of concentrated brine and there's obvious
 16 disposal problem involved with that.
 17 Treatment to reduce total organic carbon may be
 18 done in a variety of ways.
 19 The treatment of choice that water utilities
 20 are currently employing is something called enhanced
 21 coagulation which basically means adding more coagulant
 22 chemicals and producing considerably more sludge.
 23 Treatment beyond that with something like
 24 Granular Activated Carbon or a membrane process the costs
 25 start to be truly heroic and those are not considered to be

Page 160

1 treatment of choice. They do indeed work but it's a large
 2 additional cost.
 3 Carbon filtration for reducing organic carbon
 4 also requires additional costs because when the carbon is
 5 exhausted you can think of it as a big carbon sponge
 6 soaking up the carbon. It has to be thermally regenerated
 7 and there currently are no thermal regeneration facilities
 8 in California and the few that are in the western states
 9 are generally for industrial purposes so the capacity to do
 10 that simply doesn't exist right now.
 11 This is indeed a problem already. From the
 12 exhibits prepared in the Bay Delta hearings we found that
 13 in the early '80's approximately a million people were
 14 served by water utilities that failed the existing
 15 standard. As the standards go down we think ten to
 16 15,000,000 people will be at risk of failing the standards
 17 and so this is something that in real life it's happening
 18 right now.
 19 Studies in the Delta have indicated that there
 20 is about a 200 percent increase or a tripling of the total
 21 organic carbon. As water passes through the Delta the main
 22 increase reaction there is from drainage, from the Delta
 23 islands, especially those with peat soils and the work is
 24 continuing in attempts to work on treatment of the drainage
 25 or some other management technology of the drainage within

1 the Delta islands.
 2 There are other potential water quality
 3 concerns that are across the board. Nothing as serious as
 4 TOC and bromide. There were microbial pathogen concerns
 5 and things like Giardia and Cryptosporidium. Those exist
 6 in all surface water sources and they haven't been found as
 7 yet to be extraordinarily different in the Delta than any
 8 other California water supplies.

9 The water utility industry is about to embark
 10 on a two year nationwide monitoring program for collecting
 11 information on the microbial pathogens and on treatment
 12 technology to answer some of these questions that we've
 13 already got in line.

14 So that's a summary of what the drinking water
 15 quality issues are. They have been pretty much the same,
 16 as I said, since 1979 when we made this unfortunate
 17 discovery that chlorine and organic carbon form chloroform.
 18 Perhaps we can blame the whole thing on advancements in
 19 science.

20 So thank you.

21 CHAIRMAN MADIGAN: Good a thing to do as
 22 any. Questions? Anybody?

23 Mr. Foley?

24 MR. FOLEY: John, I'm just curious for
 25 purposes of thinking through these things, do you have any

1 MS. SELKIRK: Good point.
 2 JOHN GASTON: Any other questions?
 3 No.
 4 Thank you.

5 CHAIRMAN MADIGAN: Tom.
 6 MR. GRAFF: My question is really for
 7 Steve, and -- I should say for Steve and Lester.
 8 It has to do with drainage and impacts on the
 9 Delta and for that matter on agriculture, or other
 10 agriculture.

11 And there is a letter, I guess it's out on the
 12 desk outside where I queried as to when we would look at
 13 the issue of drainage in this august body and this seems
 14 like the right time to bring it up today.

15 MS. McPEAK: It's in the packet
 16 (indicating).

17 MR. GRAFF: It's in the packet today?
 18 That's the question.

19 CHAIRMAN MADIGAN: That's okay. That's
 20 all right. It's a legitimate today's subject.

21 EXECUTIVE DIRECTOR SNOW: I read your
 22 letter now and I can't remember all of the details of what
 23 you were suggesting in there.

24 To date the way that we have dealt with the
 25 drainage issue in our alternatives has been from a water

1 envelope of cost per acre foot that some of these treatment
 2 techniques things would require?

3 JOHN GASTON: In 1987 and recently
 4 upgraded to 1996 dollars we opined that if the water
 5 utilities that take water from the California aqueduct
 6 system, this would be the South Bay Aqueduct, the North Bay
 7 Aqueduct and the California Aqueduct system and the Delta
 8 Mendota canal and the other Federal facilities, such as
 9 Contra Costa Water District, if they were required to put
 10 in carbon to control the total organic carbon, the capital
 11 costs would be somewhere in the neighborhood of two and a
 12 half billion dollars, and that would increase the costs of
 13 water a hundred to \$120 an acre foot, treated water.

14 CHAIRMAN MADIGAN: Alex.

15 MR. HILDEBRAND: I'd just like to remind
 16 you that we only drink a very small fraction of one percent
 17 of the water that's exported to the urban areas from the
 18 Delta.

19 Now, on my farm my water well is pretty salty,
 20 but I have a little reverse osmosis system under my sink
 21 which didn't cost very much and provides us with all the
 22 high quality drinking water we want. You could buy an
 23 awful lot of those for what it costs to put in an isolated
 24 facility.

25 JOHN GASTON: Yeah.

1 quality issue standpoint and the approaches that we have
 2 have to do largely with retirement of ag lands. We have
 3 not addressed the specific drainage issue or I mean the
 4 drain, and we definitely have not addressed in any way the
 5 litigation that's going on that I think was a partial
 6 subject of your letter.

7 Well, I mean, that's the status of how we have
 8 it integrated into the program at this point.

9 MR. GRAFF: I guess we are going to talk
 10 about future agendas, but the immediate thing that prompted
 11 my bringing it up is that the Water Board has, and Roger
 12 obviously knows about this, has instructed its staff to
 13 negotiate with the Bureau of Reclamation and/or local
 14 interests a reimbursement agreement to proceed with a
 15 permit for construction of the San Louie drain through the
 16 Delta. And that's during the time frame of all of our
 17 deliberations over the next couple of years so it seems to
 18 me that two processes are related.

19 MS. McPEAK: I actually think it's a
 20 legitimate issue.

21 Lester, how do you think we should handle that?
 22 Because obviously that -- maybe it's in another
 23 subject when we get to base case and all of the terminology
 24 that was I guess upcoming, I guess, the no-action
 25 alternative and that might actually be a part of the base

1 case, but how do you take that into account, what that
 2 additional drainage impact might be?
 3 EXECUTIVE DIRECTOR SNOW: well, certainly,
 4 any movement to proceed with a project could have dramatic
 5 impact on the whole way we're proceeding with the ecosystem
 6 for example. Where the drain end and the constituents that
 7 it dumped into the system would have a dramatic impact.
 8 What's not clear to me in all the legal
 9 maneuvering is how much is assigning responsibility for
 10 problems versus actually proceeding with construction of
 11 something.
 12 Certainly, if, in fact, there is movement to
 13 proceed with a project, then we have to integrate that into
 14 our assessment of overall water quality issues and the
 15 ecosystem health issues.
 16 CHAIRMAN MADIGAN: Mike, did you want to
 17 say anything on this?
 18 MR. STERNS: Well, I guess I, first of
 19 all, had suggested to Lester that if there was an
 20 opportunity for this group to review what's currently going
 21 on at a local level from the west side, for example,
 22 because of particularly in the last couple years to meet
 23 river standards and CVPIA, water conservation plans and so
 24 forth there has been so much going on dealing with the
 25 drainage and reduction, we offered to at least make a

1 proceed at the next meeting.
 2 CHAIRMAN MADIGAN: All right.
 3 MR. MCGAN: Roger, is that fair?
 4 CHAIRMAN MADIGAN: Let's schedule it that
 5 way and let's put it on the Agenda for this next month in
 6 terms of what we want to do based on what's happening
 7 between now and then.
 8 That's fine.
 9 There are a couple of hands up that people wish
 10 to speak. Ma'am. Yes, go ahead.
 11 MS. WILLIS: My name is Vickie Willis with
 12 the City of Benicia. We are a water supplier in the North
 13 Bay Aqueduct and before we left the issues of water quality
 14 I just wanted to make a couple of comments.
 15 One is that we have a great deal of difficulty
 16 treating North Bay Aqueduct right now, and we are very
 17 concerned with any diversions that are made that would
 18 impact or worsen that water quality.
 19 TOC, as they identified, is very difficult for
 20 us to remove.
 21 It's not visible in the water. Most water
 22 quality parameters that we have problems treating are
 23 visible. This one in particular isn't. It's one of the
 24 ones, one of the parameters that would be impacted the
 25 most, and in response to Mr. Hildebrand's comment about

1 presentation to this group or if it would work, I would be
 2 happy to look into the idea of a tour in the area so anyone
 3 that's interested would have an opportunity to see what's
 4 going on and what the goals and plans are locally.
 5 Beyond that, as far as the overall proposal
 6 having to do with the construction of the drain to the
 7 Delta I think Tom is right. I think that's something that
 8 is on the table. It's something that's been demanded of
 9 the Bureau to pursue and it ought to be addressed. I think
 10 it's a vital part in this.
 11 CHAIRMAN MADIGAN: we could schedule this.
 12 I mean, we could put it on the Agenda as a full blown item.
 13 We could even do as Mike suggests and try to arrange some
 14 sort of a tour of the day precedent or something like that
 15 to bring everybody up to, you know, a higher level of
 16 understanding and appreciation of the subject.
 17 What's your pleasure?
 18 Mr. Mantell.
 19 MR. MANTELL: I do think it's an important
 20 issue. I guess I would -- there may be some actions being
 21 able to be taken over the next month or so that have it
 22 more integrated into the work of this body so I guess my
 23 request would be to hold off for another month or so and
 24 see what progress is made in terms of discussions between
 25 the Board and the Bureau and then make a decision on how to

1 point of use, there is a public health issue in regards to
 2 individual point of use treatment facilities.
 3 It's not generally thought of as being a
 4 feasible alternative, and higher levels of treatment are
 5 very costly.
 6 You mentioned a hundred to a hundred and fifty
 7 dollars an acre foot.
 8 Well, reverse osmosis is \$200 an acre foot for
 9 treatment.
 10 And that's all I had to say.
 11 CHAIRMAN MADIGAN: Thank you for your
 12 comment.
 13 I saw another hand in the audience.
 14 Mr. Petry.
 15 MR. PETRY: Ed Petry, 291 Fleming Avenue,
 16 Mendota, California. Tom, I want to thank you for coming
 17 to Fresno. We appreciate your input and Lester, you're
 18 expertise on how you handled the situation in Mendota, we
 19 appreciate it.
 20 This must be a Mexican microphone. It's awful
 21 damn short.
 22 Anyhow, yeah, water quality, is of grave
 23 importance to the City of Mendota.
 24 I don't think you people realize what's going
 25 on in our community.

1 Now that you can put your little diddywag under
 2 the sink and it will give you clean drinking water, but
 3 what if you had to change the pipes throughout your house?
 4 That's a cost factor of \$3500 for a 1300 square foot house.

5 MR. HILDEBRAND: I'm not talking about
 6 that. I'm just talking about TOC's.

7 MR. PETRY: I know but I'm talking about
 8 cost factors and how it's impacting the people in the City
 9 of Mendota. We can't do things like that. With 1700 parts
 10 of total dissolved solids in 1995 it's a massive amount of
 11 total dissolved solids that we cannot handle.

12 Now, I don't know if it's coming from the San
 13 Luis drain but I have a good idea that it is, but there is
 14 many factors that are going on here that's going to affect
 15 our water quality.

16 Nonproject water that's going to be pulled out
 17 from the east side that's going to create a vacuum on that
 18 aquifer which is under the ~corporal clay area.

19 This is going to draw water from the upper side
 20 of the upper conference, above the corporal clay area where
 21 your bathtub is running over and is going to spill over
 22 into our aquifer. That's what's happening now. That's an
 23 ongoing situation.

24 I can go a mile out of the city of Mendota on
 25 Belmont Avenue and show you where the water table in the

1 have today on the environment.

2 Was somebody six years ago trying to tell us
 3 something with the drought situation?

4 Was somebody from some far off place trying to
 5 tell us that we had a problem and we didn't listen to them?

6 We should have listened to them in the drought
 7 periods before that but we didn't. We kept ignoring them.
 8 Now look at us.

9 Water pricing is going to come about. You can
 10 get volunteer conservation programs. You can have recycle
 11 programs. You can have best management practices, but
 12 you're not going to enforce them without putting a price on
 13 the damn water. That's the only way that you're going to
 14 resolve the situation, voluntary procedures aren't working
 15 and they won't work. I can't for the life of me understand
 16 why we keep putting it off. We are going to have to pump
 17 money.

18 If we need more facilities for more storage put
 19 the damn money into it and we'll get them. Because
 20 heehawing around the bush and not getting to the facts of
 21 the issues and calling for consultants here and calling for
 22 consultants there, this is what this Board is all about.

23 If you have to take it out to the parking lot
 24 to resolve it, do it, but I think you're going to have to
 25 face the issues and we are going to have to do it and do it

1 collector line for the San Luis drain, which is 12 foot
 2 deep, 24 inches in diameter, I can show you where the water
 3 level from the surface is a foot and a half from the
 4 surface.

5 Now, it's going to be hard to convince me that
 6 that's not getting into our aquifer.

7 You go downtown in the middle of the city of
 8 Mendota and I caught a guy out there that was taking
 9 samples from Sherman Oil Company. They come out there
 10 periodically because the ground was contaminated, they had
 11 to tear the service station down.

12 He is out there periodically looking at the
 13 groundwater and what the contaminants are in the
 14 groundwater. The groundwater in that area was 20 to 26
 15 foot deep. What's happens? People on the east side are
 16 pumping water and you want to put that in the San Luis
 17 canal and put it in the California Aqueduct?

18 The further away that your supply of water
 19 comes from the more chances you have of contaminants. We
 20 don't have enough control politically or financially for
 21 the State Board to handle the situation. They need a
 22 bigger club. They need more support.

23 Financially, politically or anyway we can give
 24 it to them.

25 Now, everybody blames the circumstances that we

1 now. The further you wait, the longer you wait, the worse
 2 it's going to be.

3 Thank you.

4 CHAIRMAN MADIGAN: Mr. Petry, thank you,
 5 nice to see you again.

6 Is there anybody else in the audience who
 7 wishes to comment?

8 Yes, sir.

9 MR. MACKLER: Hello I'm Bruce Mackler from
 10 the U. S. Environmental Protection Agency.

11 It's kind of hard to follow that last talk, but
 12 what I wanted to do was to mention something that Mr.
 13 Hildebrand had brought up earlier in the day in the context
 14 of what Mr. Gaston had just said, which is that we have to
 15 consider the components here and the water quality
 16 component particularly very carefully in making these
 17 decisions.

18 The issue, as far as I see, is very clear in
 19 water quality.

20 As John said TOC and bromide are the critical
 21 issues, the critical contaminants of concern from a public
 22 health side of things.

23 When we are considering the alternatives,
 24 though, we have to realize that moving more clean water
 25 south could easily degrade the water with respect to Contra

Page 173

1 Costa or North Bay Aqueduct folks and that the flow
 2 considerations have to be very early thought out ahead of
 3 time.
 4 Before we start cutting down from ten down to a
 5 fewer numbers I think it's worthwhile to try doing some
 6 simple modeling, not necessarily the full numerical models
 7 that we could do but some iterative type process to get a
 8 real sense of what's going to happen a little better.
 9 As I sat in on the Workshop 6 activities what I
 10 recognized was there are some very, very smart and very,
 11 very astute people involved in that that were scratching
 12 their heads because they really didn't understand what the
 13 different components could do or might do and it was all
 14 speculation.
 15 Answers based on speculation end up being
 16 speculative and I think we are at a point where we need to
 17 be a little more solid than speculative and I wanted to
 18 concur with what Mr. Hildebrand had said, maybe it's time
 19 to really sit back and think for a second, maybe not rush a
 20 head on a month-to-month base, take that extra month and do
 21 some more -- they don't have to be detailed, superficial
 22 type analyses on these components and then get back to the
 23 process.
 24 Thank you.
 25 CHAIRMAN MADIGAN: Thanks you. Thanks for

Page 174

1 your comment.
 2 Are there other comments from members of the
 3 audience?
 4 Yes, sir.
 5 MR. DUNN: I'm Bill Dunn, a consultant
 6 water consultant for many years here and also the Director
 7 of Calaveras County Water District.
 8 I'd just like to bring up the subject in water
 9 quality of the changing in water quality and this is
 10 especially dramatic when water flows through the Delta, if
 11 you have a high flow, you have a certain quality in water.
 12 If you have a low flow you have another quality.
 13 And when you design a treatment plant to treat
 14 this the water treatment will be designed for a certain
 15 quality of water and then you have a change and you have to
 16 change your chemicals, you have to change your rate of flow
 17 and sometimes your plant can't even cope with the draw.
 18 And this is a very important factor and these changes can
 19 come in a week, a month or even less, and I think it's
 20 something that should be considered as a plus or a minus.
 21 This is one thing about the further up the
 22 source you go up the Sacramento River, Feather River,
 23 wherever, the less of a problem you have changing water
 24 quality.
 25 Thank you.

Page 175

1 CHAIRMAN MADIGAN: Thank you.
 2 Anybody else?
 3 If you want to be -- please raise your hand
 4 high. Those of us who are vertically challenged and
 5 appreciate the microphone being at the height that it is
 6 sometimes can't see very well in the back of the room. So
 7 if have something, make sure I see you.
 8 Anybody else?
 9 Yeah, Mary.
 10 MS. SELKIRK: I'm not sure whether there
 11 is agreement this item that this discussion of the drain
 12 will be agendized or not.
 13 CHAIRMAN MADIGAN: It will be.
 14 What we'll do is we'll go ahead and bring it up
 15 this next month to listen to what's transpired this month,
 16 apparently.
 17 Apparently, some conversation is taking place
 18 this month and then we'll put it on the Agenda following.
 19 MR. PATTERSON: We thought that -- first
 20 of all, this is in litigation so it's a little bit tricky
 21 because we've been directed by the Court to pursue the
 22 permit. At the same time the 9th Circuit has appointed a
 23 mediator to try to work through some of the issues.
 24 Michael and I have talked about CalFed agencies
 25 having some discussion of this and then perhaps -- and then

Page 176

1 we would put that on the Agenda at the next time and
 2 basically come at least from our perspective and update
 3 people just so they know where the issue is and then
 4 perhaps Mike and others down in the Valley could add to
 5 that.
 6 CHAIRMAN MADIGAN: Okay?
 7 MS. SELKIRK: (Affirmative nod)
 8 CHAIRMAN MADIGAN: Rosemary?
 9 MS. KAMEI: Before we leave the issue of
 10 water quality it is a vitally important issue and I
 11 understand that we are not going to be forming a work group
 12 on this but that's perhaps a tactic that's more
 13 appropriate.
 14 I'd like to know how Lester and the staff were
 15 planning on keeping us up-to-date and informed on the
 16 progress of the water quality issue.
 17 CHAIRMAN MADIGAN: Fair question.
 18 Mr. Snow.
 19 EXECUTIVE DIRECTOR SNOW: Yeah, I think
 20 that one of the things that happened in scoping is we
 21 received a fair amount of criticism from the urban
 22 agencies, not necessarily that we were supposed to pursue
 23 their water quality issue to the exclusion of others but
 24 that we had not properly captured the issue and it wasn't
 25 clear from the documentation that we even understood the

1 nature of the drinking water quality issues and the
 2 relationships.
 3 And then there is these other linkages that
 4 have been brought up here. So the thought was that this is
 5 one that has a fair amount of technical issues associated
 6 with it rather than the broader policy issues in some of
 7 the other items and so we wanted to pull together a team of
 8 water quality technical types to flush out these issues and
 9 then bring back the full BDAC.

10 If at that time there appears to be broader
 11 policy implications then perhaps a policy work group will
 12 be necessary but we want to take a shot at the technical
 13 issues first.

14 CHAIRMAN MADIGAN: Thank you.

15 Rosemary, did that answer your question?

16 MS. KAMEI: I was just curious as to any
 17 particular time frame when you'd been addressing it?

18 EXECUTIVE DIRECTOR SNOW: well, I think we
 19 need to have a report at the next BDAC Meeting.

20 CHAIRMAN MADIGAN: Sunne.

21 MS. McPEAK: I had a question to Steve.

22 On the TOC's, do you have a sense of the
 23 percentage or the proportion of the TOC's and the THM
 24 precursors that are contributed to at the time of the -- or
 25 at the place of the treatment plant or at the location of

1 unless you get some biological process it's not going to
 2 degrade and we are seeing the same kinds of numbers in the
 3 Southern California as well. Buffered because we don't see
 4 the peaks because of the flattening from the travel time
 5 down the aqueduct system.

6 Clearly those users in the Delta like Contra
 7 Costa are the canary in the coal mine and they see the
 8 instantaneous values whereas the further away you are you
 9 get a flattening in the valleys because of blending and
 10 buffering.

11 CHAIRMAN MADIGAN: Byron.

12 MR. BUCK: Thank you, Mr. Chairman.

13 Just very briefly on this urban quality water
 14 issue.

15 The discussion seems to form around that this
 16 is still just a cost issue out there no matter how the
 17 urban water agencies can treat it. That may have been the
 18 view, certainly even from the Urban Agency's view, ten
 19 years ago but we've got a rapidly changing regulatory
 20 environment now. We are finding many more constituents
 21 because of our ability to test and finding out what they
 22 can do to human health.

23 And we are finding in a lot of testing that's
 24 going on that we are just not really sure that we can treat
 25 in the future and so that eventuality caused us to look for

1 the treatment plant that comes from the terminal storage,
 2 runoff at terminal storage?

3 MR. YAEGER: John, did you get a sense of
 4 that? We'll let John try that one.

5 JOHN GASTON: We looked at the data that's
 6 been collected over the last five or six years,
 7 Miss McPeak, and the concentration of total organic carbon
 8 in the Sacramento River at about Sacramento averages about
 9 one-and-a-half milligrams per liter. By the time it gets
 10 down the banks it's 50 percentile is about three-and-a-half
 11 so it's tripling even higher or higher than that.

12 The swings if you go into the more degrading
 13 qualities it gets much worse within the Delta and it
 14 depends a lot upon seasons of the year and what the other
 15 flow characteristics are, and there is some work going on
 16 looking at treatment technology now.

17 Ideally looking at options here, the ability to
 18 take water during portions of low total organic carbon
 19 versus high total organic carbon are certainly beneficial
 20 and that's one of the things that we are trying to look at
 21 in terms of trying to rank the alternatives from this
 22 standpoint.

23 MS. McPEAK: And TOC's in terminal storage
 24 after six months' residency is what?

25 JOHN GASTON: It's centrally conservative

1 a more balanced strategy, not to have all of our eggs in
 2 one basket and just thinking that we can treat the problems
 3 that are out there but to go to kind of the basic standard
 4 that's always been there to kind of have a higher quality
 5 water source so certainly that is part of the mix. We are
 6 certainly going to be looking for alternatives that can do
 7 that and how they perform.

8 CHAIRMAN MADIGAN: Steve.

9 MR. HALL: Yeah, I want to get back to a
 10 point that Alex made because I think it's a very legitimate
 11 point, but we have a policy framework in this State and
 12 really in this country that public water suppliers are
 13 going to supply water of drinking water quality to homes
 14 and there are enormous policy and technical issues
 15 associated with what you are using, Alex, which is in water
 16 quality vernacular called point of use treatment.

17 It works very well where there isn't central
 18 treatment available.

19 But I was going to ask John Gaston, John, do
 20 you know of any point of treatment apparatus that is
 21 certified by the State as complying with Federal drinking
 22 water standards?

23 MR. GASTON: There is a certification
 24 process which is run through the National Sanitation
 25 Foundation in Ann Arbor and they produce a list of quote

1 unquote certified devices at this state, then adopts sort
 2 of in reference, and depending upon what you want to take
 3 out there are indeed devices, but we -- in truth we only
 4 consume one to two percent of the water that goes through
 5 the water treatment plant. The remainder is used for
 6 nonconsumptive uses.

7 However, the logistics of running point of use
 8 treatment devices in an urban community beyond a few
 9 thousand homes just boggles the mind.

10 MR. HALL: It does, yeah.

11 JOHN GASTON: and also it boggles the
 12 pocketbook. So it's not something that we've addressed,
 13 and the only ones that I've been involved with have been in
 14 isolated situations, in Death Valley where they have very
 15 high arsenic and other compounds. They do have smaller
 16 osmosis units that they use there but that's a small
 17 controlled thing. I mean, I can't imagine going to the
 18 City of Los Angeles and explaining to everybody that we are
 19 going to put something in their house.

20 MR. HALL: You know better than I, but I
 21 am not aware of any of those point of use treatment
 22 apparatuses that California has actually certified.

23 JOHN GASTON: No. California's
 24 certification program has not gotten underway, no. They've
 25 given defacto acceptance to the NSF standards, but they

1 CHAIRMAN MADIGAN: Anybody want to try the
 2 answer to that?

3 Mary? Anybody. John?

4 JOHN GASTON: I can tell you what the
 5 situation is that East Bay Mud, as we know, takes water out
 6 of the Mokelumne River and they have five water treatment
 7 plants and I happen to live in that area and treat the
 8 water successfully and don't have any drinking water
 9 quality problems as a result.

10 Hetch Hetchie is a much more complicated
 11 system. Hetch Hetchie water is served two portions of
 12 their service area, which includes Alameda, Santa Clara,
 13 San Mateo and San Francisco counties in an untreated run
 14 filtered way a large portion of the of the year.

15 For that portion of the water that's filtered
 16 it's put into one of the reservoirs and we treat it again
 17 in one or two of their water treatment plans so it's a very
 18 convoluted, complex system, and between the two of them
 19 they serve, what, 5,000,000 people, 4,000,000 people
 20 probably.

21 CHAIRMAN MADIGAN: Mary?

22 MS. SELKIRK: I'm sorry, I missed the
 23 question.

24 CHAIRMAN MADIGAN: The question I think
 25 had to do with treatment implications for isolated systems

1 have not started their own certification program.

2 MR. HALL: So as we sit here today there
 3 is no apparatus, even if you decided you wanted to, that
 4 you could bolt on underneath the sink that would meet
 5 Federal drinking water standards in California.

6 JOHN GASTON: And not meet the California
 7 standard, that's correct.

8 CHAIRMAN MADIGAN: Other questions by
 9 members of the BDAC?

10 Other issues, speakers from the audience?

11 Yes, sir.

12 JIM MCCLLOUD: I'm Jim McCloud. We have a
 13 couple isolated water delivery systems in California, one
 14 of them is the Hetch Hetchie system and the other is East
 15 Bay Mud. Hetch Hetchie has the best water in the State of
 16 California in their process, but however when it gets to
 17 the treatment plant East Bay Mud actually beats them
 18 because Hetch Hetchie puts it in a reservoir and the
 19 environmental processes degrades their water.

20 My question would be very simple. You have two
 21 very, very good examples of excellent water being put in a
 22 pipe directed to a treatment -- almost directly to a
 23 treatment plant. What are their problems in treating their
 24 water in relation to some of the other problems in
 25 California?

1 and the two that were pointed out as being large scale in
 2 this State were Hetch Hetchie and East Bay Mud and whether
 3 you had difficulties in terms of -- or peculiarities in
 4 terms of your treatment system that arose from the fact
 5 that it was an isolated facility.

6 MS. SELKIRK: I think at this point the
 7 major concerns -- I don't think there have been any
 8 problems associated with the aqueducts per se with the
 9 water coming from the Mokelumne.

10 I think of greater concern now are some of the
 11 contamination, very low levels, but incidents of
 12 Cryptosporidium, for example, in raw water in our local
 13 water reservoir storage so it's not up country water that's
 14 the problem at the moment.

15 CHAIRMAN MADIGAN: Thank you.
 16 Anybody else? Members of the BDAC?
 17 Yes, sir, go ahead.

18 MR. DANIEL: You didn't answer my
 19 question. My question was what's the cost of treatment
 20 between that particular isolated facility and the other
 21 problems that we're having in California?

22 Actually, I forgot. Is this going is to be our
 23 next water process in California that everybody is going to
 24 have what Hetch Hetchie has and East Bay Mud has and we are
 25 going to pipe it right to the dam to -- and around the

1 Delta and to everybody else?
 2 Is that what we are going to do, just because
 3 we have some engineering problems or perceived health
 4 problems?
 5 The other question might be how much water do
 6 you have to drink and what period of time to have one
 7 chance in one million of getting whatever you're afraid of.
 8 I think there is a lot of questions to be answered and
 9 questions to the regulatory people, also.
 10 Where are we going with this protection of the
 11 public, and is it really necessary?
 12 There's a lot of questions out there that needs
 13 to be go on and on, and, quite frankly, this group is
 14 supposed to be protecting the Delta not somebody's water
 15 system. So if you're not interested in protecting the
 16 Delta, then we'd better break it up in little segments and
 17 we'll be protecting this guy and that guy, whoever has the
 18 most power in this thing.
 19 CHAIRMAN MADIGAN: Actually, you'd be
 20 surprised at the number of things that this group seems to
 21 be responsible for, but since the Delta does seem to be
 22 somebody's water system as well that is a part of the
 23 conclusion.
 24 Mr. Snow.
 25 EXECUTIVE DIRECTOR SNOW: There seems to

1 MS. MCPPEAK: One of the issues we are not
 2 responsible for, I think, here at BDAC is general public
 3 health policy.
 4 We are responsible for water quality and as
 5 that relates to the Delta and water users, although, I just
 6 wanted to also comment that if we were looking at this as
 7 citizens and taxpayers and public health issues, that there
 8 are arenas in which we have sort of incongruent policies or
 9 priorities or expenditures and we start looking at costs
 10 from a public health perspective.
 11 And for over a decade I sat on a air quality
 12 management District Board.
 13 Air quality standards are set from a public
 14 health perspective and we would pass rules that literally
 15 were 250, 300 million at a pop, and if I were given that
 16 amount of money and said what would you first do to improve
 17 public health in the Bay Area, I can assure you that
 18 valves, flanges and pumps would not be the first thing that
 19 I would invest it in from a public health perspective.
 20 And I do know a little bit about that -- or at
 21 least I'm supposed to because that is my degree -- that
 22 somewhere in all of this as citizens, not necessarily as
 23 members of BDAC -- it's important to keep in perspective
 24 relative paybacks for investments in public health, and
 25 there is a lot of other things you do for public health

1 be surfacing in the nature of some of the questions and
 2 comments that the way to respond to the urban agencies'
 3 concerns that they've raised in the scoping process about
 4 being concerned about drinking water quality, there is only
 5 one way to respond, it's an isolated facility, and that is
 6 not, in fact, how we are taking the comments that we
 7 received.
 8 I guess what we looked at is comments that
 9 perhaps CalFed has not integrated drinking water quality
 10 issues enough into our program and so the way we interpret
 11 that is that whatever basic approach that we are taking,
 12 whether it's leaving the system exactly the way that it is,
 13 improving through Delta or adding through storage, we are
 14 cognizant of the water quality issues embodied in that.
 15 We do not take this as now there is a superior
 16 objective to the program, and perhaps the urban agencies
 17 will not like what I just said but that's kind of how we
 18 are integrating it.
 19 We do not take this very legitimate concern
 20 that has been raised as now the guiding light to guide the
 21 program but rather something that needs to be integrated
 22 into the basic approaches that we take and the alternatives
 23 that we consider.
 24 CHAIRMAN MADIGAN: Thank you.
 25 Sunne.

1 overall than some of the regulatory directives that we find
 2 in isolated arenas from air quality to water, et cetera.
 3 The urban agencies, all water agencies, rural,
 4 urban, have certain laws to pursue. It's just that we need
 5 a higher level of perception from our elected officials at
 6 some point to get some more rationality I think in public
 7 policy.
 8 CHAIRMAN MADIGAN: Byron and then Steve
 9 Hall and then we'll try to wrap it up here.
 10 MR. BUCK: Just to allay any concerns that
 11 might have come up with Lester's comments we are certainly
 12 not looking for a single strategy to deal with the drinking
 13 water problems.
 14 It is in that vein, it is part of this
 15 program's problems to deal with. We are looking for a
 16 multi-faceted solution.
 17 We certainly wanted to highlight the issue
 18 which we felt hadn't been given proper attention but you
 19 just don't deal with it one way. You don't deal with any
 20 of these problems one way.
 21 You can't just look at one component and see
 22 how they interact together.
 23 Certainly, source control and other
 24 improvements are part of the equation when it comes to
 25 water quality.

1 CHAIRMAN MADIGAN: Thank you.
 2 Steve.
 3 MR. HALL: If I took Sunne's meaning
 4 properly referencing in part at least the discussion about
 5 point of views versus centralized treatment, I couldn't
 6 agree more, Sunne, that we all ought to urge our public
 7 officials to be more rationale in their role making.
 8 The organization I work for spends a lot time
 9 trying to do that.
 10 CHAIRMAN MADIGAN: Okay. I'll take a poll
 11 here.
 12 Everybody in full of rationale public policy
 13 raise your hand.
 14 MR. HALL: But I think I heard you also
 15 say it's not our job here to do that, and we've got to
 16 deal -- we've got to play with the cards we are dealt.
 17 Part of the cards we're dealt is we've got a
 18 certain system for delivering drinking water to people and
 19 it probably isn't going to change in the near future and so
 20 we've got to deal with it here given the parameters that
 21 exist.
 22 I couldn't agree more on both points.
 23 CHAIRMAN MADIGAN: Thank you.
 24 Steve, thank you. Thank you, all.
 25 Let's take about ten -- Rosemary, one more.

1 quality standards in the country, and I'm trying to be
 2 confident that the remarks that have been made, the
 3 comments that were made about the commitment of the CalFed
 4 process to sustaining those standards is not in any way
 5 anything other than a commitment to the highest health
 6 based standards in the state.
 7 I think we need to remember that that is the
 8 context we are working in, and I don't want it to be
 9 implied that that will not continue to be an absolute
 10 essential part of the CalFed mission.
 11 CHAIRMAN MADIGAN: Yeah, I don't know that
 12 there was any comment made that I heard that would apply
 13 otherwise.
 14 MS. SELKIRK: Thank you.
 15 CHAIRMAN MADIGAN: okay. The last item
 16 under "Key Issue Overview" was other issues.
 17 We have spent some time today and you've
 18 already heard from the working groups on ecosystem
 19 restoration and finance.
 20 You are aware of the creation of the efficient
 21 water use working group, or whatever Judy's going to wind
 22 up calling it, and you are aware that we will be -- we will
 23 also be coming up with a working group on assurances.
 24 We've had an extensive conversation about water
 25 quality this afternoon and you are aware that we are going

1 MS. KAMEI: I just wanted to make a
 2 comment on what Byron said to reiterate that it's not sort
 3 of the drinking water quality issue is not the guiding
 4 light, and we realize that.
 5 As it was presented by Steve it is an ecosystem
 6 water quality issue and agricultural water quality issue as
 7 well as.
 8 So it has to be all-encompassing and we do
 9 realize that.
 10 We just want to make sure that it is addressed
 11 and it sounds like it is going to be addressed and that's
 12 it.
 13 CHAIRMAN MADIGAN: Okay. Ten minutes
 14 let's be back.
 15
 16 (Brief recess)
 17
 18 CHAIRMAN MADIGAN: The last item under key
 19 issues overview is simply listed as other issues.
 20 Mary.
 21 MS. SELKIRK: I just wanted to make one
 22 final comment on the previous issue with regard water
 23 quality.
 24 I just want to remind us all that California
 25 has some of the most stringent health based drinking water

1 to have a technical group that Lester is going to be
 2 organizing in that regard, and several of you have
 3 indicated an interest in being kept informed or
 4 participating in that in some fashion or other.
 5 Are there other issues of a similar nature that
 6 you see where we should be trying to deal with a key issue
 7 and in some perhaps some fashion like these others that we
 8 are kicking off here?
 9 It's an open question to those of you on the
 10 Council at this point.
 11 Bob.
 12 MR. RAAB: Out there in grassroots land
 13 what I hear is almost a total disconnect in the area of
 14 water supply because these people who look at water supply
 15 and they say but that's a water flow issue and they think
 16 water flow is a neglected aspect that doesn't show up very
 17 often in the alternatives.
 18 And I just put this out that maybe that's
 19 accurate and maybe, at least this is a regional
 20 concern -- a Bay area concern -- it's the number one
 21 concern -- and so I put the question out myself.
 22 Is this area being stunted and would it
 23 possibly be grist for a Workshop, a study group, committee
 24 group?
 25 EXECUTIVE DIRECTOR SNOW: The flow issue

1 that has been brought up a number of times that I am aware
 2 of, it usually falls in two areas.
 3 The first area that was brought up in the most
 4 focused way was that people could not look at our ecosystem
 5 restoration strategy and see where flow was.
 6 In fact, early on that was a criticism that we
 7 were doing ecosystem restoration without consideration of
 8 flows, and, in fact, I think what we are trying to do
 9 through Mary's work group is show that actually in some
 10 fashion every one of the alternatives has modifications of
 11 flow to achieve ecosystem benefit, timing of flow and
 12 volume of flow, and so we think it will come out in that
 13 group how we are dealing with flow.
 14 The other issue that has been brought up and it
 15 came up today when Sunne brought it up, and, that is, that
 16 the total flow in terms of stratification in the Bay and
 17 the effects that that has, and that's something that, in
 18 fact, has to be modeled so we understand actions that are
 19 taken and what the flow requirements are for a healthy Bay.
 20 So we think that we are capturing those, and I
 21 think the main focus right now would be on the ecosystem
 22 work group to make sure that we've got flows as a component
 23 of a healthy ecosystem.
 24 And it may turn out, Bob, that's not
 25 sufficient, but at least right now that's where we are

1 be a good idea for members of BDAC to be a little more
 2 conversant with the San Joaquin River system, the decline
 3 of that system, what's caused the decline, and some of the
 4 things one might do about it.
 5 The overhead you have there -- I see we don't
 6 get it quite all on -- maybe you can shift it up a little
 7 bit.
 8 That shows you the San Joaquin River system.
 9 Down near the bottom right hand side is
 10 Millerton lake, Friant Dam and the upper basin of the
 11 San Joaquin comes in and then you have some femoral streams
 12 that only flow -- don't amount to anything after
 13 rainstorms.
 14 But there are four tributaries. There is the
 15 upper basin which historically provided about 30 percent of
 16 the flow of the main stem in the river and then you come to
 17 the Merced River a little further north (indicating).
 18 That's supplied historically about 15 percent
 19 of the flow in the river, and then the Tuolumne, which is
 20 roughly 32 percent and the Stanislaus roughly 23 percent.
 21 Then on the left side you can see the canals
 22 coming down, the State aqueduct and the Delta-Mendota
 23 Canal, which comes down and delivers some water into the
 24 Mendota Pool right where the upper basin flow comes into
 25 the floor of the Valley, but if you've ever been there, you

1 directing our energies on the flow question.
 2 CHAIRMAN MADIGAN: Roberta.
 3 MS. BORGONOVO: I'd just like to echo what
 4 Bob is saying.
 5 When we've talked here in BDAC about habitat
 6 needs, including flow, that's what we've heard, but when a
 7 lot of the people looked at those alternatives as they came
 8 through the Workshop package, they couldn't see that.
 9 So I think Bob was right, that's a question
 10 that will always be out there that really has to be
 11 addressed.
 12 CHAIRMAN MADIGAN: Alex, you asked Lester
 13 earlier for a few minutes on the Agenda, and this is an
 14 appropriate time for that.
 15 MR. HILDEBRAND: Can I have one of these
 16 voice augmenters?
 17 CHAIRMAN MADIGAN: "A voice augments?"
 18 You mean a microphone?
 19 I've never clear but that's what it sounded
 20 like.
 21 EXECUTIVE DIRECTOR SNOW: Alex is a good
 22 guy. He's got overheads.
 23 MS. McPEAK: And Lester is going to do
 24 them.
 25 MR. HILDEBRAND: Well, I thought it would

1 know that water that comes in the Mendota Pool just runs
 2 right around the corner, makes a U-turn and goes back out
 3 through a bunch of distribution canals. It doesn't go on
 4 down the river.
 5 Another thing to call your attention to is the
 6 salt and mud sloughs, which you come into the river from
 7 the west side just upstream of the Merced, and I'll be
 8 referring to that.
 9 Now, you get up toward the Delta and you can
 10 see the San Joaquin portion of the Delta shown there and
 11 we'll have another overhead that shows you that in a larger
 12 scale, just so you'll know that I've been watching this
 13 river for a good many decades.
 14 That little bump in the river a little bit
 15 north of the Stanislaus is where my farm is and where I've
 16 resided for a long time. So I have seen the decline that I
 17 am about to describe to you.
 18 Now, prior to the projects we always had ample
 19 flow in the river.
 20 It was always a better quality than we need
 21 even so we never even thought about salinity or water
 22 quality.
 23 But the next slide, if you'd put it on, Lester,
 24 on the overheads, shows the decline that has taken place in
 25 the outflow from each of the tributary basins into the main

1 stem of the river, and you can see that since the 1900's
 2 the decline has been of the order of 4,000,000 acre feet a
 3 year, but let's focus on what's happened since the CVP went
 4 into operation, which is in the late '40's there.

5 Because prior to that we never had any salinity
 6 problem and we still had ample flow even though it had been
 7 diminished from what it was historically.

8 Now, when the CVP went into operation, you can
 9 see that the upper basin flow, which up to that point had
 10 been almost all coming on down the river, and these are
 11 flows at Vernalis that get all the way down to the Delta,
 12 inflow of the Delta.

13 The -- we can go on now and take the -- well,
 14 first, to describe what's happened in the other
 15 tributaries.

16 In addition to exporting the upper basin flow
 17 from Friant on south there have been other things that have
 18 diminished the flow, obviously.

19 In the case of the Tuolumne, which is the one
 20 on the bottom, and is the other big one, there has been a
 21 decline from a couple of causes.

22 One is that the exports from Hetch Hetchie to
 23 the Bay area have increased approximately five fold since
 24 the mid-'40's, so that that's been a drain, and then the
 25 cities have grown and the agricultural is producing more

1 the effect of the San Joaquin -- of the CVP on the water
 2 supply in the South Delta.

3 And to focus on down near the bottom there
 4 where I've drawn a little circle, that is the average
 5 reduction in river flow, which is attributable to the CVP.

6 You can see it's about 550,000 acre feet in an
 7 average year, of which 345,000 occurred during irrigation
 8 season in the summer, and so we won't go over all the rest
 9 of the chart but that gives you some concept.

10 Now, if we go on then to the subject of
 11 salinity now, let's look at the next chart there.

12 When we export -- CVP exports water out of
 13 Friant, takes it out of the watershed and then they bring
 14 in water from the Delta through the Delta-Mendota Canal.

15 It's still pretty good water but it has about
 16 ten times as much salt in it as the water that was taken
 17 out so that the -- it shows there by years what the
 18 importation of salt was and you can see that in years of
 19 full delivery to the service area the import can get as
 20 high as a million tons a year of salt.

21 Now, the total accumulation have been
 22 calculated to have been about 30 million tons of net
 23 accumulation in the Valley in the soils and ground waters
 24 during the period as shown on that chart.

25 If we go on to the next chart, what happens is

1 food per acre than it used to, and that consumes more
 2 water.

3 You don't necessarily apply more but they
 4 consume more.

5 For example, if you have a corn crop, two or
 6 three decades ago with the varieties of corn you had you
 7 might, if you did a pretty good job, get four tons of corn
 8 to the acre.

9 Now you get six tons, but the -- it takes a
 10 pretty uniform amount of water taken up through the osmotic
 11 root system and evaporated through the leaves to grow a
 12 pound of biomass.

13 So when you grow a bigger crop per acre, you
 14 consume more water per acre, and this is true whether you
 15 are talking of corn or tomatoes or what have you.

16 So that the diverters in the basins who have
 17 been in agriculture since long before the CVP went into
 18 operation, as they increased their yields, they consumed
 19 more water.

20 So that's happened on all of the tributaries,
 21 and it's still an ongoing process and it hasn't stopped
 22 yet.

23 Now, if we could go on to the next slide, back
 24 in June, 1980, the Bureau of Reclamation and the South
 25 Delta Water Agency published this report (indicating) on

1 that this water is delivered to west side soils that were
 2 derived from marine shales and so the application of the
 3 water does pick up some heavy minerals from those soils,
 4 notably, selenium, but the salt -- I should explain that
 5 the salt delivery I mentioned is not the total salt
 6 delivery from the canal.

7 It's just the delivery to those areas in the
 8 service area which then drains through salt and mud sloughs
 9 into the river.

10 Now, there was some debate about whether the
 11 salt that ended up in the river was the same salt that we
 12 imported from the Delta, but these are not like table salt.

13 These are complex mixtures of salts.

14 So by looking at the composition of the salts
 15 they act as a kind of a fingerprint and you can tell where
 16 the salt came from.

17 This one shows you if you just look at the
 18 sulfate ion that was in the imported salt load in that
 19 particular period of time, we imported about 80,000 tons of
 20 salt that year and then you can see that about 48,000 tons
 21 of that salt ended up back in the river, came back down to
 22 the Delta.

23 You can make a similar analysis whether you
 24 take bicarbonate iron or chloride iron or whatever
 25 component of the salt mix you want to look at. You can

1 even do it for bore Ron and get the same picture.
 2 I don't have a chart that shows the selenium. .
 3 They also involve some import there. It's
 4 quite diluted when it comes in.
 5 What happens is that you apply that water to
 6 the crops and those people don't have enough water so they
 7 are very careful not to over apply water and consequently
 8 the osmotic root system takes up the water, leaves the salt
 9 behind.
 10 You have to add enough extra water to flush it
 11 out of the root zone but it then drains into the river at
 12 very high salinities.
 13 The salinity standard at Vernalis, which is
 14 much higher than the salinity we had before the CVP, is
 15 about 500 parts per million.
 16 The water that's supplied from the canal onto
 17 the wetlands and then drains into the river comes in at
 18 about 3,000 parts per million and the water that comes
 19 under the ag lands in the river, since they are pushed
 20 harder to be more careful of the water, comes in about
 21 5,000 parts per million. Now, that salt load then comes
 22 down, back down the river to the Delta where most of it
 23 came from in the first place.
 24 And if you'll look at the next chart, which is
 25 a map of the Delta, if we've got the right on here now.

1 export, but just look where the arrow is down there near
 2 the right-hand lower corner, which is at about a 9100 cfs
 3 total export rate, and you'll see that at the low tide
 4 level, I can't read it from here but I think
 5 it's --
 6 MR. SNOW: 0.029.
 7 MR. HILDEBRAND: Less than half a foot.
 8 Over on the high tide side it's about a foot
 9 and a third.
 10 Now, that is the draw down up at the
 11 intersection between Old River and the main stem of the San
 12 Joaquin River. It's even a greater draw down as you get
 13 closer to the pumps.
 14 The result of that draw down is that the river
 15 run backwards from Stockton up to that point and all of the
 16 water that comes down the San Joaquin River is drawn across
 17 to those channels. It never gets on down to the Central
 18 Delta at all.
 19 And so we have this problem of the shallow
 20 channels there having inadequate depths at low tide to even
 21 run our agricultural pumps at all sometimes, and
 22 furthermore, the circulation pattern is messed up so that
 23 we have stagnant reaches there where there is no flow, no
 24 net flow. It just sloshes back and forth with the tide
 25 like a dirty bathtub. You can't control the water quality

1 All right, you could raise that up a little bit, would you,
 2 Lester.
 3 The San Joaquin River is coming in on the lower
 4 right. The Stanislaus river shows there. Now, the salt
 5 load and the fish that come down the river get down to Old
 6 River, which is just past the sloughs there. That paradise
 7 cut doesn't actually connect to the river except during a
 8 flood. So you go on down to the next bifurcation.
 9 It gets down to there and then it goes through
 10 Old River and the salmon slough area and Grant Line canal,
 11 and it goes right back in a pump and you reexport all of
 12 that salt back down the river again and back down the
 13 Valley again.
 14 So we are running a few hundred thousand tons a
 15 year of salt around the merry-go-round here.
 16 Now, other problems that have arisen is that
 17 the two projects, State and Federal pumps, are faced with
 18 the fact that water only runs downhill so in order to get
 19 Sacramento River water to go across the Delta to the export
 20 pumps they lower the elevation of water all through the
 21 South Delta area there. And I think the next projection
 22 gives you a measure of the extent to which the -- that
 23 draws down the water levels.
 24 Don't try reading the whole table. It has
 25 different draw downs with different amounts of water

1 in those reaches at all.
 2 And so we sued the Federal Government and the
 3 State Government for causing these problems, and after we
 4 began to win in court, why, they started negotiating with
 5 us, and we've done all kind of modeling and negotiation for
 6 years to see how to solve this problem without shutting
 7 down the projects, which is hardly realistic.
 8 And the upshot of that is that we can solve the
 9 problem in those South Delta channels providing we put in
 10 three tidal flow control barriers, and going back to that
 11 chart, one of them would be in Middle River down near
 12 Victoria Canal.
 13 I don't know if you can spot that, Lester.
 14 The Middle River branches off of old river.
 15 It's right there.
 16 Right in there we put one there. We put one in
 17 old river just to -- well, that's the fish barrier, we'll
 18 come back to that -- then there has to be one near the
 19 Federal pumps in old river where it winds down below the
 20 straight line there which is Grand Canal. There would be
 21 one barrier in there and then one in Grant Line canal.
 22 Now, if you do that, the barriers let the water
 23 come in. They are open during the rising tide, and then
 24 you capture the high tide water and operate on that during
 25 the low tide, and, furthermore, you get unidirectional flow

1 in every channel that way so you don't have any stagnant
2 reaches where you not only have water quality problems but
3 for us to water gets hot, it's not very good for the fish
4 either.

5 Now, if we put those three in, then you largely
6 stop the recycling of the salt. It comes down the river.
7 So it doesn't get back into the Delta-Mendota Canal and you
8 don't ship it back down the Valley again.

9 It doesn't stop all of it but it makes a
10 substantial improvement.

11 Similarly the salmon spawns that come down the
12 river are shunted on down to the Central Delta because you
13 have a hydraulic barrier there. You no longer have this
14 draw down at the intersection of the old river and the main
15 river and conversely you don't get that reverse flow from
16 Stockton up to old river.

17 By the same token without the reverse flow you
18 don't have the dissolved oxygen problem which constitutes a
19 blockage in inadequate dissolved oxygen for the fishery.

20 The stagnant zones are also done away with and
21 they have dissolved oxygen problems so you eliminate that
22 problem by doing this.

23 Now, the -- these barriers can be operated in
24 the springtime if it doesn't go too far into the season in
25 conjunction with a tide barrier, not a tidal barrier, at

1 pre-irrigation and if you hold those waters for a few weeks
2 and let them out during pulse fish flow then you have ample
3 dilution without letting a whole lot of good quality water
4 out of the Delta-Mendota system meet the salinity standard
5 at Vernalis. So you can save about a hundred thousand acre
6 feet of water just by controlling the time of that entry
7 and you get better water quality throughout the system.

8 On the flow, to restore the flow, which is now
9 needed for the fishery in the spring because of all of that
10 diminution of flow there is only one way to do that,
11 without either taking a lot of the water away from the
12 historical water users in the tributaries or from the
13 export water users.

14 And, that is, to let water from the
15 Delta-Mendota Canal into the river through its connections.

16 They have a number of connections. The most
17 favorable one for this purpose is probably at Newman, down
18 near the mouth of the Stanislaus -- of the Merced, and then
19 let that come down the river and then recapture it and
20 reexport it.

21 That way you'll reuse water, make a double use
22 of it instead of taking water away from somebody or
23 shorting the system. It costs a lot less to circulate that
24 water around than it does to buy water even if that were a
25 good idea.

1 the head of old river there, which means that no fish can
2 even wander in a short distance into the South Delta before
3 they get flushed back out.

4 However, we can't have that operating during
5 the part of the year when our diversions are at a high
6 level because the fish barrier dewateres those channels
7 downstream and makes a situation on both elevation and
8 circulation far worse than if you didn't have a fish
9 barrier in there.

10 So you have to have two other barriers
11 operating in the fish barriers then to offset the impact of
12 the fish barrier and the two barriers can't even accomplish
13 that if the fish barrier's left in too long. That's when
14 our diversion rates begin to get high.

15 However, if you run all three of the
16 agricultural barriers, the tidal barriers, you get a
17 hydraulic barrier that accomplishes much of the same thing.
18 Now, as regards the salinity problem and flow problem at
19 Vernalis, there are a couple things you can do.

20 One is to pond and retain the drainage off
21 the -- that comes into the river through salt and mud
22 sloughs.

23 The biggest and worst time of that is from
24 March and April when they are draining the wetlands and at
25 the same time they are mobilizing agricultural drainage by

1 So those are the main portions of this. I
2 probably talked too long already so I'll shut up now and
3 see if you have any questions.

4 CHAIRMAN MADIGAN: Thank you.
5 Questions.
6 Stu.

7 MR. PYLE: Alex, isn't part of the
8 solution to this bound up in work that the Department of
9 Water Resources has been doing on a south Delta plan?

10 As I understand, they propose to rewrite and
11 reissue an environmental impact report that would provide
12 the authorization for them to proceed on this remedy?

13 MR. HILDEBRAND: That's correct.

14 And that plan includes the barriers, and it has
15 some other features to it which are not necessary to the
16 problems that I've just discussed and we've been a little
17 unhappy coupling the two together, because we think the --
18 we've got to get in on with the South Delta barriers in any
19 event, but it is included in that EIR.

20 MR. PYLE: Wouldn't it be possible for
21 that activity to move ahead, recognizing that it would be
22 wrapped up in one of the eventual alternatives?

23 MR. HILDEBRAND: It should definitely move
24 ahead. It doesn't need to wait for the CalFed process, but
25 it does relate to the feasibility of some of the water

1 transfer things that we are discussing.
 2 As I mentioned earlier in the day, if you put
 3 in an isolated facility, for example, and you don't correct
 4 the salt problem in the river and don't do anything about
 5 the inflow in the South Delta, you have an enormous
 6 problem. It would not only exacerbate the problem in the
 7 South Delta but would create the same problem in the
 8 Central Delta.
 9 So these things do have to be tied together,
 10 just as we say the CVPIA is a background thing on which we
 11 are building with our CalFed process.
 12 The CalFed process must also build on the
 13 barrier scheme, which is in the South Delta EIR that you
 14 mentioned.
 15 CHAIRMAN MADIGAN: Bob.
 16 MR. RAAB: This is all a little bit too
 17 complicated for me to immediately grasp, but, as you were
 18 describing the circulation problem I began to wonder and
 19 enlighten me. Will the salt that's getting recirculated
 20 now, given barriers are put in, would that salt go down the
 21 San Joaquin past Stockton and then down through the Delta
 22 and into the bays?
 23 MR. HILDEBRAND: Yes. It would largely
 24 not totally.
 25 Some of it would still get recycled back from

1 of slugs through. You get a whole lot of it coming
 2 through, whereas during the summer season it's just going
 3 around the merry-go-round and isn't getting out at all.
 4 MR. RAAB: Okay.
 5 MR. HILDEBRAND: Any other questions?
 6 CHAIRMAN MADIGAN: Mike.
 7 MR. STERNS: Just a quick one, Alex.
 8 You mentioned about recirculating water from
 9 the Delta-Mendota Canal back through the San Joaquin River.
 10 You said that would happen without impacting the water
 11 users on the Delta-Mendota downstream?
 12 MR. HILDEBRAND: That's our belief.
 13 There is some argument about the degree to
 14 which you can do it without any loss of water delivery to
 15 the Federal contractors, but the facilities are all there.
 16 You don't have to put in anything new that isn't there.
 17 You do have to have the State project wheel the
 18 water but the State Water Project has the capacity to wheel
 19 the water particularly during the pulse fish flow time,
 20 which is the big burden on the increased flows.
 21 The new burden on the river system, which is
 22 already overcommitted, is to restore these fish flows at
 23 Vernalis, and that restoration is almost entirely during
 24 the 30 day period, from April 15th to May 15th.
 25 And at that time the State isn't allowed to

1 the Central Delta, but the amount that would get out to the
 2 Bay eventually, which is nature salt sink, which is where
 3 most of that salt came in the first place, yes.
 4 When it gets down to the Central Delta, the
 5 cross -- the tidal flows are so much larger than the cross
 6 flow that it gets widely dispersed so that it does indeed
 7 get on out.
 8 The tests have been made on tagging fish show
 9 the same thing, that there are far fewer fish end up in the
 10 export pumps if you can force them to get down into the
 11 Central Delta.
 12 This is particularly true during the spring
 13 season when the exports are curtailed so that there isn't
 14 as much cross flow. The proportionate of cross flow to the
 15 tidal flow is even smaller then. There is very little of
 16 it gets sucked back around during that period.
 17 MR. RAAB: So you can promise folks
 18 downstream that there are no redirected impacts from this
 19 in terms of salt and maybe even other --
 20 MR. HILDEBRAND: Well, it eventually gets
 21 out now.
 22 You can't get around the fact that the salt
 23 that comes into the river eventually gets down all through
 24 the Delta, but it doesn't get through beyond the South
 25 Delta except during periods of higher flow and then it sort

1 pump very much Sacramento water so they've got a lot of
 2 wheeling capacity, so they can pick it up, wheel it down
 3 the valley and the connections are all there.
 4 In fact, water has been circulated on a very
 5 small scale a couple of times. Here about three or four
 6 years ago the Fish and Game Department bought some water
 7 out of the Merced or the Tuolumne, had it delivered to
 8 the -- into the San Louie Dam actually in that case and
 9 then taken back out of the dam and put in the river at a
 10 different time scale, and that's also an option, the kind
 11 of thing you'd have to study to optimize the system.
 12 You may at times want to go in and out of the
 13 San Luis but basically you're circulating water and putting
 14 it back in the river, and this same water, you use it
 15 twice. Therefore, it's just like that much new water.
 16 If you can save a hundred thousand or 150,000
 17 acre feet of water by recirculating, that's just as good as
 18 building a pretty good dam. So it's not something you
 19 ought to pass up.
 20 CHAIRMAN MADIGAN: Thank you, Alex.
 21 Anybody else?
 22 Thanks, Alex, appreciate it.
 23 MR. HILDEBRAND: Thanks for giving me the
 24 time.
 25 CHAIRMAN MADIGAN: Appreciate it, Alex.

Page 213

1 Stu.

2 MR. PYLE: I'd like to make a comment

3 which I think goes back to what you suggested or what you

4 asked about other issues.

5 And I have no idea of whether this is a good

6 suggestion or a really bad suggestion.

7 CHAIRMAN MADIGAN: We'll let you know. Go

8 ahead.

9 MR. PYLE: But the issue is one that

10 would -- I know it will be in Kern County Water Agency

11 comments that Lester gets at the end of next month on the

12 scoping, but that is the interface of the -- of BDAC

13 proposed alternatives with currently proceeding actions

14 that are involved in this, and by that I mean such thing as

15 the CVPIA, habitat restoration things, the Category III

16 actions, under the accord, the Department of Water

17 Resources plan for the South Delta that's now going on, the

18 Sherman Island plan that the Department has.

19 The Department had a proposal for a 2,000

20 second foot test diversion to test big fish screens to see

21 if they work and I'm there is a hundred other things that

22 are going on, so my question is whether there would be some

23 value in looking at this interface with these currently

24 planned actions in a little more rigorous detail.

25 And I think one of the things that's important

Page 214

1 is to not assume that the whole world is going to put on

2 ice until BDAC finishes its work in this first phase or

3 second phase at the end of 1997, that some of these things

4 that are important could continue to move ahead.

5 So is there some way we should give attention

6 to currently planned activities?

7 CHAIRMAN MADIGAN: Lester.

8 EXECUTIVE DIRECTOR SNOW: We could provide

9 a brief summary of some of those activities and how we have

10 related to them. In fact, some that you have listed we

11 have prepared an integration strategy, I mean, CVPIA,

12 particularly habitat activities is a good example where we

13 have designed our program to assume complete integration

14 with what's happening in CVPIA.

15 Other things, such as what have been going on,

16 referred to as DWR's North Delta project, they have put

17 that on hold and we have integrated the technical aspects

18 of that into our considerations, but they are no longer

19 proceeding with that, and I think we could provide a nice

20 typed summary for the next meeting so you understand some

21 of the relationships that we have captured at this point.

22 There undoubtedly are some that we have not.

23 MR. PYLE: I think when I mentioned some

24 bad things that can happen is that we don't necessarily

25 want to become the forum for all of those activities

Page 215

1 because I think that could be disruptive to the ongoing

2 mission of this program.

3 CHAIRMAN MADIGAN: Okay. Thank you.

4 Move on to upcoming program activities. Did

5 you want to introduce anything, Lester?

6 EXECUTIVE DIRECTOR SNOW: Just we've had

7 discussions in general about the no-action alternative and

8 how we are proceeding with that and we wanted to have Rick

9 Breitenbach give kind of a quick overview of where we stand

10 on the no-action alternative and how we are proceeding.

11 CHAIRMAN MADIGAN: Okay. Rick.

12 MR. BREITENBACH: Before I turn that on we

13 have about two weeks ago sent out a package to the CalFed

14 Agency members for their review for a proposed approach for

15 identifying items that should be in the no-action

16 alternative and come next Tuesday we are going to sit

17 around the table and come to some agreement on whether we

18 are going to go forward with the approach or do something

19 different.

20 Basically the approach consists of a set of

21 screening criteria that we'll use to identify whether or

22 not an item should be in or shouldn't be in the no-action

23 alternative. If you meet all the criteria, you're in. If

24 you don't, you're out.

25 What I'd like to do before getting into those

Page 216

1 criteria is perhaps review the concept of no-action

2 alternative and also talk a little bit about how that

3 differs from existing conditions.

4 And I probably should say that some of this is

5 my interpretation because it's definitely left open to

6 interpretation.

7 And you all should have a package of these, and

8 I'll probably leave some of them out, but just to get

9 through this a little quicker, I'm going to begin with

10 terminology, and let me begin with existing conditions.

11 I think one of the problems with understanding

12 this is the fact that there are so many words kicked around

13 that I think mean the same thing, and I think the more you

14 hear different terms the more confusion arises when you

15 talk about existing conditions and no-action alternative.

16 And let me first say that we are talking about

17 what's required in a NEPA or CEQA document. We are not

18 talking about existing conditions for ESA purposes,

19 Endangered Species Act evaluation or for reviewing or

20 refining alternatives in a planning purpose or something

21 like that. We are talking about NEPA and CEQA, Natural

22 Environment Policy Act, California Environmental Quality

23 Act.

24 All four of these terms that are up there have

25 been used at different times to mean existing conditions,

1 the current conditions, the status quo. That's what
 2 existing conditions are.
 3 Under NEPA they are called affected
 4 environment. When you look at a NEPA document you read
 5 about the affected environment they are talking about
 6 existing conditions.
 7 When you read a CEQA document they are talking
 8 about the environmental setting. That's the existing
 9 conditions.
 10 Baseline, a lot of people of thought about
 11 existing conditions as baseline and, in fact, that's very
 12 true.
 13 If you are going to compare the existing
 14 conditions to something it serves as a baseline. So all
 15 four of those terms can mean existing conditions and are
 16 kicked around by different people and they all mean the
 17 same thing. All right. How is it -- how are existing
 18 conditions used?
 19 When we draft the EIS, EIR, we are going to
 20 talk about the physical, the biological, the economic, the
 21 social conditions that are out there right now, and we are
 22 going to try to put some historical context to them so that
 23 you know how they came about.
 24 And when you put that historical context to
 25 them, you also discuss the land use that brought them

1 conditions, a continuation of the current conditions, and
 2 you modify those conditions by whatever structures that are
 3 going to come online, perhaps any changes you are going to
 4 make in existing operations or existing structures or even
 5 in the regulatory climate.
 6 That helps you get to what the no-action
 7 alternative is.
 8 Terminology wise, again, in NEPA the no-action
 9 alternative is required.
 10 Under CEQA there is a no project alternative
 11 required.
 12 They are essentially the same. There is no
 13 difference between them.
 14 And again baseline. Both of them serve as a
 15 baseline. They are something to compare the alternatives
 16 to so it's a baseline. So we have a baseline for the
 17 existing conditions, we have a base line for no-action
 18 alternatives and you have a whole host of other baselines.
 19 I'm just going to put this up real quickly
 20 (indicating).
 21 Going through the PEIS a lot of impressions
 22 came forward. This is for the Valley Project Improvement
 23 Act. There were a lot of impressions out there about what
 24 the no-action alternative might be or might not be.
 25 One of the things it's not, it's not a

1 about, the facilities that have been but into place that
 2 brought them about, how those facilities are operated, all
 3 of those considerations and brought existing conditions
 4 about. So we'll write about that in the environmental
 5 document and that will be our description of existing
 6 conditions.
 7 Go down to the third bullet and it provides a
 8 baseline. In the National Environmental Policy Act there
 9 is no requirement to compare alternatives to existing
 10 conditions. It doesn't mean you can't do it, but there is
 11 no requirement to do it.
 12 Under the California Environmental Quality Act
 13 you are to compare your alternatives to the existing
 14 conditions.
 15 And so in this case it will serve as a baseline
 16 in our environmental document.
 17 Let me contrast that then with the no-action
 18 alternative.
 19 Existing conditions was what's there right now.
 20 The no-action alternative is a set of
 21 conditions or a situation that's going to occur in the
 22 future in the absence of the alternatives. If the
 23 alternatives aren't built, what's going to happen out
 24 there?
 25 Basically you begin with the current

1 comprehensive listing of facilities of projects that will
 2 actually be constructed.
 3 It's not our intent to develop this long
 4 laundry list of what might happen in the next ten, 15, 20
 5 years.
 6 What you want to do is have a tool that you can
 7 compare the alternatives to so you can get a relative
 8 understanding of the consequences of the alternatives and
 9 the difference between them. The focus is not on the
 10 no-action alternative but rather on providing a way in
 11 order to assess the consequences of the alternatives that
 12 you're putting forth.
 13 So just because something doesn't show up in
 14 no-action alternative doesn't mean it's not going to
 15 happen.
 16 And a lot of times in the PEIS people were very
 17 interested in seeing their project put into the no-action
 18 alternative because they felt if it wasn't, it wasn't going
 19 to happen. People weren't going to believe it was going to
 20 happen.
 21 Secondly, it's not an endorsement or denial of
 22 any action that might be undertaken by others.
 23 And it's no attempt on our part to say that
 24 these are the only things that are going to go forward.
 25 These first two are fairly close together, but, again,

1 you'll hear a lot of people offering theirs up because they
 2 think that if it's not in there, it's tantamount to a
 3 denial, it's not going to happen.
 4 Lastly it's not intended to analyze
 5 environmental consequences of actions that might be
 6 undertaken by others.
 7 One of the big ones was CVPIA, and I think it's
 8 been remedied to a degree, was the Delta accord. A lot of
 9 people had no idea of what the consequence of the Delta
 10 accord were, and they wanted us to evaluate that in the
 11 PEIS. They would have liked us to put that someplace where
 12 we would have given them a sense of what the consequences
 13 were.
 14 So there will be an attempt, I'm fairly
 15 certain, of people that are interested in getting a sense
 16 of consequences of their actions or some other actions that
 17 weren't evaluated somewhere else to either put them in the
 18 no-action alternative or perhaps even to put them into
 19 alternatives.
 20 MS. BORGONOVO: Wait a minute.
 21 We talked about this once before. Does that
 22 mean that it's likely that the Delta accord is part of the
 23 no-action alternative?
 24 MR. BREITENBACH: I would think so.
 25 But we've got some criteria it will have

1 action been approved for implementation?
 2 You can get along way down the line but when it
 3 comes time to getting someone to say "Okay. Go ahead and
 4 start doing it," that may not happen and it may take a long
 5 before they do it.
 6 There may be some legislative action that's
 7 needed before that can happen. Some institutional actions
 8 that are needed before that can happen.
 9 The second one does the action have fund
 10 funding for implementation? If you don't have the money,
 11 you are not going to go forward.
 12 Again, remember, we are looking at things maybe
 13 five to ten years in the future at most of putting them
 14 into the no-action alternative.
 15 Does the action have final environmental
 16 documents? If you don't have all of that put together, you
 17 are not in the no-action alternative.
 18 Does the action have final environmental
 19 permits and approvals, things like Endangered Species Acts
 20 or complying with the National Historic Preservation Act,
 21 cultural resource stuff.
 22 Will the action be part of the no-action
 23 alternative and not part of an action alternative?
 24 This seems pretty self-explanatory.
 25 There is no reason to be in the no-action and

1 to -- but if it's already in place, I would say that it
 2 would be.
 3 MS. BORGONOVO: Because the no-action
 4 alternative is really what would happen if no alternative
 5 came about, not the basis on which you're building the
 6 alternatives, you'd have future actions themselves.
 7 MR. RAAB: Would the CVPIA be in the
 8 no-action?
 9 MR. BREITENBACH: Well, why don't we move
 10 to that. Let me move to the list of criteria that we've
 11 got so far identified and I've got another chart as well.
 12 Basically we've got six different criterion.
 13 If the item meets all of these criteria, it's
 14 in the no-action alternative.
 15 If it doesn't, it's not in the no-action
 16 alternative.
 17 We also have -- we are also considering the
 18 idea that if there is enough interest in having something
 19 evaluated even though it doesn't meet the criteria we might
 20 do some sort of side bar or sensitivity analysis to get a
 21 sense of what the consequences of that would be if it was
 22 in the no-action or not a no-action rather than just
 23 completely saying, no, we are not going to utilize them or
 24 using it in the no-action.
 25 All right. The first criteria is has the

1 in the alternatives. You can't really compare anything
 2 there.
 3 You are in both places.
 4 And the last one is sort of a level of detail.
 5 Would the effects of the action be identifiable at the
 6 level of detail being considered for analysis? If you're a
 7 water district up on the American River or up on the
 8 Sacramento River and you are only taking off maybe one or
 9 200 acre feet of water or propose to do that, should we put
 10 that into our no-action alternative given the level of
 11 detail that we'll be analyzing consequences?
 12 Why ferret out all of those smaller efforts to
 13 put into our no-action alternatives.
 14 Similarly if you were at the Sacramento Refuge
 15 and you were going to do some work, maybe five, 600 acres
 16 of habitat restoration, should you put that into the
 17 no-action alternative given the level of detail you'd be
 18 considering.
 19 So those are the criteria that we have proposed
 20 right now to try to help us identify items that should be
 21 in the no-action alternative as well as identify those that
 22 shouldn't be in there.
 23 And what we hope to begin with are the items
 24 that are in the CVPIA, PEIS no-action alternative, screen
 25 those with our criteria and then look at things that have

1 come along since then or perhaps were looked at in CVPIA
 2 and screened out. Their status might have changed since
 3 that time.
 4 CHAIRMAN MADIGAN: David.
 5 MR. GUY: A question for Rick or Lester.
 6 You mentioned the CalFed is going to get together and work
 7 on this process. At what point are you going to take it
 8 out to a larger audience and how do you envision that
 9 process working? I have a feeling you're going to get a
 10 lot of comments from people on this issue.
 11 MR. BREITENBACH: We are just going to
 12 surprise you at the end.
 13 MR. GUY: Is it going to be done at the
 14 beginning of Phase II or prior to the beginning of Phase
 15 II?
 16 MR. BREITENBACH: It will be prior. It
 17 should be prior to the beginning of Phase II.
 18 I hope that within two weeks we've settled on
 19 within the family what we'd like to do with no-action
 20 alternative, and then I believe we should probably put it
 21 out to the BDAC as well as the public at large,
 22 stakeholders and try to get some feedback from them as well
 23 as to whether or not this is the appropriate approach.
 24 We do plan to have a Workshop towards the end
 25 of June and we hope at that Workshop we'll have spent

1 look at that and see if it does amount to something given
 2 that level of detail.
 3 CHAIRMAN MADIGAN: Okay. Any other
 4 questions?
 5 Tom.
 6 MR. GRAFF: Quick question, how do you
 7 define action? I mean, for example, the State Water
 8 Project theoretically has a commitment or a set of
 9 contracts to deliver over 4,000,000 acre feet per year.
 10 Is that part of a no-action alternative to
 11 assume that level of delivery?
 12 MR. BREITENBACH: I would think that you
 13 would assume it's already under -- it's already being
 14 delivered rather than what could be delivered if all those
 15 contracts were fulfilled in the no-action alternative.
 16 MR. GRAFF: Is this sort of the current
 17 level or --
 18 MR. BREITENBACH: With the CVPIA, East Bay
 19 Mud, and I'm sure I'll be corrected if I make a mistake,
 20 but East Bay Mud had a contract with the Bureau or has a
 21 contract with the Bureau and they've paid a lot of money
 22 for that contract with the Bureau over the years and
 23 haven't received any water, and they would have liked to
 24 have seen that amount in the no-action alternative and the
 25 thought was, well, they don't have a facility to deliver

1 enough time with everybody, we have everybody in agreement,
 2 that we can demonstrate that, you know, here is what we
 3 believe will be in the no-action alternative and get
 4 agreement there. So there is a lot of work between now and
 5 then to reach that.
 6 CHAIRMAN MADIGAN: Richard.
 7 MR. IZMIRIAN: I might have missed this,
 8 so if it fails your criteria for the no-action alternative,
 9 what do you do with it then? Do you analyze it for an
 10 action alternative or does it become part of a cumulative
 11 analysis or what?
 12 MR. BREITENBACH: That's a good question.
 13 There is a next evaluation that's done in
 14 documents, environmental documents, the cumulative effect
 15 analysis.
 16 If it's an action that doesn't meet all the
 17 criteria but probably it will happen or it looks like it
 18 will happen, I believe we'll put that into the cumulative
 19 effects section of the document to have this comprehensive
 20 look at all the possible efforts that could go on in the
 21 future.
 22 MS. BORGONOVO: Does this include all
 23 those little projects that they look like they might amount
 24 to something?
 25 MR. BREITENBACH: I think we'd have to

1 the water, they don't have environmental documents yet to
 2 move that water and so there were a lot of criteria that
 3 were set up in the PEIS no-action alternative that they
 4 didn't meet and, therefore, it wasn't going to be in the
 5 no-action alternative.
 6 That's the way that it was when I left the
 7 program.
 8 I don't know if there have been some changes to
 9 it yet or not but even though they were under contract they
 10 weren't getting the water so, therefore, it wasn't part of
 11 the no-action alternative.
 12 CHAIRMAN MADIGAN: Thank you, Rick.
 13 You all have a schedule of the upcoming
 14 meetings and briefings in your packets. So absent any
 15 questions in that regard we'll go ahead and move on to the
 16 Agenda for the 29th of May.
 17 Lester.
 18 EXECUTIVE DIRECTOR SNOW: I don't have
 19 much to add to the discussion we had earlier today.
 20 I think we need to come back at the May meeting
 21 with an assessment of the components and the alternatives
 22 and the strengths and weaknesses, and I think as Roberta
 23 suggested earlier, a pretty good explanation of why we
 24 think things work and meet solution principles and why they
 25 don't and where we are headed on recombining them.

1 We would hope at the 29th meeting that while we
 2 may not have something called the short list we were able
 3 to give you a pretty good indication of what
 4 reconfigurations or refinements of these look like and as
 5 important, as what they are or how they are reconfined, I
 6 think, is the rationale behind them of why it looks like
 7 things aren't working now and how they can be recombined
 8 together, and that's really going to be the basis of the
 9 meeting on the 29th.

10 CHAIRMAN MADIGAN: Questions?
 11 Stu.

12 MR. PYLE: Will that be out for review
 13 before that, or what do you think?

14 EXECUTIVE DIRECTOR SNOW: We definitely
 15 will try to get a packet out ahead of time so that you have
 16 something to review coming into the meeting.

17 CHAIRMAN MADIGAN: All right.

18 Then that brings us to the last item on the
 19 Agenda, which is an opportunity for public comment.

20 Anybody who hasn't said anything on a specific
 21 Agenda item who wishes to be heard on matters of interest
 22 to this organization this is the appropriate time.

23 Anybody?

24 Mr. Petry.

25 MR. PETRY: First off I'd like to

1 talking about pulling water from the aquifer east of us
 2 where the good water is before it gets to us.

3 We had a three-month flow last year that
 4 brought our aquifer up but they pull our water out of the
 5 ground and the aquifer depleted.

6 So we're subsidizing irrigation water
 7 districts.

8 In a roundabout way we are subsidizing domestic
 9 water use for the agricultural laborers. We are
 10 subsidizing their houses in the city of Mendota. Fourteen
 11 years ago the County imposed regulations to where the
 12 agricultural labor camps had to be brought up to code.

13 The septic systems were substandard and their
 14 drinking water quality was substandard and their housing
 15 facilities were substandard. What happened? They shut the
 16 labor camps down. They shut the houses in the communities
 17 down or out in the rural areas.

18 We took that influx of population. Our
 19 population count is around 8,000 people. That's not a true
 20 count. Walk down the alleyways, look in the back yards.
 21 You'll see camper shells stuck up on old pickups with
 22 people living in them. People living in garages. People
 23 living in plywood shacks and in trailers.

24 We are substituting for them, for those
 25 farmers, for the big farmers. The little farmers don't do

1 apologize for my actions here, especially to Alex
 2 Hildebrand. I know he's knowledgeable, and I don't think
 3 he was talking about the general area when he spoke about
 4 his diddybob under the sink.

5 Anyhow, you've got to see what the frustrations
 6 that we are going through in the community that I come
 7 from. If you remember how the Central Valley Project
 8 started some 40 years ago and the farmers were growing
 9 grain and then they got subsidized for storing it, and I
 10 was under the impression at that time that there was a
 11 surplus of grain and they were trying to keep the market up
 12 to hold the price up. Or we subsidize them to store the
 13 grain.

14 And then they got into laying land by, which
 15 the farmers were paid not to grow anything. Lay the land
 16 by, they didn't plant the seed, they didn't cultivate it,
 17 they didn't harvest it, they didn't have to store it. But
 18 they got paid for it.

19 And then they got into this thing about
 20 taking -- stopping the flows in the San Joaquin River, and
 21 that was feeding our supply of water and I believe that
 22 that supply of water would have acted like a water wall and
 23 interfered with the San Luis drain coming into our aquifer
 24 like they do in the coastal areas and the Bay area.

25 How we lost our supply. And now they are

1 it, just the bigger farmers and we are subsidizing them.
 2 Are they going to subsidize foreign trade with foreign aid?
 3 What's it all going to come to?

4 I have to let it all out. I'm fed up with it.
 5 I'm up to here with it (indicating).

6 I've got to tell you what the circumstances
 7 are. We are subsidizing their housing, we are subsidizing
 8 their sewer and their water. The man in the house across
 9 from me has got 12 people living in it. There is me and my
 10 wife living in a house across the street by ourselves.

11 They throw three, four cans of garbage out, we
 12 put one. I'm subsidizing their garbage. They pay the same
 13 amount of garbage fees that I pay. Yet when Western Waste
 14 picks their materials up they pay by the tonnage when they
 15 dump it so I'm paying for part of their waist.

16 We are buying bottled water in the city of
 17 Mendota. A bottle of water is a dollar a gallon. That's
 18 \$326,000 for an acre foot of water.

19 There's 1400 domestic water meters in our city.
 20 Those are residential water meters, 1400.

21 If you divide 1400 by 8,000, you get five plus
 22 people per residence.

23 Now, tell me they won't drink a gallon of water
 24 a day each. That's \$1400 a day. How long do you think we
 25 can stand that?

1 The salt content in our aquifer two years is
 2 the life expectancy for a well, pumps and bowls. If you
 3 pull it out, they've got to cut it up, they've got to weld
 4 it in pieces to get it out. They thrash it. We pay for
 5 that.

6 That's off-site infrastructure.
 7 What about on-site infrastructure, the water
 8 pipes in the homes that have to be changed that cost \$3500
 9 for a 1300 square foot house? We, the consumers have got
 10 to pay for that. That's on-site. That isn't a city
 11 problem. That's the little people paying for it.
 12 Something has to be done about that.

13 We try to give -- we were going for surface
 14 water, then we find what the astronomical costs was. Why
 15 is it so high? Because we have poor quality water coming
 16 into the California Aqueduct. This is why I'm hollering
 17 about better quality water. Put more money in the State
 18 Board, help to them to swing that club.

19 It's the little people that are hurting, the
 20 little farmers. It isn't the big people. Something has to
 21 be done, and I appreciate your concerns and I'm glad to see
 22 that you're coming to Los Banos.

23 Thank you.
 24 CHAIRMAN MADIGAN: Thank you, Mr. Petry?
 25 Is there anybody else in the audience?

1 STATE OF CALIFORNIA }
 2 COUNTY OF SAN JOAQUIN } ss.
 3 I, SUSAN PORTALE, Certified Shorthand
 4 Reporter of the State of California, do hereby certify:
 5 That on the 25th day of April, 1996, at
 6 the hour of 10:10 a.m., I took down in shorthand notes the
 7 said BAY-DELTA ADVISORY COUNCIL MEETING and the proceedings
 8 had; that I thereafter transcribed my shorthand notes of
 9 such meeting by computer-aided transcription, the above and
 10 foregoing being a full, true and correct transcription
 11 thereof, and a full, true and correct transcript of all
 12 proceedings had and testimony given.

13
 14
 15
 16
 17 Certified Shorthand Reporter in and for the
 18 County of San Joaquin, State of California
 19
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 * (209) 462-3377 *
 * SUSAN PORTALE, CSR NO. 4095 *

1 Alex, did you want to say anything?
 2 MR. HILDEBRAND: I'd just comment that
 3 what's bothering Ed is some of that salt that we sent down
 4 there and it's still down there because we won't build a
 5 drain.

6 CHAIRMAN MADIGAN: Thank you.
 7 Anybody else?
 8 If not, thank you all very much for your
 9 attendance and participation. We are adjourned. See you
 10 on the 29th of May.

11
 12 (Whereupon the BDAC Meeting recessed at 4:50 p.m.)
 13 ---oOo---