

BEFORE THE  
CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Board Meeting Item Four: )  
Consideration of a Proposed )  
Resolution to Adopt )  
Amendments to the Water )  
Quality Control Plan for the )  
San Francisco Bay/Sacramento- )  
San Joaquin Delta Estuary )  
and Adopt the Final )  
Substitute Environmental )  
Document )  
\_\_\_\_\_ )

JOE SERNA, JR.-CaleEPA Building

COASTAL HEARING ROOM

1001 I STREET

SACRAMENTO, CALIFORNIA

Wednesday, August 22, 2018

9:38 A.M.

Volume 2B

Reported by:  
Peter Petty

APPEARANCES

CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Division of Water Rights

Board Members Present:

Felicia Marcus, Chair

Steven Moore, Vice Chair

Dorene D'Adamo

Tam M. Doduc

E. Joaquin Esquivel

Jeanine Townsend, Clerk to the Board

Marji Popour, Executive Office

STAFF PRESENT

Eileen Sobeck, Executive Director

Jonathan Bishop, Chief Deputy Director

Eric Oppenheimer, Chief Deputy Director

Michael A.M. Lauffer, Chief Counsel

Andy Sawyer, Assistant Chief Counsel

William Anderson, Division of Water Rights

Phil Crader, Division of Water Rights

Erin Foresman, Division of Water Rights.

Tina Cannon Leahy, Office of Chief Counsel

Erin Mahaney, Office of Chief Counsel

Yuri Won, Office of Chief Counsel

APPEARANCES (Cont.)

STAFF PRESENT (Cont.)

Daniel Worth, Division of Water Rights

ALSO PRESENT:

PUBLIC COMMENTERS

George Soares, Karn, Soares and Conway, LLP

Gordon Hollingsworth

Dave Warner

Patti Regehr

Julianne Frizzell

John Sweigard, Modesto Irrigation District

Shannon McEntee

Virginia Tincher

Victor Rosasco

Joe Amodio

Tim O'Laughlin, San Joaquin Tributaries

Chris Scheuring, California Farm Bureau Federation

Vito Chisea, Supervisor, Stanislaus County

Joe Daly, Tuolumne River Trust

Anna Brathwaite, Modesto Irrigation District

Percilla Frizzell, Sacred Generations

Susan Rowinski

Debbie Webster, Central Valley Clean Water Association

Chad Tienken, Modesto Irrigation District

APPEARANCES (Cont.)

PUBLIC COMMENTERS (Cont.)

Karna Harringfeld, Stockton East Water District

Ann Clark, Tuolumne River Trust

John Kreiter, Tuolumne River Trust

Meredith Nikkel, North Delta Water Agency

Valerie Nera, California Chamber of Commerce

John Herrick, South Delta Water Agency and Central Delta  
Water Agency

Justin Fredrickson, California Farm Bureau Federation

Scott Schoettgen

David Ragland

Patrick Koepele, Tuolumne River Trust

John McManus, Golden Gate Salmon Association

Jacky Douglas, Golden Gate Salmon Association

Tom Orvis, Stanislaus County Farm Bureau

Michelle Connelly, California Walnut Commission

Mary-Ann Warmerdam, Rural County Representatives of  
California

Jacklyn Shaw

Patrick Porgans, Porgans and Associates

Steve Boyd, Turlock Irrigation District

Michael Carlin, San Francisco Public Utilities Commission

Gary Bobker, The Bay Institute

Doug Obegi, National Resources Defense Council

Jay Ziegler, The Nature Conservancy

APPEARANCES (Cont.)

PUBLIC COMMENTERS (Cont.)

Brian Johnson, Trout Unlimited

Steve Rothert, American Rivers

Chris Shutes, California Sportfishing Protection Alliance

Bruce Blodgett, San Joaquin Farm Bureau

Charlton Bonham, California Department of Fish and  
Wildlife

Dierdre Des Jardins, California Water Research

Mark Tompkins, FlowWest

Michelle Banonis, California Department of Water  
Resources

Louise Conrad, Department of Water Resources

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P R O C E E D I N G S

2:07 P.M.

SACRAMENTO, CALIFORNIA

WEDNESDAY, AUGUST 22, 2018

(On the record at 2:07 p.m.)

CHAIR MARCUS: We're back in session. Thank you all for rejoining us. It is 2:07 p.m.

A request, again, a reminder for some of the new faces, if you wish to speak, please put a blue card in with Ms. Townsend right away, so that we have the ability to manage the discussion this afternoon. Everyone will get three minutes. And it will be interspersed with a couple of longer presentations that people had previous requests for.

I have some individuals, who are mostly here. I have people who needed to speak after a time, not anyone who has to speak earlier.

You're sitting near the front so I can take - I think I'll take my first five, and then we'll go that panel. Why don't we do that? I'll even put you at the top. All right, so we'll take five.

Tom Orvis, Stanislaus County Farm Bureau.  
Michelle Connelly, California Walnut Commission,

1 if she's back. Mary-Ann Warmerdam, Rural  
2 Counties. Jacklyn Shaw, grower. And Patrick  
3 Porgans from Porgans and Associates.

4 Hi.

5 MR. ORVIS: Hi.

6 CHAIR MARCUS: Thank you.

7 MR. ORVIS: Thank you. Excuse me. My name  
8 is Tom Orvis, and I'm the Governmental Affairs  
9 Director, Stanislaus County Farm Bureau, one of  
10 the many hats I wear in Stanislaus County, but  
11 that's the hat I'm wearing today.

12 I would like to say that we represent over  
13 1,500 farm families. And when I talk about farm  
14 families, I think there's a few misnomers to clear  
15 up that we've heard earlier. Ninety-five percent  
16 of the family farms or farms in the state of  
17 California are farm families, multigenerational.

18 Myself, our family is celebrating our 145th  
19 year here in the state of California. We're --  
20 and I offered to Captain Jacky, she asked,  
21 "Where's the beef?" And we've been in the beef  
22 business for 145 years, and I'd love to get her  
23 some grass-fed beef and we'll take care of that,  
24 or if her family would still like a good steak.

25 Again, Stanislaus County, just to reiterate a



1 few things, Stanislaus County, we are the sixth  
2 largest agricultural economy county in the state -  
3 - in the United States. You've heard from Merced,  
4 and San Joaquin, I'm sure, will talk later, but  
5 we're all amongst the top ten, actually, amongst  
6 the top eight in the nation. Our \$3.6 billion in  
7 crop production, we use a four-times multiplier.  
8 That is something that's been accepted by our  
9 board of supervisors and something accepted by our  
10 ag commissioner. And so there's roughly \$14  
11 billion of stimulus that goes into our local  
12 economy. We ship to nearly 100 countries around  
13 the world.

14 California Rural Appraisers Association cited  
15 our area, our group of counties, which our rivers  
16 run through, your rivers run through, our rivers  
17 run through as one of the most valuable areas in  
18 the nation. And why is that? Because of a  
19 reliable water supply. That water supply not only  
20 gives to us, the farmers, it gives to our  
21 employers -- or our employees.

22 Mr. Esquivel, I'd like to thank you for  
23 coming down. And I think you had an opportunity  
24 when you're on the catwalk at Stanislaus Foods to  
25 looked down on just a few of those employees and

1 those people. And you take that and then multiply  
2 it times the families that they have and you get  
3 just a slight feeling of the people that are --  
4 we're reaching out to and effecting.

5 But along with that economy comes essential  
6 community services for the county, as well. One  
7 out of every three jobs in the county is tied to  
8 agriculture. Many say farmers are rich, but let  
9 me tell you, we're land rich and cash poor, just  
10 ask the banks. They will tell you that we are  
11 land rich and cash poor. My wife and I mortgaged  
12 our house to take over my in-laws place. It's  
13 just 18 acres of almonds. We put everything into  
14 it. We're starting fresh and brand new.

15 I feel for the young man that's a salmon  
16 farmer. (Timer buzzes.)

17 MR. ORVIS: May I finish?

18 CHAIR MARCUS: Yeah. Just --

19 MR. ORVIS: Okay.

20 CHAIR MARCUS: -- shorten it so it's  
21 not --

22 MR. ORVIS: I feel for the young man that's  
23 the salmon fisherman. I think we can sympathize.  
24 The logging community and the dairy community in  
25 the state of California can sympathize. You know,

1 a lot of things have good intentions. A lot of  
2 rules and regulations come down that have good  
3 intentions. But as we've seen in some of those  
4 good intentions, they can simply go up in smoke.

5 Thank you very much.

6 CHAIR MARCUS: Thank you very much, and thank  
7 you for waiting.

8 Ms. Connelly?

9 MS. CONNELLY: Good afternoon. Michelle  
10 Connelly, California Walnut Commission. Thank you  
11 very much for the opportunity to speak.

12 We urge the State Water Resources Control  
13 Board to reject the proposed amendments to the  
14 Bay-Delta Water Quality Control Plan regarding the  
15 new and revised flows. Our estimates show that  
16 over 80,000 acres or 20 percent of the walnut  
17 acreage in the state will be directly or  
18 indirectly impacted by water shortage because of  
19 diversion of overflow because of flooding. This  
20 will have an immediate \$300 million impact for our  
21 producers, many small family farms that contribute  
22 in 15,000 jobs alone, just in San Joaquin County.

23 But this impact will not just be immediate  
24 because walnuts are not a permanent crop. There  
25 are no alternatives for our producers, except

1 permanent displacement. And I think we've heard  
2 much said today about the human side of things.  
3 It's critical to find a more balanced approach and  
4 thoroughly vet voluntary settlement agreements  
5 that may be beneficial to stakeholders and avoid  
6 negative impacts to thousands of producers whose  
7 livelihood depends on agriculture.

8 Thank you.

9 CHAIR MARCUS: Thank you very much, and  
10 thanks for coming back.

11 Mary-Ann Warmerdam?

12 MS. WARMERDAM: Good afternoon, Madam Chair  
13 and Members.

14 CHAIR MARCUS: Yeah.

15 MS. WARMERDAM: Thank you for the opportunity  
16 today. I know you've had a long tedious couple of  
17 days of hearing comments, but it's much  
18 appreciated that you're being so attentive to the  
19 issues.

20 CHAIR MARCUS: I need to ask you to -- for  
21 you to say your name and affiliation, too --

22 MS. WARMERDAM: Yes, ma'am.

23 CHAIR MARCUS: -- no matter -- I've been  
24 reprimanded for not reminding people to do it, in  
25 a very nice way.

1 MS. WARMERDAM: We wouldn't want the Chair  
2 reprimanded again --

3 CHAIR MARCUS: Not again.

4 MS. WARMERDAM: -- for my oversight.

5 CHAIR MARCUS: I know.

6 MS. WARMERDAM: So my name is Mary-Ann  
7 Warmerdam. I represent the Rural County  
8 Representatives of California. And we represent  
9 some 36 of the 58 counties, roughly 50 percent of  
10 the geography of the state of California.

11 You've heard from many of our county members  
12 over the course of the last 18 hours or so. Just  
13 a couple of things I want to reiterate.

14 We share their concerns about the draft  
15 proposal that's before you. And I would like to  
16 reiterate that some of these communities are the  
17 very lowest economic stratum of the state of  
18 California. Our counties are wealthy in  
19 agricultural and forest resources, but tend to be  
20 more impoverished as it relates to the economic  
21 vigor of the residents who call our counties home.  
22 And that's only important as we think about things  
23 like SGMA and the availability of flows to meet  
24 those sustainability requirements that our  
25 counties are struggling to identify and meet.

1 Many of these communities are completely  
2 dependent upon groundwater. As you know from  
3 other conversations, a lot of that groundwater is  
4 contaminated. And we need to find a reliable  
5 source of surface flows that will help augment  
6 where we are today.

7 The other aspect that I'd like to highlight,  
8 and I don't know that it's been touched upon, has  
9 to do with what's happening in our forests. I  
10 think any of us who have been in Sacramento the  
11 last couple of weeks have seen the visual  
12 implications of the forest fires.

13 What we don't often talk about is the  
14 implications of those fires and the changes in the  
15 forest as it relates to the watershed and its  
16 ability to produce. Our watershed are changing  
17 very rapidly as these forest fires go through.  
18 Not only are we dealing with a dead and dying  
19 scenario, but we're also noticing that the oak  
20 woodlands are moving up into the watershed. We  
21 don't know what that will mean. We expect changes  
22 in terms of the productivity of the watershed, not  
23 only in terms of the quantity of water produced,  
24 but potentially in the quality, as well.

25 So it's another aspect that, as we look at a

1 very dynamic changing climate in California, we'd  
2 urge you and your staff to take another look at  
3 that and the implications it holds for the long-  
4 term sustainability of the tributaries, as well as  
5 the Delta itself.

6 And we appreciate your attentiveness to  
7 trying to find the right path forward. We know  
8 that the opportunities for VSAs continues to be  
9 before you. Understanding all the implications of  
10 that, but we'd encourage you to continue to look  
11 at that as a way to meet our requirements, both  
12 our human requirements, as well as our aquatic  
13 requirements, as we think about the ecological  
14 systems that we're trying to manage in a very  
15 urban, dynamic state.

16 With that, I'd like to thank you. And if you  
17 have any questions, I'd be happy to answer them.  
18 We've submitted our comments more formally, so I  
19 think you essentially know where we are today.

20 Thank you.

21 CHAIR MARCUS: Thank you very much. Thanks  
22 for joining us.

23 Jacklyn Shaw, hello.

24 MS. SHAW: My name is Jackie Shaw of Seal  
25 Beach and Lodi grower near Delta Loop.

1           Imagine you're walking into a district water  
2 agency and you were told that the Delta would  
3 become a breezy dust bowl with more salinity,  
4 unless more growers go to State Water Board  
5 meetings. So since 2014 the Coalition of Delta  
6 Supervisors protested. And Chair Bob Elliott,  
7 good article in the Lodi News, San Joaquin County  
8 wrote,

9 "The impact would be devastating and irreversible  
10 in the health of food crops, humans beings, social  
11 issues, and our statewide economy. As agreed  
12 originally, there needs to be balanced solutions  
13 in any water quality."

14           I have many questions. Why are electeds,  
15 local officials ignored, so they say?

16           Farm Bureaus statewide protested at the  
17 Capital Rally on this Monday. Where is proof for  
18 the State Water Board on any responsibility from  
19 So Cal? I showed up at two meetings at the L.A.,  
20 and that was -- they just want jobs down there.  
21 Well, there are various ways they could have jobs  
22 in Southern California. Who had planned for  
23 reservoirs in Nor Cal to go dry, even before  
24 historic fires and harvest right now. That would  
25 make more drought statewide.



1 Solutions are proposed for statewide points  
2 for later discussion, depending if it's three  
3 minutes or five minutes. One, rivers --

4 CHAIR MARCUS: Three, unfortunately.

5 MS. SHAW: Pardon?

6 CHAIR MARCUS: It's three.

7 MS. SHAW: Okay.

8 CHAIR MARCUS: Sorry.

9 MS. SHAW: One, rivers and natural water  
10 cycle. Two, Reclamation, except out of 16  
11 nationwide grants, they only gave four for  
12 California. Reforestation. Salt energy and  
13 desalination, as done in 100 nations since 1970.  
14 And deep, pure dredging from Antioch Bay to Rio  
15 Vista with the Pacific Army Corps. Conservation,  
16 tech and treatment plants. Clues: So Cal has 90  
17 percent residents on coast and 9,000 miles of  
18 Pacific Ocean. Desalination is used in 100  
19 nations. It was invented at UC Berkeley I 1970.  
20 Why did Swiss investors buy four Delta islands?  
21 This is divisive. Co-equal goals were agreed in  
22 legislation in 2009.

23 Who wants to destroy access to healthy food  
24 crops and financial economy in Delta agri-tourism  
25 and farm crops? Both ecosystem restoration and

1 water supply reliability must be treated equally.  
2 Agreements aren't kept. NWD funds -- (timer  
3 buzzes).

4 Okay, well, I hope we're -- we're creative  
5 Californians and I hope we can stop the salt that  
6 makes more salt, the drought that makes more  
7 drought, the dust that makes more dust.

8 Thank you.

9 CHAIR MARCUS: Thank you very much.

10 MS. SHAW: Thanks to you, I get to go salmon  
11 fishing in San Francisco.

12 CHAIR MARCUS: Oh, excellent. That's great.

13 Mr. Porgans?

14 DR. PORGANS: Dr. Porgans with Porgans and  
15 Associates. I'm a solutionist. I'm here to  
16 comment on a few issues, one in particular, just  
17 that the Water Quality Control Plan is about 20-  
18 some-odd years overdue. The last thing that I'm  
19 going to support is any more delays in  
20 implementing it. That's just not going to happen.  
21 We need to deal with, okay? We need to deal with  
22 it. I got fact sheets here, you know, going back  
23 100 years showing that we knew we had problems  
24 when we were irrigate down that valley, so we all  
25 know that. That's not news.

1 I'm going to paraphrase from some of the  
2 information contained in this proposed amendments  
3 to the Water Quality Control Plan to save time.

4 We know that the Bureau's delivery of water  
5 down into the valley creates problems at Vernalis  
6 and in the Bay-Delta. We all know that. Okay.  
7 We know we don't have a drainage system, although  
8 we had one that was proposed into legislation back  
9 in 19-whenever, okay? We know that we don't have  
10 a State Water Project San Joaquin master drain.  
11 We know we're banking salts in the soils. That  
12 was part of that other deal we had over there on  
13 the westside.

14 So what I have to say here is I understand  
15 everybody's got issues here, but first of all, we  
16 need to start looking at what we're doing with our  
17 water, okay? This is our water. It's not the  
18 farmers' water. It's not the environmentalists'  
19 water. It's not your water. This is the people's  
20 water, okay? And we've lost sight of that.

21 First of all, you cannot continue to put  
22 60,000 acres of almonds in a year and expect not  
23 to have water shortages or problems associated  
24 with drainage coming back into the system. It's  
25 just not going to happen.

1           So what I'm saying to you, to delay this any  
2 further, this is going to be in opposition of our  
3 antidegradation policies. This is not allowed.  
4 We need to do something about that. And I'm  
5 saying to you, we've waited long enough. I'm not  
6 in favor of these outside of the process  
7 agreements. We looked at when VAMP happened way  
8 back when -- oh, and just for anybody's  
9 information, I've been coming here for 45 years,  
10 okay? I've been involved in every process you can  
11 imagine. I don't own any water personally. I  
12 don't own land. I'm only here because this is  
13 something that has to do with our fundamental  
14 rights.

15           So what I'm saying is we cannot piecemeal and  
16 come back and say, okay, now the farmers are  
17 saying, well, we protest. I'm protesting the fact  
18 that we're sending our water and our energy to  
19 foreign countries in the form of food products  
20 that are specialty crops. We need to come back  
21 here and ask ourselves some questions. Can we  
22 afford this? If we spend \$6.4 billion in the  
23 Delta on that Cal Fed [sic] process which, you  
24 know, qualified failure, and if we spent, I can't  
25 tell you how much money, \$50 billion on the Clean

1 Water Act, we've got temperature issues problems,  
2 we've got flow issue problems, we've got water  
3 quality -- we have problems that have not been  
4 resolved. And so we're coming in here like this  
5 is a crisis management situation.

6 I understand your situation, I really do and  
7 you know that. However, I don't need any more  
8 excuses. I need action. And we need to get this  
9 thing together. And I'm saying the farmers are  
10 going to have to sit down and say, okay, how much  
11 more of this stuff are we going to be able to  
12 grow? And how much are we going to be able to cut  
13 back on? And how are we going to better utilize  
14 these resources in a manner that's mutually  
15 conducive to the sustainability, not just of  
16 farming but of fishing, of agricultural,  
17 everybody, okay? We don't -- we're not there.

18 Now I'm going to let you know, I'm getting  
19 ready to file a suit on all of you guys. Okay.  
20 I'm letting you know that. You failed; right?  
21 You -- not personally, politically, whatever the  
22 reason, I don't care any longer. You'll be getting  
23 a 60-day notice from me because I'm charging you  
24 with not only violating the Clean Water Act, I'm  
25 charging you with Endangered Species Act

1 violations. And I'm charging you with violating  
2 the Water Code as it pertains to water rights.  
3 You don't enforce the water rights permits that we  
4 have for the CVP and the State Water Project.  
5 I've been here for years telling you that.

6 Thank you very much. And I don't mean to be  
7 emotional. I've got a condition, probably coming  
8 from meetings. Thank you so much. The very best  
9 to you.

10 CHAIR MARCUS: Thank you.

11 All right, let's move to a presentation from  
12 the San Joaquin Tributaries Authority, but let me  
13 make sure I have this right. I understand that  
14 Mr. Carlin must be -- Mr. Boyd, I've had two from  
15 Turlock Irrigation District. Did you want to  
16 speak --

17 MR. O'LAUGHLIN: We're going to presentation  
18 all --

19 CHAIR MARCUS: -- right before or all  
20 together? You guys will choreograph it?

21 MR. O'LAUGHLIN: Yes, we'll choreograph.

22 CHAIR MARCUS: Okay.

23 MR. O'LAUGHLIN: Is that okay?

24 CHAIR MARCUS: Great. I just -- yeah.

25 MR. O'LAUGHLIN: And we'll try to keep it

1 within the time frame.

2 CHAIR MARCUS: That's fine.

3 MS. MAHANEY: And Chair Marcus, if we could  
4 just -- one housekeeping matter.

5 CHAIR MARCUS: Yeah.

6 MS. MAHANEY: I noticed that there are some  
7 presentations that are being submitted late. And  
8 just as a reminder that I assume they're being  
9 submitted as visual aids and that, just, they will  
10 not be accepted into the record.

11 MR. O'LAUGHLIN: Well, that's your statement,  
12 and I accept that that's your statement.

13 MS. CANNON LEAHY: Then, Chair Marcus, I had  
14 a quick follow-up.

15 So we received a 311-page letter from OID and  
16 SSJID with 11 attachments, and that's not a  
17 comment on the length of it at all.

18 CHAIR MARCUS: Yeah.

19 MS. CANNON LEAHY: It's just sort of to help  
20 us better understand, it would be good to know if  
21 this is the same presentation that was submitted  
22 with the letter or if this is a different  
23 presentation, and if it is, sort of how?

24 CHAIR MARCUS: Can you just clarify that?

25 MR. O'LAUGHLIN: Well --

1 MS. TOWNSEND: It's the other mike.

2 MR. O'LAUGHLIN: Oh, sorry.

3 CHAIR MARCUS: That's the trick mike.

4 COURT REPORTER: It worked though.

5 MR. O'LAUGHLIN: Yes and no. Our comments  
6 were -- I know, that sounded like a lawyer. I  
7 should get paid for that. No.

8 So, look, our comments were extensive that we  
9 provided --

10 CHAIR MARCUS: Yeah.

11 MR. O'LAUGHLIN: -- at the last go-around.  
12 We tried to stay within the direction, while we  
13 disagreed with what was put in the notice, of  
14 talking about the strikeout portions.

15 CHAIR MARCUS: Yeah. That's fine.

16 MR. O'LAUGHLIN: This portion today is  
17 dealing with a very singular issue that goes --  
18 that we haven't had closure on. And what we're  
19 going to try to point you today in our  
20 presentation is critical and sequential dry years  
21 --

22 CHAIR MARCUS: Oh, okay.

23 MR. O'LAUGHLIN: -- and what they do. And I  
24 think the whole point of the presentation is to  
25 see that we do have commonality on numbers, but



1 when we start talking semantics, they get in the  
2 way and we talk past each other. And so I really  
3 think it's important. And we're going to just try  
4 to keep it to a real singular issue.

5 But my point would be is that the issue we're  
6 going to talk about today goes to other issues  
7 involved within the Water Quality Control Plan and  
8 SED. And I think if we start having these types  
9 of discussions, and I'm glad your staff is here  
10 because I want them, if I misspeak today, I want  
11 them to interrupt me and tell me that that's not  
12 correct or that's not in the Water Quality Control  
13 Plan and that's in the SED. Because we have to,  
14 and it's been my frustration over the last couple  
15 of years, both in the voluntary settlement  
16 agreement process and this process, that we keep  
17 talking past each other.

18 CHAIR MARCUS: Uh-huh.

19 MR. O'LAUGHLIN: And we have to get to a  
20 commonality of what we agree upon. How we look at  
21 those things may be different, but -- and I  
22 understand that and I respect that totally because  
23 we all come at this from different angles. But if  
24 we can't agree on certain factual premises, we'll  
25 never get anywhere.

1           So that's the presentation today.

2           CHAIR MARCUS:    All right.    Well, I'll look  
3 forward to seeing it.    We won't resolve all of  
4 those issues, I'm sure, but hopefully it will  
5 illuminate.

6           I mean, because I -- one thing I do -- I  
7 respect what you're saying, you can always meet  
8 afterwards, too, but I don't want to do is now  
9 spend a half-hour or 45 minutes trying to work out  
10 stuff that could be worked out outside this room,  
11 because I have a room full of people.

12          MR. O'LAUGHLIN:   Oh, no, no, no, no.    We  
13 don't want --

14          CHAIR MARCUS:    You're not suggesting that?

15          MR. O'LAUGHLIN:   No.

16          CHAIR MARCUS:       That's fine.        I would  
17 encourage them to ask a question, too, but --

18          MR. O'LAUGHLIN:   Oh, absolutely,  
19 that's -- but I realize there's a ton of people in  
20 the room.    We don't want to take up your time.  
21 But the whole goal here is we really have to start  
22 the dialogue to get to agreeing about what, and I  
23 don't want to use the words facts, but the numbers  
24 and everything --

25          CHAIR MARCUS:    No.    Illuminating those things

1 is helpful.

2 MR. O'LAUGHLIN: -- but -- and then we can  
3 talk about what that means from your perspective,  
4 from the NGO community  
5 perspective --

6 CHAIR MARCUS: Right.

7 MR. O'LAUGHLIN: -- from the regulators  
8 perspective, because we all come at it  
9 differently. But if I'm talking X and you're  
10 talking Z and we never agree on X or Z, we never  
11 get to talk about how we're going to resolve the  
12 issue because we never agree upon the numbers.

13 CHAIR MARCUS: Well, I'm not going to  
14 disagree with you. That's every speech I've given  
15 for the last 25 years. But the question is  
16 actually just -- I'm just talking about this time.  
17 I mean, I like that you're --

18 MR. SOARES: Keep it short.

19 CHAIR MARCUS: -- going to flag all this and  
20 everybody else is in the room, but I just want to  
21 make sure we don't end up spending --

22 MR. O'LAUGHLIN: No. We're going to try to  
23 stay within --

24 CHAIR MARCUS: -- an hour here --

25 MR. O'LAUGHLIN: -- the 15 or 20 minutes.

1 CHAIR MARCUS: -- and you think we can  
2 resolve it sitting right here. But flagging it  
3 for us is what this is about.

4 BOARD MEMBER MOORE: Staff had -- you had a  
5 question, though, I mean, about if this is -- is  
6 there a procedural issue here? I'm not aware why  
7 that would be a big deal, that if the PowerPoint  
8 is different than what was submitted in previous  
9 comments.

10 MS. CANNON LEAHY: So we have said that there  
11 wouldn't be, you know, additional written  
12 information. And we're just very much trying to  
13 understand. I wasn't actually referring to the  
14 letter that was submitted on the changes to the  
15 changes. But the original letter that was  
16 submitted on the recirculated draft SED. So it's  
17 just for us to help understand if it's sort of  
18 revisiting that and maybe we had answered some of  
19 those questions, and so then we would know, or if  
20 it was new information and, you know, so then we  
21 would know that we need to take a look at that.  
22 So it's just kind of helping us to understand.

23 BOARD MEMBER MOORE: Well, it didn't sound  
24 like he answered your question.

25 MS. CANNON LEAHY: Well, he referred to the

1 letter that was made on the changes to the  
2 changes, which was --

3 BOARD MEMBER MOORE: Okay.

4 MS. CANNON LEAHY: -- so I didn't want to  
5 interrupt again. But I was actually referring to  
6 the letter that we received on the recirculated  
7 draft SED.

8 BOARD MEMBER MOORE: Okay.

9 CHAIR MARCUS: I think we'll have to figure  
10 it out as we go along somehow. If there are  
11 follow-up, you will, but I don't want to spend a  
12 lot of time on it.

13 All right, now the clock may start. May the  
14 clock start?

15 MS. TOWNSEND: (Off mike.) (Indiscernible.)

16 CHAIR MARCUS: It's 15 minutes.

17 MS. TOWNSEND: (Indiscernible.)

18 CHAIR MARCUS: It's what you asked for.

19 MS. TOWNSEND: (Indiscernible.)

20 MR. BOYD: The one from Turlock Irrigation  
21 District first.

22 MS. TOWNSEND: And then, Steve, I mean,  
23 you're going to let us know which one  
24 (indiscernible)?

25 MR. O'LAUGHLIN: Then Mr. Carlin will be

1 next, which will be the Hetch Hetchy one, and then  
2 I'll be last.

3 CHAIR MARCUS: Okay.

4 (Colloquy)

5 MR. BOYD: Chair Marcus, Members of the  
6 Board, my name is Steve Boyd with the Turlock  
7 Irrigation District. Thank you for allowing us to  
8 combine our presentations today, done, again, with  
9 the interest of it's been two long days for a lot  
10 of folks, so we'd like to do our part to help you  
11 get out.

12 And just so everybody's clear, there are two  
13 real slides of concern in this forest-like  
14 presentation. And both of those are already on  
15 the record, so we don't have any issues related to  
16 that.

17 I spent a lot of time over the last two days  
18 talking about impacts of the SED. It's not my  
19 plan today to rehash most of that. You have heard  
20 over the past couple days mention of the Tuolumne  
21 River Management Plan. And what I thought I would  
22 do is take a couple minutes, explain very briefly  
23 what the plan is and then, more importantly, what  
24 the plan does. And that's really the substance of  
25 sort of the lead-in to Mr. Carlin and Mr.

1 O'Laughlin.

2 Thank you.

3 So what you have before you is a map of the  
4 Tuolumne River, showing Turlock and Modesto  
5 Irrigation Districts, New Don Pedro kind of in the  
6 upper right, down to La Grange Diversion Dam, and  
7 then about 52 miles of the river to the mouth of  
8 the -- or to the San Joaquin.

9 I think almost every one of you has been out  
10 and been a part of the tour at one point or  
11 another and have seen the river. I'd like to  
12 thank you for that. As you saw when you were out,  
13 much like you heard from Merced this morning, it  
14 is no longer a natural channel. Gold mining,  
15 aggregate mining has made it very much a  
16 channelized river. There isn't a lot of natural  
17 floodplain anymore. And some of that mining has  
18 created deep, wide, slow-moving pools which harbor  
19 predators.

20 So in 2001, TID and mid and our partner, San  
21 Francisco, began the relicensing process with the  
22 Federal Energy Regulatory Commission on New Don  
23 Pedro. That's important because as part of that  
24 process we used FERC's integrated licensing  
25 process, and this sort of gets to Mr. Esquivel's

1 question of Merced this morning, we did 30 studies  
2 and developed a suite of models in a very open,  
3 collaborative and iterative method with resource  
4 agency participation, NGO participation, and  
5 interested parties from the public. So the  
6 studies, the study plan, the studies and the  
7 outcome of the studies, very open, very  
8 transparent. The development of the models are  
9 very open, very transparent.

10 So before I move right to the results I want  
11 to say one thing that I was struck by in the staff  
12 presentation yesterday -- it seems like last week  
13 -- 56 or 57 slides talking about impacts,  
14 temperature and flow, but nowhere in that  
15 presentation was sort of the weighing and the  
16 balancing and what do those flows and temperatures  
17 at certain locations mean and do for us. What  
18 we've done with the science developed as part of  
19 relicensing and the models is what can we weigh  
20 and balance? How can we maximize the value of the  
21 water for both farming, consumptive use and the  
22 fishery? And what results can we get?

23 So much like you've heard from several other  
24 water districts, Tuolumne River Management Plan  
25 has significant increase in environmental flows



1 where and when the fish need it. It has habitat  
2 enhancements which include gravel introduction,  
3 gravel cleaning, gravel augmentation, improving  
4 channel complexity. And then also part of our  
5 plan is a Predation Management Plan.

6 So when we lump all that together, what do we  
7 get? Let's first talk about water.

8 On the left side, base case, so on average in  
9 all the water-year types right now the District's  
10 put down about 216,000 acre feet per year. If you  
11 look at the State Water Resources Control Board  
12 plan, it's about 673,000 acre feet of water. You  
13 can see that bar there. And then on the right is  
14 the 290,000 on average acre feet of water that  
15 released at La Grange for environmental purposes.  
16 So there's about a 34 percent increase in the  
17 amount of water released at La Grange for  
18 environmental purposes. So what does that get us?

19 I'm going to change the paradigm just a bit.  
20 A lot of folks like to talk about the number of  
21 returning salmon, as you've heard several times  
22 today. We can't control sort of elements out of  
23 the river. And so the models we developed looked  
24 at how do we help maximize the number of salmon  
25 and steelhead that could possible make it out. So

1 our model actually looks at, for fall run Chinook  
2 salmon, the number of smolts we were expect per  
3 spawning female that returned.

4 So starting with base case again, we would  
5 expect, if we had 2,000 returning female spawners,  
6 we would expect about 6.25 smolts to make it out  
7 of the Tuolumne into the San Joaquin. If we had  
8 10,000 returning spawners, we'd expect about 2.92,  
9 more fish but fewer per spawner actually make it  
10 out there.

11 So running the State Water Resources Control  
12 Board plan through the same models, you do see an  
13 increase, 8.64 and 4.03, so there is an increase  
14 in the additional water that the models indicate  
15 we would see.

16 CHAIR MARCUS: And when you say same models,  
17 do you -- which models do you mean?

18 MR. BOYD: The models developed as part of  
19 the FERC relicensing.

20 CHAIR MARCUS: As part of the FERC  
21 relicensing. Okay.

22 MR. BOYD: Thank you for that.

23 And then finally for fall run Chinook, those  
24 are the numbers, again, through the same FERC  
25 models that we would expect with the Tuolumne

1 River Management Plan. So you can see, there is  
2 significant improvement under both conditions with  
3 the Tuolumne River Management Plan.

4 And I'll pause there before moving to O  
5 mykiss, if there's any questions.

6 Seeing none, so let's look at O mykiss, a  
7 rainbow trout. Again, the water numbers are the  
8 same for each of the cases. With O mykiss, our  
9 measurement is young of year. We have no way of  
10 knowing which O mykiss may or may not choose to  
11 leave the river system. So what the models  
12 measure is young of year. So those are the two  
13 numbers we would expect for young of year under  
14 the base case for 500 resident and 10,000 resident  
15 adults.

16 Running the State Board plan through the  
17 models, you actually can see a reduction. And I  
18 will admit, it seems very counterintuitive. I was  
19 surprised. It actually made me wonder if there  
20 was some errors in modeling. But what we find is  
21 that while flow at a certain time at a certain  
22 level may be beneficial for one species, it's  
23 actually harmful for another.

24 And so what we really tried to do on the  
25 Tuolumne River Management Plan was look at each

1 species and each life stage separately and try to  
2 get the maximum returns and use the flows to match  
3 what each species needed each time of year. And  
4 so as a result of that, those are the numbers we  
5 would expect for the model -- or from Tuolumne  
6 River Management Plan for O mykiss.

7 CHAIR MARCUS: And if I can -- at the -- stop  
8 the timer because I'm asking a question.

9 At the risk -- if you can pin down, you've  
10 seen the response to comments on this, is it a  
11 difference in models? What -- how would you pin  
12 the difference between what --

13 MR. BOYD: I think it's a difference --

14 CHAIR MARCUS: -- how our staff used your  
15 report --

16 MR. BOYD: -- on assumptions, and so I'm  
17 going to go --

18 CHAIR MARCUS: -- and how you do?

19 MR. BOYD: -- into some of the modeling. I  
20 think there is a big difference. This is site-  
21 specific information developed for the Tuolumne.  
22 It was -- the floodplain analysis model was  
23 developed using field information gathered by  
24 survey crews. It wasn't a desktop study. So this  
25 is very specific science and data developed along

1 the Tuolumne.

2 BOARD MEMBER MOORE: And clearly, you know,  
3 these are indices that are indicators of potential  
4 results of a suite of actions. And I appreciate,  
5 you know, the challenge of boiling everything down  
6 to an index. It's very challenging in a natural  
7 system.

8 Could you illuminate a little more about what  
9 goes into the State Board proposal as it's  
10 characterized versus the management plan? Is the  
11 State Board only flow based on a percent  
12 unimpaired, kind of a real-time assumption? So as  
13 the water comes, you know, 60 percent is held  
14 behind dams, 40 percent is allowed to go; is that  
15 the assumption, with no other habitat investments  
16 or any other of the many aspects of the proposed  
17 management plan? Is it flow only? And then is  
18 the management plan, you know, a combination of  
19 all those things that, through your processes, you  
20 felt like was a good suite of actions?

21 MR. BOYD: That a really good question. So  
22 let me start with the Tuolumne River Management  
23 Plan. That is habitat, flow, non-flow measures  
24 built into the models. If you're talking about  
25 the State Water Resources Control Board plan and

1 some of the other items that have been submitted  
2 by other resource agencies in the FERC process,  
3 often it wasn't clear the intent on some of the  
4 non-flow measures. It wasn't very specific.  
5 Where it was specific, we modeled it, if we could.  
6 If it was we'd like to do something over there,  
7 that's a little tougher to model, and so some of  
8 those things may not be in there.

9 BOARD MEMBER MOORE: So the thing, what you  
10 just described, were a few assumptions that went  
11 along with the State Board 40 percent, 30 to 50  
12 proposal, so you made some assumptions of habitat  
13 or predation or --

14 MR. BOYD: Yeah. As we could pull them out  
15 of the State Board proposal, plug them into the  
16 model, we did that.

17 BOARD MEMBER MOORE: Okay. So --

18 MR. BOYD: This was not flow only.

19 BOARD MEMBER MOORE: -- it was flow. Okay.

20 MR. BOYD: But I want to be very clear that  
21 some, we couldn't determine exactly what you meant  
22 --

23 BOARD MEMBER MOORE: Yeah.

24 MR. BOYD: -- so it may not be in there.

25 BOARD MEMBER MOORE: Yeah, I get that. You

1 know, you want, when you come up with something  
2 like this, you want to try to put together a  
3 reasonable suite of things, so that you have more  
4 confidence in that and can convey that confidence  
5 to just, you know, other parties, like us, like  
6 the NGOs and that sort of thing so, you know,  
7 because anything can be cooked up.

8 MR. BOYD: Absolutely.

9 BOARD MEMBER MOORE: And -- but, you know, we  
10 want to trust these good-faith efforts.

11 But it is striking, this idea, on its face,  
12 you know, these results are eyebrow-raising. You  
13 know, the idea that this little amount of flow  
14 increase would create this bonanza, it begs many  
15 questions.

16 MR. BOYD: Sure. And we'd be happy to sit  
17 down and talk to you about that.

18 BOARD MEMBER MOORE: Thank you.

19 MS. TOWNSEND: Chair Marcus --

20 BOARD MEMBER D'ADAMO: Oh, just in follow-up.  
21 Sorry. Did someone -- just in follow-up to that,  
22 this information was submitted in 2017. You had  
23 indicated that a number of the slides were already  
24 in the record.

25 MR. BOYD: Yeah, these two slides are both in

1 the record, along with substantive comments both  
2 on the SED as proposed --

3 BOARD MEMBER D'ADAMO: Uh-huh.

4 MR. BOYD: -- and all of the FERC filings  
5 that we've done related to how we believe the  
6 Tuolumne River --

7 BOARD MEMBER D'ADAMO: Yeah.

8 MR. BOYD: -- Tuolumne River Management Plan  
9 could benefit the river.

10 BOARD MEMBER D'ADAMO: And I appreciate Board  
11 Member Moore's question. You know, we may not  
12 necessarily be comparing apples to apples here  
13 because --

14 CHAIR MARCUS: Yeah. It's not.

15 BOARD MEMBER D'ADAMO: -- of the inability --

16 CHAIR MARCUS: It's not.

17 BOARD MEMBER D'ADAMO: -- on the non-flow  
18 measures.

19 But just kind of getting back to if you were  
20 here when I asking questions earlier of the Merced  
21 Irrigation District, so each of the districts has  
22 a model on this issue of habitat. And Staff is  
23 using a different model. Their model is wetted  
24 acres. And the districts, you know, and I'm not  
25 an expert in this, but it just seems to me as I've



1 met with each one of you, you're all kind of  
2 saying the same thing on the models that you're  
3 using.

4 So my best way to describe it is that these  
5 are instream flow models and, as you're saying,  
6 based upon not just GIS mapping, but also a  
7 combination of some mapping and infield, actual  
8 infield surveys, so --

9 MR. BOYD: That is absolutely correct.

10 BOARD MEMBER D'ADAMO: Okay. And to that  
11 extent, we probably could compare the two models,  
12 looking at a similar assessment, and that is how  
13 much habitat are you going to get? And our model  
14 is a little different. Our staff's model is a  
15 little different in that it looks at wetted acres.  
16 But to that extent, we could because the models  
17 themselves are just looking at habitat; correct?

18 MR. BOYD: Our model is looking at useable  
19 wettable acres versus just a total amount of  
20 inundated land.

21 CHAIR MARCUS: Right. And it adds those  
22 measures that you're using to make them more  
23 useful, so --

24 MR. BOYD: Right, where it fits. The other  
25 part, and you heard it from Mr. Sweigard this

1 morning, there are certain places within the  
2 Tuolumne where higher flows will actually displace  
3 useable habitat and push the fish up higher, but  
4 they aren't out into the non-natural floodplain  
5 anymore. So some midrange flows are actually  
6 detrimental. And I think some of that goes into  
7 what you see in flows -- or the predicted outcomes  
8 under your plan.

9 BOARD MEMBER D'ADAMO: Right. But that model  
10 initially does not look at any additional bells  
11 and whistles, like non-flow measures? Initially,  
12 it's just running a model on the existing  
13 conditions?

14 MR. BOYD: The floodplain model --

15 BOARD MEMBER D'ADAMO: Yes.

16 MR. BOYD: -- explains where the water will  
17 reach.

18 BOARD MEMBER D'ADAMO: Uh-huh.

19 MR. BOYD: And then based on other studies,  
20 we know that food and habitat is not a limiting  
21 factor in certain elevations.

22 BOARD MEMBER D'ADAMO: Uh-huh. Okay.

23 MR. BOYD: So you combine those two to help  
24 get the results.

25 BOARD MEMBER D'ADAMO: Yeah.

1 MS. MAHANEY: If I may just ask two --

2 CHAIR MARCUS: Yeah.

3 MS. MAHANEY: -- clarifying questions?

4 I thought you said this had been submitted  
5 with the 2017 comments that concluded March 17th,  
6 2017. Did I hear you correctly?

7 MR. BOYD: I may have misspoke. They were  
8 submitted with -- we filed these in late 2017.  
9 They were submitted with the recent deadline for  
10 the new SED.

11 MS. MAHANEY: Oh, okay. I just wanted to  
12 clarify that.

13 MR. BOYD: Thank you.

14 CHAIR MARCUS: Okay.

15 MS. MAHANEY: And then if you could also  
16 clarify, is this February through June or year-  
17 round for the modeling?

18 MR. BOYD: This is year-round.

19 MS. MAHANEY: Thank you.

20 MR. BOYD: And I believe we assumed existing  
21 FERC flows non February through June.

22 CHAIR MARCUS: And what do you assume about  
23 the State Water Board flows? Do you assume  
24 they're year-round, rather than February through  
25 June?

1 MR. BOYD: We assumed February through June  
2 through your flows. And then we put existing FERC  
3 flows for the other months.

4 CHAIR MARCUS: Oh. Okay. I'll let you keep  
5 going. I hope you're watching your time, because  
6 I don't want to see --

7 MR. BOYD: I'm done.

8 CHAIR MARCUS: -- Mr. O'Laughlin not get his  
9 -- all right.

10 MR. O'LAUGHLIN: Yeah.

11 BOARD MEMBER D'ADAMO: Wait a second.

12 I --

13 CHAIR MARCUS: If you have a question, go  
14 ahead.

15 BOARD MEMBER D'ADAMO: Sorry.

16 CHAIR MARCUS: It doesn't come out of their  
17 time, but --

18 BOARD MEMBER D'ADAMO: I'm going to ask each  
19 ID, so let's get to the issue of sequential dry  
20 years. So if you could --

21 CHAIR MARCUS: That's what Tim's going to  
22 talk about.

23 BOARD MEMBER D'ADAMO: On the Tuolumne?

24 MR. O'LAUGHLIN: Yeah, I -- no. I think  
25 Steve will answer for the Tuolumne. My slides and

1 presentation is more detailed about the Stann.

2 CHAIR MARCUS: Uh-huh.

3 MR. O'LAUGHLIN: But he can respond generally  
4 for the Tuolumne.

5 MR. BOYD: Sure. I didn't really prepare  
6 anything for that today, but going by memory,  
7 2014-2015, TID experienced about a 60 percent  
8 reduction in deliveries to farmers, just based on  
9 the amount of water available in the system. And  
10 obviously, the SED wasn't in place then. If we'd  
11 have had the SED in place, we would have  
12 approached those years with substantially less  
13 water because of the instream flow requirements,  
14 which would have made it substantially worse.

15 And then as my colleague from Modesto pointed  
16 out this morning, that didn't take into account  
17 carryover requirements. So had we had 2014-2015  
18 with the 40 percent unimpaired flow and the  
19 carryover requirements, we would have had zero  
20 deliveries available the following year.

21 So dry year relief on the Tuolumne and all  
22 the tributaries incredibly important, multiple dry  
23 year relief.

24 BOARD MEMBER D'ADAMO: Thank you.

25 MR. CARLIN: Good afternoon.

1 CHAIR MARCUS: Mr. Carlin. Restate your name  
2 and who you --

3 MR. CARLIN: Sure. I'm Michael Carlin. I'm  
4 the City of San Francisco's Public Utilities.  
5 It's a pleasure to be here today. I'll try to run  
6 through this fairly quickly. What I was going to  
7 show, and this is all in our comments, this is  
8 water supply impacts to San Francisco, and talk a  
9 little about our water supply planning efforts.

10 So we have a level of service for water  
11 supply planning. And this is to look at an eight-  
12 and-a-half-year drought for our watershed. It's  
13 not a generic one. It's built for our watershed,  
14 building on the 1987 through 1992 drought. And we  
15 added in the '76-77. And we want no more than 20  
16 percent rationing in our service area with a total  
17 system demand of 265. Now, we're not at 265, but  
18 sometime in the future we will be there and we  
19 still have conservation efforts underway to kind  
20 of harden demand over time.

21 So what I wanted to walk you through is what  
22 does it look like for us. This is total system  
23 storage on the Y axis, and these are the years  
24 that I just mentioned on the X axis. So you're  
25 going through a drought. You never know that

1 you're in a drought in the first year. If you do  
2 know that, I want to hire you because you're --  
3 you would be very valuable. But as we go through  
4 the drought, we have -- as storage drops and we  
5 don't have water available to us from the Tuolumne  
6 River because we are the junior water right holder  
7 on the Tuolumne River to the two irrigations  
8 districts, we would impose rationing or  
9 conservation measures in place to make sure that  
10 we can survive that eight-and-a-half-year drought.

11 What does it look like when it's 40 percent  
12 unimpaired flow? So it changes the line quite  
13 significantly. In our eight-and-a-half-year  
14 planning cycle, we would actually be out of water  
15 in year five. Now what does that mean as far as  
16 conservation would be concerned?

17 In the first year in a drought, you would  
18 have to call for 40 percent rationing. In the  
19 second year, we'd have to be at 54 percent. And  
20 then in year seven, you'd have to be approximately  
21 at 64 percent. This assumes lots of things that,  
22 you know, you don't have any other water available  
23 to you, and we understand that. But we actually  
24 planned in our water supply planning. We are  
25 actually planning projects so this doesn't happen

1 now in our current situation, but this would  
2 require us to do a lot more planning for water  
3 supply projects into the future if this was to  
4 come to fruition.

5 And by the way, you're Plan of Implementation  
6 says you would start in 2022. So I don't know any  
7 water supply project of this magnitude, and I'll  
8 show you some numbers, that actually could be put  
9 online in four years.

10 So what did we do in the most recent drought?  
11 We actually -- the state called for voluntary --  
12 we called for a ten percent reductions in demands.  
13 You, the state, ultimately called for a 14-percent  
14 reduction. And actually, we achieved that across  
15 the service area. And we achieved it in varying  
16 degrees, much more in some places, a little bit  
17 less in other places, but it was there. The  
18 proposed plan would actually put us into looking  
19 at 40 to 50 percent rationing as the new way of  
20 life.

21 This is actually an affidavit from General  
22 Manager Anson Moran back in January 1994 when we  
23 were in the FERC process with the irrigation  
24 districts. And he basically states that, you  
25 know, this -- and this is in the record, that we



1 cannot agree, this was the comment, that the  
2 city's operation rule is overly conservative. We  
3 think it's very conservative. We want to be  
4 conservative. If we're wrong, it's a disaster.  
5 You know, people say, well, you can plan just for  
6 a three-year drought. No.

7 CHAIR MARCUS: No, you can't.

8 MR. CARLIN: The state right now says a  
9 five-year drought. We're at eight-and-a-half  
10 years. Climate change is real. We're always  
11 investigating whether or not we have the right  
12 scenario based on the water that's available to  
13 us.

14 And this was just an editorial quote, you  
15 know, and I think that nature is as likely as the  
16 Water Board to reduce Sierra flows. I think  
17 that's great and it's true and we need to take  
18 that into account. We've already seen what we  
19 call the low snow starting to retreat. We get  
20 more precipitation, less snow. It's an issue for  
21 us in how we manage our water supply on the river.

22 So what does it mean for major investments if  
23 we wanted to just have the 265 demand with no more  
24 than 20 percent rationing? We'd have to have  
25 storage of about 900,000 acre feet of additional

1 storage to put that water someplace. As somebody  
2 stated, you know, we were dumping water, you know,  
3 in 2017. We were dumping water. We were  
4 releasing it. We had nowhere to put it. If I had  
5 had someplace to put it, I would have put it  
6 someplace. But we were releasing and that was the  
7 prudent thing to do.

8 You've also heard about purified water  
9 projects. We are in the discussion stages on  
10 those. They're not in the construction stage, not  
11 even in the technical discussion stage. What this  
12 means is we're looking at direct potable reuse,  
13 indirect potable reuse. And if you look at our  
14 office building in San Francisco, we do recycle  
15 water inside our office building. And now that is  
16 a law within San Francisco for certain size  
17 developments. So we're doing everything we can to  
18 protect the potable water for the highest and best  
19 use.

20 We also are looking at desalinization plants.  
21 But this is, again, a technical, managerial,  
22 financial thing. Where do you build it? How do  
23 you get the most use out of it? We don't want an  
24 underutilized facility. We want to utilized  
25 facility that, basically, benefits the entire Bay

1 Area. So siting and all those things come into  
2 play.

3 Finally, you know, you know this already,  
4 there are significant impacts on our water supply  
5 with uncertain benefits, as Mr. Boyd showed in his  
6 slides on the fish. We think there's a better way  
7 to actually implement smart science on the  
8 Tuolumne River. We believe that functional flows  
9 combined with the science-based measures will  
10 produce more fish and more sustainable fish over  
11 time.

12 And last but not least, you know, negotiated  
13 settlements are superior to a regulatory solution  
14 in our minds because there are so many things that  
15 can go into a negotiated settlement that may be  
16 outside of your purview. And I would like to not  
17 have litigation cloud all this effort. I'd rather  
18 see that we do things on the ground where  
19 environmentally and we're looking towards the  
20 future.

21 I'd be glad to answer any questions.

22 BOARD MEMBER MOORE: Thank you, Mr. Carlin.  
23 A couple questions.

24 One, when you look at, you know, the  
25 conservative planning, how much are you factoring

1 in the probability that you would take advantage  
2 of interties, both existing and in the future,  
3 with other Bay Area water suppliers?

4 MR. CARLIN: Excellent question. So in the  
5 last drought, we actually were supplying more  
6 water to one of our wholesale customers, Alameda  
7 County Water District, because their supply from  
8 the State Water Project was cut back, and we had  
9 the ability to deliver some additional water to  
10 them.

11 We have an intertie with the Santa Clara  
12 Valley Water District which we've used extensively  
13 to supply water to Santa Clara for construction  
14 purposes. We have another intertie with East Bay  
15 Municipal Utility District. And with the intertie  
16 that's between East Bay Municipal Utility District  
17 and Contra Costa Water District, we're actually  
18 creating like a superhighway to move water around  
19 within the Bay Area.

20 Everybody has different supplies coming from  
21 different watersheds and we need to kind of manage  
22 them collectively. And so one of the things we've  
23 been doing is looking at the Bay Area Regional  
24 Reliability Project of how we can actually work  
25 together to make the entire Bay Area more

1 sustainable.

2 BOARD MEMBER MOORE: So the conservative  
3 planning approach where you showed, you know,  
4 pretty severe rationing as a potential outcome, do  
5 you think it would be mitigated somewhat by a more  
6 regional planning effort, like Bay Area Regional  
7 Reliability?

8 MR. CARLIN: So the desalinization plant is  
9 one of those efforts because, you know, we can't  
10 just build a plant and have it being  
11 underutilized. It has to be utilized by somebody  
12 on a daily basis. So is there somebody that has  
13 the need for a certain amount of water so that we  
14 can run the plant all the time? We don't want to  
15 start it up, just in a dry weather or a critical  
16 year situation, so that's important to us.

17 I think the direct potable reuse projects are  
18 actually, you know, between large water districts  
19 because somebody's located near a wastewater  
20 treatment plant and somebody has a transmission  
21 line nearby. Ah, there's an idea, let's put these  
22 two together.

23 So those are the kinds of things we're  
24 working on, but incrementally, it's not going to  
25 fill the entire bucket. You know, it will --

1 we'll start building those things, but it will  
2 take some time to bring them online.

3 I should have mentioned that, you know, we  
4 did a Groundwater Storage and Recovery Project  
5 with three cities just south of San Francisco.  
6 And not to give it any length of time, but that  
7 project took 22 years to negotiate and get online  
8 because of the technical, managerial and financial  
9 issues --

10 BOARD MEMBER MOORE: Right.

11 MR. CARLIN: Negotiating between cities.

12 BOARD MEMBER MOORE: You were also -- yeah,  
13 that a pioneering effort, too, so you had to  
14 invent a lot for coordination between  
15 institutions.

16 Another question, then I'm done. When you  
17 look at your Tuolumne River Management Plan, do  
18 the proposed flows, you characterize them as  
19 functional flows, is there a variability proposed  
20 that tracks with variability with water year type?

21 MR. CARLIN: It does track with water year  
22 type. And that's one of the things that we need to  
23 have a much deeper discussion on. Is there -- as  
24 Chair Marcus has said, there's flexibility in what  
25 the State Board is proposing. And we need to kind

1 of sit down and talk about what does that  
2 flexibility start to look like. You know, it's  
3 not -- is it an every year sort of flow? We're  
4 proposing that we're looking for some dry year  
5 relief in certain types of situations. That's not  
6 to say that we're not going to have rationing.  
7 We're not going to -- we're going to keep  
8 investing in conservation and keep investing in  
9 other projects. But we need to kind of work  
10 through all the different scenarios.

11 BOARD MEMBER MOORE: All right. Thank you.

12 CHAIR MARCUS: Thank you.

13 MR. CARLIN: You're welcome. I left Tim two  
14 minutes.

15 CHAIR MARCUS: Yeah. I'll give you -- I'll  
16 give you five more, considering we have  
17 two -- we have three big players, so --

18 MR. O'LAUGHLIN: You guys.

19 CHAIR MARCUS: -- I just can't wait to hear  
20 what you have to say.

21 MR. O'LAUGHLIN: They're a bunch of  
22 sandbaggers. They told me they weren't going to  
23 take any time at all.

24 CHAIR MARCUS: You can work that with them --

25 MR. O'LAUGHLIN: I will.

1 CHAIR MARCUS: -- afterwards, and then be  
2 thankful that I'm being so generous.

3 MR. O'LAUGHLIN: I know. I am.

4 CHAIR MARCUS: I'm holding a lot of my  
5 questions, just --

6 MR. O'LAUGHLIN: Well --

7 CHAIR MARCUS: -- because I also want to hear  
8 from the other people in the room, so --

9 MS. TOWNSEND: Tim, which one do you want?

10 MR. O'LAUGHLIN: The 40 percent one, the  
11 diversion one, not the temperature one please.

12 BOARD MEMBER MOORE: Tim just said he wanted  
13 the 40 percent on.

14 (Laughter.)

15 BOARD MEMBER MOORE: Nice.

16 MR. O'LAUGHLIN: Oh, that was good.

17 CHAIR MARCUS: People have done that --

18 MR. O'LAUGHLIN: That was excellent.

19 CHAIR MARCUS: -- quoting me that way, too,  
20 so --

21 MR. O'LAUGHLIN: Thank you.

22 BOARD MEMBER D'ADAMO: With or without June.

23 MR. O'LAUGHLIN: Okay. So I want to  
24 talk -- this is going to be about sequential dry  
25 years.



1 CHAIR MARCUS: Okay.

2 MR. O'LAUGHLIN: So the first thing is, and  
3 Joaquin, I'm glad you came down, but I'm going to  
4 point to you. So when Joaquin was down visiting  
5 he kept saying that, you know, on average the  
6 impacts all right 7 to 14 percent to diversions.  
7 That is an absolutely correct statement. It's in  
8 your SED.

9 CHAIR MARCUS: Right.

10 MR. O'LAUGHLIN: And it is supported in your  
11 SED with the numbers. So we're not going to  
12 disagree with that, so that's the starting point.  
13 So then -- so that's a number and that makes  
14 sense.

15 But our point has been, I want to talk about  
16 impacts in sequential dry years. So these  
17 numbers, it's -- don't worry, I'll get -- cut to  
18 the chase real quick.

19 CHAIR MARCUS: No, no, I've seen these.  
20 Yeah.

21 MR. O'LAUGHLIN: Yes, you have seen this.  
22 I've met with you on this too.

23 CHAIR MARCUS: Where's the green though?  
24 Okay. Go ahead. Sorry.

25 MR. O'LAUGHLIN: That's in the other one.

1 Okay.

2       So these numbers are right out of your WSE.  
3 They're your numbers.       So the first graph is  
4 Oakdale and South San Joaquin, their entitlements,  
5 and then what the cutbacks are to their  
6 entitlements.       Now remember, entitlements are  
7 waters that you're -- under the '88 Agreement of  
8 the water rights, you never use all your water in  
9 all your year types.       So these are the reductions  
10 to the entitlements.       It's kind of interesting,  
11 but it really doesn't do too much for me, okay,  
12 because the real one is in your model you've  
13 ascertained what the required water would be in  
14 the district, and then what the allocated water  
15 would be during a dry year period.

16       So now let's look at these numbers, 60  
17 percent, 45, 30.       And then look at those last  
18 years, 51, 44, 60, 32.       Okay, those are -- that is  
19 not 38 percent, okay?

20       So on the Stanislaus, we have -- the problem  
21 is, as the slides show, averages, 7 to 14 percent,  
22 is not what's occurring during these critical year  
23 periods.       And remember, the '28 through '34  
24 drought was '28 through '34.       If you look at that  
25 graph, it's '24 through '38.       If you look at the

1 '87 through '92 drought, it's now, in your model,  
2 it's '87 through '97. So the droughts get longer  
3 and they get deeper.

4 So in addition to Oakdale and South San  
5 Joaquin being cut, we have CVP contractors, Karna  
6 was up here earlier talking, so we have a  
7 baseline. Now we have some problems with the  
8 numbers that you presented, but I wanted you to  
9 see them because New Melones doesn't operate this  
10 way. So in the second from the right column,  
11 you'll see, like there's 3,000 acre feet going to  
12 CVP contractors and 16,000 acre feet. That's not  
13 the way New Melones works. The way the index  
14 works is you get 10,000, you get 55,000 or you get  
15 155. There's no tweener years, okay?

16 So when you take the tweener years out, this  
17 is what it looks like pursuant to your State Board  
18 draft. These are your numbers. These are  
19 impacts. So Stockton East and Central get, a lot  
20 of years, get zero water. If you use the real  
21 numbers, look at all the 100 percents. And the  
22 reason this happens is that Oakdale and South San  
23 Joaquin as the senior water rights holders are  
24 being cut in almost every year. And if they're  
25 cut, CVP guys aren't getting their water.

1           So when you start talking about impacts, look  
2 -- if you look on this graph, now you understand,  
3 I think to some extent, why -- oh, sorry -- why  
4 the Commissioner made this statement to you.

5           So you, Tam, you asked a question yesterday  
6 and I thought it was an excellent question, is  
7 what's going on here? So I've never seen a letter  
8 from Reclamation come to the State Board  
9 threatening to sue you, okay? And let's make no  
10 mistake about it --

11          CHAIR MARCUS: I --

12          MR. O'LAUGHLIN: -- I read it -- go ahead.

13          CHAIR MARCUS: You haven't?

14          MR. O'LAUGHLIN: No, not yet, not Reclamation  
15 threatening.

16          So what happens here is you have to go back  
17 to the previous slide that I just showed you. So  
18 if CVP contractors are not getting water in 12 or  
19 13 years in a row, one could opine that that is  
20 frustrating the project purpose for which the  
21 reservoir was built.

22          Now there was a famous case, and it's called  
23 U.S. v California, and it's about New Melones.  
24 And back in the day when you issued the permits  
25 for New Melones, you conditioned their water

1 rights. And Reclamation made a facial challenge,  
2 so that just says you can't do what you're doing.  
3 I'm not going to give you any facts, I'm just  
4 going to tell that on the law, we win hands down.

5 So that went up and the Reclamation lost  
6 because what the court said is, well, no, as long  
7 as it doesn't frustrate the project purpose, you  
8 should look at trying to get state law and federal  
9 law to work in committee. So what happened was  
10 they went down below, Reclamation didn't put any  
11 evidence in. And, of course, the case was over  
12 and the ruling stands. I still -- that's a great  
13 case. The law is still good. And if you look at  
14 all the other stuff on federal preemption, since  
15 then it kind of follows the same rules.

16 But now when you start looking at the  
17 evidence that's going to be going into the record  
18 about the impacts to the CVP at New Melones,  
19 you're going to look at impacts to hydropower,  
20 you're going to look at impacts to recreation, and  
21 you're going to look at impacts to contractors.  
22 One could opine, and I think your question was  
23 perfect, I don't think they're going to follow  
24 your Water Quality Control Plan. They're going to  
25 sue you because they're going to assert that they

1 have federal preemption.

2       So -- and then one last thing on this. And,  
3 Mr. Moore, you raised a great question, too,  
4 yesterday. So you said, "Well, you know, aren't  
5 they releasing 30 or 40 percent on the Stanislaus  
6 right now?" And the answer is, yes.

7       So -- but what we keep failing to talk about  
8 in these discussions is Staff's analysis, it's  
9 just kind of like this thing we went through with  
10 the critically dry years, here's the problem that  
11 I see is that when we're talking about this stuff,  
12 your staff talks February through June. And the  
13 plan is very specific, it's seven-day average, 40  
14 percent, February through June, okay? But the  
15 problem is that's not when water stops. So in the  
16 plan as proposed, we still have to release water  
17 from July through January. So where's that in the  
18 water budget?

19       So your staff says, well, you got 60 percent  
20 of that water left over that we didn't take from  
21 you. You can use it. Well, no, because it's  
22 still got to go in the stream from July through  
23 January. Not only that, you have carryover  
24 storage requirements. We don't get to use that.  
25 That gets put back into storage, as well.

1           So I think it's really important that as we  
2 start to unpack these things, that we really hone  
3 in and try to define what it is we're talking  
4 about so we can at least agree on what the numbers  
5 are.

6           So I think part of our frustration that  
7 you've been hearing from people is -- and I'm  
8 sorry, Joaquin, I'm going to use again, I'm not  
9 beating up on you, but you're right, it's 7 to 14  
10 percent. But what we're trying to tell you, and  
11 we're not getting the feedback from you or your  
12 staff, is we look at these critically dry years  
13 and it's not one or two years, it's ten years.  
14 Well, I'm telling you, you take farming out of  
15 production for ten years, you lose your labor  
16 force, you lose your markets, you lose your  
17 equipment, you lose your funding, you lose these  
18 other things.

19           So I think we need to understand. And if my  
20 numbers are wrong, I'd love to hear from Staff and  
21 they can call me back up and we'll get the numbers  
22 right and present them to you. Because as policy  
23 people it's your job to make the call, but you  
24 should have the numbers in front of you so that  
25 you hear the story from other people. And it's

1 I like the fish issue and all these other issues.

2 So I thank you for your time. I look  
3 forward, hopefully in this interim, not only as  
4 part of the process that we're undergoing with the  
5 VSAs, but we really need to start drilling down  
6 into the numbers and what these things mean, so  
7 policy people can truly understand the tradeoffs  
8 that you will be making when you do make your  
9 decision.

10 Thank you.

11 CHAIR MARCUS: Thank you.

12 BOARD MEMBER D'ADAMO: I have a couple of  
13 questions.

14 So on the charts, could you go to slide,  
15 let's see, one, two, three, go to four. What's  
16 the difference between slides four and six?

17 So -- and when you talk about Districts'  
18 entitlement, you're talking about Oakdale and  
19 South San Joaquin?

20 MR. O'LAUGHLIN: Yeah. So currently, Oakdale  
21 and South San Joaquin, we have an '88 Agreement  
22 with Reclamation that's settled, the dispute  
23 between the districts so that New Melones could  
24 get their permits. And it basically says the  
25 first 600,000 acre feet that comes in goes to the



1 districts, so that is an agreement because we've  
2 got reservoirs below, reservoirs underneath and  
3 reservoirs down the stream. They have a huge  
4 reservoir right in the middle. So it's an  
5 operation agreement that, you know, we'll count  
6 beans later, but this puts us in the ballpark of  
7 making sure that our senior rights are not  
8 impacted.

9       So entitlements are one thing. But what the  
10 model does is the second chart, that's why I think  
11 it's the more important chart, I'd leave the  
12 entitlement one out, but I just put it in  
13 for -- to make sure we talk about all the numbers.

14       The second one is the important one because  
15 the model that your staff used has a use demand in  
16 the district. So that says that in a certain  
17 year, that that's how much water you're going to  
18 need to grow a crop in the year based on ET and  
19 rainfall and everything else, and so that's the  
20 demand, and then that's the shortfall. So these  
21 are the shortfalls.

22       BOARD MEMBER D'ADAMO: Okay. So in the dry  
23 year, you need your surface water? It's that much  
24 more important because of reduced precipitation?

25       MR. O'LAUGHLIN: Yes. So what happens is

1 it's a double whammy. And if you look at the --  
2 if you break down these numbers and spend some  
3 time with them, you will see that in the dryer  
4 years, that the water demand in the district goes  
5 up because you're not getting rainfall in  
6 February, March and early April. So what happens  
7 then is your demand goes up, but at the time that  
8 your demand is going up and the 40 percent and the  
9 carryover storage are hitting you, then the gap  
10 gets bigger.

11 BOARD MEMBER D'ADAMO: And where did you get  
12 these charts?

13 MR. O'LAUGHLIN: We got -- all this  
14 information is right out of your WSA, your Water  
15 Surface --

16 BOARD MEMBER D'ADAMO: Okay.

17 MR. O'LAUGHLIN: -- Analysis.

18 BOARD MEMBER D'ADAMO: All right. And --

19 MR. O'LAUGHLIN: We didn't do any of  
20 the -- that's why I wanted to make sure, so when  
21 Joaquin was talking yesterday to Reclamation,  
22 there is no dispute about these numbers. This is  
23 all in your plan. This is all your staff's work.  
24 And we don't disagree with it. But like I said  
25 earlier, it's about the presentation. That's the

1 key.

2 BOARD MEMBER D'ADAMO: Yeah. It gets back to  
3 the 38 percent on average in a critically dry year  
4 because you --

5 CHAIR MARCUS: Right.

6 BOARD MEMBER D'ADAMO: -- that's averaging  
7 all critically dry years?

8 MR. O'LAUGHLIN: Right.

9 BOARD MEMBER D'ADAMO: Right.

10 MR. O'LAUGHLIN: Well --

11 BOARD MEMBER D'ADAMO: You're teasing out a  
12 specific set of years, which presumably is during  
13 a drought. That's why --

14 MR. O'LAUGHLIN: This the drought in the  
15 '20s. We have the same graph for '76-77. We have  
16 it for '87 through '92. We have it for 2010  
17 through 2016. And it all shows the same thing.

18 BOARD MEMBER D'ADAMO: Okay. And then I've  
19 got a question about storage at New Melones. I  
20 know you're not representing the Bureau, but I had  
21 mentioned earlier, Merced does not have storage  
22 rights in July. And this kind of gets to the  
23 issue about diversion to storage and my concern  
24 about June.

25 But is that also the case on New Melones? Do

1 they have storage rights in June and in July?

2 MR. O'LAUGHLIN: So storage at New Melones is  
3 an interesting thing. The quick answer to your  
4 question is that the United States Bureau of  
5 Reclamation is entitled to divert from November  
6 1st until June 30th. They are not entitled to  
7 divert to storage after June 30th in New Melones.  
8 So last year -- well, remember in 2017, we had  
9 that big year. It seems like eons ago. So we had  
10 the big year. And if you looked at the operations  
11 of New Melones, they were pushing water out in  
12 July, about 2,000 to 3,000 CFS because they can't  
13 store, so they have to get the water out under the  
14 30-day rule.

15 But what's interesting, one other little like  
16 wrinkle in time, so this, it's a very interesting  
17 thing when you try to take these general rules of  
18 application and apply them specifically. So to go  
19 to the storage question at New Melones, New  
20 Melones is a federal facility, okay? So you have  
21 senior water right holders based on your proposal  
22 by your staff to have carryover storage be put  
23 into New Melones as a requirement. Well, almost  
24 all that water comes from the senior water right  
25 holders, the carryover storage water.

1           So you're going to be taking water from a  
2 State of California entity and you're going to be  
3 putting it into a federal facility. Just so you  
4 know, when water is stored for more 30 days in a  
5 federal facility, it becomes federal project  
6 water. And if you look at how the modeling went,  
7 what happens is the model starts spitting out  
8 water in other years to meet federal requirements,  
9 not Oakdale and South San Joaquin senior rights.

10           So we've talked to Reclamation about this.  
11 And it's a major issue because how do you account  
12 for water from a state agency going into a federal  
13 project, turning it into federal water being used  
14 for federal purposes without compensation? It's  
15 an interesting question.

16           CHAIR MARCUS: Please, go on.

17           MR. O'LAUGHLIN: Okay. There's -- what I'd  
18 like to do, and one last thing and I'll leave. I  
19 think there's about ten other issues like this.  
20 And we'd like to tee this up in the interim. We  
21 don't know when you're going to come back and do  
22 what you're going to do with this plan. But we'd  
23 really like to sit down with you and your staff  
24 and go through these issues, so we all have a  
25 clear understanding. So when we all start talking

1 numbers to each other, we're all saying the same  
2 thing. So like on water temperature, floodplain  
3 habitat, fish numbers if we want to talk about  
4 fish numbers, storage numbers, diversion numbers,  
5 so we -- that when you sit down a month from now  
6 or two months from now, you feel pretty confident  
7 that you have the information in front of you that  
8 you can make an informed decision and know that  
9 you kind of have a pretty good idea of what the  
10 numbers are and there's an agreement on those.

11 CHAIR MARCUS: Okay.

12 MR. O'LAUGHLIN: Thank you.

13 CHAIR MARCUS: I have two quick questions, at  
14 the risk of asking a question I absolutely don't  
15 know the answer to.

16 MR. O'LAUGHLIN: Sure.

17 CHAIR MARCUS: Number one, you used to come  
18 in all the time with these graphs to show us  
19 things --

20 MR. O'LAUGHLIN: Yes.

21 CHAIR MARCUS: -- and all of that.

22 MR. O'LAUGHLIN: Right.

23 CHAIR MARCUS: Why did you stop? Serious  
24 question. I've been asking where you've been.  
25 You may have been in other meetings --

1 MR. O'LAUGHLIN: Oh, you know --

2 CHAIR MARCUS: -- could be the answer.

3 MR. O'LAUGHLIN: -- no. No, I'm going to be  
4 honest. I became frustrated, I am sorry, and  
5 that's my fault. And I shouldn't do that as  
6 representing the entities that I do. But my  
7 problem is we say stuff and we're not -- well,  
8 it's like this graph and these graphs. And I don't  
9 see any changes happening in the document. We all  
10 talk about dry year relief. Okay. And I talk  
11 about it in VSAs, and everybody says, oh, yeah, we  
12 need dry year relief. We need to know what we're  
13 going to have in dry years, and I get the same  
14 document, and it's very frustrating.  
15 So -- and it's hard to keep talking to people when  
16 you're not seeing a reciprocity back. I don't --  
17 I'm not saying that you have to change the  
18 document.

19 CHAIR MARCUS: Right.

20 MR. O'LAUGHLIN: You don't. But you should  
21 tell me why you're not. And I never -- and I  
22 still, even in this document today, still don't  
23 know why we don't have critical year relief.  
24 Because I'll just -- and Doug's in the room, isn't  
25 he? I hope he is. So Doug and I agree on one

1 thing.

2 CHAIR MARCUS: Right.

3 MR. O'LAUGHLIN: So -- well, actually, we  
4 agree on quite a few things when it comes to this  
5 plan. But one of the things is, is if you're  
6 going to have a Water Quality Control Plan with  
7 climate change, okay, which -- and we know we're  
8 going to have longer, worse, drought, we need to  
9 plan for those. We need to know where resources  
10 are going to be allocated and how they're going to  
11 be allocated. Because I'll just say, and I know  
12 Doug feels the same way, one of our greatest  
13 complaints during the drought, not that you didn't  
14 try to handle it well and try to do your jobs  
15 well, but we shouldn't have been doing TUCPs.

16 CHAIR MARCUS: Oh, yeah.

17 MR. O'LAUGHLIN: We should not --

18 CHAIR MARCUS: Agreed.

19 MR. O'LAUGHLIN: -- have been doing those.  
20 We need to know ahead of time that in this state,  
21 unlike maybe Missouri or Maine or something, we're  
22 going to have droughts. So let's plan for them so  
23 we know what the resources that are going to be  
24 allocated for the fish, we know what's going to  
25 happen with our groundwater and our reservoirs.



1 Because that, to me, is how we get to  
2 sustainability, and that's for everybody. And  
3 everybody needs to understand that because I think  
4 the worst thing, the hardest thing for all of us,  
5 when the TUCPs were happening, is you just didn't  
6 know what was going to happen, and that's -- that  
7 was the problem.

8 So I think it's really important. And if  
9 you'd like me to come back again, I'd love to work  
10 with your staff and kind of do some -- a couple  
11 dog and pony shows on these issues that we've  
12 identified. And you don't have to change the  
13 document, but at least tell me why you're not.  
14 And I think that's a fair question to ask of you  
15 and your staff.

16 CHAIR MARCUS: And let me ask another  
17 question of you.

18 MR. O'LAUGHLIN: Sure.

19 CHAIR MARCUS: Because folks have talked  
20 about sequential dry years throughout on a number  
21 of sides. But what I may have missed or I haven't  
22 seen is a concrete proposal about what we should  
23 have put into this on that that people could vet  
24 and agree on, but I could just be missing  
25 something.

1 MR. O'LAUGHLIN: Well --

2 CHAIR MARCUS: Because I know you're -- I  
3 assume you're talking about it in another forum.  
4 That's one of the things where we don't --

5 MR. O'LAUGHLIN: Oh, no, I'm talking --

6 CHAIR MARCUS: -- know. But I think --

7 MR. O'LAUGHLIN: Right.

8 CHAIR MARCUS: -- we also envision some of  
9 these conversations being able to happen in the  
10 context of the agreements that might come in  
11 later, as well.

12 MR. O'LAUGHLIN: So in the VSA process, we  
13 have made concrete proposals about sequential dry  
14 year relief.

15 CHAIR MARCUS: Did you in ours? Did you say  
16 here's language you should put in the plan? I'm  
17 not saying you should write our plan for us.

18 MR. O'LAUGHLIN: No, no, no.

19 CHAIR MARCUS: Because I know you talked  
20 about eons ago in meetings about what would be --  
21 it was one of your ideas. And I've seen  
22 environmental groups also open to that with  
23 certain tradeoffs, et cetera --

24 MR. O'LAUGHLIN: Right.

25 CHAIR MARCUS: -- so you have more robust

1 fish populations during the years when there are  
2 more water -- there's more water, so that we're  
3 not always cutting them to the minimum or below  
4 the minimum --

5 MR. O'LAUGHLIN: Right.

6 CHAIR MARCUS: -- whether it's a good year or  
7 a bad year. And I don't -- I just -- I think I  
8 was anticipating seeing more proposals earlier  
9 than now, quite apart, even within the context of  
10 our plan.

11 I don't want to take too long on this  
12 because, obviously, we have to talk about it, but  
13 is it in there?

14 MR. O'LAUGHLIN: Well, no, kind of. It is,  
15 but here's the problem. We've been having -- so I  
16 had hoped that when we started this process two  
17 years ago, and I talked to all of you about this,  
18 is that we would have a VSA process where we would  
19 be developing these things in a VSA process and  
20 then bringing them to you, okay? And I could --  
21 anything, whether it's dry year relief, whether  
22 it's habitat, all these issues, so that you could  
23 start. My problem is I have nothing to bring you.  
24 I have nothing, okay? And so I can't -- I don't  
25 want to be throwing numbers at you.

1 CHAIR MARCUS: Oh, no, I'm not blaming you  
2 for it.

3 MR. O'LAUGHLIN: No, no, I know.

4 CHAIR MARCUS: I just wanted to make sure I  
5 didn't miss something in there.

6 MR. O'LAUGHLIN: No, no, you haven't.

7 CHAIR MARCUS: But --

8 MR. O'LAUGHLIN: And I -- there are -- we  
9 have a solid proposal. I think we have a solid  
10 proposal. It's been sent to -- given to DWR and  
11 it has sequential dry year relief in it. And we  
12 think it covers all critical years. And,  
13 actually, it's better than what you have in your  
14 current document, we think, numbers-wise, so we're  
15 hopeful on that front.

16 But I don't -- the problem is I didn't want  
17 to keep coming back to you and saying, well, we  
18 got another one or we got this one or we got that  
19 one. Because in my mind, I'd like to see a  
20 package put together --

21 CHAIR MARCUS: Oh.

22 MR. O'LAUGHLIN: -- so that you see it in its  
23 entirety.

24 CHAIR MARCUS: Understood. Thank you.

25 Are you okay for now?

1 BOARD MEMBER ESQUIVEL: I just want to --

2 CHAIR MARCUS: Oh, well, I'm so sorry --

3 BOARD MEMBER ESQUIVEL: -- same story.

4 CHAIR MARCUS: -- since it's --

5 BOARD MEMBER ESQUIVEL: Just thank you --

6 CHAIR MARCUS: -- especially since you've  
7 been involved.

8 CHAIR MARCUS: -- for the engagement, and  
9 particularly the desire to want to have clarity,  
10 ultimately, when we are talking about numbers.

11 I do know, I know that the 7 to 14 percent  
12 range on surface water impacts is averaged out  
13 through all water years. And so -- but drilling  
14 down to the specifics of the years and being able  
15 to look backwards and model out, well, what would  
16 have been the operations, what would have been in  
17 the impacts, is incredibly helpful to be able to  
18 understand and identify where those areas are,  
19 particularly in sequential dry years where you  
20 could potentially have relief.

21 I think the important and the key word that  
22 you said is sort of having certainty for those  
23 years and that the TUC process is not one that, I  
24 think -- I mean, I had the fortune of not having  
25 to sit on the Board during that process, but it

1 was tough. I know it was very tough for this  
2 Board in the middle of the drought to, you know,  
3 try to manage the drought and then have all these  
4 TUCPs.

5 So how do we develop a process that brings  
6 more certainty into those dry years, both for the  
7 water providers and also the ecosystems? And I  
8 think that's --

9 MR. O'LAUGHLIN: Absolutely.

10 BOARD MEMBER ESQUIVEL: -- a common goal that  
11 we have in this process. So I appreciate the  
12 honest engagement and the discussion.

13 MR. O'LAUGHLIN: Thank you. And I go back to  
14 what Felicia said earlier, is that if you know if  
15 you can fashion a sequential dry year relief and  
16 put it into place, then you start looking at these  
17 other year types. And now, what can we do in  
18 these other years? Maybe we have more robust  
19 populations three years out of five. And then you  
20 realize that one year is going to be really kind  
21 of mediocre and one is going to be just absolutely  
22 terrible. Okay.

23 But if you don't do that, then we never get  
24 to the point of trying to see what these other  
25 years types, which is what I think you're trying

1 to get to, Mr. Moore, in regards to how these  
2 years types can be managed in a way to maximize  
3 the benefits, not only to the fish, the  
4 groundwater and everything else in a year type, so  
5 that when the dry years hit we know with certainty  
6 what that's going to look like and whether we're  
7 going to get out of it.

8 Thank you.

9 CHAIR MARCUS: All right. We'll come back to  
10 this issue, I'm sure, today and in the future.

11 Moving right along, Mr. Bobker, do you want  
12 to do your presentation now, and then I'll go to  
13 the remaining cards? Does that work? And I may  
14 take another short break.

15 MR. BOBKER: Hopefully not during my  
16 presentation.

17 CHAIR MARCUS: No. Rapt attention during  
18 your presentation.

19 MR. BOBKER: Thank you. Gary Bobker, The Bay  
20 Institute.

21 Before I get into substance I'd just like to  
22 say, you know, given there are a lot of folks that  
23 are urging you to do -- be more protective of the  
24 aquatic environment than your proposal is, and  
25 given a lot of other folks expressing fears about

1 the impacts of your -- of the proposal, you know,  
2 I think most of the commenters have been  
3 respectful and constructive and appreciate that  
4 the only sinister, arrogant or manipulative  
5 parties, to use unfortunate words used by an  
6 assembly member yesterday, are those who impugn  
7 the motives of the Board and its staff. You know,  
8 I appreciate the hard work and the challenges that  
9 you face. And that goes triple for your staff,  
10 who I want to recognize for their very hard work.

11 CHAIR MARCUS: Thank you.

12 MR. BOBKER: So getting into the proposal  
13 itself, there's nothing more reasonable than, in  
14 the policy, in the work of setting and  
15 implementing policy, than reaching compromises  
16 that accomplish incremental change towards long-  
17 term goals. You know, that's the way you do most  
18 things in life. But it's not necessarily the only  
19 thing that you do. You know, when it comes to  
20 human health standards, we don't bend over quite,  
21 you know, so much because the facts tell us that  
22 there are certain things that we require to  
23 protect human health.

24 And I actually think that ecosystem health  
25 standards are very similar, despite all the claims



1 about uncertainty, we know a lot about ecosystem  
2 health and what it needs. But yet, we're usually  
3 willing to compromise on ecosystem health. We  
4 often hear that, you know, we've tried flow  
5 solutions for the ecosystem in the past. They  
6 haven't worked. No, what we've done is we've  
7 identified flow needs of ecosystems, and then we  
8 haven't provided those flows, we've done a  
9 compromise. And then, predictably, they're not as  
10 effective as we'd like.

11 That's, you know, very relevant to what we're  
12 talking about today and why so many of us are  
13 urging you to adopt the high end of the range at  
14 50 percent. It's not just a slogan that sounds  
15 good, about half the river. The fact is that the  
16 facts, as established by the Department of Fish  
17 and Wildlife, by The Bay Institute, by the State  
18 Water Board, by many, many other analyses show  
19 strong signals about flows below or above 50  
20 percent. Flows below -- there's a strong  
21 relationship between those in the San Joaquin  
22 Basin and returning salmon, two-and-a-half years  
23 later. As we all know, flows below 50 percent  
24 generally represent declining population. The  
25 flows above 50 percent represent growing

1 populations.

2       We know there's a great body of evidence  
3 about the temperature impacts of flows below and  
4 above 50 percent. The Bay Institute and other  
5 environmental groups submitted extensive  
6 information showing the temperature impacts at  
7 different unimpaired flow levels at different  
8 levels. And what you see is that below 50  
9 percent, you begin to lose certain years. You  
10 lose certain parts of the season. You lose  
11 certain areas in the distribution of spawning and  
12 rearing habitat. And what happens is that you  
13 start to lose the genetic diversity and expose  
14 populations to greater risk of extirpation. And  
15 that risk significantly decreases above 50  
16 percent.

17       We also know that this is not just about the  
18 San Joaquin Basin, that the San Francisco Bay  
19 Estuary, one of the great ecosystem on this  
20 planet, is at risk of ecological collapse. One of  
21 the primary reasons has been the large-scale flow  
22 alternation. Bay inflow is the subject of Phase  
23 2. But the fact is that this is the opportunity  
24 we have, because of the way you've structured the  
25 proceedings, to address Bay inflow from the San

1 Joaquin Basin. And so the whole issue of having  
2 higher Bay inflows from the San Joaquin Basin and  
3 its effect on fish populations, fish habitat,  
4 salinity field distribution, nutrient and sediment  
5 budgets, et cetera, are all implicated by the  
6 amount of flows that are required from the San  
7 Joaquin Basin, but you're not really taking that  
8 into account. And that is another reason why 50  
9 percent is a minimum for you to be considering.

10 You know, along with the inconvenient facts  
11 about the fact that, you know, there are a strong  
12 basis for these, for using flows and for flows  
13 being effective, there's also, you know, a strong  
14 relationship between flow and non-flow factors  
15 that isn't really understood.

16 CHAIR MARCUS: Uh-huh. Yeah.

17 MR. BOBKER: You know, we need to synthesize  
18 -- synergize and optimize flow and non-flow  
19 measures. No one in my -- at my organization or  
20 my colleague environmental groups thinks that we  
21 should do flow instead of habitat. And we all  
22 work very much to make sure that both flow habitat  
23 and other kind of actions are being undertaken.  
24 But we also understand -- and we're interested in  
25 better understanding the relationship between all

1 these factors so we can fine tune. We like having  
2 some flexibility and using adaptive management  
3 that geared to achieving biological goals because  
4 we want to be able to use flow most effectively  
5 and efficiently.

6 But the idea that you're going to do habitat  
7 or some other non-flow measure, and that means  
8 that you're just going to -- you know, that your  
9 flow commitment goes away or just minimal, is  
10 delusional. It's not based on the facts.

11 The Department of Fish and Wildlife came to  
12 you in the beginning of 2017 in the hearings on  
13 the revised Draft SED. And I want to quote for  
14 you exactly what they said in their presentation.

15 "Restoration action that primarily focuses on flow  
16 improvements are by far outproducing those results  
17 produced by emphasis on non-flow actions. Non-  
18 flow actions by themselves are not as productive  
19 in the absence of flow increases. Restoration  
20 actions tied to a revised flow regime would  
21 provide a multi-pronged approach to reverse the  
22 decline, but absent an increase in flow won't  
23 create substantive improvements in anadromous fish  
24 populations."

25 They're exactly right. And that is shown.

1 And they refer to it in their presentation, to the  
2 actual results you'd get in the rivers in the San  
3 Joaquin Basin where flows were increased and you  
4 got positive responses, and where habitat actions  
5 in the absence of flow increases were pursued and  
6 you didn't get them. That's the reality. It's  
7 inconvenient. I wish it weren't that way. I wish  
8 the non-flow actions were more effective. They  
9 aren't. Maybe they will be soon. Maybe they will  
10 be later. I don't know. Let's hope for the best,  
11 but let's recognize what the situation is now.

12       So it is a little disturbing to me that  
13 recently the Resources Agency, including DWR and  
14 DFW, sent you a letter that recommended that you,  
15 in considering voluntary settlement agreements, go  
16 consider outside of the range and consider some  
17 other things. You know, there hasn't been a  
18 radical shift in the laws of reality. There  
19 hasn't been a radical shift in our understanding  
20 of flow and non-flow measures since January 2017.  
21 The Department of Fish and Wildlife science  
22 strongly backs the conclusion that flows of 50 to  
23 60 percent are what are needed, and that flow is  
24 much more effective at this point in achieving  
25 biological goals.

1           So I have to conclude that, you know, the  
2 Department in 2017 as communicating to you on the  
3 basis of science and is communicating to you now  
4 on the basis of desire. And I'm not impugning  
5 their motives. I believe there's a strong desire  
6 to get voluntary settlements. I appreciate that.  
7 I think we're all interested in getting voluntary  
8 settlements that are legally and scientifically  
9 adequate. Unfortunately, by recommending that we  
10 consider flows outside of the range, which already  
11 goes to a very low level that -- on which there's  
12 no basis to think that we'll be able to protect  
13 the resources, and by identifying a goal of  
14 doubling salmon production above the 2001-2015  
15 period, which is inconsistent with the existing  
16 legal requirement in the Water Quality Control  
17 Plan, you're setting a threshold that I don't  
18 think you can accept.

19           So I'm skeptical that the good will decide  
20 that, you know, that the state agencies are  
21 sending the right signal about voluntary  
22 settlements and setting us on a path that will  
23 give us acceptable voluntary settlements.

24           I believe that the one action that can be  
25 taken to produce voluntary settlements that you

1 can accept is for you to take action. Adopt  
2 amendments to the Water Quality Control Plan and  
3 that will incentivize people to get real. Until  
4 that time, I do not believe it will happen.  
5 That's an unfortunate reality.

6 I want to switch tracks here. So those are  
7 sort of big ticket items. And, you know, I want  
8 to talk now about the adaptive management process.

9 I wonder, Jeanine, if you could put the  
10 thought balloon on the -- up there?

11 CHAIR MARCUS: Oh, I was thinking you had a  
12 cartoon I wasn't aware of when you said --

13 MR. BOBKER: Well, no.

14 CHAIR MARCUS: -- thought balloon.

15 MR. BOBKER: This is not a written  
16 submission. This is a thought balloon --

17 CHAIR MARCUS: Oh.

18 MR. BOBKER: -- which allows you to see what  
19 I'm thinking and saying. And basically, I don't  
20 want to wordsmith here, although that's what I've  
21 done here.

22 CHAIR MARCUS: So you're doing this to  
23 illustrate a point?

24 MR. BOBKER: So I wordsmith, but you don't  
25 have to. I did it for you.

1           There's two things I want to focus on. You  
2 know, you've got -- you've proposed a process  
3 where you use adaptive management to meet  
4 biological goals, those biological goals. I mean,  
5 I think that's a good direction. You know that  
6 I'm a strong proponent of biological --

7           CHAIR MARCUS: Uh-huh.

8           MR. BOBKER: -- goal setting.

9           CHAIR MARCUS: Uh-huh.

10          MR. BOBKER: I tried to identify two areas  
11 where you can improve the adaptive management  
12 process. One is the composition of the STM Group.  
13 I think that you left out a couple of things. You  
14 left out having a chair that, probably, that you  
15 should appoint. Because, frankly, we need  
16 somebody to lead the group. You left out  
17 representatives of non-governmental groups that  
18 represent commercial and recreational fishing and  
19 environmental interests in the Lower San Joaquin  
20 and the river systems. And you left out experts  
21 who are not affiliated with any particular party.  
22 And you can maybe scroll down a little bit, so you  
23 can see some of them.

24

25          So I really think you need -- this is based



1 on my experience. I've been involved in adaptive  
2 management groups on the Yuba and the San -- and  
3 the Upper San Joaquin. This is the experience I  
4 have, is that you need to provide a little bit  
5 more structure. You need to ensure that you've  
6 got a full array of the interested parties who are  
7 most involved. And you need some independent  
8 experts, who really will provide you with high-  
9 quality feedback.

10 So I would strongly advise that you consider  
11 including those requirements in the language about  
12 the STM Group.

13 Scrolling down a little further, yeah, here  
14 we go, so -- and in procedures for adaptive  
15 management, you know, you say you want the STM  
16 Group to -- I believe it's the STM Group or the  
17 Board working with the STM Group in the Delta  
18 science program to come up with the procedures for  
19 how you're going to allow adjustments. You have  
20 elsewhere identified appropriately that the  
21 performance evaluation -- performance monitoring  
22 evaluation is addressed at, you know, whether  
23 you're meeting the biological goals. And that's  
24 right. That's the priority that you should have.

25 Assuming that you're not going to meet the

1 biological goals the moment that the plan is  
2 implemented, and I think that's a reasonable  
3 assumption, then you need to pay attention to  
4 conditions that are actual existing there. And  
5 right now, you know, you're proposing a set of  
6 minimum requirements. And your analysis says,  
7 well, these minimum requirements in the real  
8 world, in the real world of how the system  
9 actually operates, is going to result in certain  
10 hydrological and physical conditions; you're going  
11 to see these flows, you're going to see these  
12 temps, et cetera.

13 I believe it's important that if there's a  
14 significant variation from the outcomes that you  
15 expected, that that should trigger adaptive  
16 management. Now I'm not suggesting that as a  
17 hardwired response. All I'm saying is that, boy,  
18 if we really see that flows or temperatures are  
19 very different from what we thought we were going  
20 to get when we implemented the plan, well, then  
21 that is -- that is something that should trigger  
22 an alarm bell and people would say, okay, what do  
23 we need to do in terms of adaptive management? Do  
24 we need to adjust our flow management or other  
25 measures?

1           So again, I've suggested I've got some  
2 language that I believe represents that idea. And  
3 whether it's the perfect language or not is not  
4 the point. I just want that concept to stay with  
5 you.

6           So I'll end. I'm going to end with one final  
7 thought. Some of you may have read the New York  
8 Times Magazine, Sunday Magazine, had an issue  
9 solely devoted to the issue of climate change  
10 recently. That issue was about how there was a  
11 moment, there was a window in time when society  
12 could have got a handle on climate change, in  
13 other words, to control it and reverse it before  
14 it got out of hand and the impacts got too big,  
15 but it passed. Whether that's true or not is not  
16 the point. That's, you know, I mean one can argue  
17 about that. I think it's actually a pretty  
18 reasonable finding to make in that we're going to  
19 see impacts that are larger than we really want to  
20 see.

21           I believe we're in the window where the fate  
22 of the San Francisco Bay Estuary is at stake. And  
23 I'm not being -- I'm not given to hyperbolic  
24 statements. I mean, I really think there are a  
25 lot of signs of the collapse of this estuary. And

1 I do not want you and the State Water Board to be  
2 featured in an article about how we let that  
3 opportunity slip away.

4 This is not just about salmon on the tribs,  
5 although the fate of the salmon fishery is very  
6 much at stake here. It's about the fate of the  
7 salmon fishery. It's about the fate of all of the  
8 fish and wildlife beneficial uses of the estuary.  
9 So that's a heavy weight to bear, but I believe  
10 for good or bad, it's yours at this moment, so  
11 don't blow it.

12 Thank you.

13 CHAIR MARCUS: Thank you very much.

14 (Applause.)

15 CHAIR MARCUS: Thank you.

16 MR. BOBKER: Yeah. Right. Thanks. Any  
17 questions?

18 CHAIR MARCUS: I do have one question. One  
19 of the interesting -- I mean, there are a lot of  
20 interesting things, but one of the interesting  
21 things that's been raised as there really isn't a  
22 lot of issues, but since you brought up the STM  
23 issue and how it might work, is a sense that some  
24 folks, I've had this conversation in different  
25 venues, would almost prefer us to use the old

1 model or the way we've done it, which is by  
2 calendar flows, and that it will meet this if  
3 that, as opposed to what we've been trying to do  
4 in here, which is to recognize both the interplay  
5 of flow and non-flow, but also moving people into  
6 a you've got to have a conversation and figure out  
7 how to manage blocks of water and flows more  
8 intelligently and thoughtfully. You're making  
9 some good suggestions about how it might be more  
10 robust.

11 And we had a lot of conversation at earlier  
12 hearings on this measure and the proceeding, even  
13 the 2012, about the role of adaptive management.  
14 And that is one of those things that is talked  
15 about in many, many venues. It can take many,  
16 many forms.

17 In this forum, we're talking about how do you  
18 get people together to try things and talk about  
19 them within bands.

20 Are we, and this is partially a question for  
21 Staff, are we thinking that we will develop this  
22 more robustly in the program of implementation, or  
23 is it sitting as a -- is it all -- need to be  
24 fully baked in what we finalize here? I mean,  
25 I've been assuming that the program

1 implementation, as we see where we are, that all  
2 these things can still be refined.

3 MS. FORESMAN: Do you mind clarifying all  
4 these things? Are you talking about the --

5 CHAIR MARCUS: Like the STM --

6 MS. FORESMAN: -- Stanislaus --

7 CHAIR MARCUS: -- and how it might  
8 work --

9 MS. FORESMAN: -- the STM?

10 CHAIR MARCUS: -- and who would be on it. I  
11 mean, I actually think it's an interesting time.  
12 And I know there's a lot more that could be said  
13 here today and has been said in the comments on  
14 both rounds that are -- when you get into the  
15 details of things.

16 But the question is we'll be talking about,  
17 still, how to do this and refine it. And I read  
18 what you have as something that gives us,  
19 actually, a lot of flexibility to figure it out,  
20 working the executive director and the Board.  
21 Because the intention is to have these yearly  
22 updates and have more of a transparent view of  
23 what we're doing, as opposed to we're going to  
24 finish a document and then we either pledge  
25 allegiance to it, we enforce against it or we

1 don't enforce enough, and then we get back to it  
2 in another 10 or 20 years.

3 I mean, it's a whole -- you're trying to make  
4 this whole shift to a more transparent management  
5 system with the opportunity for settlements in  
6 various forms, but really with a more ongoing  
7 thing than a thing that we're going to just -- now  
8 I'm tired. I'm sorry. I'm not finishing a  
9 sentence.

10 So the question is: How much of this needs  
11 to be refined now? I'm not saying we can't refine  
12 it more. And how much is it open for as we move  
13 into implementation, which as we know, we have a  
14 number of things we'll be doing in implementation  
15 that will take some time, as well?

16 MR. CRADER: So we've tried to draft language  
17 that's flexible and allows the program to evolve  
18 as we move forward. But we've put in some key  
19 issue -- or key concepts that we want to have as a  
20 minimum. So using the STM Group as an example,  
21 we've identified folks that we would like to be a  
22 part of the group at a minimum. And we've allowed  
23 language that the executive director can identify  
24 other people to participate. That's why we want  
25 to be sure to at least get the right group of

1 people together at first. And, of course, people  
2 have made suggestions about the membership, and  
3 those are for your consideration. But we think  
4 this will evolve, and that's what we intended.

5 CHAIR MARCUS: Right. And there are some  
6 folks don't like the idea because they see it in a  
7 whole different light with details. But with that  
8 is I'm not saying we wouldn't try and resolve it  
9 ahead of time in some way, shape or form. But I  
10 want to -- I haven't spent as much time thinking  
11 about this particular issue as I might have.

12 MR. CRADER: And we're thankful there's so  
13 much interest in the STM membership.

14 CHAIR MARCUS: Right, for better or for  
15 worse. Right. Exactly. All right.

16 MR. BOBKER: Can --

17 CHAIR MARCUS: Well, there's more. There's  
18 more to it.

19 MR. BOBKER: May --

20 CHAIR MARCUS: But go ahead.

21 BOARD MEMBER DODUC: Question.

22 MR. BOBKER: Before --

23 CHAIR MARCUS: Yeah. Go ahead. Sure.

24 MR. BOBKER: -- sorry if I interrupt you, but  
25 --



1 CHAIR MARCUS: Sorry. I asked a question  
2 then I didn't --

3 MR. BOBKER: Yeah --

4 CHAIR MARCUS: -- yeah.

5 MR. BOBKER: -- because I do want to --

6 CHAIR MARCUS: Apologies.

7 MR. BOBKER: -- I do want to address that. I  
8 mean, I don't think it's necessary to completely  
9 hardwire the adaptive management group ahead of  
10 time. But I also think, just like voluntary  
11 settlements, leaving adaptive management to a  
12 group of people with disparate interest to figure  
13 out what they're doing --

14 CHAIR MARCUS: Yeah.

15 MR. BOBKER: -- may prove a difficulty.

16 CHAIR MARCUS: Oh, yeah.

17 MR. BOBKER: And so I think that the more  
18 guidance that you give up front, I mean, that's  
19 why having biological goals adopted ASAP is really  
20 important. That's why having some structure in  
21 terms of a chair and other folks having some  
22 guidance on adaptive management triggers, all of  
23 these things help. And I think it really comes  
24 down to a question of how much you want to own  
25 this thing. And I think that there's been a

1 reluctance to own it, you know, for a variety of  
2 reasons. One is you don't want to be, you know,  
3 imposing everything on people. Another is that  
4 there are costs that come with like, you know,  
5 bringing in experts on your own dime, et cetera.

6 But I think you actually should consider  
7 owning it a little bit more than the document  
8 currently suggests. Because you can, you know,  
9 you can facilitate it. You don't have to be  
10 dictating everything that group is doing. But I  
11 think you can give it more structure and guidance  
12 than it has now, and that will help.

13 CHAIR MARCUS: No, I think that's a fair  
14 point. I think there are a number of places in  
15 this whole process where, in trying to be  
16 flexible, people see the negative possibilities,  
17 as they should. As lawyers, that's what we're  
18 taught to do, is the worst case scenario. The  
19 question is: When is it a worst case scenario you  
20 need to do something about or caution against, or  
21 when is it one that you need to flag and be aware  
22 of. And so it's just an  
23 important -- I've just seen the concern on things  
24 that I think we thought we were being flexible and  
25 having people not -- it's not what you're doing

1 here. You're making suggestions, which is better  
2 than folks making up what the intent is behind  
3 something in some nefarious way, although that  
4 maybe it is human nature, I'm not sure.

5 But thank you for thinking about it and  
6 giving us some specifics to chew on. Great.  
7 Thank you.

8 BOARD MEMBER DODUC: Not a question, but a  
9 comment. And wish Tim O'Laughlin was still on the  
10 room. Okay. I just said that out loud.

11 MR. BOBKER: Words that have never been  
12 spoken at the State Water Board before, that's for  
13 sure.

14 BOARD MEMBER DODUC: Feel free to let Tim  
15 know.

16 CHAIR MARCUS: Steve, you are in charge of  
17 letting him know.

18 BOARD MEMBER DODUC: Yes, because he spoke  
19 earlier, when he spoke, he spoke about the VSA and  
20 the various years that have been ongoing, and he  
21 seemed a little bit frustrated. And I know that  
22 you have also been involved in those discussions.  
23 And I just want to thank and encourage not just  
24 you, but Tim and everyone else to remain engaged,  
25 remain active. I think we have been very, very

1 supportive, very public in terms of our support  
2 for these voluntary settlement agreements in terms  
3 of what they -- of the potential for success in  
4 terms of both flow and non-flow measures.

5 But I think we all recognize that in order  
6 for it to truly be successful these VSAs have to  
7 be supported by a broad, diverse group of  
8 stakeholders, not just, you know, one or two water  
9 agencies, one or two NGOs, not just some local  
10 ones, but also as broad-based a coalition as  
11 possible. Because ultimately, these VSAs, even  
12 though right now they're focused on the San  
13 Joaquin, will have to be integrated with those on  
14 the Sacramento, will have to be integrated with  
15 the entirety of the Bay-Delta Plan that will be,  
16 hopefully, putting together and moving forward on.

17 So I appreciate, and I think we all do  
18 appreciate, the tremendous time, energy, effort,  
19 resources that all the participants have put into  
20 the VSA process. And I would strongly encourage  
21 you to remain involved in order for the VSAs to  
22 have as broad, diverse and representative base of  
23 support as possible.

24 MR. BOBKER: Well, I take the encourage  
25 seriously. And I would encourage you guys to take

1 action to make our engagement in those processes  
2 worthwhile because I believe that -- I mean, my  
3 experience has been in almost every river system,  
4 you know, where I've been engaged in coming up  
5 with agreements, it's usually been after  
6 litigation was filed, unfortunately. I mean, it  
7 would be great if it were --

8 BOARD MEMBER DODUC: It would be great.

9 MR. BOBKER: -- different.

10 BOARD MEMBER DODUC: It would be great.

11 MR. BOBKER: It would be great. But, you  
12 know, that's -- humans being what they are, it's  
13 likely to be that here, too, unfortunately. And  
14 that's not going to end the conversation. That's  
15 not going to end the conversation at all, no  
16 matter. I mean, you will hear that from some  
17 parties, that it will, but it won't.

18 BOARD MEMBER DODUC: Thank you.

19 MR. BOBKER: Thank you.

20 CHAIR MARCUS: All right, next speakers  
21 before our concluding panel, Doug Obegi from NRDC,  
22 Jay Ziegler from the Nature Conservancy, Brian  
23 Johnson from Trout Unlimited, Steve Rothert from  
24 American Rivers, Dierdre Des Jardins from  
25 California Water Research, and then finally, Bruce

1 Blodgett from the San Joaquin Farm Bureau.

2 Hi.

3 MR. OBEGI: Good afternoon, Madam Chair,  
4 Members, everyone here. I'm Doug Obegi. I'm a  
5 Senior Attorney with the Natural Resources Defense  
6 Counsel. I want to emphasize a couple quick  
7 points.

8 You have been in this process for a long  
9 time, nearly ten years now, multiple rounds of  
10 public hearings and comments. But this really  
11 does go back 23 years to when the Board last  
12 meaningfully amended the plan and adopted the  
13 salmon doubling objective and the Vernalis flow  
14 standard. And at that time the Board was  
15 relatively unclear and made, in the record, its  
16 lack of clarity of what flows were needed to  
17 achieve the salmon doubling objective.

18 We have much better science now. We have  
19 tried low flows and habitat measures for the last  
20 23 years. And within this tributary system, we  
21 have a in situ experiment between the Stanislaus  
22 that has, at least currently, Endangered Species  
23 Act protections, the minimum protections required  
24 to prevent extinction on the Stan, and a lack of  
25 protections on the Tuolumne where we've invested a

1 lot in habitat restoration. And you see far  
2 better salmon survival and salmon abundance on the  
3 Stanislaus.

4 The science is relatively clear that we need  
5 50 percent of unimpaired flows in this time period  
6 in order to achieve the salmon doubling objective,  
7 to provide those conditions instream necessary for  
8 salmon survival and a return to abundance.

9 Studies like Zeug et al 2014 found that  
10 volume and variability of flow, which are the key  
11 points of an unimpaired flows approach, explained  
12 two-thirds of the variation in salmon survival in  
13 the Stanislaus River.

14 Unfortunately, as Mr. Bobker said, we'd all  
15 like to believe that we can do this with less  
16 flow. But whether it's the National Marine  
17 Fishery Service saying that 40 percent is roughly  
18 about what they require on the Stanislaus today  
19 and that it's inadequate to bring about salmon  
20 recovery in the basin, whether it's the Department  
21 of Fish and Game's or Fish and Wildlife's comments  
22 previously, whether it's the U.S. Fish and  
23 Wildlife Service's comments, whether it's The Bay  
24 Institute's comments, the science is clear that we  
25 need higher flow than the 40 percent starting

1 point, and that we really do need that 50 percent  
2 starting point. And as habitat and other measures  
3 go in, maybe we can come back down. But right  
4 now, what you're presented is already a compromise  
5 of a compromise.

6 NRDC has not participated in the voluntary  
7 settlement discussions to date for two reasons.  
8 One, we felt like the confidentiality provisions  
9 were inappropriate and unlawful. And second, the  
10 dynamics were not there for a meaningful, durable,  
11 biologically-credible settlement. We settled on  
12 the Upper San Joaquin River after 20 years of  
13 litigation. And it took a long time. And I would  
14 love to have settlements happen quicker. But the  
15 reality is that until the Board acts, I think it's  
16 very unlikely that you will see a settlement. And  
17 having started at 40 percent, there's very little  
18 room for the conservation groups to compromise.

19 Just to close out, I actually do agree with  
20 Tim O'Laughlin on some things. I would be happy  
21 to answer questions about that.

22 CHAIR MARCUS: About which of those things?

23 MR. OBEGI: About which of those things,  
24 whether it's the sequential dry years, you know?  
25 We have differences of agreement with San



1 Francisco, but I do think that there is -- there  
2 are some common ground. But you have a historic  
3 task in front of you. This is a once in a  
4 generation opportunity. And if we miss it, we  
5 will watch the Delta and these species disappear  
6 forever, and they won't come back.

7 Thank you.

8 CHAIR MARCUS: Thank you.

9 Mr. Ziegler.

10 MR. ZIEGLER: All right. Madam Chair,  
11 Members of the Board, thank you for the  
12 opportunity to be with you today. I want to  
13 reiterate our appreciation to the Board for its  
14 incredible endurance in tackling a whole range of  
15 perspectives, different elements of science,  
16 different purposes and uses of water and digging  
17 into an understanding of that, and for the staff's  
18 responsiveness in updating information  
19 consistently throughout this process. And I will  
20 briefly address some elements of Appendix K in the  
21 Final SED.

22 The Nature Conservancy is a science-based  
23 organization. We are active in most areas of the  
24 state, working with partners across water  
25 agencies, the agricultural community, landowners

1 and other stakeholders to achieve conservation  
2 goals.

3 You have heard from individuals and  
4 perspectives over the last two days from  
5 fisherman, farmers, water agencies, all  
6 underscoring the dire state that we see salmon in  
7 today, not just in the San Joaquin system, but  
8 throughout the San Francisco Bay Estuary. This  
9 truly is a determinative moment in where salmon  
10 will be or won't be in the future of California.

11 Beyond salmon, we also see ecological stress  
12 across riparian habitat-dependent species,  
13 floodplain species, resident birds, as well as  
14 migratory bird needs across the valley, not the  
15 least of which is the need to provide a more  
16 consistent water supply for refuges in the north  
17 and south Sacramento-San Joaquin Valleys.

18 CHAIR MARCUS: Thank you for bringing up  
19 birds, because we do end up shorting birds  
20 sometimes, so thank you. Sorry, I didn't mean to  
21 interrupt you.

22 MR. ZIEGLER: Well, it's a part of the system  
23 that really have to work together more effectively  
24 to save.

25 So in context, you've also heard from all

1 perspectives and the recognition of climate  
2 change, and the need to prepare for greater  
3 variability across the system, longer droughts and  
4 more dreaded torrential storms that deliver  
5 precipitation in ways that we are barely able to  
6 manage.

7 So across this spectrum of variables, we do  
8 appreciate the Board's consistent efforts to  
9 integrate new scientific information and respond  
10 to inquiries that we have provided in this process  
11 over the past ten years. We are also a  
12 participant in the voluntary settlement agreement  
13 process and independent estuarian programs, such  
14 as the Stanislaus River SED Program, and other  
15 efforts to try to find focused solutions.

16 The Nature Conservancy has been consistent in  
17 its comments to the Board that any update to the  
18 Bay-Delta Plan should include the development of  
19 measurable and quantitative objectives, objectives  
20 that inform adaptive implementation of flow  
21 standards. And the best available scientific  
22 information tells us that we must have flows in  
23 the range of 50 percent and above.

24 To achieve these voluntary flow settlements,  
25 it is imperative that the Board must act to put

1 forward its flow standards and approving  
2 expeditiously a final flow standard.

3 Thank you.

4 CHAIR MARCUS: Thank you.

5 Mr. Johnson.

6 MR. JOHNSON: Good afternoon. Brian Johnson.

7 CHAIR MARCUS: I just wanted to say  
8 something. I think that a number of you that  
9 ended up at the end of this, I appreciate you  
10 deferring to so many of the members of the public.  
11 Usually, you're all the ones who are right up  
12 front on all of them, which is interesting to me.  
13 But thank you for that courtesy, because I think  
14 we allowed some people who just wanted to have  
15 their say both days to have their say, and that  
16 was helpful, too, so --

17 MR. JOHNSON: Thank you. Brian Johnson with  
18 Trout Unlimited. And I'd like to start by  
19 thanking all of you for the grace and integrity  
20 that you've brought to this process. It's a very  
21 difficult one and, you know, maybe the hardest  
22 thing that a lot of us have ever, you know, been a  
23 part of. And you've comported yourselves with  
24 great credibility, the five of you, and we  
25 appreciate it. And we appreciate the diligence

1 that your staff brought to the effort, as well.

2       The first thing that I was going to say was  
3 to go back to our last comment letter, which is  
4 primarily about implementation and the STM Group,  
5 because it's in the letter and because Gary  
6 covered it, I won't. But I'll say that I think  
7 it's potentially as important as anything that  
8 shows up in the surface of Appendix K in terms of  
9 how this actually works. And so I hope you do  
10 take it seriously. And I do endorse Gary's  
11 specific comments about that.

12       I'd also like to thank you for the last round  
13 of edits, two things, specifically incorporating  
14 development and management toward biologic  
15 objectives which will help, and also by making  
16 space for a cooperative agreement.

17       And with that, I would urge you to move  
18 forward and adopt the plan and the program without  
19 indefinite delays. I think it's important. And I  
20 think it will help us move toward this place where  
21 we might be able to bring forward cooperative  
22 agreements. And, of course, it's important if  
23 we're not able to.

24       CHAIR MARCUS: Yes, of course. People keep  
25 forgetting that part, yeah.

1 MR. JOHNSON: We don't want to forget that;  
2 right?

3 CHAIR MARCUS: I think about it all the time  
4 --

5 MR. JOHNSON: Yeah. And so with that --

6 CHAIR MARCUS: -- much as I want agreements.

7 MR. JOHNSON: -- I'd like to actually spend  
8 the rest of time, almost as a follow-up to Member  
9 Doduc's comments about an agreement, and talk  
10 about the attributes of a successful cooperative  
11 agreement.

12 You think about it, you know, lumping or  
13 splitting. You know, first of all, we need  
14 something that's substantively strong and legally  
15 defensible and scientifically based, and you can  
16 track it from the commitments that are being made  
17 to be able to say, this is how it will work. And  
18 I support and endorse what Jay said on those  
19 grounds.

20 But on a more human side, you know, we're  
21 also looking for things that genuinely bubble up  
22 from the ground up from the people who live and  
23 work in a place and know it best, and have devoted  
24 their careers to working on a solution, and  
25 sometimes arguing about a solution, finding ways

1 to work together, and also to have that broad  
2 stakeholder support. And the best ones come about  
3 when people really believe that they're in it  
4 together --

5 CHAIR MARCUS: Uh-huh.

6 MR. JOHNSON: -- and they can do what my  
7 friend Troy Fletcher used to exhort us to do and  
8 go out and solve each other's problems.

9 CHAIR MARCUS: Right.

10 MR. JOHNSON: And with that, there are some  
11 warning signs. You know, settlements that don't  
12 actually have that broad support are developed in  
13 a closed process by people who don't then feel  
14 compelled or allowed to go back out and vet it and  
15 bring people along --

16 (Timer buzzes.)

17 MR. JOHNSON: -- I'll wrap up quickly --  
18 support settlements that come across as a shotgun  
19 wedding. And people may say they can live with  
20 it, but they're not invested in it. And they fall  
21 apart at the first sign of trouble because people  
22 aren't invested in it. It won't work to say, for  
23 example, any agreement that has DFW support, you  
24 know, it needs to be broader than that and have  
25 the stakeholder support.

1           And with respect to my friends at the  
2 Resources Agency and the departments, I'm not sure  
3 it actually works for a settlement like this to  
4 come from the state and be, you know, here are our  
5 proposals, we want you to join us on that, as  
6 opposed to things that actually come from the  
7 community and bubble up, because they are locally-  
8 derived solutions that are then, you know,  
9 tailored to the place.

10           And so I think maybe the message is, you  
11 know, you go out there and solve each other's  
12 problems, and that that's a useful way to think  
13 about it.

14           And so in closing, then, I think you can help  
15 us with that. And so I'd urge you again to, you  
16 know, move forward, to continue to support a  
17 cooperative agreement, be prepared if one doesn't  
18 emerge, and to help us support the right kind of  
19 agreement that has the locally-derived solutions  
20 and the broad stakeholder support, and the sound  
21 science and implementability.

22           Thank you.

23           CHAIR MARCUS:     Thank you very much.     Pat  
24 Mulroy has good quotes, too, about breakthroughs  
25 on the Colorado as they realized they were owning



1 each other's problems. I'll have to dig that up.

2 Thank you. That was good.

3 BOARD MEMBER MOORE: That was good. So  
4 really, you were saying, though, in your opening  
5 remarks, the language that's in Appendix K about  
6 voluntary agreements, you believe provides enough  
7 specificity, flexibility for you to carry out a  
8 locally-derived --

9 MR. JOHNSON: I do. I know that  
10 people --

11 BOARD MEMBER MOORE: -- bubbled up VSA?

12 MR. JOHNSON: -- have different feelings  
13 about it. And I definitely -- and that's partly a  
14 sign of the fact that we don't actually have the  
15 framework yet, but I believe that it does.

16 And I think it comes back to what Chair  
17 Marcus was saying about you -- this is a standard  
18 setting and planning document, and therefore is  
19 flexible and it intentionally leaves a lot to the  
20 imagination. And people will project their hopes  
21 and fears onto it, and a lot of time the fears are  
22 more powerful; right? I think if I were in John  
23 Sweigard's shoes, I would probably feel the same  
24 way about the group. And, you know, on the  
25 conservation side, we're nervous for the same

1 reasons. There's enough flexibility that, you  
2 know, it's possible, you could imagine  
3 circumstances where nothing happens.

4 I think at this point we have to work with  
5 that and make it be a blessing and not a curse and  
6 know that, you know, most of the, you know, truly  
7 important decisions come at a subsequent day. It  
8 is part of the implementation phase through an  
9 agreement or through the FERC processes or through  
10 the program and, you know, find ways to own each  
11 other's problems.

12 CHAIR MARCUS: Thank you. Thanks very much.

13 Mr. Rothert.

14 MR. ROTHERT: Good afternoon, Madam Chair and  
15 Members of the Board. Thank you for this  
16 opportunity to provide comments. My name is Steve  
17 Rothert. I'm the California Director of American  
18 Rivers. And thank you for your service in this  
19 very difficult role that you're playing here.

20 I have been and American Rivers has been  
21 involved in this Water Quality Control Plan update  
22 for years, and particularly invested in the  
23 efforts to develop voluntary agreements. And  
24 while we, I think, made a lot of progress on a  
25 number of tributaries, we obviously failed to

1 reach an agreement by the dates that we had set  
2 for ourselves.

3 And that's why -- and while we've made  
4 progress, it feels like we're some distance away  
5 from meaningful and comprehensive agreements.  
6 That's why I was a little bit surprised to hear  
7 that the Board was putting off action on the  
8 proposed plan at this point.

9 And I'm only hoping that you know -- I know  
10 you know things that I do not know, but in this  
11 particular area, I'm hoping you have been informed  
12 of progress and encouraging developments in those  
13 conversations that gives you hope that there might  
14 be something coming. Because I and many of the  
15 other NGOs in this process don't know much about  
16 recent developments for a variety of reasons.

17 And I'm particularly hopeful that you are  
18 hearing encouraging news because, as Gary said, I  
19 believe that we really are in a window of  
20 opportunity to act before we can no longer act to  
21 save the species in the Delta and preserve the  
22 ecosystem functions that it's providing.

23 And, in fact, as time has progressed over the  
24 last couple of years, I have actually become  
25 alarmed that we are not -- we are not fully taking

1 advantage of this opportunity and the driving  
2 forces that are creating a confluence of  
3 opportunity and pressure to get something done.  
4 You know, we've got Prop 1, the likelihood of  
5 passage of Prop 3, the Central Valley Flood  
6 Protection Plan, SGMA, the FERC relicensing  
7 processing. So we've got all of these forces  
8 coming together that should create opportunities  
9 for us to solve this problem and make significant  
10 progress.

11 I would offer a friendly amendment to what  
12 Gary said about who owns this problem. Yes, you  
13 have special authority. You have a special role  
14 to play in this. But I own this moment, as well.  
15 And I will take it as a personal and  
16 organizational failure if we fail to take  
17 advantage of this opportunity and we end up losing  
18 species down the road. And I think everyone in  
19 this room owns this issue, as well, everybody  
20 watching and everybody participating in one way or  
21 another owns this problem. And I think we need to  
22 acknowledge that and work towards a solution that  
23 can work. Otherwise, it's just not going to work.

24 So what can you do in this particular moment  
25 that would help move things in a good direction?

1 First is, I think you've decided to put off  
2 the decision. You need to, in my view, I  
3 respectfully suggest that you offer or that you  
4 set a firm deadline by which parties continuing to  
5 negotiate will come back and deliver something,  
6 hopefully some sort of agreement that those  
7 parties will report to you on some regular basis  
8 on progress and be able to answer the question:  
9 Does it still make sense to continue negotiating?  
10 And if the answer is no, then let's cut our losses  
11 and move forward.

12 Second, you need to insist that there are  
13 critical elements in these agreements, my  
14 colleagues and others and yourselves. And the  
15 Department of Fish and Wildlife and DWR have  
16 identified those critical elements related to  
17 quantifiable objectives, environmental and  
18 performance outcomes, robust monitoring and  
19 adaptive management, governance, efficient  
20 reliable funding. And importantly, what I haven't  
21 heard as much about is what's next? What happens  
22 the day after an agreement fails or an agreement -  
23 -

24 CHAIR MARCUS: Right.

25 MR. ROTHERT: -- comes to conclusion and

1 we're not at the objective of doubling and viable  
2 populations?

3       And that relates to the third part, which is  
4 I would expect that if an agreement comes in, in  
5 the next couple few months, it will not be a  
6 complete, thorough, detailed agreement.

7       So we have to figure out a way to bridge from  
8 whatever is submitted to you to something that  
9 could be actually implementable. And I think a  
10 big issue is going to be how to get from wherever  
11 an agreement gets to in terms of progress towards  
12 objectives to the objectives. Even if the  
13 agreement comes in with a goal of achieving the  
14 objectives, the agreement might not get there. So  
15 what do we do then? And how can we put in  
16 enforceable, binding commitments to get to the  
17 objectives in the Water Quality Control Plan  
18 today?

19       So with that, I will conclude. Thank you.

20       CHAIR MARCUS: Thank you very much, and  
21 thanks for all your time.

22       Ms. Des Jardins?

23       Mr. Shutes, did we lose her?

24       MR. SHUTES: She was -- I'm not Ms. Des  
25 Jardins.

1 CHAIR MARCUS: I knew that.

2 MR. SHUTES: She was in transit, and I just  
3 she just hasn't gotten here yet. So if she's able  
4 to go later, that would great. If not, I guess  
5 she's missed her opportunity.

6 CHAIR MARCUS: I think she may have missed  
7 her opportunity, because we only have one more  
8 speaker before our concluding panel. And then we  
9 need a chance to break and talk a little bit.

10 MR. SHUTES: Very good. Thank you.

11 CHAIR MARCUS: Sorry.

12 Mr. Blodgett, hello.

13 MR. BLODGETT: Thank you, Members of the  
14 Board, and appreciate the opportunity to comment  
15 today.

16 You know, it's interesting, the San Joaquin  
17 Farm Bureau -- Bruce Blodgett, San Joaquin Farm  
18 Bureau --

19 CHAIR MARCUS: Thank you.

20 MR. BLODGETT: -- and Stockton. I should  
21 have just started there. We've been around, like  
22 our other county Farm Bureaus that talked, only  
23 since around 1914, so we're not exactly newcomers  
24 to any of these discussions. The California Farm  
25 Bureau is the newcomer. They only -- they got in

1 1919.

2 UNIDENTIFIED FEMALE: (Off mike.)

3 (Indiscernible.)

4 MR. BLODGETT: Pardon me?

5 UNIDENTIFIED FEMALE: (Indiscernible.)

6 MR. BLODGETT: No. Exactly. So, yeah, 1914  
7 since, we've been around.

8 One of the things that we need to emphasize  
9 here as we look at some of the assumptions is that  
10 maybe farming can just stop them again and stop  
11 them again. We're just like everybody else in  
12 this room, or most everybody else in this room, in  
13 that we have a 30-year mortgage, not only on our  
14 home, but on our property.

15 Taking one year off of agriculture if you  
16 have an orchard or vineyard means you're  
17 permanently out of agriculture. Taking one year  
18 off of agriculture in any other operation means  
19 you're permanently out of agriculture. You're  
20 talking about dust bowl. You're talking about  
21 ground that will not be farmed again. You can't  
22 have these scenarios where we're just going to  
23 take a couple years off and then we can come back.  
24 There's no such scenario that works in an  
25 agricultural industry when you're trying to grow



1 food for people.

2 I heard a few interesting things. I heard  
3 one, this is about pain on all sides. That's  
4 absolutely false. There's only pain on one side,  
5 that's the communities that rely on these water  
6 supplies, plain and simple. That's the only  
7 people that are going to feel any pain in this,  
8 should this decision move forward.

9 Also troubling is that it ignores the  
10 obvious. A couple of the obvious things, they  
11 need dredging in the Delta. When was the last  
12 time we've had a meaningful discussion on dredging  
13 and improving our water quality temperatures, our  
14 ability to convey water, our ability to move  
15 water? You're talking about flow requirements for  
16 a system that can't even handle it.

17 What about controlling invasive species?  
18 Some people have brought that up. But in noticed  
19 a number of groups tried to pass that aside when  
20 it gets to things like striped bass. It's an  
21 invasive species. It was an introduced species.  
22 And it's causing the decline of our salmon runs.

23 When you also look at things like nutria, a  
24 new pest that's come to the Delta. We need to be  
25 focusing more intention on invasive species like

1 nutria and all of these things.

2 I found it interesting on comments from  
3 groups that are supporting this, that they seem to  
4 completely ignore the water quality aspect, of  
5 what is going to happen with water quality after  
6 the flows are over in June, and that, actually,  
7 water quality will decline. There's been a long  
8 history of water quality concerns in the South  
9 Delta. This does nothing to address it.

10 I heard other interesting comments. The  
11 science is settled. Which science is that? Is  
12 that the biology, the chemistry, the fisheries, or  
13 the political science? Which one is really  
14 settled here. We're feeling like this is more  
15 about political science than anything else. We  
16 feel that way because we're only penalizing those  
17 who built the systems that are in place that you  
18 want to take the water from. We're only  
19 penalizing those who grow your food. We're only  
20 penalizing those who -- and ignoring the  
21 generational commitments that these families,  
22 these communities have made to make California  
23 great.

24 And what you're only going to do with a  
25 proposal like this is permanently impair our

1 ability to grow food for not only our state, but  
2 the world. Plain and simple, you are going to  
3 impair our ability to grow food moving forward.

4 I want to mention -- and I see I'm about out  
5 of time, but let -- if you'll indulge me for a  
6 minute, I grew up on the Cosumnes River. It feeds  
7 the Delta. We're 100 percent unimpaired flows.  
8 We seem to think flows -- (timer buzzes) -- thank  
9 you, I love that. We seem to think flows are the  
10 answer to everything. Cosumnes River is 100  
11 percent unimpaired flows all the time.

12 And you know what we see on the Cosumnes  
13 River? The same thing you would see on most of  
14 the other rivers we're talking about and will be  
15 talking about. Go look at Cosumnes River. Go  
16 down Highway 99 right now and you'll cross it.  
17 It's dry. It's been dry for a couple of months.  
18 You don't see a salmon run in the fall. You don't  
19 see a salmon run in the spring. You know why?  
20 Don't have flows on that river because it all  
21 comes down at once.

22 You know the best thing you could ever do if  
23 you wanted to see a permanent salmon run on that  
24 river? Put a dam on it.

25 so when we talk about solutions, one thing

1 we're not talking about is we need more water  
2 storage. Everybody's talking about climate  
3 change. Everybody's talking about what is going  
4 to happen in the future. And I think what's  
5 undisputed, it's going to be more years of  
6 drought, which means we better be more efficient  
7 in capturing the water we can when we do get it,  
8 so we do need more storage.

9 So with that, I know my time is up. Thank  
10 you.

11 (Applause.)

12 CHAIR MARCUS: All right, thank you all. I'm  
13 sorry we can't have a full-on conversation with  
14 everybody. We could have had much more. But I  
15 actually want to thank, before we go to the final  
16 panel, I'll probably do this again, and it's been  
17 mentioned, I want to thank people for the civility  
18 of the proceedings, which is different than they  
19 are sometimes and, as a result, much more  
20 productive, easier to listen, be thoughtful, take  
21 it all in, where everybody's thoughts and  
22 feelings.

23 We're not quite done. We're going to go back  
24 and questions and thoughts to talk amongst  
25 ourselves, and for Staff. But I just wanted to

1 thank people, because there was a different tone  
2 than I've seen in the past. And there was a  
3 different tone than I was expecting, quite  
4 candidly, based on a deterioration in tone in a  
5 lot of different venues. So it's been a pleasant  
6 surprise and I think, hopefully, a hallmark of  
7 conversations, productive conversations to come.

8 Well, with that, I don't -- I want to move on  
9 to our last panel.

10 Are you guys going to move so they can come  
11 up and sit? Is that why the name tags moved?  
12 Gosh, it's like a ballet.

13 But one quick question, Director Bonham. Do  
14 you want to -- we need to take a little break, at  
15 least I need to take a little break because I  
16 haven't been able to string a sentence together in  
17 the last two hours. And I think I could have  
18 before then, but who knew because I was --

19 MR. BONHAM: Please.

20 CHAIR MARCUS: So would you rather -- I think  
21 I would rather take ten minutes, and then we'll  
22 come back.

23 MR. BONHAM: Fine by us.

24 CHAIR MARCUS: Thanks.

25 (Off the record at 4:15 p.m.)

1 (On the record at 4:26 p.m.)

2 CHAIR MARCUS: Great. Ms. Des Jardins made  
3 it. So the next panel hasn't started, I'm going  
4 to let her do her three minutes. It would be sort  
5 of cruel and unusual to have you drive all the way  
6 from Santa Cruz and miss it by two minutes, so  
7 please --

8 MS. DES JARDINS: Thank you.

9 CHAIR MARCUS: -- go ahead. Three minutes.

10 MS. DES JARDINS: Dierdre Des Jardins for  
11 California Water Research.

12 I just wanted to point out, there's been some  
13 discussion about Reclamation's contracts with  
14 Oakdale and New Melones. And there is a very  
15 fundamental conflict with instream flow  
16 requirements at Vernalis. And I believe this  
17 dates back to when the contracts were executed.  
18 Decision 1422 records that the average diversions  
19 by those two districts was 409,000 acre feet. And  
20 only in a very wet year did they divert almost  
21 600,000 acre feet. So the Bureau executed a  
22 contract with them for 600,000 acre feet. And  
23 there's now real conflicts between that contract  
24 and ecosystem flows.

25 We submitted comments. Reclamation did send

1 a letter to the Board in February 2017 saying that  
2 they cannot -- believe they cannot meet the  
3 current flow standards at New Melones because of  
4 those contracts. And we're very concerned that  
5 there's no clear plan for interim flows to protect  
6 these fish until the 40 percent flow standard is  
7 implemented. And the 1,000 CFS base flow is not  
8 sufficient to transport juveniles in any month.  
9 And it's so low that there will be problems with  
10 mortality for adult fish due to low dissolved  
11 oxygen and harmful algal blooms.

12 And second, the draft order does delete a  
13 reference to considering the pelagic organism  
14 decline studies before determining that Table 3 is  
15 finally reasonably protective. And there's  
16 concerns. Pelagic organism decline studies showed  
17 serious habitat degradation in the South Delta.  
18 The plankton is almost entirely microcystis.  
19 There's declines, long-term changes in habitat  
20 suitability for striped bass and Delta smelt. And  
21 there's a concern that, you know, these standards,  
22 as laudable as they are, when they're adaptively  
23 managed they're going to be focused on passage of  
24 salmon. And there's a whole ecosystem need there.  
25 And also to the extent these functional flows only

1 address -- proposals only address passage of these  
2 fish, they're not looking at the shifts in the  
3 estuary. The POD Management Team believed there  
4 was a whole regime change, you know, that was  
5 adverse. And for those reasons, we urge the Board  
6 not to delete the language referring to the POD  
7 studies.

8 Thank you.

9 CHAIR MARCUS: Thank you. We'll look at  
10 that. Great.

11 Director Bonham, thank you for your patience.  
12 Thank you to the rest of your panel. Will you  
13 introduce your panel before we begin? It's nice  
14 to see you.

15 MR. BONHAM: Likewise. So you have a series  
16 of experts here. I think we're going to go one by  
17 one from your right, my left. And they'll  
18 introduce each of themselves for their component.

19 CHAIR MARCUS: Perfect.

20 MR. BONHAM: Does that work for you?

21 CHAIR MARCUS: It absolutely works.

22 MR. BONHAM: Great. And so it's true, my  
23 name is Chuck Bonham. And I'm the Director of the  
24 California Department of Fish and Wildlife. And  
25 even on a day like today, I think it's the best



1 job in the world.

2       So we've also got to start with a thank you  
3 to Board Members, Chair, all of your staff. And  
4 specifically, Chair Marcus, I appreciated your  
5 August 15th letter to Secretary Laird in which you  
6 state, quote,  
7 "Board Members and Staff have repeated emphasized  
8 that voluntary settlement agreements can produce a  
9 faster, more durable solution to reasonably  
10 protect beneficial uses in the Lower San Joaquin  
11 River and its tributaries."

12       We agree.

13       Today, this panel of experts wants to walk  
14 you through our structure for how we see possible  
15 voluntary settlement agreements. We don't want to  
16 criticize any of your proposed amendments to the  
17 plan or the final substitute environmental  
18 document. As you've indicated, you will take  
19 final action on those items at a later date. And  
20 we're not here to give you a new data dump, new  
21 information, new models. You have a well-  
22 established record at this point.

23       Instead, we want to give you our view of what  
24 would create comparable results for fisheries and  
25 which is entirely consistent with your approach to

1 date. You've stated repeatedly, and your  
2 documents include ample confirmation of your  
3 interest in voluntary settlement agreements. So  
4 we just want to explain our thinking as it relates  
5 to your approach described in your documents.

6 I've been listening and watching yesterday  
7 and today. And let me start with an overview of  
8 settlement agreements.

9 So it's true, I think, we believe the  
10 restoring of viability for anadromous fishes in  
11 this Lower San Joaquin River Basin, as well as  
12 salmon and native fish in the Delta, is going to  
13 require improvements to a wide range of baseline  
14 conditions that effect habitat availability and  
15 quality, for example, passage barriers, lack of  
16 floodplain inundation, blockage of substrate  
17 transport, elevated water temperature, predation  
18 by non-native species on native species. We  
19 believe that voluntary settlement agreements can  
20 coordinate flows with non-flow actions, and that  
21 doing so would substantially improve habitat  
22 availability and biological outcomes for these  
23 fishes.

24 So in our view this concept will involve  
25 biological goals to inform adaptive

1 implementation. It will include a robust science  
2 process to evaluate actions and results. This  
3 element alone will involve continuous monitoring  
4 in an open source format, measurable indicators,  
5 testable hypotheses. And these improvements form  
6 a package of flow and non-flow measures which  
7 could begin immediately if the State Board were to  
8 accept an agreement, and would continue for the  
9 defined term of any agreement, for example, 15  
10 years, maybe even subject to renewal if things are  
11 going well.

12 Now as you noted in your fact sheet for this  
13 update, quote,

14 "The State Water Board cannot order these  
15 collaborative efforts in a regulation, but can  
16 accept them as offered." We intend to offer just  
17 this to you in October.

18 Earlier this morning, you had a gentleman  
19 speak in public comment from Palo Alto, I believe,  
20 who drew an analogy to a vice president of sales  
21 trying to close contracts with potential vendors  
22 purchasing product. Among other things, he  
23 recommended you establish a space where parties  
24 who are seeking to reach agreement can come with a  
25 good-faith showing they're making progress.

1 That's October for us.

2 So in my mind, here are two keys.

3 Everything I've said so far, I believe, is  
4 consistent with your work.

5 Second, what we will submit for your  
6 consideration must show that the outcomes would  
7 compare favorably with the Board's findings about  
8 the benefits of the proposed narrative objective.  
9 We've thought about that a lot. And we've  
10 reviewed your environmental document, as an  
11 example, Table 19-33, pages 74 through 89, to try  
12 to understand what outcomes would define  
13 comparability. We know, to emphasize again, when  
14 we bring you the product, we much show the  
15 outcomes of the integrated package would be as  
16 good for fisheries as compared to the unimpaired  
17 requirement as established in your record. We get  
18 that.

19 Non-flow actions, let me really clear, I've  
20 read many comments in the media that the State of  
21 California rejects non-flow measures. It's not  
22 true. Our departments conclude that non-flow  
23 actions and voluntary settlement agreements can  
24 materially enhance habitat and biological  
25 outcomes.

1           This point deserves emphasis.       So I ask  
2 everyone who's watching, everyone who's listening  
3 to listen very carefully to my word choice.    The  
4 California Department of Fish and Wildlife will  
5 propose that voluntary settlement agreements  
6 include a robust set of non-flow actions.    I hope  
7 that's specific enough for everyone listening.

8           For example, replenishment of spawning  
9 gravels, riparian treatment plantings, enhancement  
10 of habitat complexity, restoration of floodplain  
11 habitat, water hyacinth removal, potentially a  
12 fish segregation where on the Tuolumne River,  
13 about hatchery improvements on the Merced River,  
14 and wait for it, here it comes, and actions to  
15 reduce predation. I said it on the record. I've  
16 said this to every general manager in those  
17 tributaries. But it has to be real. Parties have  
18 got to commit their time. You've got to have  
19 actual dollars. You've got to put it on an  
20 implementation schedule. If you don't, it won't  
21 work.

22           And, of course, non-flow alone isn't going to  
23 recover the fisheries. So let me turn to flows,  
24 and then pass it off to the rest of our experts.

25           Look, we agree with functional flows,

1 including mimicry of ecological processes and  
2 associated queues. That's critical to restore the  
3 viability of native fishes. And we also understand  
4 that unimpaired flows are one of several  
5 reasonable metrics for management of functional  
6 flows. I mean, who really would support non-  
7 functional flows or dysfunctional flows; right?

8 CHAIR MARCUS: Well, there are a lot of  
9 people who would accept dysfunctional flow, but --

10 MR. BONHAM: We wouldn't.

11 CHAIR MARCUS: I know you would not, yes.

12 MR. BONHAM: And you wouldn't.

13 CHAIR MARCUS: And we would not.

14 MR. BONHAM: You've made it clear you'll be  
15 flexible in your approach. In a simple statement,  
16 here's our concept, voluntary settlement  
17 agreements will be a coordinated approach that  
18 implements non-flow actions, integrates those non-  
19 flow actions with an enhanced year-round base  
20 flow, and uses pulse flows to activate habitat for  
21 juvenile rearing and growth of salmon. Here's the  
22 base flow aspect, and then I'm going to get out of  
23 the way of the presentation.

24 Look, there are commonly understood, broadly  
25 accepted scientific methods to establish flow-to-

1 habitat relationships in rivers for fish. Your  
2 staff uses all the time. Our do too. You go and  
3 do river-specific studies. You identify flow-  
4 related characteristics. You figure out habitat  
5 preferences. You run well-established models that  
6 have long track records that integrate all that  
7 data, and out pop curves.

8 CHAIR MARCUS: Uh-huh.

9 MR. BONHAM: They look like a bell. You know  
10 this, they start low, they ascend, they peak, and  
11 they descend and flatten off. You get a variety  
12 of curves. And that process allows scientists and  
13 policymakers to discuss and develop a functional  
14 base flow that supports species needs relative to  
15 habitat. You're not looking at one precise  
16 parameter, in say temperature, and we're going to  
17 create a flow regime solely for temperature  
18 compliance. Instead, you're doing an iterative  
19 effort, and it's a base flow discussion.

20 This data, these scientific methods, they're  
21 well established. They're available in each of  
22 these tributaries. Your staff expertise and  
23 experience and the existing information is strong  
24 on this front, as is of that of the districts and  
25 the conservation organizations. Everybody's

1 pretty qualified and experienced with this.

2 So that's the base flow idea. And now let me  
3 pass it Dr. Mark Tompkins to explain the pulse  
4 flow component.

5 DR. TOMPKINS: Thank you, Director Bonham.  
6 And thank you to all the Board Members. I  
7 appreciate your time.

8 CHAIR MARCUS: Sure. You should restate your  
9 name. I hate to see it, I just --

10 DR. TOMPKINS: I'm about to do it.

11 CHAIR MARCUS: Good. Sorry.

12 DR. TOMPKINS: I'm Mark Tompkins. I'm the  
13 founder of a consulting firm called FlowWest. I'm  
14 realizing how maybe appropriate the name is today.  
15 FlowWest is an interdisciplinary firm, and we've  
16 got some pretty unique expertise on multi-benefit  
17 water resources and ecosystem management work.

18 So specifically, I'm a fluvial  
19 geomorphologist and engineer. I've worked on  
20 Central Valley fish habitat restoration, water  
21 supply operations, flood management for over 20  
22 years now. My PhD work was at a place called Deer  
23 Creek. I did all my research on Deer Creek where  
24 there are spring run and fall run and floodplain  
25 restoration issues ongoing right now. Maybe more



1 appropriate for today, I've been on the San  
2 Joaquin River Restoration Program TAC for a number  
3 of years. And if you'd like to sit in another  
4 meeting all day tomorrow, we have our annual  
5 science meeting across the street today and  
6 tomorrow.

7 My firm has been supporting the work of the  
8 Resources Agency, in coordination with Fish and  
9 Wildlife and DWR, in this voluntary agreement  
10 process. And in this process, we've been  
11 coordinating on an integrated approach, as  
12 Director Bonham began to lay out, that we think  
13 could maximize fish benefits through a combination  
14 of flow and non-flow actions that, this is the  
15 important part, I think, that are designed to  
16 achieve critical functions in the watersheds. And  
17 I'll return to that part about in the watersheds a  
18 number of times here.

19 So by focusing on those critical ecosystem  
20 functions in the tributary watersheds, we believe  
21 it's possible to develop packages of flow and non-  
22 flow actions that can be scientifically shown to  
23 be comparable to the flow approaches that have  
24 been described so far.

25 I want to get a little bit into the details

1 of that approach, not very deep. But the  
2 overarching approach we've been applying and  
3 refining as we've been working through this  
4 process does a number of things.

5 Number one, it uses widely accepted criteria  
6 and best available data. Number two, it's  
7 understandable, we believe, to as wide variety of  
8 stakeholders. We've tried to keep it quite  
9 straightforward. It incorporates easily  
10 accessible, open and transparent flow and habitat  
11 data in a way that can be compared with the flow-  
12 only approaches. And it draws on components of a  
13 salmon, fall run salmon lifecycle model that has  
14 been developed to support Central Valley Project  
15 Improvement Act restoration planning for several  
16 years.

17 And so a couple of specifics on that, because  
18 we are using some significant components of that  
19 lifecycle model in our evaluations, is that that  
20 model has been developed collaboratively with  
21 dozens of fisheries, biology experts from public  
22 and private organizations. There's a Science  
23 Integration Team that meets monthly over many  
24 years that's been working to develop the input  
25 data and the relationships in that model. It's

1 been iteratively developed over four-plus years.  
2 And in that sense, it's been continuously  
3 improving.

4       And I think to some of the earlier comments  
5 about solutions emerging out of local expertise  
6 and knowledge, that's very much the way this has  
7 evolved, is through regular outreach to the local  
8 watershed experts from the agencies, from the  
9 water district biologists and other experts that  
10 are very familiar with conditions in all of the  
11 CVPIA watersheds, not just the San Joaquin tribs.

12       And then finally, with regular QA/QC, so  
13 quality control on those inputs and outputs.

14       So I recognize that the Board's proposal as  
15 laid out in Chapter 19 of the SED emphasizes the  
16 importance of improved temperatures and increased  
17 floodplain habitat in watersheds, and that's what  
18 I'm going to talk a little bit more about. The  
19 integrated approach that I've been describing also  
20 considers those parameters. And it's got a real  
21 focus on increased floodplain rearing habitat,  
22 specifically increased floodplain habitat that's  
23 made functional, and this is where there's  
24 obviously a link between flows and the physical  
25 habitat adjacent to rivers, but it is made

1 functional for the greatest possible proportion of  
2 juvenile salmon produced in those watersheds and  
3 those tributary watersheds.

4       So as you've heard earlier, specifically the  
5 approach as it stands now is targeting habitat  
6 availability sufficient to support, in those  
7 watersheds themselves, 100 percent increase in the  
8 average adult escapement of anadromous fishes  
9 between 2001 and 2015.       And this can be  
10 accomplished in each of the tribs through a  
11 combination of flow and non-flow actions. It also  
12 requires, the approach also requires increases in  
13 instream salmonid habitat, as Director Bonham laid  
14 out.       But it does have a focus on significant  
15 increases to suitable floodplain rearing habitat.  
16 And that's enough to support at least half of the  
17 offspring in watershed from that increased adult  
18 population of Chinook.

19       And so just a couple more points on what the  
20 criteria are, because I think I've heard a bit  
21 today already about talking past one another about  
22 things like floodplain.

23       We recognize that to be suitable, floodplain  
24 rearing habitat has to be inundated with a certain  
25 frequency and continuous duration of flow.       There

1 has to -- it has to create certain combinations of  
2 depth and velocity, cover and temperature  
3 conditions that are required for the improved  
4 benefits that the science is showing that rearing  
5 juvenile salmonids can have on those kinds of  
6 habitats.

7 And so then the final part of this approach,  
8 or at least the floodplain portion of this  
9 approach, is that these new flow and non-flow  
10 habitat actions would be implemented adaptively,  
11 as we've talked about earlier, to meet the  
12 requirements of the recovering salmonid  
13 populations.

14 And so with that brief summary of the  
15 tributary analysis approach, I'd like to hand  
16 things over to Michelle from DWR.

17 MS. BANONIS: Good afternoon --

18 CHAIR MARCUS: Good afternoon.

19 MS. BANONIS: -- slash evening. I'm the  
20 Assistant Chief Deputy Director of the California  
21 Department of Water Resources. I'd like to echo  
22 Director Bonham's appreciation to the Board, the  
23 Board staff, and all of the public commenters  
24 you've heard so far on working through a very  
25 complicated Bay-Delta Water Quality Control Plan

1 update process.

2       So in order to best benefit the complicated  
3 Bay-Delta ecosystem, it's really imperative that  
4 voluntary agreements consider both seasonality of  
5 actions, as well as linking flow timing and  
6 volumes with projects that can utilize the flow.  
7 This really builds on the functional flow concept  
8 that Mark talked about and that you've heard  
9 others talk about throughout the course of the  
10 last couple of days.

11       It's important to create an informed program  
12 for voluntary agreements from the ground up,  
13 meaning we determine where habitat conditions are  
14 limited and we build targeted projects in the  
15 estuary to address those specific shortcomings.  
16 Finite on-the-ground projects will lay the  
17 building blocks for success by determining needs  
18 and targeted areas most important for sensitive  
19 species and layering on associated flows to help  
20 create those specific habitat conditions.

21       There's a need to shape the timing of flows  
22 used for these projects to provide improved  
23 conditions seasonally in the Delta. Spring, which  
24 we've talked a lot about, in the context about  
25 flow, of course, is critical for species like

1 salmonids. However, landscape-based projects may  
2 also need to use flow for habitat in the summer  
3 and fall when some species, for example, smelt,  
4 are more vulnerable. So voluntary agreements  
5 really need to consider biological bases for  
6 seasonal flow that support on-the-ground projects  
7 to provide optimal habitat conditions.

8 For example, and as my colleague, Dr. Conrad,  
9 will talk about shortly, on-the-ground projects  
10 that use seasonal flow have already shown promise  
11 in creating food web support and refuge for  
12 sensitive Delta-dependent species. So projects,  
13 and Louise will talk about this, but such as the  
14 current Suisun Marsh Salinity Control Gate re-  
15 operation and the ongoing North Delta Food Web  
16 Adaptive Management Program will and do work  
17 because it allows scientists to develop specific  
18 hypotheses and test them by combining landscape-  
19 based, project-specific details with seasonal flow  
20 needed to achieve the desired habitat outcomes.

21 Finally, and like the Suisun Marsh Salinity  
22 Control Gate re-operation, which has a robust  
23 management plan, voluntary agreements need to have  
24 a structured decision-making process in order to  
25 ensure that project outcomes are being met and

1 that projects are providing the greatest benefit  
2 to the ecosystem. This will reduce uncertainty  
3 over time and allow biological objectives to be  
4 managed appropriately.

5 With that, I'd like to turn it over to  
6 Louise, she's an expert biologist with DWR, to  
7 provide you with more information on the Suisun  
8 Marsh Salinity Control Gate re-operation. We  
9 think this is a really prime example of sort of  
10 how these projects could integrate. And this  
11 project specifically uses landscape-based  
12 conditions combined with flow to work towards  
13 achieving biological objectives.

14 Thank you.

15 MS. CONRAD: Thank you, Michelle.

16 So my name is Louise Conrad. I am a Program  
17 Manager within the Division of Environmental  
18 Services at the Department of Water Resources.  
19 And I thank you for the time to talk about this  
20 project that we are doing now for the first time,  
21 which is operating the Suisan Marsh Salinity  
22 Control Gates in the summer.

23 I am one of the scientists that helped to  
24 develop this pilot project. It's an exciting  
25 project, not just because it is happening now, but



1 it truly is strongly science-based and involves a  
2 team of scientists across many agencies and  
3 stakeholders. It's also a real example of a  
4 voluntary management action that is informed by  
5 evidence.

6 As you may know, the Suisun Marsh Salinity  
7 Control Gates are tidal gates that are operated to  
8 allow freshwater into the Suisun Marsh and reduce  
9 entry of saline water, effectively lowering the  
10 salinity in the interior of the marsh. Typically,  
11 these gates are operated in the fall for waterfowl  
12 management. From a fishes perspective,  
13 specifically a Delta smelt's perspective, the  
14 Suisun Marsh is food rich, and possibly cooler  
15 than some of the other areas they may occupy in  
16 the summer. However, they're typically -- the  
17 marsh is typically too salty.

18 So we have this tool. We have these gates  
19 that are ready to reduce salinity in the summer.  
20 And I think it was originally the idea of someone  
21 from The Bay Institute, Bill Bennett, a fish  
22 biologist, said, "Why don't you use these gates  
23 for fish in the summertime when they are already  
24 stressed because of high temperatures and a  
25 depleted food web?" And this is happening now.

1 This, in this way, this project is a very  
2 apartment example of the functional flow concept  
3 that we are talking about now.

4 I want to talk a little bit about how we have  
5 approached this action. And I think this is a  
6 really important and exemplary of how we'd like to  
7 approach some of these voluntary settlement  
8 agreements.

9 We've taken an adaptive management approach.  
10 And this begins with engaging a team of scientists  
11 and modelers. We use these models to develop  
12 predictions for what would happen if we operated  
13 the gates in the month of August. And these  
14 models told us that salinity, indeed, would be  
15 lowered into ranges that are favorable for Delta  
16 smelt if we operated them in August of this year.

17 The models also told us that even after the  
18 gates stopped operating at the end of August,  
19 these benefits of low salinity would persist into  
20 September. This was an exciting outcome that we  
21 didn't predict until the models ran.

22 The modeling work also told us that the  
23 action would require a moderate water cost of  
24 approximately 40,000 acre feet in order to  
25 maintain salinities within compliance standards in

1 the confluence area. To be clear, the exact water  
2 cost in any given year would be dependent on the  
3 current hydrological conditions. So the 40,000  
4 acre feet is specific for this year.

5 We didn't stop with just making predictions  
6 and then operating the gates. We also developed a  
7 robust monitoring program to collect data in the  
8 field so that we could evaluate our predictions.  
9 And we have a whole slew of predictions that range  
10 not just from salinity, but into biological  
11 outcomes as well. The monitoring program started  
12 before the action began in July and continues now.

13 And importantly, this is a highly  
14 collaborative program. We are actively working  
15 with partners at the Department of Fish and  
16 Wildlife, the U.S. Geological Survey, University  
17 of California at Davis, the U.S. Fish and Wildlife  
18 Service, and the State Water Contractors, as well  
19 as others. And we are jointly collecting and  
20 analyzing this extensive field data.

21 As I already mentioned, the action started on  
22 August 1st. It will continue through August 31st.  
23 Since the action began, we have been looking in  
24 real-time at the salinities and saw them drop,  
25 excuse me, within 24 hours of the gates operating.

1 Now I want to make this next point not as a  
2 linking cause and effect here, but I want to say  
3 this is a positive sign that Delta smelt in the  
4 month of August have been sampled in Suisun Marsh.  
5 This is notable because they are so rare at this  
6 time. And importantly, this is the first time  
7 this sampling program had observed them in the  
8 marsh. It doesn't hurt our story.

9 The point I want you to take away from this  
10 example is that, in some cases, we can really  
11 increase the benefit of enhanced outflows by  
12 targeting specific seasons and regions where there  
13 can be benefit.

14 In this case, this involves the innovative  
15 use of existing infrastructure in combination with  
16 increased outflows. And by doing that, I think we  
17 have enhanced the area, likely the quality of the  
18 habitat that is available to Delta smelt at this  
19 time.

20 We would be very pleased to share the final  
21 results of this first pilot action with the Board  
22 and future phases of the update process. And I  
23 thank you for your time again. And I want to turn  
24 the floor back to Director Bonham for his  
25 concluding remarks.

1 CHAIR MARCUS: Thank you very much.

2 MR. BONHAM: So this is --

3 CHAIR MARCUS: Thanks for your work.

4 MR. BONHAM: -- where I'm going to try to  
5 inspire you and everyone still watching.

6 That's a little bit of our vision of our  
7 settlement agreements could work within your  
8 structure. In a trib, like the three tribs on the  
9 San Joaquin, a robust package of non-flow measures  
10 with real dollars, implementation schedule and  
11 commitments that's integrated with enhanced base  
12 flows, combined with specifically targeted pulse  
13 flow, as Dr. Tompkins mentioned, connected in  
14 concept to what we need to achieve down in the  
15 estuary, and then imagine across the estuary a  
16 suite of similar, like projects that are using  
17 infrastructure differently for scientific  
18 purposes, coordinated with flow releases and  
19 improving health there, as well.

20 And then imagine when we get to your Phase 2,  
21 bringing settlement agreements onboard similarly  
22 there, so now across the whole valley, this kind  
23 of integrated approach.

24 So I started our presentation with a thank  
25 you, and I want to end with one too. I hope

1 you're doing okay. I care about you, personally.  
2 And I'm appreciative that each of you would  
3 volunteer to serve as public servants. These  
4 aren't easy jobs. Look, this hasn't been easy for  
5 you. It hasn't been easy for us. It hasn't been  
6 easy for any of the conservation organizations,  
7 the water districts, the valley residents. And we  
8 have incredible gratitude for you, recognizing all  
9 the extraordinary efforts of this Board, to  
10 develop this plan update, including your  
11 continuing engagement of stakeholders.

12 Your meeting this week proves the passion  
13 that all Californians bring to these issues. And  
14 I would submit that passion is good. I think it's  
15 better than having a disengaged public. We should  
16 thank each Californian that took the time to  
17 appear in front of you in the last two days, heck,  
18 the last several years.

19 CHAIR MARCUS: Uh-huh.

20 MR. BONHAM: Right. But make no mistake,  
21 this isn't going to be easy. I may lose friends  
22 and colleagues over decisions our department will  
23 make. I understand that. This idea of voluntary  
24 settlement agreements in the context of your plan  
25 update is the hardest concept I've tackled in my

1 career. And I know that some have criticized us  
2 for not reaching settlements yet. And I'm aware  
3 that others have told you they feel they are being  
4 asked to give up too much or they are frustrated  
5 for other reasons. I think both of those might be  
6 true. I think each is certainly an honest and  
7 genuine expressed, you know, expression of  
8 frustration, but we can do this. We actually have  
9 to do this and try for it.

10 Despite the wide range of public comments,  
11 many, if not most of the folks who have appeared  
12 asked us to stop pitting interests against each  
13 other and to stop fighting. I agree with those  
14 commenters. Because if we've got that divide,  
15 that's a conventional argument but it's usually  
16 not very wise.

17 So the fact is that Californians, water  
18 matters to all of us. We need to get past  
19 fighting over who it matters to the most and do  
20 the serious but difficult work of solving these  
21 problems to the benefit of people and the  
22 environment. Getting to yes is often way harder  
23 than just saying no.

24 I'm a huge Wal Stegner fan, and he reminds us  
25 that the West is the native home of hope. So my

1 personal goal is to do the hard discussion and get  
2 to yes on voluntary settlement agreements, that  
3 our departments bring those to you in October for  
4 your consideration, and that we show you and the  
5 public, they provide comparable results, if they  
6 don't, don't accept them, and that we come to you  
7 with supporters from the water districts and the  
8 San Joaquin River tribes, as well as leaders in the  
9 conservation organizations and others. Doing so  
10 will help fulfill your wish to see a negotiated  
11 outcome. We can do this together, not divided.  
12 I'd say that's exactly what California is all  
13 about.

14 So we'll take any questions you might have.

15 CHAIR MARCUS: Thank you.

16 MR. BONHAM: And then I know you still have a  
17 lot ahead of you today.

18 CHAIR MARCUS: Yeah. No. Thank you very  
19 much. I think that's helpful as, particularly, I  
20 know how much work is going on, some of which we  
21 can't know about because of the nature of it and  
22 how many places there are. But I also think having  
23 VSAs is a mysterious thing over there. I think at  
24 least this is a small piece of what you're  
25 thinking. I think it's very helpful --



1 MR. BONHAM: Yes.

2 CHAIR MARCUS: -- for us and everyone.

3 MR. BONHAM: We were very appreciative to  
4 have the operation as a group in front of all of  
5 you and the public to kind of lay out some of our  
6 thinking.

7 CHAIR MARCUS: Questions?

8 BOARD MEMBER D'ADAMO: I have one question,  
9 but first want to lead off by just thanking you  
10 for your leadership. It's been incredibly helpful  
11 to have your involvement and your leadership and  
12 your vision. I love how you have helped us to end  
13 on a very positive note and a message of hope.  
14 And I like what you said, we can do this, and I'm  
15 really hoping that you can.

16 And I also want to thank you for taking the  
17 time early on, Director Bonham, to come down to  
18 the San Joaquin Valley. And I think that your  
19 presence and your leadership, along with a lot of  
20 the NGOs that spoke today, really helped to change  
21 the conversation several years ago. As you know,  
22 that's my community. I wasn't hearing talk at all  
23 about settlement, except from just very few  
24 people. And when you and others came down to the  
25 valley, took the time to visit with some of the

1 key stakeholders, spend time out on the ground,  
2 that's when things started to change and I started  
3 to hear, yes, we can do this over in the San  
4 Joaquin Valley. So thank you very much.

5 The only question that I have, and I did see  
6 that you and others on the panel were here earlier  
7 this afternoon, so I asked a fair number of  
8 questions of the irrigation districts about models  
9 that they felt that we should have used, and our  
10 staff maybe used a different approach. And I did  
11 hear from Steve Boyd in particularly saying that  
12 that, the model, that this is the model on  
13 floodplain inundation and habitat, that those  
14 models were developed in collaboration with  
15 others. In TID's instance, it was part of the  
16 FERC process.

17 So I'd like to better understand the model  
18 that you're using, Mr. Tompkins -- or Dr.  
19 Tompkins, the model that you're using. And I  
20 understand that there was -- it was a  
21 collaborative approach, as well. So is there some  
22 synergy here between what you're looking at and  
23 what some of the irrigation districts have  
24 presented to us today?

25 DR. TOMPKINS: Yeah, I think that's the right

1 term to use, synergy. Actually, I think I look at  
2 models as, really, the collection of input  
3 information, and then the relationships that drive  
4 them. So what -- you know, the package of  
5 software around it doesn't really matter that  
6 much. And, yes, I'm pretty confident that the  
7 collection of information we've been using here is  
8 consistent with what the Board has used, as well  
9 as what the districts use. There does need to be  
10 some discussion in the middle to make sure, you  
11 know, the apples-to-apples kinds of uses of those  
12 inputs are there.

13 But, yeah, I think when it comes to, you  
14 know, floodplain definitions and criteria, I  
15 believe the way we've been approaching it would be  
16 considered consistent with the other approaches.

17 BOARD MEMBER D'ADAMO: Well, so just in  
18 follow up to that, the wetted acre approach does  
19 not include some of the characteristics that you  
20 had mentioned regarding duration, depth, velocity,  
21 temperature, cover, et cetera; correct?

22 DR. TOMPKINS: I'm not 100 percent sure. I  
23 know when you refer to wetted acre, I did hear a  
24 little bit of the earlier discussion. I did hear  
25 them say suitability. And so when I think

1 suitability, I do think that does incorporate  
2 things like depth and velocity and cover. But  
3 again, some discussion is probably needed to  
4 confirm all that, but I think the raw materials  
5 are probably quite consistent.

6 MR. BONHAM: And, Board Member, if I could on  
7 Mr. Tompkins last point, in my judgment, there are  
8 sufficient tools in front of you and available to  
9 all the parties involved. Sure, you could produce  
10 another tool, and another, and another. And we've  
11 all been around this rodeo long enough to know  
12 that people will often produce tools to create  
13 that ongoing discussion.

14 I think what we have is enough tools that  
15 each party understands the others well enough to  
16 now actually have the hard discussion, and that's  
17 what we need to do next.

18 BOARD MEMBER MOORE: Yeah. Great. Thank  
19 you. I do recognize, is it Dr. Tompkins?

20 DR. TOMPKINS: Yeah. You can call me Mark.

21 MR. BONHAM: I call him Mark, but for --

22 DR. TOMPKINS: Yeah, you can call me Mark.

23 BOARD MEMBER MOORE: Okay.

24 MR. BONHAM: -- for the panel, I'm calling  
25 him Doctor.

1 BOARD MEMBER MOORE: Very good. You're the  
2 doctor.

3 CHAIR MARCUS: But can I ask -- shortstop you  
4 before, since you're asking him about his name?

5 BOARD MEMBER MOORE: Sure.

6 CHAIR MARCUS: A fluvial morphologist, is  
7 that what you said, or a fluvial --

8 DR. TOMPKINS: Fluvial geomorphologist.

9 CHAIR MARCUS: Geomorphologist.

10 DR. TOMPKINS: Yes.

11 CHAIR MARCUS: I've always -- ever since I've  
12 gone -- the first time I went to the Grand Canyon,  
13 that's what I wanted to be, so kudos to you.

14 DR. TOMPKINS: You've got to be --

15 CHAIR MARCUS: That is like the coolest job  
16 title ever.

17 BOARD MEMBER MOORE: Who knew? Well, yes,  
18 fluvial.

19 So I found the example really compelling.  
20 But I wanted to -- I know I recognized you because  
21 you won the data challenge --

22 CHAIR MARCUS: That's right.

23 BOARD MEMBER MOORE: -- right, with  
24 Floodplain Finder?

25 DR. TOMPKINS: Sure. Well, to be fair, I

1 have some really, really talented younger staff  
2 who actually know how to put things like that  
3 together. I have some ideas, but I would give all  
4 the credit to them.

5 BOARD MEMBER MOORE: Right. Well, it's good  
6 to see you hear having discussions with us,  
7 because that was a remarkable effort. We had a  
8 data challenge a year-and-a-half ago and there  
9 were over a dozen entries, and you won. And why  
10 did the judge, the panel of 12 judges, of which I  
11 was one, thought it was a winning product was it  
12 took existing data sets from, I think, you know, 8  
13 to 12 data sets, and used, you know, analytics to,  
14 in a real-time fashion, these are data sets of  
15 data coming in that weekend, to assist land  
16 managers to identify where to, you know, use  
17 existing landscape-based tools, infrastructure, to  
18 flood areas when fish were present. It was a  
19 real-time -- it was an effort to use data that  
20 were being collected in disparate areas together,  
21 using analytics, to make real-time decisions that  
22 would benefit fish.

23 So, you know, me and other panelists were  
24 electrified to see these data sets put into  
25 action, theoretically.

1           So you're a great person to be, you know, in  
2 these discussions because of your proven ability,  
3 you know, to understand how important that is in  
4 this dynamic system. You know, we've been seeing  
5 blocks of water and, you know, averages in wet  
6 years and dry years, very coarse analyses related  
7 to water resources, when that type of real-time  
8 insight is necessary to effectively manage this  
9 multidimensional system we deal with, with all the  
10 beneficial uses that we're trying to co-manage.

11           And so it's -- I highlight your experience  
12 and that example and understand the need to take  
13 advantage of existing infrastructure. As an  
14 engineer, you know, what are my assets out there?  
15 We talk about asset managements in all -- asset  
16 management in all aspects of water, wastewater,  
17 and stormwater and flood control infrastructure.

18           So you brought up a gate. So now to just  
19 make it down to one question, help illuminate a  
20 little more why this example should inspire work  
21 on the tributaries. Because your -- what was the  
22 controversy; right?

23           If you look at some of the tension today  
24 about the idea that, hey, this is our  
25 infrastructure, and now the state is going to come

1 in and manage our infrastructure in a certain way,  
2 there's a concern about that. That is not the  
3 intent, but it's the perceived intent that now the  
4 state is going to run the infrastructure. There's  
5 a sensitivity there.

6 What was the sensitivity in this example of  
7 using that tidal gate to achieve an outcome it was  
8 not built to achieve?

9 MS. BANONIS: So I can answer at least part  
10 of that.

11 And Louise, feel free to chime in, if you'd  
12 like.

13 But I think the reason we really wanted to  
14 bring it up today is I think it's really a way  
15 that we can sort of mesh what we're doing or  
16 planning on doing in the tributaries with what can  
17 also happen concurrently in the Delta. When we  
18 talk about the different phases of the SEDs and  
19 whatnot, what we're trying to think about  
20 holistically in our minds is how do we pull all of  
21 that system together into something that is  
22 dynamic, that works conjunctively with each other?

23 So, for example, if you're making flow  
24 releases out of a tributary, you know, the reason  
25 we brought up this example is it's a project that



1 uses flow, its additional flow above and beyond  
2 what normally would be released, or curtailments  
3 or what have you, and that is actually being used  
4 at the facility to generate a benefit for a  
5 species in Delta. So I think it's kind of an  
6 example of how you might intermesh, you know,  
7 maybe some tributary contributions with what  
8 happens in Delta. It's kind of pulling that big  
9 picture together.

10 CHAIR MARCUS: Doctor --

11 BOARD MEMBER MOORE: Or would be pulling, you  
12 know, existing data sources, or there would be a  
13 feedback to, you know, suggesting changes in  
14 operations that would generate those flows at that  
15 time, based on real-time information?

16 MS. BANONIS: Right.  
17 And this was just an example. Obviously, you  
18 know, the discussion is open for other projects  
19 that also can use landscape-based criteria and  
20 layer on flows. I think that's an open  
21 discussion, frankly. But this was a really, what  
22 I -- at least I personally felt is a really great  
23 example of something that is being done now. It's  
24 working. It ties back that underlying concept to  
25 something that's tenable.

1 BOARD MEMBER MOORE: Yeah. And it's making a  
2 connection between the tributaries and the  
3 estuary, as you point out, which is something  
4 we've all struggled to do tangibly.

5 So I guess I have to bring it back then to  
6 the idea of the water budget, you know, and how  
7 this would fit within that. Would it be -- would  
8 one way of explaining it be that, you know, as  
9 the, you know, water year goes by, I guess this  
10 was the February through June time period, so it  
11 was a broader perspective, but --

12 MS. BANONIS: Yeah. This is typically more  
13 of a summer --

14 BOARD MEMBER MOORE: Right.

15 MS. BANONIS: -- or early fall type action,  
16 yeah.

17 BOARD MEMBER MOORE: But is there a proposal  
18 being thought about with involuntary agreements  
19 that would be an accounting that would be done  
20 where these type of dedications of functional flow  
21 would be in a ledger, if you will? Forgive me. I  
22 know water is not money, but sometimes we have to  
23 think in accounting terms. And, you know, it also  
24 helps us set certain budgets that we want some  
25 flexibility in terms of achieving actual

1 biological outcomes within that budget. Is it  
2 envisioned that -- because I want to tie this back  
3 to this quantitative flow issue.

4 You know, this all sounds great, but is this  
5 anchored within an accounting, within voluntary  
6 agreements, a budget for water?

7 MR. BONHAM: Mr. Moore, let me answer that  
8 question, and then return to your prior question.

9 I think it could be. I think we're still  
10 sorting through some of those kinds of questions  
11 and concepts. I think once you understand the  
12 idea of tributary action that has a linkage or  
13 potential benefit, then you're on the pathway to  
14 understanding how there may be equitable  
15 involvement across all the watersheds towards kind  
16 of a mass balance, or where I believe your analogy  
17 heads, an ability to understand what's moving  
18 where when, for which purpose. So I don't think  
19 we can yet precisely articulate an answer to your  
20 question, but it's very much on our mind.

21 And then let me go back to your earlier. I  
22 think two additional things which are important  
23 from this case study.

24 We hear often, incredibly, why should I do  
25 something that's difficult for me when the problem

1 is elsewhere, where my contribution will be wasted  
2 somewhere else? And I think there's a part of  
3 this which is helping understand, our tributary  
4 communities and our estuary communities,  
5 understanding we're trying to do something  
6 comprehensively to get at that conundrum.

7 And second, as best I can tell, whether it's  
8 agency, my long-time friends in the environmental  
9 community, water districts, everybody wants  
10 results. This is a project that shows results.  
11 And we're just talking about something on a bigger  
12 scale across each tributary connected to the  
13 estuary about results.

14 BOARD MEMBER DODUC: We do speak on this side  
15 occasionally, don't we? Thank you. Thank you  
16 very much for coming by today. And thank you for  
17 sharing your thoughts. We're not actively engaged  
18 in these discussions, so it's always good to hear,  
19 especially from those directly involved, what your  
20 thinking is. And thank you for the hopeful note  
21 that you've provided. And I certainly very much  
22 look forward to October and getting more details,  
23 instead of the little teaser that we got today.  
24 And I will thank you in advance for what I expect  
25 will be a lot of long hours and very difficult

1 conversation in order to fulfill the promises you  
2 made today.

3       If I may, however, inject a note of, I guess,  
4 practicality, and it's something that I hope you  
5 will -- I'm sure you're considering, but I will  
6 just emphasize it from at least my perspective.

7       With respect to -- and I have no doubt at all  
8 that properly fashioned, based on, you know, sound  
9 scientific principles and with the broad base of  
10 support that I hear you mentioning working  
11 towards, that such an agreement have a great  
12 possibility of being very successful. I would  
13 hope that in crafting that you would keep at least  
14 two things in mind that would help me very much.

15       First of all is this idea, and I think you  
16 mentioned it, results, measurable results,  
17 measurable targets, measurable outcomes,  
18 quantifiable, that could be -- that could be  
19 tracked and that could be -- that would have a  
20 measure of accountability for all those involved  
21 and a way for the Board to be engaged in ensuring  
22 that accountability. I think we all take our  
23 responsibilities very seriously, as do you. And  
24 we want to be a part of the solution that is  
25 implemented in a way that is equivalent to our

1 goal in protecting water quality, as well as  
2 public trust resources here in the state. So  
3 that's one aspect of it.

4 The other aspect is I would hope, and as we  
5 all do, that these agreements are implemented  
6 successfully and that the outcomes, the results we  
7 all hope to have will come to fruition. On the  
8 chance that it's not, because we can't be perfect  
9 all the time, and there are always uncertainties  
10 with respect to things that we try to do  
11 scientifically, engineeringly, what is  
12 the -- what would be the triggers, what would be  
13 the fallback mechanism? Because we still have,  
14 all of us, the duty, the responsibility to ensure  
15 water quality, to ensure public trust protections  
16 in the event that these expected outcomes do not  
17 realize?

18 We've heard today, and you are well aware, of  
19 the many decades of work that have been involved  
20 in this process, and the many decades of crisis  
21 that has led the Delta to be in this condition, as  
22 well as the unreliability of our water supply. I  
23 mean, just everyone has had a lot of difficulties  
24 and problems during the past decades. And so I do  
25 not want us to spend several more decades. At

1 some time in the future, should things do not work  
2 out the way we hoped to.

3       So what is the fallback mechanism? What are  
4 the triggers? What are the things that we need to  
5 put in place to safeguard our continued progress  
6 towards protecting the Delta and protecting these  
7 beneficial uses?

8       MR. BONHAM: I have three thoughts. And I  
9 would ask Ms. Banonis to correct any errors.

10       First, I agree with you, the Board should be  
11 involved. And your involvement would help us  
12 confirm results based on easily understandable  
13 metrics. It won't work without your involvement.  
14 That is a reason why I warmed to the analogy of  
15 the vice president talking about sales earlier  
16 this morning and suggest to you that October will  
17 be an important moment.

18       Second, I think what's left, among other  
19 things, to be resolved is how an agreement will  
20 include sufficient enforceability mechanisms,  
21 dispute resolution mechanisms, and probably  
22 termination mechanisms? We haven't gotten there  
23 yet between the parties, but I think that's  
24 important. I think all perspectives would want  
25 that.

1           In that vein, I think you illustrate a real  
2 risk. We spend five to ten years trying to sort  
3 this out and it doesn't work. I think you are  
4 going to eventually approve a plan. You will have  
5 a plan which potentially could describe the  
6 alternative if voluntary settlement agreement  
7 implementation isn't successful.

8           Those are a couple of the high profile things  
9 I think we still have left to resolve, so we would  
10 welcome your engagement on those items as we go  
11 forward.

12           MR. BONHAM: I have nothing to correct. I  
13 would just add, you know, as far as the measurable  
14 results, we totally agree with that. I think when  
15 we're talking specifically about projects, one of  
16 the things that landscape-based projects actually  
17 allows us to do is create the hypotheses for those  
18 projects. When we're talking about the  
19 tributaries and the Delta at large and trying to  
20 monitor all of what's going on to try to see if  
21 you're being successful, that's a lot. There's a  
22 lot going on in the system to try to boil it down  
23 to is flow creating an impact here? There's just  
24 so much happening.

25           So I think a lot of the answer will be around



1 building a really robust adaptive management plan,  
2 and real adaptive management, and building in the  
3 ability to use these projects to sort of focus,  
4 not just flows but meeting habitat targets and  
5 meeting outcomes and objectives, and really making  
6 that work for the system and for the program. So  
7 I think that's a big part of it.

8       And I agree on the backup plan. There has to  
9 be some sort of backup plan if something goes  
10 haywire. So I don't disagree with that at all.

11       MR. BONHAM: Let me -- Ms. Banonis, sparks in  
12 my mind something I meant to mention. Here's why  
13 I think we could create something different with  
14 your           involvement           and           leadership.  
15 I don't think it's worthwhile to talk about the  
16 reasons why, but you're many years into an update.

17       Our Department a couple years ago confidently  
18 went to the legislature within our agency and  
19 advocated for you to get funding impositions. We  
20 want this plan updated, like you do.

21       I don't think it's a bright future for any of  
22 us if the next discussion and decision horizon is  
23 another 10 or 20 or 30 years before we take all  
24 this up.       So, hypothetically, if you had an  
25 agreement and it has all those commitments we're

1 kind of talking about, and you already have an  
2 ability to look at something every 3 years, take  
3 15 years, you've got a series of automatic moments  
4 where an agreement could be built around  
5 understanding in three-year periods, reporting  
6 back to you and tracking for success. That seems  
7 a little sharper, a little smarter, a little more  
8 progressive than every 20 years. You know, we  
9 kind of all engage through the lens of a plan  
10 update.

11 So that's another idea, I think, we're  
12 exploring on our side on with we'd like to bring  
13 to you.

14 BOARD MEMBER DODUC: And just for our future  
15 reference --

16 CHAIR MARCUS: Go ahead. Yeah.

17 BOARD MEMBER DODUC: -- it was my parent's  
18 greatest desire that I become a medical doctor  
19 instead of an engineer. So if you're going to use  
20 an analogy from earlier today, Mr. Daly's analogy  
21 of a medical doctor is --

22 MR. BONHAM: Is the one you want? Okay.

23 CHAIR MARCUS: You should go more than every  
24 three years though.

25 MR. BONHAM: Yeah.

1 CHAIR MARCUS: I'm just saying.

2 BOARD MEMBER ESQUIVEL: I do want to add my  
3 thanks, as well. I know the task before you in  
4 the context of the voluntary settlement agreement  
5 discussions is incredibly difficult, all the more  
6 so when it can feel, you know, that the political  
7 rhetoric kind of starts to get a little too loud.  
8 And it kind of pushes people, I think, into  
9 unproductive spaces.

10 But again, I really appreciate the leadership  
11 that you've demonstrated all these years now,  
12 through the drought, and very thankful for your  
13 partnership in that.

14 I did want to sort of, I guess, focus in a  
15 little bit. You know, Board Member Moore talked  
16 about sort of a budgeting, sort of an accounting.  
17 And I think, you know, having clarity in the  
18 system, you know, we don't account very well  
19 currently for environmental flows, you know, how  
20 things are sort of moving in the system, what's  
21 happening and where. We have sort of crude, I  
22 feel sometimes, sort of a crude understanding and  
23 it could be a little more refined. Because the  
24 more sophisticated we get, the more site-specific  
25 we are, I think the better chances we have at

1 successful outcomes, both for the ecosystems and  
2 for water managements in general.

3       So I guess my question is, when it comes to  
4 the current sort of resolution of the data that we  
5 have, stream gages, you know, throughout this, you  
6 know, watershed that encompasses 40 percent of our  
7 state, is inadequate. You know, are we -- do we  
8 need to see, if we're going to have successful  
9 adaptive management, are we going to -- if we're  
10 going to have metrics and monitoring, et cetera,  
11 is the current regime able to meet the task, if  
12 you will, of better managing the watershed?

13       Or if we feel that there's -- you know, and  
14 particularly because I do have a strong feeling  
15 that common decision support tools, not unlike the  
16 work that FlowWest is doing, are really critical  
17 for everyone to have -- be looking at the same set  
18 of information, the same facts, and be able to  
19 make rational decisions therefrom.

20       And so again, I guess my just general  
21 question is if your feeling of, you know, the  
22 current resolution of data we have, the current  
23 instrumentation that's out there, if it's adequate  
24 to sort of meet, not just even say the proposal  
25 that's before this Board, but certainly the

1 discussions in the VSAs?

2 MR. BONHAM: At some level this is outside my  
3 professional expertise. But my opinion is we have  
4 what we have right now. We need to use it. But  
5 it's not good enough and we should keep improving  
6 across all those data platforms and those  
7 technologies.

8 In the same spirit but a different subtopic,  
9 I think a potential for voluntary settlement  
10 agreements is to think through how we can  
11 modernize some of the use of technologies in the  
12 non-flow action arena.

13 So I would ask whether DWR or Dr. Tompkins  
14 have a thought, just on our overall water data  
15 infrastructure?

16 MS. BANONIS: Well, I guess my thought  
17 process is more -- maybe it's slightly chicken and  
18 egg. So I think your question is spot on. I also  
19 think it depends on what comes out of the  
20 voluntary agreement process.

21 What we put on your desk in October, is that  
22 relying on the existing data infrastructure we  
23 currently have and is that sufficient, or is what  
24 we're laying out in October something that needs,  
25 you know, more refined models or more refined data

1 collection? I think we just really need to think  
2 that through a little bit. And I think that will  
3 definitely be part of what we put forward in  
4 October, that logic. We've got to probably, you  
5 know, cogitate on that a little bit more.

6 But I do think it's a little chicken or the  
7 egg. We probably need to see what's on the table,  
8 then make an assessment.

9 DR. TOMPKINS: Just, it's dangerous to ask me  
10 about water data at 5:30, but just a slight  
11 elaboration, it is a topic of much passion for me.

12 I think the answer is it depends. You know,  
13 we collect and admirable and an astonishing amount  
14 of water data in California. And that applies  
15 across the board, from just the flow and quantity  
16 and quality to aquatic ecosystem data. There's an  
17 enormous amount of data collected all the time and  
18 it goes back a long way.

19 And so I think there are a number of  
20 questions that need to be addressed and monitoring  
21 that needs to occur that we have adequate data for  
22 now. And then there will be some new, probably  
23 more site-specific things that will require  
24 additional data. And I think even the  
25 Department's current like Stream Flow Enhancement

1 Programs require, when they get grand funding to  
2 those Stream Flow Enhancement Projects, to add  
3 monitoring in certain places so you can actually  
4 track those improvements in flow.

5       So I'm glad you brought up the part about,  
6 you know, requiring some decision support in more  
7 real time. And I appreciate the Vice Chair's  
8 comments very much about that earlier. There is  
9 the Open and Transparent Water Data Act that the  
10 state is -- DWR is currently leading. And I think  
11 it's going to -- it's rapidly moving us towards  
12 the place where we can really use the data that is  
13 there, and then really start targeting the new  
14 data collection in ways that will really empower  
15 this kind of work and make it a lot more  
16 effective. I really do believe that.

17       BOARD MEMBER ESQUIVEL: Thank you. That was  
18 helpful.

19       BOARD MEMBER DODUC: I do have one other  
20 quick question.

21       CHAIR MARCUS: Go ahead.

22       BOARD MEMBER DODUC: When in October?  
23 Hopefully, not Halloween.

24       MR. BONHAM: October.

25       BOARD MEMBER DODUC: All right.

1 CHAIR MARCUS: Yeah, that's funny. Thank  
2 you. Appreciate it. And I appreciate your hard  
3 work, passion, and always your eloquence. It's  
4 really remarkable. And I love Wallace Stegner,  
5 too, so you can quote him, or Aldo Leopold, just  
6 anytime you want and I'll be quite happy about it.

7 I think what you're trying to do is appealing  
8 and we appreciate it, having been sort of, you  
9 know, in parallel on it, and I do wish you well, I  
10 really, I wish us all well. And I think you have  
11 a vision for where -- the possibilities that I  
12 think we share, which is why we've been supportive  
13 of this and tried to find the ways to have it fit  
14 in, and we'll keep trying to figure it out. I  
15 think you've set a tall order for yourself,  
16 especially looking at how the whole can fit  
17 together. And what we're doing is a long time  
18 coming, so I do appreciate your sense of timing  
19 and the importance of getting this Water Quality  
20 Control Plan update done.

21 There's a lot that's mysterious about the  
22 mechanics. And I do think they're not  
23 inconsistent, because I think even with the best  
24 voluntary settlement, we still need a backstop, we  
25 still need to update the regulation, et cetera.



1 We've tried to create a vehicle for that. I'll  
2 look forward to seeing sort of, I hate using the  
3 beef metaphor all the time, but both salmon and  
4 beef have come up a lot, like the what becomes  
5 very important to figuring out. In theory,  
6 anything sounds good. In theory, high flow  
7 numbers sound good. In the science, they actually  
8 do too.

9 In theory, what you're talking about is  
10 exactly what I think we need to do to deal with  
11 these challenges together, particularly a lot of  
12 the elements that you talked about with monitoring  
13 and tracking, and I could go back to my notes, I  
14 always use the word robust for whatever reason,  
15 but really real and substantial. But I think it  
16 all works together with flow, and I appreciate you  
17 talking about how two of those go together. I  
18 worry about the beginning of a process when we're  
19 at the end of a process. I think figuring out  
20 what we've tried to do as to create room for them  
21 to come in later and we see what you come up with  
22 and how we feel.

23 But I think there's not an inconsistency with  
24 us getting to closure on this, and I think we  
25 must, in a reasonable amount of time, have to

1 think about it.

2 I really appreciate your offer to come back  
3 in October and really tell us where you are  
4 because I know you've been trying for a long time.  
5 And I know in any negotiation, folks take a long  
6 time to be serious about things. And there's been  
7 a lot of time, I think, again, not a surprise, a  
8 lot of time over the course of the last years, if  
9 not decades, with chaff being thrown up, which is  
10 understandable. Not -- you know, it's a different  
11 choice of positioning. Do you try to figure out  
12 how to resolve something earlier or do you go for  
13 the barricades. And I want to give you all the  
14 opportunity to pull things together when you've  
15 been doing an awful lot of work. And I know it  
16 could be whole or it could be partial or whatever.  
17 So I look forward to hearing where it is.

18 As you know, I think that it's not  
19 incompatible with where we're trying to go because  
20 you need that backstop, not just for if you do  
21 something and it fails, but for the people who  
22 don't sign up. And I don't think it's real to  
23 have an agreement unless there's something that  
24 kicks in rapidly in either the absence of  
25 agreement or then the lack of follow through and

1 agreement. I have never seen one work without  
2 that, particularly in this forum. I don't think  
3 it's inconsistent with what you've been saying. I  
4 think folks have tried to pit the two against each  
5 other, and I actually don't think they are  
6 necessarily.

7 I really appreciate your thoughtfulness and  
8 your recognition of so many of the elements that  
9 are really critical to success here, whichever  
10 path we go. And hopefully we get -- I hope  
11 against hope we get to that place where we can  
12 manage the system as a whole in a more transparent  
13 and efficient way for the betterment of everyone,  
14 with everyone trying to figure out how to do that.  
15 And we have heard through the course of the last  
16 two days, I think more eloquence and  
17 thoughtfulness about how that can work for  
18 everyone, so I really do appreciate it.

19 And I'm glad you all came because it -- in  
20 some ways, we've had different black boxes going.  
21 And this something, even though it's just a  
22 snapshot of the depth of what you've been working  
23 on, I think it's a very welcome one and very, very  
24 helpful.

25 MR. BONHAM: Thank you.

1 CHAIR MARCUS: So I thank you very, very  
2 much.

3 MR. BONHAM: Good luck to everyone.

4 CHAIR MARCUS: Yeah. I'll have many  
5 questions, I'm sure, but I'm not going to ask them  
6 all now.

7 MR. BONHAM: Great.

8 CHAIR MARCUS: Thanks for the time.

9 MS. BANONIS: Thank you.

10 CHAIR MARCUS: As they move out, I'm going to  
11 take a break of just five minutes for folks to  
12 sort of look at their notes, there are two things  
13 we'll be doing, and for staff to move around.  
14 What I'd like to do is sort of two things.

15 Even though I know that time is late, I think  
16 it's very important for us to move into this. I  
17 want the Board Members, even though we have the  
18 opportunity and frequently do go back and ask  
19 Staff all kinds of questions, and we undoubtedly  
20 will be spending a lot of time, part of the reason  
21 why I wanted to not take action today is for me at  
22 least, I'll speak, it's very hard to really  
23 honestly listen to everyone freshly when they come  
24 up. And I find these meetings incredibly useful.  
25 Some people don't. I do for my thought process,

1 both in what's said and really trying to try on a  
2 different point of view, but also to further  
3 refine thinking that I came into the meeting with.  
4 And I think it's better to be able to ask  
5 questions, sleep on it, and come up with something  
6 that, at least I'll speak for myself since I'm  
7 just one of five, feel comfortable with.

8       And so what I'd like people to do, to the  
9 extent they're comfortable, is ask questions of  
10 Staff.

11       I know, Staff, if there are certain key  
12 things that you heard, you heard a lot through the  
13 course of the last two days, much of which I could  
14 answer in terms of knowing where folks had a  
15 misunderstanding of what it was that you've -- but  
16 I'd also love for you to hear -- to say anything  
17 you heard that's not already in the document or  
18 not somewhere that you can work with. Because I  
19 think there are fewer disagreements, perhaps, then  
20 it felt like over the course of the last couple of  
21 days. I don't want to do that for hours.

22       And so I just want to let you think a little  
23 bit, if there are really important, either  
24 corrections to the record in your view that you  
25 really feel the need and you want to be able to

1 say, while people are still listening, please feel  
2 free to.

3       And then I want us to be able to ask  
4 questions, because we all understand different  
5 things at different levels of depth. And I find  
6 value in listening to my colleagues ask questions.  
7 And then when we're done with that, I think I also  
8 want to do another go around with the Board  
9 Members, this not being a decision meeting, to  
10 allow each of the Board Members to share their  
11 thinking of the things that they want to be  
12 thinking about and what they want each of the rest  
13 of us to be thinking about. Sometimes people  
14 don't realize that we really only get to talk all  
15 together when we're in these sessions. And it's  
16 really valuable to be able to understand what  
17 people are thinking and what they're concerned  
18 about, even as we think more about what we want to  
19 do as we move to closure on this in terms of  
20 motions we may want to make, changes we may want  
21 to make or the like.

22       So I really, I want us to try and have at  
23 least a bit of that iterative discussion to feed  
24 into our own thinking. And I know we'll all be  
25 spending an awful lot of time on this over the

1 next number of weeks.

2       And then we'll talk a little bit about when  
3 we will bring this matter back. I know Staff has  
4 been looking at all of our calendars. And our  
5 calendars are less convenient than I had assumed  
6 at the time, but it may well work out. There's no  
7 perfect time. But we all have to be here in order  
8 to reach this decision, because it's hard to think  
9 of a decision that we've worked harder on or is  
10 more important for all of us to be at than the  
11 decision meeting on this. It may well be in  
12 October that everybody can be here. So we have to  
13 -- we'll have to work ourselves on the timing on  
14 that. So we'll -- there's still more to be  
15 figured out.

16       So with that, I want to give Staff the  
17 chance. We'll take a break for just five minutes  
18 for that. And so, for one, can look over my notes  
19 that I've been writing about and whittle down the  
20 questions I feel I need to ask and the comments I  
21 really want to make sure I ask you here with all  
22 my colleagues present. So come up and think of  
23 like the greatest hits of things you want to make  
24 sure you can clarify for us.

25 (Off the record at 5:38 p.m.)

1 (On the record at 5:52 p.m.)

2

3 CHAIR MARCUS: It is 5:52. And I want to move  
4 into -- it's obviously issues. I put that into  
5 the -- our discussion in two buckets, but I think  
6 it's good to summarize even if there's an overlap  
7 from the questions. So I don't mean to  
8 artificially constrain it, but I think of it in  
9 one of the questions that I want to ask, which can  
10 take a while. And then what's a sum up of what we  
11 want folks to be thinking about collectively more.

12 BOARD MEMBER D'ADAMO: You want to go down the  
13 lane, have questions and then later come back and  
14 comments or you're saying combined?

15 CHAIR MARCUS: Yeah. Yeah, kind of. I mean it  
16 can be repetitive and maybe it won't take very  
17 long. But I do think it's important to try and  
18 crystallize it. We don't have to have everything  
19 all decided today, but I think flagging some of  
20 our issues and concerns or suggestions, I think is  
21 important as everybody else approaches how they're  
22 going to spend their next few weeks, etcetera, to  
23 figure it out. And then we'll close with the  
24 dates.

25 I had offered staff to highlight. I know you



1 could spend two hours trying to correct some of  
2 the things that were said to say where they were  
3 in the record, and we don't have to do that if you  
4 don't want to. I think it may well be that things  
5 you would clarify would be things that we might be  
6 asking them anyway, so I just leave it to you.

7 MR. CRADER: Well, thanks for offering two hours  
8 if nobody needs to be anywhere before 8:00  
9 o'clock. No, actually thanks for the offer.

10 CHAIR MARCUS: I do my best thinking between 10:00  
11 and midnight, so you're just lucky I don't suggest  
12 that.

13 MR. CRADER: I'll talk slowly. Thanks for the  
14 opportunity. We're most interested in hearing  
15 from the Board, but there was one issue today  
16 before we go there that we would like to take the  
17 opportunity to clarify if we can and that had to  
18 do with the South Delta salinity.

19 CHAIR MARCUS: Oh, because that was going to be  
20 one of my major questions. Good.

21 MR. CRADER: Okay. Well, perhaps we can answer  
22 some of your questions now.

23 So I think one of the main things that we wanted  
24 to emphasize is that our proposal with regard to  
25 the South Delta Salinity Objective is based on

1 credible science. I know that there were some  
2 comments today that were suggesting otherwise, but  
3 we've got a long response laid out in the Master  
4 Response. And I'm not going to try and repeat all  
5 that today, but in Master Response 3.3, I believe  
6 it is, we discuss South Delta Salinity and the  
7 comments that we received. And we have a fair bit  
8 of response on this particular issue. What I'm  
9 going to do right now is just generally touch on I  
10 think the points that I want you to consider.

11 So first we hired, and you heard, we hired Dr.  
12 Hoffman, who is a notable expert in the area to  
13 prepare a report for us. And we based a lot of  
14 our recommendation on the report that was prepared  
15 by our own expert. And that scientific basis for  
16 our plan amendments was subject to peer review and  
17 so the report went through peer review. And we  
18 don't choose our peer reviewers, but we were  
19 fortunate to have peer review by a notable expert  
20 in soil salinity management and agriculture and  
21 that's Dr. Mark Grismer. And Dr. Grismer, along  
22 with the entire peer review process found -- they  
23 gave us a favorable review for our scientific  
24 basis. And so while CEQA, I guess "contemplates"  
25 might be the right word, that you can have

1 competing studies ours I believe are strongly  
2 supported. And I think they do meet the bar for  
3 our recommendation.

4 So as you also heard they talked today about a  
5 study by Dr. and I'm going to --

6 CHAIR MARCUS: Leinfelder-Miles.

7 MR. CRADER: Thank you. And we reviewed that  
8 study as well and the study did reach different  
9 conclusions, but we don't believe that the  
10 conclusions the study reach contradicted ours.  
11 And we did consider that and we discussed how we  
12 considered that study in the Master Response as  
13 well. And they talked about today the different  
14 conclusions on leaching fractions, but what we  
15 were looking at is was there an impact to yield  
16 and we didn't see an impact to yield in that  
17 study.

18 Moving on, there's discussion in our Master  
19 Response about the existing condition in the South  
20 Delta. And I think that what was suggested by  
21 some of the commenters is that lowering the  
22 objective from -- or I'm sorry, raising the  
23 objective from 0.7 to 1.0 is going to exacerbate  
24 an already problematic water quality condition in  
25 the South Delta, yet in the existing condition we

1 see there's a vibrant agricultural economy in the  
2 South Delta. They have been growing crops for  
3 years in that area. And what we're proposing is  
4 raising the water quality objective to the level  
5 that is the existing condition out there. So one  
6 is typically what is out there and we haven't seen  
7 the issues that they're alleging.

8 And last, in Table 2 of the Bay-Delta Plan, the  
9 water quality objective for the export area is 1.0  
10 and so this is reconciling the Vernalis Objective  
11 or sorry the South Delta Objectives with the  
12 export area.

13 So those are kind of the high points that resonate  
14 with us. We do believe that we've used sound  
15 science for the proposal. And we've got a much  
16 longer description of that in the Master Response  
17 and we're happy to take any questions on that.

18 CHAIR MARCUS: Can I ask you one more question?

19 MR. CRADER: Of course.

20 CHAIR MARCUS: Because I've read the Master  
21 Response, I've read Hoffman. I even went and got  
22 the peer review, because it's such a hotly  
23 contested issue. But one of the issues that south  
24 Delta farmers say, it's not just one year of salt,  
25 it's multiple years of salt. When you say

1 agriculture is thriving do you address that  
2 directly?

3 MR. CRADER: I don't recall whether or not we've  
4 addressed that directly in the Master Response,  
5 but just from the table here again the existing  
6 condition out there is one and that would take  
7 into consideration year after year after year-  
8 after year. And so that's how I would address it  
9 and I can get back to you about the Master  
10 Response.

11 CHAIR MARCUS: No, that's a good initial response.  
12 And then we'll -- I'll be looking at everything  
13 again. It's just looking at things once doesn't  
14 always do it.

15 MS. MAHANEY: And I think just to add to that,  
16 bearing in mind that the project also includes the  
17 San Joaquin River flows and so those in  
18 combination do help to generally improve water  
19 quality.

20 CHAIR MARCUS: Other questions on that topic while  
21 we're on it?

22 VICE CHAIR MOORE: Just that raising the salinity  
23 objective, it really is there's a window in the  
24 summer that it applies to. Isn't it the year-  
25 round objective is -- or it's not year-round, but

1 nine months or something out of the year it is  
2 already one unit of EC. And there's a window.

3 Can you remind folks what the months are?

4 MR. CRADER: Generally the window is for the  
5 irrigation season. And it tends to be for the  
6 establishment of salt-sensitive crops. I can't  
7 tell you off the top of my head what --

8 MR. OPPENHEIMER: It's April through August.

9 VICE CHAIR MOORE: April through August. Okay, so  
10 it's several months. Okay. Thanks.

11 CHAIR MARCUS: All right. Other points you want  
12 to raise before we move?

13 MR. CRADER: That was the only issue that we  
14 wanted to raise. Mostly like I said we're excited  
15 to hear your questions for us.

16 MS. WON: Just one more point, and we did do an  
17 anti-degradation analysis.

18 CHAIR MARCUS: Oh, thank you.

19 MS. WON: And it's in the SED chapter and it  
20 concluded there will be no degradation.

21 CHAIR MARCUS: All right.

22 I keep starting with you, Ms. Dee Dee, because I  
23 know you spent so much time on this, so.

24 BOARD MEMBER D'ADAMO: Well, I don't have very  
25 many questions, but I just have to warn you all

1 that I do have a lot of comments that I want to  
2 make. So I'm more interested in the dialogue  
3 between the five of us, but just a couple of  
4 questions. One, to clarify so slide -- I have  
5 slide 39. And somehow I think that my slides  
6 aren't -- I don't think I have the updated version  
7 of the PowerPoint from staff. But anyway it's  
8 slide 39 for me, and it's got to do with the  
9 reduced recharge that's expected to occur. The  
10 title of it is "Average Annual Effects of 40  
11 Percent Unimpaired Flow on Groundwater Recharge."  
12 And you may want to pull up also Executive Summary  
13 page 33. So I'm reading different numbers from  
14 this and I must be misunderstanding the Executive  
15 Summary, because the Executive Summary says,  
16 "Combined increased groundwater pumping and  
17 reduced groundwater recharge will reduce the net  
18 recharge within these districts by 186,000 acre  
19 feet." And that's for the -- let's see here under  
20 baseline in 2009 groundwater pumping and then for  
21 2014, it's 234. And this shows 77 compared to  
22 55,000 acre feet on the net reduction.

23 MS. TOWNSEND: Dee Dee, what slide did you talk  
24 about?

25 BOARD MEMBER D'ADAMO: Well, for let's see, slide

1 -- I think --

2 MS. FORESMAN: It's just one past, so it's slide  
3 40.

4 BOARD MEMBER D'ADAMO: Okay.

5 MS. TOWNSEND: 40?

6 MS. FORESMAN: Yeah. One extra slide was added in  
7 between. Right, yes.

8 BOARD MEMBER D'ADAMO: So the difference between  
9 baselines for 2009, if I do the math it's 77,000  
10 acre feet and for 2014, it's 55,000 acre feet.  
11 And what I'm reading in the Executive Summary is  
12 for 2009 it's 186 and for 2014, 234. So are you  
13 combining those numbers with something else?

14 MS. FORESMAN: Can you help me? I'm trying to  
15 make sure I track exactly what numbers you're  
16 talking about, so.

17 BOARD MEMBER D'ADAMO: Yeah. I'm reading from --  
18 and you know what? This is something that I'll  
19 just flag and we can talk about at another time,  
20 because I think that it's probably not a valuable  
21 use of time, but --

22 MR. CRADER: Dee Dee, I think I -- oh, I'm sorry.  
23 I think I may have --

24 BOARD MEMBER D'ADAMO: -- Executive Summary 33.

25 MR. CRADER: Yeah. I think I may have an answer



1 for you, but we'll certainly look into this  
2 further. The lead-in sentence in that paragraph,  
3 it says "groundwater pumping by public and private  
4 entities that do not have access to surface water  
5 supplies." I believe that the slide in our  
6 PowerPoint presentation is for the slides in the  
7 district areas that do have access to surface  
8 water supplies.

9 BOARD MEMBER D'ADAMO: Oh, okay. All right.  
10 Okay, that helps.

11 Okay. Then the only other question that I have is  
12 related to Appendix K. So there's been a lot of  
13 talk about flexibility within Appendix K and I  
14 took a quick read through it again and I am not  
15 seeing any flexibility if we adopt the proposal.  
16 I don't see any flexibility to go below 30 percent  
17 of unimpaired flow, February through June.

18 MR. CRADER: So I'm sorry, the objective, the  
19 February through June, is to establish the block  
20 of water at a starting point of 40 with a range of  
21 30 to 50. So if the current proposal is adopted  
22 there is not flexibility to go below 30; that's  
23 correct.

24 BOARD MEMBER D'ADAMO: Okay.

25 CHAIR MARCUS: For the whole block.

1 MR. CRADER: In terms of establishing the block of  
2 water.

3 CHAIR MARCUS: For the block.

4 MR. CRADER: Yes, to develop the block.

5 CHAIR MARCUS: But not about where -- okay.

6 MR. CRADER: It's a budget. How you spend it is  
7 different, but in terms of developing the budget  
8 it's 30 percent is the floor.

9 BOARD MEMBER D'ADAMO: Right. So if there were  
10 say a desire to go below 30 percent in certain  
11 year types like dry and critically dry, we  
12 wouldn't have -- well not us, the STM, there would  
13 be no authority to go below 30 percent?

14 MR. CRADER: That's correct.

15 BOARD MEMBER D'ADAMO: Okay. And same question,  
16 would there be any authority to remove June --

17 MR. CRADER: So --

18 BOARD MEMBER D'ADAMO: -- in terms of calculation  
19 for the block of water.

20 MR. CRADER: There would not be.

21 BOARD MEMBER D'ADAMO: I realize there's flow  
22 shifting, but would there be any leeway to remove  
23 June from the calculation of unimpaired flow for  
24 the purpose of adding to the block of water?

25 BOARD MEMBER DODUC: I'm sorry, may I ask a

1 clarification question --

2

3 CHAIR MARCUS: That's what I was going to do too,  
4 actually.

5 BOARD MEMBER DODUC: -- of Member D'Adamo? I'm  
6 interpreting, and if I'm incorrect please correct  
7 me, I'm interpreting your question in terms of  
8 removing and going below 30 percent as being  
9 applied to potential voluntary agreements that  
10 might be proposed before us. Not that we would go  
11 and --

12 BOARD MEMBER D'ADAMO: But I, thank you for  
13 question, so --

14 (Brief interruption and colloquy re: cell phone  
15 call.)

16 BOARD MEMBER D'ADAMO: I suppose if we receive  
17 voluntary agreements, and within the voluntary  
18 agreements it includes a calculation of whether  
19 removing June or below 30 percent before we adopt  
20 a plan, then presumably they would have some  
21 recommendation for us for the plan that we would  
22 be adopting. But I'm assuming that we do not  
23 receive voluntary settlements within that  
24 timeframe, by adoption. So this would be whether  
25 we could receive something from the voluntary

1 settlement group or if the STM, either group could  
2 have the flexibility to go below 30 percent in dry  
3 years. And I'm hearing you say no to that.

4 MR. CRADER: That's correct.

5 BOARD MEMBER D'ADAMO: So then the same question  
6 for June, with respect to including June for the  
7 calculation for the block of water.

8 MR. CRADER: There would not be flexibility to  
9 calculate the block without the month of June.

10 BOARD MEMBER D'ADAMO: Okay. And then I think --

11 BOARD MEMBER ESQUIVEL: Board Member, if I may?

12 BOARD MEMBER D'ADAMO: Go ahead.

13 BOARD MEMBER ESQUIVEL: On that point, because it  
14 was something that I was going to request as well  
15 I think it would be helpful to get clarification  
16 from staff as well. Because I think the argument  
17 was that fish aren't in the system in June,  
18 essentially. By and large, they've moved out.  
19 And so any sort of protection then on that month  
20 or having the unimpaired flow sort of standard  
21 apply, it shouldn't be there. But --

22 CHAIR MARCUS: In some places in some years.

23 BOARD MEMBER ESQUIVEL: Yes. Well, and so I guess  
24 my question to staff for clarification then is  
25 when we're talking defining that block of water,

1 it's not that they have to meet a 30 percent  
2 target in the month of June --

3 BOARD MEMBER D'ADAMO: Right

4 BOARD MEMBER ESQUIVEL: -- for that. But that it  
5 is how then the budget for the entire year is sort  
6 of calculated and is that correct in sort of my  
7 understanding of that?

8 MR. CRADER: That's correct. And if I might add  
9 that -- I may be going beyond the question that I  
10 was asked, but the question about including June  
11 and developing the block of water, it was  
12 initially included in or it's in the current  
13 proposal, because June is an important month that  
14 does have fish in the river. We've got a strong  
15 scientific basis for that. We've also heard a lot  
16 of comments that suggest that June doesn't always  
17 have fish. And we also recognize that from year-  
18 to-year there's a lot of variation in the timing  
19 of the run. So our current proposal provides  
20 flexibility to develop the block of water and then  
21 as you pointed out, Board Member Esquivel, decide  
22 how you spend it based on the conditions in the  
23 river in that year. And so under the current  
24 proposal, if it's a year type where you don't have  
25 fish present in June you could forego spending

1 that water in June and save it for later in year  
2 perhaps, or for some other function.

3 But on the flip side, if it's a wetter year or a  
4 year where there fish there in June that water is  
5 necessary, because as we've discussed there are  
6 high temperatures in June. And that's the only  
7 tool that we have really for controlling the  
8 temperatures, to protect those fish.

9 MR. OPPENHEIMER: And I would just add that in  
10 Master Response 2.2, which is on adaptive  
11 implementation, there are two really good examples  
12 that sort of walk through the logic of how that  
13 might work and how the STM would adaptively manage  
14 the block of water. And then if in the May time  
15 period the STM realized that there was not a  
16 biological reason to use flows in June they  
17 wouldn't need to. So Mr. Crader is absolutely  
18 correct, the budget is based on the February  
19 through June period. But the need to just release  
20 water gratuitously in June for no reason is not  
21 part of it. There's absolutely the ability to  
22 shape the flow so you provide the most benefit.

23 BOARD MEMBER D'ADAMO: Well, I understand that and  
24 I'll be getting back to it in the comments. So  
25 this gets to the issue of the real reason for

1 June. The real reason for June is flow shifting.  
2 And I'll talk about that at --  
3 CHAIR MARCUS: I actually don't agree that that's  
4 the real reason.  
5 BOARD MEMBER D'ADAMO: Well, we can --  
6 CHAIR MARCUS: It's better to talk about what you  
7 think it should be. It's "the real reason is"  
8 again I'm just going to hold us all to it, is  
9 implying an intent that's broader and that's not  
10 fair.  
11 BOARD MEMBER D'ADAMO: Okay. Sure, that's fine.  
12 We'll get there when we get to the comments. I  
13 have very strong feelings about this and I'll do  
14 the best I can to be calm about it.  
15 So the last question has to do with carryover  
16 storage. And there's also been a fair amount of  
17 discussion about the flexibility within Appendix K  
18 with respect to operations. And that we're not  
19 telling anyone that this means that the Water  
20 Board is going to come in and run the system. So  
21 if we could just focus on the issue of carryover,  
22 because carryover is not running the entire  
23 system. And I know John Sweigard and others  
24 talked about there's a lot of aspects to managing  
25 a system.

1 So unless you correct me, I recognize that the STM  
2 would not -- I'm not seeing anything in either the  
3 table or in the Program of Implementation that  
4 provides authority to operate the reservoirs,  
5 other than carryover. Or any other actions that  
6 might, as we talked about the other day in this  
7 language here, flows provided to meet these  
8 numeric objectives shall be managed in a manner to  
9 avoid causing significant adverse impacts.

10 So my question the other day was what is meant by  
11 that, is it just carryover? Is it refill? Is it  
12 fall flows, winter flows, what all is it? And so  
13 I think if there's a concern about operations,  
14 it's tied to this language and not someplace else  
15 in the program implementation, correct?

16 MS. FORESMAN: So my understanding of the concern  
17 that we heard earlier today was that kind of  
18 repeating what you said that the STM would decide  
19 how to operate the facility. And in the Program  
20 of Implementation there is a statement that says  
21 in the future we will need to identify a carryover  
22 storage target.

23 And that then happens in a different process and  
24 the operators of those facilities, when we get to  
25 implementation, create an operations plan that's



1 due at a certain date that's listed in the  
2 Appendix K. And then they turn it into the Water  
3 Board and the STM works together to make decisions  
4 like, "Should we move off of 40 percent of  
5 unimpaired?" Well actually excuse me, I have to  
6 correct that. They can advise the Board, so if  
7 they are unanimous they can unanimously come and  
8 advise the Board to move off of one of the percent  
9 of unimpaired flow objectives. And they can  
10 decide, one of them, or all of them together can  
11 propose a way to shape flows for that season. And  
12 all those are described in the three adaptive  
13 methods in Appendix K.

14 So those come initially from the operations plans,  
15 which we anticipate would be composed by the  
16 operators and turned in.

17 BOARD MEMBER D'ADAMO: Okay. So, the operators  
18 would turn in a plan, but the STM wouldn't  
19 necessarily have a say over the operations plan?  
20 These are separate?

21 MS. FORESMAN: So for example, and there are great  
22 examples in Master Response 2.2, in the first year  
23 let's say it's adopted as is and the starting  
24 point is 40. So an operations plan would come in  
25 with a plan within a range of different things

1 that could happen, because we do have to use  
2 forecasting information, a plan to start at 40  
3 percent of unimpaired flow and map out the season  
4 from February to June. And if it's on 40 there  
5 isn't then a decision for the STM to make on when  
6 their starting. If they want to do flow shaping  
7 or flow shifting they put that in their operations  
8 plan.

9 BOARD MEMBER D'ADAMO: Could this group meet to  
10 determine what flows would need to be managed in  
11 order to avoid causing significant adverse  
12 effects? Who makes that decision?

13 MR. CRADER: So I believe, and correct me if I'm  
14 wrong on this, but that that's something that  
15 would be developed. The carryover storage targets  
16 would be developed subsequently in the  
17 implementation phase of this.

18 BOARD MEMBER D'ADAMO: And who would develop those  
19 targets?

20 MR. CRADER: I would think that they could be  
21 proposed by the STM is one alternative. They  
22 could be part of a FERC or other type proceeding.  
23 I think there's a number of different ways that  
24 that could play out.

25 MS. MAHANEY: Yeah, and what the Program of

1 Implementation contemplates is that the STM, which  
2 as you know, can be comprised of a number of  
3 stakeholders. If they choose to participate there  
4 would of course be the advantages of collaboration  
5 and input from the various fishery and water  
6 users. And what they can do through the annual  
7 operations plan, it can be the STM working group  
8 or a subset thereof that could develop the annual  
9 operations plan subject to approval by the Board  
10 or the Executive Director. So ultimately, the  
11 ultimate decision lies with the Board or its  
12 delegate, the Executive Director.

13 But the idea is that the STM could work together  
14 to identify these issues. For example, with  
15 respect to preventing adverse impacts from the  
16 flows, February through June flows, an essential  
17 part of the plan would be what are these adverse  
18 impacts? By and large they are likely to be  
19 temperature impacts. There may be others. What  
20 are those adverse impacts? At what point do they  
21 become significant and adverse such that certain  
22 requirements must be undertaken to avoid them?

23 And so there is the anticipation is that this  
24 would be a local-based decision making process  
25 because every reservoir, every project is going to

1 be a little bit different. It's going to affect  
2 its environment a little bit differently. But  
3 there are going to be some common issues such as  
4 cold water pool issues. And so this provides the  
5 flexibility for this group of stakeholders to  
6 develop, identify those issues and come up with a  
7 plan to operate to them. But if they don't, then  
8 of course the Board ultimately will approve the  
9 plan or not.

10 BOARD MEMBER D'ADAMO: Okay. And then I'm reading  
11 here flows provided, and I'm glad that you  
12 mentioned February through June. So in the table  
13 it refers to the flows; that's the February  
14 through June flows? Flows provided to meet these  
15 numeric objectives and how they'd be managed.

16 VICE CHAIR MOORE: And this is the water quality  
17 objective?

18 BOARD MEMBER D'ADAMO: This is on page 18, I'm  
19 sorry, on Table 3.

20 MS. MAHANEY: Thanks.

21 VICE CHAIR MOORE: On Table 3.

22 MS. WON: Correct. It is February through June.

23 BOARD MEMBER D'ADAMO: Okay. So I'm not seeing  
24 how that squares with page 28, because page 28  
25 refers to carryover targets. And I'm assuming

1 carryover targets wouldn't be limited to flows  
2 from February through June? In fact we had some  
3 commenters that they would be reducing, in order  
4 to meet carryover targets, they'd have to reduce  
5 to meet the model. What you've modeled, that they  
6 would have to reduce diversions or water supply in  
7 the other months, you know, the irrigation season  
8 March through October. You're saying the table  
9 just refers to February through June.

10 MR. WON: The language on page 18, the table,  
11 refers to February through June and has this  
12 narrative objective about how flows have to be  
13 provided to meet these numeric objectives and they  
14 have to be managed in a manner to not cause  
15 significant impacts. And so if you look on page  
16 28 it says, "When implementing the LSJR flow  
17 objectives, the State Water Board will include  
18 minimum reservoir carryover storage." So they are  
19 very much consistent. So you're implementing the  
20 objectives in Table 3.

21 CHAIR MARCUS: Okay.

22 VICE CHAIR MOORE: And I'm real interested in this  
23 too. Just for illumination and trying to avoid  
24 misunderstanding, I think, let's stay on that  
25 phrase "when implementing the flow objectives."

1 I looked at this and I thought well is there ways  
2 to soften the language, even here just to signal  
3 that it's not our intent to a priori set ridged  
4 targets. It's more if circumstances per the  
5 objective indicate there's a potential for  
6 impacts, right? Then the Board could establish  
7 targets based on collaborative efforts and  
8 stakeholder input. To provide carryover storage  
9 targets that are suggested to the Board by the  
10 operators, to protect not only the fish and  
11 wildlife beneficial uses, but you said if feasible  
12 on other beneficial uses. Am I reading this  
13 wrong? I read that to mean water supply impacts  
14 and should we just say water supply impacts? And  
15 really better signal our intent to create this  
16 flexibility. That the unintended consequences  
17 relate to temperature and cold water pool, but  
18 also to drawing reservoirs unsustainably to  
19 maintain water supply.

20 MS. WON: I believe that language is there,  
21 because when we were doing the environmental  
22 analysis we found that there may be significant  
23 impacts in the extended plan area, which is  
24 upstream of the reservoirs. Where you could have  
25 the reservoirs would be drawn down, so it would

1 have aesthetics and recreation impacts. So we  
2 said what we would, when setting those carryover  
3 storage targets, try to avoid those impacts if  
4 feasible. And so that's why that language is  
5 there.

6 VICE CHAIR MOORE: Right. Those are other  
7 examples I should have used too. Not just water  
8 supply, but recreation, aesthetics, etcetera. So  
9 it's I can see how it feels like this is the State  
10 Board coming in to run your reservoir, but really  
11 I'm hoping that what we're creating is a pathway  
12 for normal reservoir management for these multiple  
13 objectives. And that implementing for the purpose  
14 of not having unintended impacts on temperature,  
15 you know in the fall of whatever, next year,  
16 whatever, from a fish and wildlife standpoint  
17 we're also acknowledging the multi-objective  
18 reservoir management.

19 And I think it's important. That we are the Water  
20 Resources Board and these are multiple uses we  
21 want to make sure that we're not unbalancing  
22 through these operations.

23 MS. MAHANEY: And I think that's an accurate  
24 assessment of what we're trying to provide here.  
25 And hypothetically there may be no adverse impacts

1 in a particular location. But it's an issue that  
2 definitely needs to be examined and prepared for  
3 and this is what this conveys.

4 And I think there's also, whether it's deliberate  
5 or not, I think there's also some misunderstanding  
6 of the Board's intentions with respect to the  
7 reservoir operations. In my experience in water  
8 rights, it is not uncommon at all when the Board  
9 approves an application or a petition to impose  
10 the requirement through preparation of a plan to  
11 avoid certain impacts or to explain how they will  
12 meet certain objectives. And in a sense, in a  
13 broader sense, this is very similar to that. The  
14 Board is asking the water users to prepare a plan  
15 that avoids significant adverse impacts resulting  
16 from the flow objectives.

17 CHAIR MARCUS: I was going to ask you to talk  
18 about how this compares to what we do regularly.  
19 Because a lot of it familiar in terms of what we  
20 do, but also the timing that's envisioned. I know  
21 I should remember all of it. I don't know how  
22 many times I've had to read these things, but.

23 MS. MAHANEY: Can you clarify about the timing,  
24 please?

25 CHAIR MARCUS: When would the Board do that? Does



1 that come as part of the whole --

2 MS. MAHANEY: Oh, yes that would be the --

3 CHAIR MARCUS: -- because we're talking about  
4 setting those carryover as necessary, but it's not  
5 like everything's new every year. You still have  
6 a framework.

7 MS. MAHANEY: Right, and there is the annual  
8 operations plan. There's also annual reporting  
9 where at the end of the water year, basically by  
10 December 31st, the Board asks for a report on what  
11 has occurred and what has worked in the past year  
12 and moving forward.

13 And I think it's also important to remember that  
14 the reporting provisions in the Program of  
15 Implementation also ask that water users prepare  
16 for a variety of hydrologic regimes. So we're  
17 trying to encourage folks, so a dry year isn't a  
18 crisis every year. But to plan ahead and to  
19 explain how they're going to address if it turns  
20 dry in February as we've known it to happen or  
21 maybe it becomes a rainy other March miracle. But  
22 how they're going to address those different  
23 regimes that we do see from year to year and so it  
24 tries to encourage that foresight and planning  
25 that frankly kind of has been lacking at times.

1 VICE CHAIR MOORE: And that has a home in the  
2 annual Adaptive Operations Plan, perhaps?

3 MS. FORESMAN: Yes, and there's also I think a  
4 sentence in there that says about multi-year  
5 operation plans can also be submitted. So again  
6 in trying to be progressive about planning ahead  
7 and being prepared for dry years when we're not  
8 anticipating them, having something in line  
9 already.

10 VICE CHAIR MOORE: And, this is sort of  
11 mechanistic, but when we talk about submitting  
12 these operation plans is there authority in  
13 adopting the Bay-Delta Plan amendments? Or is  
14 that really doesn't happen until we do  
15 implementing water rights decisions where there's  
16 actually a permit requirement to submit the plans.  
17 How does that work?

18 MS. MAHANEY: So, the planning elements and really  
19 the Bay-Delta Plan in general isn't going to  
20 implement itself. The Board will need to take  
21 some actions to make implementation enforceable,  
22 whether it's through water quality actions such as  
23 401 certification or if it's through a regulation  
24 or water right proceeding, including adjudicative  
25 proceedings. So generally it would require

1 additional steps by the Board. Of course we  
2 invite, and I think we've tried to encourage this  
3 in the language for certain water users to act  
4 voluntarily, because we do have a very tight  
5 timeframe with some of the deadlines in the plan.  
6 And if we can encourage stakeholders to hit the  
7 ground running with implementation that would be  
8 useful, but it may not always happen.

9 VICE CHAIR MOORE: And what is the time table for  
10 the 401 certs on relicensing and does that  
11 dovetail with a calendar with implementation of  
12 this proposed plan?

13 MR. CRADER: We'd have to look up the -- I don't  
14 have that information available right now. We're  
15 not what their schedules are, sorry.

16 VICE CHAIR MOORE: That's fine. And I guess I  
17 just flag that as an issue. That is this the  
18 place we've put in implementation characterizes  
19 the annual adaptive operations plan. Could a  
20 substitute report meet the intent, an equivalent  
21 report, through submittals that are required by a  
22 401 cert for instance?

23 MR. CRADER: I think there's a lot of flexibility  
24 in there, particularly with the annual operations  
25 plan. I mean the idea with that is to not require

1 somebody to have to do something year after year  
2 after year. And in that same spirit if there was  
3 another report that was filed with us that met the  
4 needs I don't think that there would be anything  
5 that precluded us from approving that instead.

6 CHAIR MARCUS: At the risk of asking a dumb  
7 question, I know that we hang a lot of our hopes  
8 on the STM. And but if it doesn't come together,  
9 and there's plenty of discussion to have, we can  
10 do it in a more traditional way. I think the  
11 fear, and I'm using the word fear just because  
12 there's so much fear involved, but I didn't hear  
13 him express fear. It was concern, for example,  
14 that came from Mr. Sweigard. He's not alone in  
15 it, as a sense that all of a sudden this new group  
16 is going to be managing their reservoir. Whereas  
17 to me it seems like in the first instance you do  
18 want to make sure that the actual operator is a  
19 key player in coming up with a proposal and then  
20 the STM can review it or whatever. I mean, I  
21 think about Shasta temperature plans and all that,  
22 that NMFS has for example and where we -- you  
23 know, there are times when we've been less in that  
24 loop than we want to be and need to be more.

25 So I actually think that there's something to be

1 thought about in the sense of we've been trying to  
2 be very flexible in here. And I think that has  
3 allowed people to think that we're creating a  
4 whole big new thing, rather than we're trying to  
5 be flexible when in fact there are normal ways in  
6 which we implement later that are very much  
7 between us and the operator with consultation with  
8 fish agencies. I can see where the confusion  
9 reigns, so I think we should really think about  
10 our language in a couple of places, just to make  
11 clear what it is we're having in mind. And that  
12 we're not tossing the usual relationship and the  
13 tools that we have in an ongoing way always as we  
14 get into the implementation phase.

15 MS. MAHANEY: Right, and something you'll see a  
16 recurring theme through the plan amendments, is  
17 we're trying to forward flexibility, but there's  
18 always backstop. So we are trying to achieve that  
19 and certainly if you have suggestions as to areas  
20 we should take a look at we'd certainly appreciate  
21 that.

22 VICE CHAIR MOORE: That relates to my point about  
23 the permit, which is really the regulatory  
24 relationship and then having an open public  
25 process around those submittals that are typical

1 with many of our programs. To try to tamp down  
2 the concern about this new mushrooming program,  
3 where we really are trying -- we need to show  
4 clearly to the stakeholders that we're integrating  
5 existing processes within this plan.

6 I had a question about just walking through this  
7 part of the Appendix K, it's an interesting  
8 question. When we talk about adaptive adjustments  
9 to flow we give two reasons why we might do it and  
10 so this is on page 30. If you could --

11 MS. WON: You want that?

12 VICE CHAIR MOORE: Yeah, you know --

13 CHAIR MARCUS: Yeah, that's helpful.

14 VICE CHAIR MOORE: -- it would probably be  
15 helpful. And this is really the spirit behind  
16 this question is to do the best we can to not  
17 create confusion, so it's not the slides. I'm not  
18 there yet.

19 MS. WON: Do you want (indiscernible) to connect?

20 VICE CHAIR MOORE: Yes, please, page 30. And what  
21 we say is that if information produces the  
22 monitoring review processes or other best  
23 available science indicates the change for the  
24 period at issue will satisfy the following  
25 criteria for adaptive adjustments. So this is

1 this central paragraph here and there's number one  
2 and number two.

3 Number one, it will be sufficient to support and  
4 maintain the natural production of viable native  
5 San Joaquin River watershed fish populations  
6 migrating through the Delta. And number two, it  
7 will meet any existing biological goals approved  
8 by the State Water Board.

9 So number two, I get. And that's going to be a  
10 collaborative science-based process that I think  
11 within 180 days of plan adoption, we're trying to  
12 accelerate these performance metrics that people  
13 believe in.

14 Number one, I'm struggling with a little bit,  
15 because to staff I would ask you is there a method  
16 that's well accepted where we could put the  
17 proposal through the ability to answer that  
18 question, or I would just offer is there another  
19 way we can state number one, basically saying it  
20 will not have an unreasonable effect on fish and  
21 wildlife? That phrase is something we use in our  
22 water rights decisions and why can't we just use  
23 something simple like that as an alternative,  
24 which is something that's consistent with how we  
25 implement water rights.

1 MR. WON: Erin just mentioned backstops and this  
2 is one of those backstops. This is basically the  
3 narrative objective. So we want people to adapt  
4 what we implement, but we also want people to meet  
5 the narrative objective of maintaining viability.

6 VICE CHAIR MOORE: Interesting. So this is a good  
7 reminder then. This is linked. The language is  
8 exactly the same as the narrative objective that's  
9 proposed.

10 MR. WON: It's shortened, but yes.

11 VICE CHAIR MOORE: Well that's important. As long  
12 as there's a linkage and you've answered the  
13 question there is a linkage. And I just answered  
14 that alternative phrase, because that's something  
15 that stakeholders are familiar with. And also  
16 it's interesting, because it's an affirmative. It  
17 will support the populations. That's the  
18 narrative objective. And the other phrase is it  
19 will not cause an adverse effect. I ask you to  
20 think about that, because is it one way or the  
21 other?

22 CHAIR MARCUS: Different question entirely, and  
23 even in the water rights context, I think.

24 VICE CHAIR MOORE: Right. And what's the -- let's  
25 think about it, what's the operationally best



1 question to ask that empowers good decision  
2 making?

3 MS. MAHANEY: Now, that's a very good point and  
4 we'll take a look at it. But, just to address  
5 your concern about the language used in water  
6 rights proceedings it may be that your accustomed  
7 to seeing language used when dealing with, for  
8 example, temporary urgency change petitions or  
9 other change petitions where it talks about, "The  
10 change will not unreasonably affect fish and  
11 wildlife beneficial uses." And that's a slightly  
12 different threshold as Yuri pointed out. That's  
13 a lower threshold that won't unreasonably affect,  
14 whereas still with this criterion in the plan  
15 we're trying to achieve something here.

16 VICE CHAIR MOORE: Yeah. Well --

17 BOARD MEMBER DODUC: And if I may --

18 VICE CHAIR MOORE: -- oh go ahead.

19 BOARD MEMBER DODUC: -- add to that, going back to  
20 the first sentence in this paragraph what we're  
21 looking at here is potentially approving adaptive  
22 adjustments to the flow requirements. To me, that  
23 indicates we should have a higher standard and a  
24 reiteration of the narrative goal that we're  
25 trying to accomplish, fits that in my mind. I

1 understand the alternative language you offered,  
2 but in my mind that actually diminishes the  
3 threshold that should be achieved for approving  
4 adjustments to the flow requirements.

5 VICE CHAIR MOORE: Yeah. Well, and yeah point  
6 taken. I can see it both ways. I think that it's  
7 we may want to offer a lower threshold and that  
8 will be a segue to my little demonstration, if you  
9 could pull up those slides.

10 What I thought was a compelling visual aid, and  
11 Board Member Doduc agreed with me, even made me  
12 think about this was slide 38. But let's lead  
13 into it with a few slides here.

14 In terms of really trying to show -- and again, I  
15 acknowledge these are coarse numbers, okay? You  
16 know, there's fine issues. But let's -- we looked  
17 at the 40 percent unimpaired flow, compared to  
18 baseline in the staff presentation. I asked staff  
19 to show the range of 30 to 50 just to illustrate  
20 to everybody and remind folks of the sensitivity  
21 of using these different percentages and how that  
22 would affect theoretically available water supply  
23 versus flow for fish.

24 So walking through these we start at 30 percent  
25 unimpaired flow compared to baseline. And so you

1 have the water supply amount through the water  
2 supply effects model that staff used. And it  
3 shows at 30 percent unimpaired, the lower end of  
4 the range, no real effects on water supply, wet or  
5 above normal and pretty marginal at below normal  
6 years. And as we get into dry the 15 percent  
7 reduction and then critically dry 26 percent,  
8 which is real water. And yet, just to throw an  
9 analogy out there during the drought we had  
10 instances where agricultural communities got  
11 together, thought about their irrigation practices  
12 and were able to quantify a 25 percent reduction  
13 when they just started looking at their practices  
14 and did some ingenious changes and didn't affect  
15 crop productivity in all cases. There were some  
16 issues. There was experimentation. It was great.  
17 So that, you know, it's still a hit, but we've  
18 learned through the drought that we're capable of  
19 more than we maybe thought.

20 Now if we go to 40 percent or okay at this point  
21 then at 30 percent, look at the amount that's  
22 increased in the different years with respect to  
23 instream flow. Let's really focus on dry years.  
24 This line of discussion and questioning is about  
25 dry year relief, you know, I'm very interested in

1 it.

2 BOARD MEMBER DODUC: Before you move off this  
3 slide though, I think I just have to point out the  
4 obvious to everybody that while the percentage  
5 number is high where you're talking about actual  
6 1,000 acre feet in terms of the additional  
7 increment for instream flow, it is not a lot.

8 VICE CHAIR MOORE: Right. And this is at 30  
9 percent, so this is at the low end of the proposed  
10 range. And we do see even then some pretty big  
11 increases in the instream flow. But --

12 MS. WON: Percentage-wise.

13 VICE CHAIR MOORE: Percentage-wise, but from an  
14 overall volume standpoint, correct. Very  
15 important to keep what Board Member Doduc said in  
16 mind as you interpret these graphs.

17 CHAIR MARCUS: Yeah, especially if you're thinking  
18 about managing over multiple years.

19 VICE CHAIR MOORE: Over multiple years and blocks  
20 of water. Okay, so now we've looked at the 30  
21 percent. We saw 40 percent a little more increase  
22 in change, right? Makes sense, but we're starting  
23 to get into really higher percent reductions  
24 during dry and critically dry years. And a pretty  
25 large increase in instream flow in critically dry

1 years that's where we talked about in the last  
2 range of -- I'm sorry -- in the last series of  
3 public meetings. You know, the Board Members, we  
4 had a pretty serious discussion about the idea of  
5 how important biologically are those years if  
6 you're doing a comprehensive over every water year  
7 type of percent unimpaired flow. You're creating  
8 more resiliency in the system, so that during  
9 critical dry years things aren't as dire. And  
10 maybe we have more flexibility, because the  
11 organisms have evolved with the ability to really  
12 withstand even completely dry rivers. And so  
13 keeping that in mind, what would the biology do?  
14 Finally at the 50 percent, maybe we look here  
15 obviously it's 50 percent reduction in water  
16 supply and the overall block of water going down  
17 the river isn't that much bigger. And will it  
18 have that biological productivity effect, probably  
19 not in terms of the overall fishery. Will it  
20 prevent extinction, maybe in certain cases?  
21 That's the issue in preventing irreversible  
22 impacts. But meanwhile, look at the increases at  
23 a higher end of unimpaired flow for the above  
24 normal condition and how at the water supply  
25 standpoint it's an impact, but it's not a giant

1 impact.

2 I bring this up because in my comments, a year and  
3 a half ago I said the 40 percent proposal is an  
4 operational target that may work within a certain  
5 range, but as we get to the ends of the ranges, it  
6 may unravel. And certainly the point was made  
7 during these series of hearings that you have a  
8 significant water supply impact in sequential dry  
9 years.

10 And so I asked for a sophisticated approach or I  
11 appealed to folks for a more sophisticated  
12 approach than a blunt 40 percent. And one way to  
13 approach this would be to have 30 percent in  
14 critical years and 50 percent in above normal  
15 years. It's a different way of looking at it, but  
16 it would potentially trigger certain biological  
17 responses. It would resiliency and give more  
18 water supply relief during the dry years or  
19 sequentially dry years.

20 So I bring this up, because in the current  
21 Appendix K proposal something like this could be  
22 done, I think. There's a pathway for that kind of  
23 more sophisticated approach where you can  
24 strategically higher than 40 percent where we feel  
25 there would be a biological result and

1 strategically apply down to 30 percent in even a  
2 singular critical year, not even sequential years,  
3 so.

4 CHAIR MARCUS: Meaning the flexibility to submit a  
5 multi-year plan?

6 VICE CHAIR MOORE: Yeah. Yeah, exactly. So I  
7 think folks on the water supply side are still not  
8 persuaded because there's a concern about the 30  
9 percent floor, maybe in sequential years. I think  
10 we should listen to that and think of ways that we  
11 can accommodate that reality about the ability of  
12 the native species to withstand sustained drought  
13 conditions and to not risk water supply impacts  
14 that really could threaten to put long-standing  
15 agricultural operations at economic jeopardy, you  
16 know?

17 I think the intent of the Board here is really to  
18 uphold the healthy societal benefits of family-  
19 based farming that have been going on. And we  
20 hear the point about diversions not increasing in  
21 these areas, but there is as everyone knows this  
22 condition we have about pumping groundwater  
23 unregulated. We have more carriage losses in the  
24 upper stretches of the river because of that and  
25 it's outside of the control of the irrigation

1 districts. There's compounded impacts that go  
2 beyond just the long history of more sustainable  
3 farming.

4 And it triggers us all to think about what we all  
5 can do to pitch in for water efficiency, but then  
6 not take what water we save and turn around and  
7 just sell it, but actually take that water we save  
8 and have environmental benefit that has societal  
9 benefits too, as we've all heard the last couple  
10 of days. So I just wanted to provide that  
11 overview and thought just thinking about how  
12 Appendix K can allow flexibility on both ends. It  
13 could be 40-40-30, 50-40-30, you know? There's a  
14 lot we can do here within voluntary agreements to  
15 try to be sensitive to water supply impacts.  
16 Thanks.

17 CHAIR MARCUS: That's a really good question.

18 BOARD MEMBER DODUC: I have a question to staff  
19 based on what the Vice Chair just said. If we had  
20 a healthy ecosystem with healthy fisheries I would  
21 gather to say that whole aspect of resiliency  
22 during drought in consecutive years would be  
23 different than if you had -- well our current  
24 situation with the species as decimated as they  
25 are today. Do you have -- from staff's



1 prospective, especially from the analysis that you  
2 have done, are you able to provide any projections  
3 of what sort of fishery impacts would be cause to  
4 the -- as a result of perhaps the kind of shifting  
5 that the Vice Chair proposed?

6 MS. FORESMAN: I think the best way to look at  
7 that would be with the temperature profiles we  
8 looked at earlier. So the WSE model there is one  
9 six-year drought sequence and then there's another  
10 multiple-year drought sequence that I'm just not  
11 familiar with in the earlier part of the modeling  
12 period. But my thought would be to look at the  
13 drought sequence between 1987 and 1992. And then  
14 look at the subsequent temperature profiles that  
15 were produced using the inputs from the hydrology  
16 modeling. And to see what happens to temperature  
17 profiles in those multiple sequential dry years.  
18 And I would use that as my starting point for  
19 thinking about like how would the population  
20 manage that situation over multiple dry years?

21 The first thing that comes to mind is we really  
22 are talking about a species that's going to come  
23 back every two-and-a-half years, the adults  
24 return. And if you have three dry years in a row,  
25 you're starting to look at affecting multiple

1 generations of salmon and the number of adults  
2 coming back, so that becomes a more dire  
3 situation.

4 That's the way I would start to look at that, but  
5 I'd also be interested, if Dan would like to  
6 provide any of his thoughts.

7 BOARD MEMBER DODUC: You don't have to answer now,  
8 but something to think about.

9 MR. WORTH: So --

10 CHAIR MARCUS: Give it a whirl.

11 MR. WORTH: -- the 30 to 50 percent range is the  
12 range when we start to see consistent temperature  
13 benefits and how that could play out over a series  
14 of years if we were making adjustments between 30  
15 percent and 50 percent. There's a lot of  
16 uncertainty on how that could play out. But  
17 that's the range where we see consistent  
18 temperature benefits.

19 VICE CHAIR MOORE: And it -- okay, go ahead.

20 BOARD MEMBER DODUC: And, I'm sorry, and wouldn't  
21 that flexibility already -- isn't that already  
22 built in through this range that staff is  
23 proposing from 30 to 50 and through the adaptive  
24 management process and the ability to determine  
25 that on a yearly basis through an expert group

1 rather than us trying to set that flexibility now  
2 through this Water Quality Control Plan. Wasn't  
3 that your intention in proposing a range and  
4 allowing for adaptive management within that  
5 range?

6 MS. FORESMAN: Yes, that's the vision of the 30 to  
7 50 percent range. We can see it here with the  
8 comparison to water supply and instream flow.  
9 What you don't see here is the range of  
10 temperature benefits. But the 30 to 50 is where  
11 we have a lot of flexibility in the plan for how  
12 you manage for both instream flows and for water  
13 supply.

14 MR. CRADER: We've developed that data as part of  
15 this exercise and we'll be happy to provide you  
16 with that information after this meeting, so you  
17 can sort of review it and see what the effects are  
18 after these sequential dry years that were part of  
19 our modeling.

20 CHAIR MARCUS: Yeah. So to be clear you feel that  
21 within the existing language if folks submit a  
22 multi-year plan, and again I don't want to --  
23 they're all settlement agreements that we want.  
24 But even let's assume we have the voluntary  
25 settlement agreements and they may give us

1 something like this or even something with all  
2 sorts of other benefits and bells and whistles and  
3 things that we have to consider. But just even  
4 within what you've proposed that if folks came  
5 forward with a multi-year plan that had issues  
6 such as Vice Chair Moore suggested in tradeoffs  
7 that went over a series of years, then what would  
8 happen -- I'm just taking the phrase -- it doesn't  
9 just happen. It then needs to be proposed and the  
10 Board needs to sign off on it. If it's just flows  
11 shifting within the year and shaping flows it can  
12 be the Executive Director. If it's trying to move  
13 somewhere in the range or if it's multiple years  
14 then we're going to be spending a lot of time on  
15 this, because it needs to be vetted by the Board.  
16 I mean that's sort of a very big difference in  
17 what you're proposing. It's even we're going to  
18 be dealing with this all the time not just in  
19 triennial reviews, because when you talk about a  
20 triennial review it rings hollow, because we're  
21 already supposed to be doing triennial reviews and  
22 we don't. So to me it's starting a more  
23 transparent relationship to where everybody knows  
24 it's all going to be done in public, ultimately.  
25 So they've got to come up with good ideas that

1 they can back up and show how it might work. And  
2 sometimes it's going to be trying stuff and  
3 sometimes not and we're going to have to be  
4 flexible. And you're saying we can do all of that  
5 within the existing proposal right now?

6 MS. FORESMAN: That's right. And one of the  
7 things that I was most interested to hear from the  
8 voluntary agreement discussion that we had earlier  
9 was that the package that is supposed to arrive in  
10 October would provide information that shows  
11 comparable benefits to what we have in the SED.  
12 So I'd be really very definitely be interested to  
13 see what information shows those types of  
14 comparable benefits.

15 BOARD MEMBER ESQUIVEL: I just echo that I think  
16 that is an important point. Ultimately when it  
17 comes to our ability to consider the voluntary  
18 settlement agreements that may be developed we  
19 have to be able to have an apples-to-apples  
20 comparison to the staff's current work. And have  
21 that connective tissue. So to the extent that  
22 we're creating connective tissue in this process  
23 to allow for the acceptance of the voluntary  
24 settlement agreements likewise then, and have made  
25 this request is there be that sort of cross

1 pollination back to our work as well, because  
2 that's how we can actually be able to make a  
3 determination here, to be able to have apples-to-  
4 apples comparisons to what's being proposed to the  
5 best extent possible.

6 VICE CHAIR MOORE: Well, good.

7 CHAIR MARCUS: Sorry. I didn't mean to interrupt.

8 VICE CHAIR MOORE: No, this is good. I just  
9 wanted to walk through a few examples and test it  
10 through the existing Appendix K language.

11 Another technical issue that resonates with me is  
12 some early scientific work, I would call it  
13 preliminary, conducted by the irrigation districts  
14 that suggests a hypothesis of greater temperature  
15 tolerance of the southern populations. And I  
16 think it's a good hypothesis and something I'm  
17 wondering, if compelling scientific information is  
18 brought forward to you, staff, through the STM  
19 Working Group or whatever forum, does Appendix K  
20 give us the flexibility to adjust the temperature  
21 standards against which we would evaluate flow  
22 proposals?

23 MS. FORESMAN: I'm actually really glad you  
24 brought up temperature targets and how they were  
25 used in the SED and the other studies that we know

1 of have been done. And I definitely want to say  
2 that in Master Response 3.1, you know we addressed  
3 the other temperature studies that have been done  
4 on the Tuolumne. There was no micas or steelhead  
5 study and rainbow trout study done on the  
6 Tuolumne. And then there's also another study,  
7 the laboratory study, on fall run Chinook salmon  
8 using a different type of metric called aerobic  
9 scope.

10 So we're aware of those studies and we understand  
11 when people say they're concerned about the EPA  
12 temperature criteria may be too conservative for  
13 this system. I think that we're definitely open  
14 to hearing about more studies, but each one of  
15 these studies that I just mentioned the authors of  
16 both studies and the funders of them acknowledge  
17 that we need additional information beyond just  
18 the aerobic scope type of information, the  
19 immediate physiological effect to figure out  
20 really what is the temperature profile that should  
21 be our target, so.

22 And in the absence of having the dollars to do  
23 that subsequent like physiology types of studies  
24 we can talk about percentages of times that we  
25 meet it or other ways that you can try to

1 establish a target that you think will still be  
2 protective in the meantime, while you're still  
3 doing additional studies, should that be part of  
4 something that you want to do. So I think that  
5 identifying the correct temperature targets, we  
6 should have science behind what we do. But I also  
7 think that we're aware of what's in the system and  
8 we're aware that it's an open question about the  
9 degree, I guess, of plasticity and ability to  
10 adjust to a different thermal profile.

11 MR. CRADER: And if I can add just briefly to  
12 that. The Master Response Erin referred to also  
13 acknowledges those studies and acknowledges that  
14 they are suggestive that more research is needed  
15 in this area. And we have a pretty robust kind of  
16 feedback loop that's proposed in the amendments  
17 that would allow us to review information like  
18 this and if we find that new scientific  
19 information suggests different targets are  
20 appropriate, there's a way for us to bring that  
21 back to the Board and revisit it.

22 Some of those things may be able to be resolved  
23 through adaptive implementation and the  
24 flexibility that we've developed there. Other  
25 things may require going back to the Board for an



1 update of the water quality objective. But in the  
2 case that we've got good information that's been  
3 developed through the program, we would like to  
4 think that that would be more of a targeted  
5 reopener of the objective. Not that anything's  
6 easy in Bay-Delta, but relatively speaking.

7 CHAIR MARCUS: Well, targeted reopen, I think  
8 we're going to need to get better at targeted  
9 reopeners in a changing world and a dynamic world,  
10 especially as we're starting to get people into a  
11 more collaborative conversation without everything  
12 being a complete redo of the Water Quality Control  
13 Plan. So I think that is something that we're  
14 going to need to do.

15 I do think some people -- it's an interesting --  
16 it depends on an almost infinite number of  
17 possibilities on what might come forward in the  
18 issues. And I think there's a balance between  
19 what needs a reopener and what we can find  
20 flexibility in. Because one person's flexibility  
21 is another person's loss, so we have to figure out  
22 how we frame that.

23 VICE CHAIR MOORE: Yeah, and I'm not sure that  
24 temperature would require a reopener of the  
25 objective.

1 MR. CRADER: I'm speaking just more broadly to all  
2 the information that will develop through the  
3 feedback process and that information being used  
4 to adapt to. But you're correct, for temperature  
5 it wouldn't.

6 VICE CHAIR MOORE: Yeah. And I think that was my  
7 illustration is that that's a great technical  
8 point. We heard it. Is there a pathway in what  
9 you've proposed to operationalize that information  
10 into determinations about flow and proposed the  
11 adaptive adjustments in that?

12 MS. FORESMAN: If I can just make one more point  
13 about temperature in just that in the SED I do  
14 think using the EPA criteria for looking at what  
15 constitutes a significant adverse effect, it's the  
16 right set of criteria to use for the SED. And  
17 knowing that there are other studies out there is  
18 good. We acknowledge them. But I don't think  
19 it's enough to diverge away from a ten-year effort  
20 that looked at hundreds of studies. So I think  
21 they were the right set of criteria to use in the  
22 SED.

23 CHAIR MARCUS: That's good. There is a  
24 distinction of the criteria they used in the SED  
25 versus an idea in a blog post that one saw

1 yesterday and jumping to a conclusion. While it  
2 means not to disparage those thoughts, but people  
3 jump -- we do have these arguments about science  
4 and what's good science. And I appreciate how  
5 much time you've spent trying to deal with peer  
6 reviewed vetted science used as the right thing  
7 with an opening for if you get more versus, sort  
8 of pieces of things that people grab onto that may  
9 be in the right month or the wrong month or  
10 apropos or not. It seems similar, so I appreciate  
11 your grounding in all of that through this.

12 BOARD MEMBER ESQUIVEL: I think and the important  
13 point there as well was that the program  
14 implementation, it allows for that new science to  
15 come through. That there is a process then in  
16 place to allow for the consideration of new data  
17 and new science points. So the sort of  
18 frustration around the SED not most  
19 comprehensively having up-to-date science at every  
20 sort of moment, is sort of second to -- I mean it  
21 is, I feel, sufficient for us to be able to make a  
22 determination. But again the emphasis is then in  
23 the program implementation you have a process to  
24 consider that new science. And it doesn't then  
25 grow stale, if you will, the program and the

1 process.

2 VICE CHAIR MOORE: Great. In this area of  
3 Appendix K, this page 30 adaptive methods for  
4 February through June flows, I was wondering if it  
5 made sense to put language in, as a "for example"  
6 to really acknowledge sequentially dry or  
7 critically dry flows as one example of a reason  
8 for considering adaptive methods for the flows.

9 It wouldn't --

10 CHAIR MARCUS: Could you elaborate a little bit?

11 VICE CHAIR MOORE: So I guess what I'm getting at  
12 is sometimes for clarity in our Basin Plan or  
13 Water Quality Control Plan language, we'll give an  
14 example. What circumstances might trigger the  
15 consideration of adaptively managing within the  
16 range. And what would be the harm in writing  
17 those words in the plan for sequentially dry or  
18 critically dry years, if they present a  
19 foreseeable unreasonable impact on water supply  
20 reliability without a comparable effect on fish  
21 and wild life beneficial uses. That could be one  
22 reason for doing it. At least it would signal  
23 that that's a pathway that the Board and Board  
24 staff and stakeholders would consider.

25 MR. CRADER: Certainly, and provided the language

1 doesn't have any conflict of with the SED or  
2 anything that we analyzed, signaling is useful to  
3 stakeholders. And so we'd look to the Board for  
4 direction on that.

5 VICE CHAIR MOORE: Yeah, you know, I think the  
6 record shows that this is an issue that requires  
7 some creativity. And the word off-ramp has been  
8 used, I think that's not the word I would use, but  
9 just to have -- as the drought continues  
10 presumably we would have had more protective flows  
11 leading into it and even that first critical year,  
12 some resiliency there, some insurance. But we  
13 need some flexibility for water supply I think.

14 Finally, could I do just one more?

15 CHAIR MARCUS: We'll come back to that. You're  
16 doing great. You're hitting on a bunch of the  
17 same issues I have, but they all --

18 VICE CHAIR MOORE: It's a flag thing.

19 CHAIR MARCUS: -- have conversations to be had,  
20 yeah.

21 VICE CHAIR MOORE: I don't know if I have all the  
22 answers, but we really want to reflect what we've  
23 heard.

24 And then finally I want something like the STM  
25 Group, the Science, Technology and Mathematics

1 Group to be successful. And folks know I'm always  
2 thinking about governance and institutions and the  
3 confidence therein and their technical, managerial  
4 and financial capacity and all these things. And  
5 so this is an important governance element of your  
6 proposal. It's where the rubber hits the road.  
7 This is the group that needs credibility and has  
8 to be empowered. It needs to be representative to  
9 have the confidence of the wide range of  
10 stakeholders that are depending on it.

11 You've touched on the folks who should be in  
12 it. We've talked about it a bit already. I just  
13 want us to think long and hard about how we want  
14 to structure it to signal I think confidence that  
15 this is going to be an institutional structure  
16 that can be relied upon.

17 And stepping back, my hope for this Bay-Delta Plan  
18 update is pretty simple really. I was hoping that  
19 it would create incentive for mimicking natural  
20 hydrology, number one. And number two, foster  
21 collaboration. That's my hope in two bullets.

22 And the STM Working Group is fostering  
23 collaboration. It needs to be a forum of regular  
24 attendance. This is where decisions are being  
25 made. The real-time decisions, the long-term

1 decisions, we're in the loop, resources, agencies  
2 are in the loop. But as we know with any  
3 institution it can be unwieldy if it's too big.  
4 It can be ineffective if the representatives don't  
5 reflect the population that is affected by its  
6 decisions. So it's a very sensitive issue in my  
7 opinion and worth spending some time on how big is  
8 it, is there a Chair, who -- and then the idea  
9 that maybe the membership of the working group  
10 will be a balance such that no entity constitutes  
11 a majority of the group. And in that way, maybe  
12 we can build confidence in that institutional  
13 structure proposal. Those are some ideas there.  
14 And if you have any thoughts or we can just make  
15 that a flagged issue as well. And that's it for  
16 my question.

17 CHAIR MARCUS: Oh, thanks. And a blend of  
18 questions and comments and we'll -- that's why I  
19 said they may bleed into each other. I'm going to  
20 let other folks ask questions, because I always  
21 love it if you cover all my questions.

22 BOARD MEMBER DODUC: I'll keep it short, but I'll  
23 second Mr. Moore's last comment about the  
24 institution of the institutionalizing or the  
25 framework of the STM Working Group. I think that

1 work group is going to be critical to the success  
2 going forward and for the consideration of the  
3 representation and the structure. Not that we  
4 want to micromanage everything, but assurance -- I  
5 think I can't repeat your exact phrase, but equal  
6 representation I think is going to be critical.

7 And I think the point that I believe it was  
8 Mr. Lauffer who raised the idea of independent  
9 expert. You know that it's one that I would  
10 endorse. However I have learned through many  
11 years on the Board and being involved in various  
12 projects that usually experts are associated with  
13 one group or another. And sometimes by requiring  
14 independence, you may potentially rule out some of  
15 the best experts in certain fields. So I'm not  
16 sure how to manage that, but I think it's a good  
17 point to think about.

18 Since it's getting late, let me just lob you a  
19 couple of soft balls. (Laughter.) And this is  
20 one area actually I've had a lot of discussions  
21 with the various stakeholders that I meet with,  
22 because there's this really passionate feeling  
23 about functional flows. And this, as you have  
24 heard the past two days, this high criticism of  
25 the unimpaired flow approach as somehow being



1 outdated, old fashion and just not as good as  
2 functional flows. And I have always believed that  
3 the two are not separate. That the unimpaired  
4 flow concept does serve to meet functional needs.  
5 So I want to give you a chance to expound upon  
6 that for the record.

7 MR. CRADER: So, I'll start. Unimpaired flows by  
8 themselves do create functional flows. Moreover  
9 what we're proposing is a way to develop a budget  
10 of water that the STM could use its expertise to  
11 decide how to spend in a given year, given  
12 conditions with the weather, with water supply,  
13 with fish. Any conditions that they need to  
14 consider and decide how to best spend that and  
15 propose that to the Board. And so --

16 CHAIR MARCUS: To make them even more functional?

17 MR. CRADER: To make them even more functional.  
18 And so we think it is a good approach, but I do  
19 appreciate, Board Member Doduc, that you have  
20 pointed out that functional flows do not exclude  
21 the unimpaired hydrograph and that's an important  
22 concept. So thank you for also pointing that out.

23 BOARD MEMBER DODUC: And if my memory is correct,  
24 the Delta Independent Science Panel, or I might  
25 have the name and acronym mixed up, didn't they

1 look at this issue of functional flow and agree  
2 that while it is what we all should be working  
3 towards the current data is not adequate enough to  
4 support the development of what these functional  
5 flows might be?

6 MS. FORESMAN: I'm not sure I can speak to the  
7 Delta Independent Science Board's conclusion on  
8 that.

9 BOARD MEMBER DODUC: Okay.

10 MS. FORESMAN: So sorry about that, but I feel  
11 like I want to follow up something that Phil said  
12 on functional flows and just to acknowledge that  
13 in the in the staff presentation yesterday we made  
14 a concerted effort to point out in each one of the  
15 benefit slides how the unimpaired flow was  
16 providing a specific function. So in the flow  
17 slide, we pointed out that it returns the pattern  
18 and a portion of the volume to the river.

19 In the temperature slides we pointed out that  
20 temperature is a habitat metric. That's a  
21 function of the flow that we're providing with  
22 that budget that's established by 40 percent of  
23 unimpaired flow.

24 And then with floodplain activation, the water to  
25 activate floodplains is a function of the budget

1 that we're providing.

2 And I was also very happy to hear on the panel  
3 earlier Director Bonham acknowledge that he heard  
4 that from the presentation that the unimpaired  
5 flow approach is consistent with the functional  
6 flow approach. And I was very happy to hear that  
7 the message came across.

8 BOARD MEMBER D'ADAMO: I have to say I disagree.  
9 I've got to just jump in here.

10 MS. FORESMAN: No, go ahead.

11 BOARD MEMBER D'ADAMO: And I know we're going down  
12 the line, but since we're talking science --

13 CHAIR MARCUS: No, but that's okay. We're going  
14 down --

15 BOARD MEMBER D'ADAMO: -- and as a nonscientist, I  
16 don't want to overplay here my understanding, but  
17 things have evolved. And whether it's a blog  
18 that's not someone's opinion about an article that  
19 they reviewed or a study, I mean what I'm picking  
20 up is that this notion of flow being the master  
21 variable. I mean, Cliff Dom sat here and said,  
22 "There's a number of factors," and at that flow  
23 being the master variable really has been taken  
24 out of context. And that his words, his exact  
25 words were there's been a softening of that

1 approach. Because really what we're finding is  
2 it's the function of the flow along with  
3 temperature, habitat and these other issues.  
4 And so if I look at just the underpinning and I  
5 don't want to argue temperature, because I don't  
6 think I can, but I have some questions about that  
7 as well. But just setting temperature aside and  
8 just looking at floodplain habitat, the  
9 information over the last two days, I mean what we  
10 were hearing and even what I heard Dr. Tompkins  
11 say is that we're not looking at wetted acres.  
12 We're looking at floodplain habitat and there are  
13 very specific characteristics that go along with  
14 that.  
15 There's this Yarnell 2015 study, "Functional Flows  
16 in Modified Riverscapes." And that's what we're  
17 talking about here is modified riverscapes.  
18 That's why the geomorphology is so important.  
19 Mimicking a natural flow regime in modified  
20 riverscapes will not yield successful ecological  
21 outcomes unless such flow trigger functional flow  
22 processes. For example, the restoration of peak  
23 flows will not regenerate habitats if the river is  
24 starved of sediment or if the river channel is  
25 highly confined.

1 So I think that -- I mean my frustration on this  
2 has been I do think we're using outdated science.  
3 I really do. That's my opinion. And I realize  
4 that there's reasonable people can differ, but the  
5 notice went out in 2009. A lot has changed since  
6 then. A lot has changed on this. This is such an  
7 exciting time. It's one study after the next  
8 that's coming out and I think that we're on the  
9 cusp of some really good things. But to hang our  
10 hat on functional flow that it's going to produce  
11 all these things, really it's the combination.  
12 And I think it gives us -- for me it really gets  
13 back to that issue of habitat and what is habitat.  
14 That this flow isn't going to magically create  
15 habitat in and of itself. We need to get people  
16 out in the channel doing work, moving that cobble  
17 back in at strategic locations.

18 BOARD MEMBER ESQUIVEL: I agree with the Board  
19 Member in so far as it is about the site specifics  
20 of the tributary we're talking about, where it's  
21 at, that water alone doesn't create habitat. You  
22 can activate certain things and you can kind of  
23 see, but it's less intentional than it needs to  
24 be. And that the habitat needs to be intentional  
25 and then the flows be married and intentional.

1 And I don't think there's disagreement or at least  
2 from me on that.

3 And I think what the issue is, is that we've never  
4 been very good at accounting for what the  
5 ecosystems need, right? Of saying here is the  
6 block of water and this is what we're going to  
7 have to work with. We just haven't. We haven't  
8 gotten to that. We're here. We're having that  
9 conversation.

10 So a percentage of unimpaired flow is a metric.  
11 It's a metric by which we're defining that block  
12 of water. And again agreement with you that it  
13 has to be paired within the realities of what that  
14 river system looks like, what's being activated at  
15 what flows and but that's not -- and I know the  
16 frustration is that there's a tremendous amount of  
17 just kind of unknown then, on how it would all be  
18 implemented. And those are all discussions for  
19 then a program implementation for the STM Group if  
20 we proceed in this. Or for whatever the VSA sort  
21 of process sort of delivers to us in whatever  
22 process they have in there to make these  
23 determinations.

24 But those determinations are best made with  
25 locals, by locals with the ownership of the river,

1 is one that needs to come from the communities.  
2 And so to Board Member Moore's point about process  
3 and systems being important to this that you have  
4 to have the right institutions I wholly agree.  
5 And whether it's an institution that we  
6 necessarily pull together in the context of the  
7 STM Group, or in the VSAs, their sort of decision-  
8 making process, that's incredibly important. But  
9 again when it comes to this raging debate back and  
10 forth that a percentage of unimpaired flow is a  
11 functional flow or not a functional flow, again I  
12 agree that it is about -- that it's simply a  
13 metric. It's how we're defining the block of  
14 water. We've never defined it very well. And so  
15 we're trying to grasp that.  
16 And we can differ on how much that water should  
17 be. What that block should be. And I think it is  
18 specific, again, to where we're kind of talking  
19 very blunt for numbers and tools here. But  
20 ultimately a successful implementation requires us  
21 to have far more site-specific information and  
22 again have habitat restoration that couples with  
23 it. That simply putting water alone, that's not  
24 going to achieve the maximum benefits that we  
25 potentially could here.

1 CHAIR MARCUS: Yeah, go ahead.

2 BOARD MEMBER DODUC: But just going back to Erin's

3 --

4 CHAIR MARCUS: Since you started it, yeah go  
5 ahead.

6 BOARD MEMBER DODUC: I know something Erin  
7 doesn't.

8 CHAIR MARCUS: Then we'll come back to that.

9 BOARD MEMBER DODUC: In our record dated February  
10 23rd, 2017 is a letter from the Delta Independent  
11 Science Board, which includes on page 4 a  
12 discussion of functional flows. And I won't read  
13 the entire thing, but it says, "It would not be  
14 possible in the near term to have effective  
15 environmental flows exclusively on functional  
16 flows. Over time it is desirable for ecosystem  
17 management to increasingly employ more of a  
18 functional flows approach." So it endorses the  
19 functional flow approach, but recognized the  
20 limitations currently. And I think it endorsed  
21 the unimpaired flow approach as well.

22 CHAIR MARCUS: Yeah, it's really easy for it to  
23 get to seem like an either or. What I've read in  
24 your and your predecessors' view is a complete  
25 endorsement of the fact that it's a combination of



1 flow and non-flow that's going to be optimal. I  
2 can't remember the word Board Member Esquivel just  
3 used in terms of maximizing it. But that what  
4 you've tried to do in the Water Quality Control  
5 Plan, and in choosing 40, is pick a number where  
6 unimpaired flow can create enough function to  
7 improve things. And a willingness to reduce that  
8 number if combined with the non-flow things that  
9 we all feel can make a difference.

10 And this notion of getting a crosswalk to at least  
11 some level of comparability that can give people  
12 some comfort on this in a more rigorous way than  
13 just picking acres out of the drop of -- you know,  
14 out of hat I think is a pretty sophisticated  
15 approach. But it is really easy to be  
16 misunderstood in terms of people's fears. So I  
17 think and sometimes people see disagreement where  
18 it actually doesn't exist. So words are tough  
19 here, I think.

20 VICE CHAIR MOORE: And I -- you say you're going  
21 to offer some time for comment. I wanted to make  
22 sure I could say a couple of things before we  
23 finish, so.

24 CHAIR MARCUS: Oh yeah, we're going to be here for  
25 a while. So anybody who's tired -- because I know

1 I'm looking forward to hearing -- I know Board  
2 Member D'Adamo has worked really hard on this and  
3 I'm looking forward to hearing it as well as being  
4 able to hear from the rest of you I don't get to  
5 talk to. So I want to continue on questions.

6 BOARD MEMBER DODUC: And don't forget there's  
7 Board Member Report on the agenda, too.

8 CHAIR MARCUS: Yeah, I'm going to do that.

9 BOARD MEMBER DODUC: And the Executive Director's  
10 Report.

11 CHAIR MARCUS: But before those reports I have a  
12 million questions. Let me simply say now that I  
13 am going to use some sort of privilege unless you  
14 -- over the agenda -- unless you're really upset.  
15 But when we're finished with this conversation, we  
16 will just continue this particular item until the  
17 next Board meeting we can deal with it, unless we  
18 decide to do something else earlier. But we're  
19 not going to do Board Member Report, Executive  
20 Director Report or Closed Session. (Laughter.)\_  
21 Yeah, it's 7:15. That's not going to make anybody  
22 that happy, but at least it's something. But I  
23 want us to be able to focus on this, because this  
24 is really good.

25 BOARD MEMBER ESQUIVEL: I don't think I have any

1 further questions. I think in the course of the  
2 other Board Members' questions by and large the  
3 things that I was going to bring up have been. So  
4 I'll reserve sort of any space for questions at  
5 this point then.

6 CHAIR MARCUS: All right. I had a few that I want  
7 to ask before we get to the comments to throw out.  
8 And again it's hopefully since we're in the  
9 deliberation phase it's not definitive. So as we  
10 keep listening to each other and we'll be working  
11 with you, but there are a couple of things I think  
12 would be good to talk about.

13 For one thing, there are a number of legal issues  
14 that I feel fairly comfortable about. People  
15 always -- and it's important to hear different  
16 views -- I think there will inevitably be  
17 litigation. I can't imagine a scenario where  
18 there won't be litigation. And I can see just as  
19 much from one side as the other. So the fact that  
20 there might be litigation I think is not actually  
21 -- as much as I don't love a lot of litigation,  
22 we're not going to eliminate it. And I don't  
23 think that should be. I think we should try and  
24 figure out what we think the right answer is.

25 But that said I hate to say, as a lawyer, I'm

1 going to want to spend a lot of time on some of  
2 these issues really going through every issue.  
3 But I don't think now is a productive time to do  
4 it.

5 I did want, and some of this has been raised, but  
6 I want to give you a chance to talk a little bit  
7 more about it than we have so far. I do think the  
8 issue that's come up over wetted acreage versus  
9 some of the plans that people have done that are  
10 more targeted. It's not just the flow list, but  
11 some of the things that people have suggested. I  
12 know in my conversations with you all, you're not  
13 asserting that that additional wetted acreage will  
14 magically turn into a floodplain. So that a park  
15 or cobble or different things doesn't necessarily  
16 generate certainly the same response as a more  
17 tailored restored area or just an optimal area.

18 So I wanted to give you a chance to answer that  
19 question that you've answered for me, but I think  
20 is one we need to focus on, which is why in sort  
21 of lay terms why the actual floodplain inundation  
22 piece of your analysis, what it's based on.  
23 Because you know that every square foot or mile of  
24 that is not going to produce the same thing as  
25 targeted miles.

1 MR. CRADER: So I mean I'll start with the kind of  
2 higher level general answer, in that we did sort  
3 of a desktop analysis, which is appropriate for a  
4 programmatic level CEQA document, where we used  
5 the GIS to analyze what areas will be inundated  
6 and what areas wouldn't. And we used, we think,  
7 reasonable assumptions in how we did that. But we  
8 also recognized that in implementing this we're  
9 not going to want to put water on surfaces that  
10 don't provide good habitat. And that's where the  
11 STM with their local expertise could really  
12 refine how they spend the water and decide what  
13 flows would activate what areas and not waste  
14 water on areas that wouldn't necessary have a good  
15 response.

16 So we could provide you more detail on how our  
17 analysis may or may not differ, but for the  
18 programmatic document that we did, we think that  
19 our analysis was appropriate. Implementing, we  
20 may want to refine that. And there's certainly  
21 merit to looking at better red areas that would  
22 provide a better response.

23 MS. FORESMAN: All that I was going to start with  
24 was that the analysis is done on flow versus  
25 wetted acre relationships, or flow versus

1 floodplain relationships that were published by  
2 the US Fish and Wildlife Service. And it is -- I  
3 will underscore what Phil said in that it is  
4 appropriate for a programmatic analysis. It  
5 allowed us to provide a quantification of the  
6 benefits that we could look at the analysis and  
7 what the potential would be for floodplain  
8 activation.

9 I think it's not really very easy to compare that  
10 to something that is a study that's much more  
11 granular and refined and much more site specific.  
12 So I think that it is an appropriate analysis for  
13 a programmatic document. I think it makes it  
14 difficult to compare it to something that is much  
15 more site specific.

16 BOARD MEMBER D'ADAMO: You would have a different  
17 result if you used the studies that the districts  
18 gave you, because it shows an actual reduction in  
19 habitat. So of course, I mean programmatic, I  
20 mean you can't really compare the two, because one  
21 is more site specific. I am missing out on  
22 something here. Why wouldn't we want to use more  
23 updated, more specific information? Why would we  
24 want to just stand back and say let's just use  
25 something programmatic if we all agree that wetted

1 acres isn't really habitat? And I understand if  
2 that's all we have. If that's the only tool that  
3 we have, that I am just really scratching my head  
4 on this one.

5 Each district has a model where it's a 2D model,  
6 not a one-dimensional model. And they had people  
7 out in the field and they were peer reviewed. Not  
8 every one, I don't want to say that. But I  
9 believe one or two was peer reviewed, so I'm just  
10 so confused. Why wouldn't we want to use that?

11 MS. FORESMAN: I think you're referring to the set  
12 of studies that have a different curve. And I'm  
13 going to ask Dan to chime in here on the different  
14 set of curves that were submitted to us.

15 MR. WORTH: So I think there's two issues going  
16 on. One is modeling physical changes to the  
17 channel and for our floodplain analysis we did  
18 look at information from the districts. We also  
19 looked at information from the Bureau of  
20 Reclamation. We looked at information from CBECC  
21 that was requested from Fish Bio. And so we used  
22 a variety of information to conduct our floodplain  
23 analysis. I think what's getting confused is our  
24 floodplain analysis, our wetted acre analysis and  
25 weighted useable area analysis, our PHABSIM

1 studies that were done by the districts.

2 For our analysis we separated our wetted area  
3 specifically for our analysis outside of the main  
4 river channel. We also did -- we looked at  
5 PHABSIM curves for habitat inside the main part of  
6 the river channel. And we used their PHABSIM  
7 curves for our in-river analysis.

8 So we broke our analysis into two parts: in river  
9 and out-of-river. And the districts in some cases  
10 combined that all into one analysis, a weighted  
11 usable area, in channel and on the floodplains.  
12 We felt that that was not appropriate in some  
13 cases and we have a response to that in Master  
14 Response 3.1.

15 There's issues with weighted useable area when you  
16 get onto the floodplain. Weighted usable area  
17 does not take into consideration additional food  
18 resources that are available on the floodplain.  
19 There's issues with developing habitat suitability  
20 criteria on the floodplain, which feed into these  
21 weighted useable area curves. It's difficult to  
22 go out and observe fish when they're developing  
23 these habitat suitability criteria under high-flow  
24 conditions. So we had issues with applying those  
25 results to floodplain areas.



1 In some cases they tried to incorporate  
2 temperature benefits into their weighted useable  
3 area studies and they called it effective habitat.  
4 And we had issues with the way that some of the  
5 assumptions that they made. They made an  
6 assumption if temperature was even one degree or  
7 half a degree over the EPA criteria, the  
8 temperature criteria that the habitat became -- it  
9 was taken out of their calculation for total  
10 habitat. So they made an assumption that if  
11 temperature is just a little bit over the criteria  
12 that habitat doesn't exist for fish.

13 And we had issues with that. We responded to  
14 these issues in Master Response 3.1. We responded  
15 in individual comments. And we've documented why  
16 we didn't use all the data that they used or at  
17 least their interpretation of the data. And  
18 again, we used their weighted useable area curves  
19 for our in-channel analysis and we used some of  
20 the elevational data for our floodplain analysis.

21 And I think a big part of the misunderstanding  
22 with our floodplain analysis is we show a relative  
23 comparison between baseline and the alternatives,  
24 how often this overbank area is inundated. So we  
25 showed this relative comparison between baseline

1 and our alternatives.

2 And I think some of the wording, we referred to it  
3 as floodplain at times and as overbank habitat at  
4 other times. And I think that just the wording is  
5 confusing people.

6 What's really happening is we're inundating  
7 terrestrial vegetation. We're inundating riparian  
8 areas. We're inundating some upland areas. And  
9 the inundation of terrestrial vegetation at the  
10 right time of year is extremely important for  
11 rearing and migrating fish and it provides a lot  
12 of benefits. It provides additional food  
13 resources. It provides cover from predators and  
14 when you string those things together across  
15 hundreds of miles of river there's benefits to  
16 that and it shows up in the data. We see that  
17 when there is more floodplain and higher flows and  
18 colder temperatures we see more fish come back  
19 two-and-a-half years later. So the data shows  
20 that there's benefits to there's higher flows.

21 BOARD MEMBER D'ADAMO: The data shows that with an  
22 increase in wetted acre days -- even one day, one  
23 day, several days, we don't really know -- because  
24 the model that you used the only criteria is  
25 wetted acres, not any of the other characteristics

1 of habitat. Correct temperature, duration,  
2 velocity, cover; it's not included in the model.

3 MR. WORTH: We looked at depth, velocity,  
4 substrate and cover in-channel. We used their  
5 weighted useable area curves that were developed  
6 by the districts.

7 BOARD MEMBER D'ADAMO: I'm referring to the wetted  
8 acres.

9 MR. WORTH: So for in-channel, for the out-of-  
10 channel area we did not use that. We just used  
11 wetted overbank area.

12 BOARD MEMBER D'ADAMO: Okay.

13 MR. WORTH: And it's a relative comparison, so  
14 it's baseline versus alternatives. It is a  
15 representation of inundating riparian vegetation  
16 and upland vegetation. And we feel that it's  
17 appropriate for the kind of analysis we did.

18 BOARD MEMBER D'ADAMO: Yeah. Well, I just want to  
19 remind everyone that in 20, I can't remember the  
20 date, '16 or 2017 this approach was criticized by  
21 water users and NGOs alike. And I remember Rene  
22 Henry and Jon Rosenfield and I took some notes,  
23 wetted acres is an inadequate indicator of actual  
24 useful habitat available to fish populations.  
25 Habitat is defined by numerous physical variables

1 that can be measured in the field. And then I  
2 don't want to go through all -- well, we cover  
3 temperature etcetera.

4 CHAIR MARCUS: Do you want any more to illuminate?  
5 I mean it's one of the issues we'll spend time on.

6 MS. FORESMAN: Maybe one thing just worth  
7 clarifying and I want to make sure that I  
8 understand correctly. It seems like we did use  
9 the models that the district gave us for the in-  
10 channel habitat. And I'm not aware that they gave  
11 us any kind of modeling or results for the  
12 outside-the-channel habitat; is that correct?

13 MR. WORTH: So some of the weighted useable area  
14 curves go into the floodplain. So the weighted  
15 useable area curves are -- sorry -- I want to  
16 think out how I want to say this. So they include  
17 flows that are floodplain flows, so they can go up  
18 to a couple thousand cfs, some of these curves  
19 that were developed. We did not use parts of  
20 those curves that were outside of the main  
21 channel, because of the reasons that we outlined  
22 in Master Response 3.1 and individual comments.  
23 We had issues with some of the assumptions that it  
24 takes to make those curves outside of the main  
25 channel.

1 BOARD MEMBER D'ADAMO: Yeah, so I don't really  
2 know the answer to this. Based on my read of this  
3 I might be a little confused. This is a Bureau of  
4 Reclamation study. This is one of the studies  
5 that was peer reviewed and the concern that I have  
6 is that if you use the districts' information  
7 there is a common theme. In each one of the  
8 studies it indicates that habitat, in-channel  
9 habitat, can be displaced.

10 And so I'm not going to go as far as saying that  
11 they said it could be a waste of water. But  
12 that's the argument that some of the water users  
13 are using, that this could be viewed as -- I don't  
14 remember who brought up the Constitution and the  
15 waste and unreasonable use of water. I don't know  
16 if that was Kevin O'Brien or somebody else, but I  
17 think that -- oh, Chris. Yeah, so I think that  
18 this is the argument that they're making. That it  
19 could be a waste and unreasonable use of water,  
20 because if you have habitat in channel and this  
21 flow could actually displace habitat.

22 And so I'll just read from this study here, "The  
23 channel morphology in the Stanislaus River is such  
24 that increased discharges did not greatly increase  
25 wetted area when comparing the range of discharges

1 evaluated for within the bank study." So that's  
2 within the banks.

3 "Additionally, the increase in available space was  
4 counteracted by a decrease in habitat quality due  
5 to increasing velocity and depth. Therefore,  
6 increasing discharge produced more wetted area,  
7 but the habitat quality declined over the same  
8 range of discharges. Therefore as discharges  
9 increase River 2-D," that's the model, "predicts  
10 that WUA, wetted useable acres or area, will  
11 decrease."

12 So I think that this is the -- I believe that this  
13 is one of the arguments. This is the basis for  
14 one of the arguments that it could be viewed as a  
15 waste of water.

16 And I'm not saying that I necessarily agree with  
17 that. That's why I'm wanting to better understand  
18 this wetted acre. And, you know, if you displace  
19 habitat, but you create some other habitat then it  
20 becomes an issue of balancing the beneficial uses.  
21 That's a lot of water and a big impact to water  
22 users, so it becomes that sort of a choice. But I  
23 just wish our model was different. I wish that it  
24 was actually for habitat, because if you displace  
25 in-channel it's not telling us that you get

1 something else. It's just telling us wetted acres  
2 and we don't know anything about cover. Wetted  
3 acres for one day, five days, ten days? I don't  
4 know what that means about cover, depth, velocity,  
5 etcetera.

6 MR. CRADER: Board Member D'Adamo, we understand  
7 your, or I understand your concern. And I will  
8 admit I'm not sure if that's the report that  
9 you're referring to is in our record or not. But  
10 I would like, if it's okay with you, for us to  
11 take that report and perhaps get back to you with  
12 a little more thought-out analysis of that.

13 MR. WORTH: If that's Bowen, et al., 2012 from the  
14 Bureau of Reclamation it's in our record and  
15 that's the curve that we used for our Stanislaus  
16 weighted usable area evaluation. But it's obvious  
17 that we need to sit down and spend some more time  
18 going over this issue, so we'd be happy to do  
19 that.

20 CHAIR MARCUS: Yeah, I think part of the challenge  
21 is to -- and I think you may -- I'm just  
22 envisioning reactions. The issue of what's  
23 adequate for programmatic and then saying we'll  
24 get more specific. You have, for example, one of  
25 my issues and we've spent time on it and I'll need

1 to spend more, is of course the Merced, because  
2 it's different in a "let me count the ways." I'm  
3 not saying it calls for doom, but I really think  
4 if I were on the Merced I can understand where  
5 folks at seeing all that cobble and all that don't  
6 quite get how it computes. I've seen your  
7 temperature chart, which shows how it can totally  
8 help the whole system. But I think the question  
9 is when you get to that and I think folks have a  
10 sense of, "Well, if we get to it later we're under  
11 the Sword of Damocles for a set of numbers that we  
12 don't see the justification for on our particular  
13 river."

14 So I'm not asking a question or making a comment  
15 on it, but I think it's the dueling narratives  
16 that we need to figure out to put in their proper  
17 perspective. And so thanks for offering, but I  
18 think we are going to need to spend more time on  
19 it. Even if it goes beyond what we envision  
20 programmatically and we have opportunities in  
21 there to figure out how to adjust it. There's  
22 still an overall issue of flow that in the main  
23 STM that's pretty darn important too.

24 MR. CRADER: We definitely hear your concerns and  
25 we'll try and analyze results.



1 CHAIR MARCUS: Yeah, the Merced is just unusual.  
2 I wanted to ask you questions about talking about  
3 you felt about the Merced, but in particular, but  
4 I know we've spent a lot of time. But there are  
5 some more conversations to be had both with us and  
6 with them.  
7 And the carryover issue is on my list, just  
8 because I think it's another one where the  
9 mechanism is confusing to people. You've already  
10 tried in the colloquy with Board Member D'Adamo to  
11 clarify it. But I do think we do think we still  
12 need to clarify a little bit more how, from a  
13 regular person perspective as opposed to the folks  
14 who do this all the time, how it operates. So it  
15 could be just a difference in narrative as opposed  
16 to an actual difference in what you intend. But  
17 there's, as always there's that narrative stuff  
18 that we have to work on, so it's clear. And I  
19 think the carryover issue is a confusing one.  
20 But the other question I have and I just posit it.  
21 You don't need to answer it. But it's one that I  
22 find I have an opinion about, but I want to --  
23 I've been trying really -- it's another reason  
24 anymore to have an open mind in here for everybody  
25 and wear it for a little while to think about, is

1 this whole issue of the role of contract  
2 agreements that people have quite apart from how  
3 we might regulate them or put a condition on their  
4 water right or whatever we would do for  
5 implementation.

6 And so it's challenging to figure out how to work  
7 that into an impact concept. So if you think for  
8 -- I'll give a few examples, but there's Stockton  
9 East example or there's in terms of what's the  
10 impact on Stockton East? Or what's the impact on  
11 Modesto, because of this agreement that they have  
12 with Modesto? I'm going to want to know well,  
13 what's the amount of water or the percentage of  
14 water in the Modesto Irrigation District of the  
15 City of Modesto?

16 So for me, understanding that dynamic, I need to  
17 understand the actual quantities that we're  
18 talking about. Because, of course, generally  
19 municipal use in the way -- if we were doing it  
20 independently it does have a bit of a thumb on the  
21 scales within our managing of beneficial uses.  
22 And even in terms of certain aspects of water  
23 rights implementation there are different rules  
24 for them. But to me, I need to think about the  
25 quantity of it to have a sense of what the -- or

1 of the possible is.

2 Just that yeah even in your Response to Comments,  
3 for example, the SF PUC where they -- I think Mr.  
4 Carlin talked about why they're more conservative  
5 in terms of the number of years and I can  
6 understand that. Assuming it's all going to be  
7 rationing and they can't do anything else, I think  
8 you did a very good job in the Response to  
9 Comments of saying that wasn't actually the best  
10 model. The best model would be consistent with  
11 everything else they're doing.

12 So it made it harder to have a direct conversation  
13 about the actual impacts on San Francisco. And  
14 they're impacts are impacted by the agreement they  
15 have, which is a little different. So I want to  
16 talk about that a little bit more. I'll probably  
17 need some of the lawyers to understand how far we  
18 go with that as we weigh the balancing piece of  
19 what we do.

20 And I have a -- there's a number of other  
21 questions that you've talked about and I'll  
22 probably follow up with them later, because I  
23 don't want to spend an hour on all my questions,  
24 because it's getting late. And I really do want  
25 to hear my colleagues thoughts that they want --

1 again, not definitive -- to put on the table for  
2 you and for the rest of us to bear in mind as  
3 we're thinking in our own deliberations. So I  
4 want to through it open.

5 Sorry, I keep turning to you, Dee Dee, but I know  
6 you've done a lot of work on this. Can you toss  
7 out the issues? You've already talked about a few  
8 of them, but I know there's a lot more. So  
9 please?

10 BOARD MEMBER D'ADAMO: Well, I have a few  
11 different categories here. So first of all, I  
12 appreciate the discussion that we just had on  
13 wetted acres and habitat. So I just have a couple  
14 of areas that I'm calling out --

15 CHAIR MARCUS: Oh, good.

16 BOARD MEMBER D'ADAMO: -- that I just wish that we  
17 had a different document before us. And so I want  
18 to start by just saying that I've probably spent  
19 too much time on this. You know how when you  
20 spend too much time on something you can kind of  
21 get down in the weeds a little bit. So before  
22 really getting into this much further I'd like to  
23 do what I can to put some perspective on some of  
24 the comments that were made by some from the San  
25 Joaquin Valley about the lost faith.

1 And I do think that the tone of the discussions  
2 over the last two days, I do appreciate that it  
3 was much more civil than what we've heard in the  
4 past. But there's a reason that it's more civil.  
5 Most of the people didn't show up. They're done.  
6 They're just too frustrated. They've participated  
7 over a period of years. They don't feel that  
8 they're being listened to. And the only thing,  
9 the only significant change that they've seen is  
10 that there was an increase in the average of  
11 unimpaired flow from 35 percent to 40 percent.  
12 That's the only thing that they have seen.  
13 And I have to say that after -- and I didn't  
14 subscribe to that point of view when I first got  
15 started. I thought no, I'm going to -- I know  
16 these rivers. I don't have a background in  
17 science, but I have a background in policy and  
18 bringing people together. And I was real excited  
19 about the opportunity. I don't feel that I've  
20 gotten through at all, not at all. And probably  
21 the best day -- I'll give two days: the best day  
22 and the worst day of my involvement in this.  
23 The best day was when Felicia, you came out to the  
24 Merced River, and we spent some -- we had a great  
25 conversation with Chris Shutes. Is he still --

1 I love Chris Shutes. We had Michael Martin there.  
2 We had what's the name of the group, Friends of  
3 the Merced? I can't remember, but a local NGO.  
4 And there was some discussion about you know  
5 bottom up rather than top down. And I think that  
6 in part was why it was such a good discussion,  
7 because we had a local NGO, we had the irrigation  
8 district. We had the irrigation district's  
9 biologist. And they were all kind of saying the  
10 same thing. It was so exciting.

11 CHAIR MARCUS: That was good.

12 BOARD MEMBER D'ADAMO: And what were they saying?  
13 They were saying we've got this reservoir and the  
14 habitat is within so many miles give or take. You  
15 know, they didn't agree totally, but generally  
16 speaking they were talking about the areas there  
17 right below the reservoir. And this is Crocker  
18 Huffman Dam, not New Lake's checker. And of  
19 course we flew over and we saw the horrible  
20 decimation of the river. And you just have to  
21 feel bad for looking at that and think my god,  
22 it's almost like a moonscape. How are we going to  
23 get this back into the river?

24 CHAIR MARCUS: That was a sci-fi movie, for sure.

25 BOARD MEMBER D'ADAMO: Yeah. Yeah, but they

1 worked on it. They worked on it in a couple of  
2 areas, similar to say Honolulu Bar on the  
3 Stanislaus. And they were able to see some  
4 improvements. They need to do more modeling and  
5 they need to do more restoration. And they were  
6 agreeing that they need to do more restoration.

7 I also heard. I don't want to overstate this, but  
8 I heard boy the further down you get to the river,  
9 wetted acre or not, it's sandy. It's sandy. It's  
10 not an opportunity for rearing habitat. All you  
11 want it to scoot those critters down the river  
12 once they get that far. Because increased  
13 temperatures, not the opportunity for habitat.  
14 And whether you have a model or not what we were  
15 hearing from the folks out there on the river bank  
16 was that shouldn't be where they focus. Maybe get  
17 some cover, opportunities for cover, probably a  
18 little bit of more flow, so that during the out-  
19 migration period you could see some temperature  
20 benefits. But mainly that focus in the upper  
21 reach.

22 And so I remember we left and said, "Let's talk  
23 about this. Let's go and talk with staff about  
24 it." And then when we went back I thought that we  
25 had a day where we were going to have a dialogue

1 about the Merced. And I was so disappointed,  
2 because here's the worst day. And it's reflective  
3 of a lot of the discussions that we're talking  
4 about how I feel, all right? Just from being  
5 through this process. I felt that staff was not  
6 listening.

7 I felt that staff was advocating for their  
8 position. That this is what we've studied.  
9 Here's what we have on temperature. Here's what  
10 we have on wetted acres. This is why this is  
11 better. This is why this approach is better. And  
12 we cannot make adjustments. We can't make  
13 adjustments to the document. This is where we  
14 are. And that was when I realized oh my gosh,  
15 this is really going to be a tough job. Because  
16 even when the light bulb goes off, and you hear  
17 from stakeholders, recognizing that we were not in  
18 a Board room and hearing official positions, but  
19 just informal discussion that this was going to be  
20 a lot more difficult.

21 And then another bad day was last week. And I  
22 regret that we had different briefings that day.  
23 But I had my own briefing and we were talking  
24 about the language from resources and why it would  
25 work or why it wouldn't work and much along the



1 lines of Board Member Moore here talking about  
2 flexibility. What can we do to provide for  
3 flexibility whether it's the language from  
4 resources or some other approach? Answer, "Well  
5 there's nothing else you can do." "Why?"  
6 "Because what we have is the most -- that's what's  
7 protective." "Well, but certainly we can make a  
8 shift? We can make a shift to another, you know,  
9 it could be 20 percent of unimpaired flow, 20, 30,  
10 40 or it could be 24, 35, 45?" "Nope, can't do  
11 that. The record is clear that this is what is  
12 protective of the fish."

13 And I said, "Well, I'm so confused." I don't know  
14 where Les Grober is. Hopefully he's having a  
15 good time some place, but many discussion where  
16 Les Grober was in the room, Diane Riddle. And I  
17 remember saying, "I want these other increments  
18 studied: 25, 35, 45." "Not a problem. It's all  
19 in the document. We're just not including it in  
20 the analysis in the broad analysis. But all of  
21 this is in there and it's totally up to the Board.  
22 The board can make the decision to shift, this is  
23 just what we're recommending."

24 Answer? Last week, "You can't make that change,  
25 because the record is clear. We have findings.

1 This is what's protective. Nothing else is  
2 protective."

3 So this is why I'm fighting the wetted acre issue  
4 and the temperature issue, because we're using  
5 that. Our entire analysis of protectiveness  
6 hinges on these two issues: temperature, wetted  
7 acres. And then we're using SalSim to show that  
8 there are benefits. So let me take out SalSim. I  
9 wanted to make sure, because I understand some  
10 adjustments were made. So I don't know if you can  
11 pull up a table, Jeanine? I don't know if you  
12 can, but 19-32.

13 MS. TOWNSEND: What is it on?

14 BOARD MEMBER D'ADAMO: This is, help me out here,  
15 chapter 19? I think it's in the SED, chapter 19.

16 MS. FORESMAN: Oh, sorry. It would be in chapter  
17 19 if you're looking on the website.

18 BOARD MEMBER D'ADAMO: And maybe page 84?

19 MS. FORESMAN: And then if you just do control F  
20 for the table number that might be the fastest way  
21 to get there. Control F. I'm sorry, can you  
22 repeat the table number that you're looking at?

23 MS. TOWNSEND: Well, I see that's Section 19?

24 MS. FORESMAN: 19-32, 19-3-2 and then it might  
25 bring up page 19-32, but then forward to the

1 table.

2 BOARD MEMBER D'ADAMO: If what Amy gave me is  
3 correct it should be page 84.

4 MS. TOWNSEND: 84?

5 BOARD MEMBER D'ADAMO: Yeah, hopefully it's the  
6 right document or the right year. There we go,  
7 okay.

8 MS. TOWNSEND: The report, 19-32?

9 BOARD MEMBER D'ADAMO: Yes.

10 MS. TOWNSEND: That's the one you're talking  
11 about?

12 BOARD MEMBER D'ADAMO: Yeah.

13 MS. TOWNSEND: Okay.

14 BOARD MEMBER D'ADAMO: So maybe pull it up?

15 MS. TOWNSEND: Yes.

16 BOARD MEMBER D'ADAMO: Okay, so this chart's hard  
17 to read and I'm going to do it. I wish that I had  
18 the time to redo this, but so that we're not just  
19 looking at so many numbers. But okay, so we've  
20 got SB40. That's 40 percent of unimpaired flow.  
21 And at the top all the way to the left, the top  
22 line there is base case, so that's the number of  
23 returning salmon under the base case. Let's look  
24 at 1994, 5365 compared to the model that shows the  
25 benefits 7213. So the difference between the base

1 and what's produced under the proposal is 1848.  
2 And so I've actually done the math across the  
3 board. And we don't have the math on this chart,  
4 but looking at the numbers across the board I'm  
5 going to just read them real quickly. So this is  
6 1994 to 2009. So 1994 is roughly 1,800 fish.  
7 1995, this is the difference, 1995, 234; 1996, 842  
8 and 1997, 2143.

9 So there's quite the range, because of priming.  
10 Priming the model, okay? This was originally we  
11 looked at this in 2016. And this is a 15-year  
12 period, I believe. The change in the SalSim  
13 numbers that allowed the number to go up from  
14 roughly 1,100 to 2,300 or something like that is  
15 because the model was refined. And as I  
16 understand it, those first four years were thrown  
17 out, because of priming of the model.

18 I don't know what --

19 CHAIR MARCUS: What does that mean?

20 BOARD MEMBER D'ADAMO: I think it means that you  
21 had to get the engine running before --

22 MS. FORESMAN: I will definitely look to Dan to  
23 answer the questions about priming of the model,  
24 but one thing I do need to point out before I do  
25 that, is that we didn't make any decisions based

1 on the SalSim results in I would say biological  
2 modeling.

3 And I'm very interested in the Tuolumne River  
4 sites that we saw where they showed numbers of  
5 fish. I don't know how they estimated numbers of  
6 fish and I'm really interested in that, but I know  
7 that it's really hard to estimate numbers of fish.  
8 And Dan can definitely talk more about what  
9 priming the model is. But we didn't rely on these  
10 results for decision making in the SED. And  
11 that's simply because biological models, as far as  
12 my knowledge goes is it's newer. It does not have  
13 the longevity of hydrologic models that we have in  
14 this system. And we took a chance and we used  
15 SalSim and we tried to see what we could do with  
16 this quantitative tool and ultimately we decided  
17 that we couldn't really use this tool for decision  
18 making.

19 BOARD MEMBER D'ADAMO: I'm glad. I want to hear  
20 what Dan has to say, but before I didn't want to  
21 lose that thought. I understand you didn't use  
22 it, but this chart shows fish benefits. Where  
23 else are the fish benefits? What we have instead,  
24 we have an increase in flow. We have temperature  
25 benefits, floodplain inundation benefits, but

1 where are the fish benefits? So if we are going  
2 to weight and balance, for me I have to know what  
3 the fish benefits are. Because I know what the  
4 water supply impacts are. I think we all know.  
5 There are years for every single district except  
6 Steve, I don't know how your district -- you know,  
7 I didn't see zero for OID and SSJID. I saw zero  
8 at some point for every single district and that  
9 wasn't just one year. That was at some point you  
10 hit zero and then the multiple years, okay?

11 So for me to balance I have to know what the fish  
12 benefits and I can't figure this chart out. All I  
13 know is it appears to have been gamed, because the  
14 last four years or six years have been thrown out.  
15 Why? Because of ocean conditions. We're not  
16 looking at other stressors. We're not looking at  
17 predation. We're not looking at contaminants.  
18 What we've done is we're doing a repeat. In 1995  
19 we said, "We've got to look at other stressors."  
20 2006, "Got to look at other stressors." I really  
21 wish that we had been looking at other stressors.  
22 That this plan would look at other stressors. I'd  
23 like to be more involved in other stressors.

24 I was talking to Joaquin the other day, I wish we  
25 did something like Salton Sea where we bring

1 everybody in and say, "What's the status on  
2 predation? What's the status on your floodplain  
3 models?" Whatever, I'd like to really understand  
4 this, but on ocean conditions for if you go  
5 through the plan we're not looking at other  
6 stressors. But this is a time where we use other  
7 stressors to our benefit. Why is that? Because  
8 those last years that have been thrown out there  
9 was a crash and much lower numbers. In 2005, 263;  
10 2006, 118; 2007, 55; in 2008 there's a negative  
11 number: 1,200 fish worse off. So this is the kind  
12 of thing that has caused me to lose faith.

13 And it's just the combination of all the hours  
14 that -- and I know that I have to be so careful  
15 how I say this, because we all believe in what  
16 we're doing. And I wouldn't want any -- I'm just  
17 looking at staff right now. I wouldn't want any  
18 of you to disparage my role that I'm playing here  
19 as a member from the affected area. And I've got  
20 to ask these tough questions and I wouldn't want  
21 you to impugn my integrity. So I'm having to  
22 carefully select my words here, but the  
23 discussions it's just been a repeat. It's just  
24 been more of the same, so in every briefing I'm  
25 hearing the same thing. So if I come in and ask a

1 bunch of questions I feel what I get as a result  
2 of that is no change.

3 And other than in wording I feel like I've been  
4 able to -- you all have been very open about the  
5 suggestions that I've had on tone. You know,  
6 don't say it this way, you could say it in a  
7 different way. So I feel that I've been able to  
8 play a valuable role in that context, but other  
9 than that I haven't seen a change. And that is  
10 what causes me to just kind of wonder if  
11 everybody's kind of thinking the same thing. I  
12 mean, with all that's come in and we haven't made  
13 any significant change. And then for me to be  
14 told last week, "We can't make a change anyway,  
15 because the record is clear." So I'm very  
16 frustrated at this point. And just want to start  
17 off my comments by saying that.

18 So I've got a few other things that I want to go  
19 through. Groundwater, okay? We as a Board and  
20 the administration and in the Water Action Plan,  
21 this is a priority for us. SGMA is a priority.  
22 And for us to hide behind CEQA and say, "Well, you  
23 know, it's not included in the project, so we  
24 don't have to analyze it. We're going to do what  
25 we can to just estimate what the natural response



1 would be. People are going to go to groundwater.  
2 Yes, but as my good friend Bill Fillmore said,  
3 "This is going to be the first time where we're  
4 going to see loss of surface and groundwater and  
5 it's going to collide." We need to know what that  
6 means.

7 There's a Response to Comment, the GSAs sent in a  
8 letter. And the Response to Comment of, "You  
9 know, you better analyze SGMA," was, "We don't  
10 have to do that, because we're not required to do  
11 this."

12 And the argument that they made, that the GSAs  
13 made was that, "No, no, no. State Board, you're  
14 the backstop and you've come into our communities  
15 and have said you guys had better figure this out.  
16 There's a lot of tools you have."

17 Remember we go around and tell people, "Yeah,  
18 these tools in the tool box, use the tools. You  
19 know, yeah you can cut people off, but you can  
20 also do groundwater recharge. There's all kinds  
21 of creative tiered pricing. You can meter things.  
22 There's lots of things that you can do. You have  
23 all these tools in the tool box."

24 But if we come in as the State Board, we do not  
25 have the resources nor do we have the ability to

1 actually utilize these local tools. That you guys  
2 can do a much better job, so that's a good  
3 argument that we should make to the locals. But  
4 the undercurrent of that is that if we come in,  
5 we're going to impose cuts. We're going to impose  
6 cuts, because that's a blunt tool that we'd be  
7 able to use.

8 So certainly as the backstop agency we could do a  
9 back of the envelope calculation on what SGMA  
10 would look like. Now, it's not going to happen  
11 for a few years, right. But eventually it is  
12 going to happen, so this concept of mitigation,  
13 eventually we're not going to be able to do that.

14 And so I think especially looking at East San  
15 Joaquin, the East San Joaquin where they can't go  
16 back to groundwater. They're going to have a  
17 salinity intrusion problem. That's why they went  
18 to surface water and I just think of all these  
19 years on the Board we're trying to get communities  
20 off groundwater, away from contaminants and on  
21 surface water. And so to just assume that this  
22 going to happen, maybe in the short run, but  
23 they're going to end up with an undesirable result  
24 that they don't even have to wait for SGMA to tell  
25 them you don't want that to be cut off. Because

1 if they get salinity intrusion it's going to  
2 impact their aquifer. So they're only going to be  
3 able to take it so far, so especially for East San  
4 Joaquin I think we should have done more.

5 Then Mark Holderman from DWR, this is a PowerPoint  
6 presentation. They came in at our last -- when we  
7 were here last. And they said, "You really --  
8 we've got information at DWR. You should work  
9 with us on more specific, more granular  
10 information on your groundwater analysis.

11 And then I'm just going to hold up two reports.  
12 PPIC estimates in the San Joaquin Valley that  
13 we're going to see fallowing of up to 500,000  
14 acres as a result of SGMA. That's the Valley. I  
15 don't want to overplay this, because obviously in  
16 the Turlock and Modesto subbasins we don't expect  
17 that much. Maybe with this program, but they're  
18 managing much better than other areas, so there is  
19 more information out there.

20 And then the most recent report on water available  
21 for replenishment, not a lot. About 190,000 acre  
22 feet for the entire -- well, not the entire San  
23 Joaquin, for the San Joaquin hydrologic area. So  
24 that's just on groundwater.

25 Then on another area that I think we should have

1 taken a look at, climate change. So in 2006  
2 climate change, we have a whole section here that  
3 says that in the next update we should include a  
4 climate change analysis. So that's 2006. There's  
5 been plenty of time to do a climate change  
6 analysis. Then DWR, back to that same  
7 presentation from Mark Holderman when he appeared  
8 before us in 2016, "You need to do a climate  
9 change analysis. And we have some information at  
10 the Department that could be helpful."

11 Then we adopted as a Board a resolution in 2017 in  
12 honor of our good friend Fran Pavley, former Board  
13 member who worked so hard on this.

14 CHAIR MARCUS: The other Fran, but both Frans,  
15 both Frans.

16 BOARD MEMBER D'ADAMO: Fran Spivy-Weber, I don't  
17 know why, how that came out.

18 Okay. So section here, let's see here, okay.  
19 "OIMA shall assist State Water Board divisions and  
20 offices and regional water boards in the selection  
21 and use of climate change resources described  
22 above as needed to account for, and address  
23 impacts of climate change in permits, plans,  
24 policies, and decisions." I realize by then it  
25 would have been tough, because we had already had

1 the first draft. It would have been a tough job  
2 at that point, but we were on notice since 2006.

3 Okay, NMFS Recovery Plan 2014, the NMFS Recovery  
4 Plan for Central Valley's Chinook salmon and  
5 steelhead, there's an important point in here. It  
6 will become increasingly difficult to maintain  
7 appropriate water temperatures in order to manage  
8 cold water fisheries including winter run Chinook  
9 salmon. Increasing air temperatures, particularly  
10 during the summer, lead to rising water  
11 temperatures, which increase stress on cold water  
12 fish such as salmon and steelhead.

13 So I'm not saying that we should necessarily rely  
14 entirely on this, but they did a climate change  
15 analysis in their recovery plan, in the NMFS  
16 Recovery Plan. And so there's a lot of questions  
17 that climate change would raise. Questions about  
18 the numbers in our plan for water supply effects,  
19 questions about temperature, questions about that  
20 EPA criteria, questions about our temperature  
21 model.

22 I don't really know what the answers are, but I  
23 wish that we had a climate change analysis. I  
24 don't know which way it wouldn't necessarily cut.  
25 Would it say, "You know, hey in June it's probably

1 going to be hot." Would it say that you're  
2 probably going to have an even greater impact on  
3 water.

4 CHAIR MARCUS: It depends on your time horizon  
5 that you're talking about in a plan.

6 BOARD MEMBER D'ADAMO: Right. Right, but  
7 nonetheless we should've included a climate change  
8 analysis.

9 Then on carryover, we've already talked quite a  
10 bit about this issue, so I don't want to spend too  
11 much more time on it except to say that there are  
12 definitely legal issues. There's definitely going  
13 to be legal issues on carryover and whether or not  
14 we have the authority. And what I heard was we're  
15 going to have to amend water rights or go through  
16 FERC to effectuate this. I'm really not sure  
17 exactly and I'm not quite sure exactly what the  
18 language means. So if I'm not sure, I suspect  
19 that there's an argument that could be made that  
20 the objective itself is vague. And that it hasn't  
21 been analyzed fully, because we should with  
22 greater specificity say exactly what we mean.

23 So I think that we are -- you know, there's  
24 potentially some issues here that we should -- I  
25 think we should go into closed session. And I

1 agree with you, now is not necessarily the time to  
2 go into legal issues in any detail. But there is  
3 a litigation risk. We have a letter from the  
4 Bureau of Reclamation and there are a number of  
5 key legal issues that I think that we should hear  
6 from Counsel, so that we can most adequately  
7 assess what those arguments are one way and the  
8 other. And have sort of a litigation calculus.  
9 And I agree with you, Felicia or Madam Chair, that  
10 there's probably going to be a lot of litigation  
11 on all sides. But I feel that I for one could  
12 probably benefit from a little more of an analysis  
13 as to the specific legal issues. And there's a  
14 number of them that have been raised. I won't go  
15 through all of them right now.  
16 And so having said that, I want to use this time  
17 to let my fellow Board members know that for me I  
18 don't feel that I can say that we have -- or that  
19 I could support a plan saying that it balances the  
20 beneficial uses. So kind of getting back to I  
21 don't know what the fish numbers are, so without  
22 that it's temperature, wetted acres, compared to  
23 some specific information on water supply impact.  
24 Even going down to 30 percent.  
25 And I really do appreciate Board Member Moore,

1 your analysis and your efforts, but I'd want to  
2 look at those same models that we looked at  
3 earlier today to see what means in terms of water  
4 supply effect. So there's a lot in this document  
5 about fish benefits. There's information on water  
6 supply effects, but what I'm not seeing in here is  
7 a discussion about the other beneficial uses other  
8 than water supply effects. And so without that  
9 what we have is water supply effects and so that's  
10 the only information that I would have to make a  
11 decision on whether or not it's balanced. And for  
12 me, at this point I have to say it's not balanced.  
13 Now, does that mean that I don't support  
14 additional flows? Absolutely not. I think that  
15 we do need additional flows and I feel very  
16 strongly that we need river restoration. We need  
17 habitat. And the real benefit I think of  
18 additional flow and habitat is we don't need to  
19 just get the better habitat and conditions that  
20 are more hospitable for fish, but we need to get  
21 these communities more connected to the rivers.  
22 I mean, look at the work that the Tuolumne River  
23 Trust has done. I worked with them back in the  
24 '90s and got out on the river and the canoe and  
25 all that. And I remember early on saying you've



1 got to move your office. You can't be in San  
2 Francisco, you need to be in Modesto. They did  
3 that. They're active in the community and we have  
4 local people that are proponents of the river. We  
5 need to do that in Merced. We need to do it on  
6 the Stan. And so I think that for me to just walk  
7 away and say I don't support this, that's not  
8 really how I feel. I mean, I don't support "this"  
9 but I support something else and so what is that  
10 "something else"?

11 That something else would be a number of changes,  
12 so that the proposal would get to a place that I  
13 feel would be more balanced. It may not what you  
14 all think or each of you as individuals, but for  
15 me this is what I think would be balanced. I  
16 think we need to remove June. June is as I said  
17 earlier, I think that it will probably be used for  
18 flow shifting, because of the lack of fish  
19 presence. Over 30 percent, I think it's about 33,  
20 34 percent of the impacts are felt by one month  
21 and that's June. And June is a very important  
22 month, especially on the Stan and on the Merced,  
23 because they can't divert in July. So it's a  
24 crucial month for diversion and to take that off  
25 the table for them, so that in most years it would

1 be used as flow shifting, I cannot justify June  
2 except for when fish are present in wet years.  
3 And it's my understanding that if you look at all  
4 year types it's about 2 percent of the fish are  
5 moving in June, but in wet years it's about 8  
6 percent. I might be slightly off, but it's more  
7 fish in wet years. And so I would be open to June  
8 in wet years. I think we need to have dry year  
9 relief and with all due respect I don't think 30  
10 percent is going to get us there. I'd be willing  
11 to look at the models, because for me the key  
12 issue is those zero years. And as a farmer's  
13 wife, someone farming on the west side, I know  
14 what zero water supply means. It means you sell  
15 your farm and that's exactly what we did as a  
16 result of those successive dry years. So I'm  
17 living proof of what happened. We got out of  
18 those water districts, because you can't manage  
19 with a zero water supply. So for me I have to see  
20 what that means in terms of successive dry years.  
21 Carryover storage, we have to come up with a plan  
22 that doesn't have this in there. And if we have  
23 carryover I don't want to go through the detail,  
24 but I have another proposal that I'm working on  
25 that would provide for an alternative compliance

1 path. And in alternative compliance would be the  
2 requirement that the districts come up with an  
3 agreement for carryover storage. So I think  
4 that's how to crack that nut is to require it to  
5 be an agreement in a voluntary agreement and not  
6 an actual requirement.

7 Oh, and then the last point here that the language  
8 that the Department provided us, Department of  
9 Water Resources and Fish and Wildlife on  
10 additional flexibility, I understand staff has  
11 some concerns with that. And I would just like to  
12 continue the dialogue on that language, because I  
13 want to make sure that we provide all the tools  
14 needed to provide for successful voluntary  
15 settlements.

16 I know I've taken up a lot of time --

17 CHAIR MARCUS: No, I want it -- no.

18 BOARD MEMBER D'ADAMO: -- but I want to thank you  
19 for your indulgence and thanks for listening.

20 CHAIR MARCUS: All right, that's a lot. I'm sorry  
21 we hadn't gone over it earlier, all of it, I'll  
22 just say. And I know I've been in meetings with  
23 staff on some of these issues where they've given  
24 pretty good answers, so I'm sorry we haven't been  
25 in all of them at the same time. But I'm glad you

1 put your list out, because that actually helps all  
2 the rest of us I think, think about it. I don't  
3 have as robust a list prepared. I have a couple  
4 of thoughts, a couple of things to say, but I want  
5 to turn to others first.

6 VICE CHAIR MOORE: Yeah, sure.

7 Thank you, Board Member D'Adamo, it's very  
8 thoughtful research and a perspective that I  
9 certainly deeply respect and it was very  
10 articulate. And so anything I say I don't want  
11 you to take as a rebuttal of those important  
12 points to consider.

13 Much that once was has been lost, because few  
14 people live now that remember it. And there is a  
15 really important time that we're sharing right now  
16 to imagine what's possible and effectuate it. We  
17 can pull the tools together. We have people who  
18 believe in the multi-objective purpose and it's  
19 important to galvanize the people together now in  
20 this time to set up a rational, legal ethical  
21 program to manage our rivers.

22 And we can do this. Actually, I don't mean to be  
23 glib, but there's plenty of water. There's plenty  
24 of water. In certain areas we see this, really  
25 creative approaches on smaller watersheds, but in

1 the North Coast or the Central Coast where we  
2 figure out timing the volume is there. And if you  
3 do the diversions and the timing, all the  
4 beneficial uses can be met. Certainly the Bay-  
5 Delta, we hear it's oversubscribed and there may  
6 be those issues, but if we think rational, legal,  
7 ethical we can do this.

8 Let's talk about rational. It is a very rational  
9 approach to look at water from a water budgeting  
10 standpoint. In May of 2018 this year, the  
11 Governor and the Legislature affirmed that we are  
12 going to manage demand for water supply in the  
13 State of California in our urban areas, using a  
14 water budgeting approach. This was a landmark  
15 change and decision. And it sets the tone and so  
16 in my remarks right now I'm trying to articulate  
17 what I think needs to happen and why.

18 We need to turn the corner and budget water for  
19 the rivers. Not just for fish, or birds, but  
20 people too. One of the comments, we heard such an  
21 articulate spectrum of great input in the last  
22 couple of days, granted a lot of folks from the  
23 coastal side of the discussion as opposed to the  
24 Central Valley side. Based on enjoying and  
25 attending now nine days of hearings on this issue

1 there's a balanced degree of input we received.  
2 It's not unbalanced, we got it on both sides.  
3 And in looking at all of those articulate  
4 descriptions one thing I didn't hear, which I  
5 deeply believe is there's an environmental justice  
6 side to healthy rivers. And I think there are  
7 thousands of Californians that haven't had a  
8 chance to tell us personally how much a healthy  
9 river means to them. And they don't have the  
10 means to come up here and testify. And I'm  
11 concerned for them, and for the younger generation  
12 that our rivers are going to become a dangerous  
13 place to be, and not for flooding, but for  
14 touching the water.  
15 There's going to be a momentum, an inertia in our  
16 surface water systems that will naturally select  
17 for dangerous blue green algae, harmful algal  
18 blooms over time. And we're seeing early  
19 indications of this. For me, a water budget  
20 approach for rivers has a public health aspect.  
21 And yes, certainly nutrient discharges, other  
22 stress, you know, temperature, lack of riparian  
23 vegetation, lack of floodplain functionality,  
24 these things play a role. But by putting these  
25 systems in perpetual drought we select for

1 conditions that are dangerous for people and of  
2 course, kill pets.

3 It's interesting and from my background, my  
4 grandfather was a logger. And the company town he  
5 lived in, they had a mill pond. And they just  
6 damned it and in the summertime the fish-bearing  
7 stream would dry up in Oregon. And dogs would  
8 actually -- pet dogs would die. And my aunt told  
9 me a story when she was a kid and her dad, my  
10 grandpa, told her it was from salmon poisoning.  
11 Well, that was a story that was made up. The real  
12 issue was blue green algae microcystin poisoning,  
13 right?

14 And it's interesting, we have sometimes a tendency  
15 to try to justify the lifeblood, the livelihood of  
16 where we grow up and where we make a living. And  
17 we don't, we're not empowered to question what's  
18 going on around us. And so I wanted to articulate  
19 that voice in this discussion.

20 Certainly, we're all inspired by a healthy salmon  
21 run and I think it's possible through working  
22 together, to revive that. I dismiss that idea  
23 that it's something we have sacrifice for future  
24 generations. Because when I asked the fishery  
25 representatives, recreational and commercial,

1 "When was the last year where you felt like you  
2 had a vibrant sustainable economy?" on that crab,  
3 salmon cycle that they work on, they gave me a  
4 year. I had to press them and what did they say?  
5 "1988."

6 Okay. So on my opening remark about things have  
7 been lost, because nobody lives now that remembers  
8 it? Actually, people live now that remember it  
9 and we heard testimony to this. How can we  
10 justify losing those natural resources within the  
11 time of one generation, okay? All of those family  
12 farms that I have such a deep respect for,  
13 coexisted with healthy salmon fisheries for  
14 decades after the Delta was already changed, after  
15 the dams were already built. So that tells me  
16 giving up even with climate change and other  
17 things, giving up on those aspects of what we're  
18 talking about can't be justified.

19 We have to work on it and we are, you know? The  
20 irrigation districts have come forward with the  
21 intent of being successful and we need to empower  
22 that commitment that we've been given verbally,  
23 maybe somewhat financially, not completely. So  
24 that's where we turn to what incentives can the  
25 State Water Board provide to empower those



1 commitments? Not just do flow and water budget,  
2 but to non-flow measures.

3 And so I think we have a healthy debate up here  
4 about the tools that we should use. I heard Board  
5 Member D'Adamo voice concern about using the Bay-  
6 Delta Plan as leverage. And then I would counter,  
7 I'd say well now we're using it as incentive.  
8 When we make statewide requirements we give local  
9 leaders cover to be able to do innovative things  
10 and to fund them. And so I want to be sensitive  
11 to the utility of this process, to empower those  
12 flow and non-flow commitments.

13 Sorry if I've gone on and on, but I wanted to put  
14 some thoughts on the table that it's more than  
15 salmon per gallon, much more. It's about healthy  
16 rivers, it's about healthy communities, the place  
17 -- it's that recreation, but ceremonial, but  
18 that's where the wisdom from the millennia from  
19 the native Californians comes to bear. And that  
20 we have heard them and we are thinking about their  
21 interests too and the disadvantaged among us.

22 And, of course, these rivers incrementally all  
23 contribute to the great estuary of the West Coast  
24 of the Americas. And so we all have a part to  
25 play, even those who have been doing everything

1 right conjunctively managing groundwater, showing  
2 everyone else how it should be done. I'm sorry  
3 that it feels like that's being punished. We need  
4 to not punish that. We need to uphold that, but  
5 also we need everyone to help pitch in and share  
6 the burden of reversing this rapid decline. And  
7 realizing healthy places for our communities to  
8 gather and celebrate every day.

9 We can do all those things, there is enough water.  
10 And so let's keep looking toward that. Look for  
11 ways to refine the language that we've proposed  
12 and I was prepared to make a motion at this  
13 hearing last week, when everyone decided we should  
14 hold off. I'm still prepared, but I'm not going  
15 to, because we noticed that we're not going to  
16 make a motion. And I just want to signal that to  
17 folks out there, that I think what we put together  
18 here can provide the motivation to be creative, to  
19 come up with those plans.

20 And if there's specific language on how we  
21 describe voluntary settlements and if there's some  
22 wiggle room, that 30 percent floor, I'm listening.  
23 You know, are there ways we can create flexibility  
24 within the language in Appendix K to get over the  
25 finish line, because I think we're running out of

1 time. I think we need to act and that's just my  
2 opinion as one Board Member. Thank you.

3 CHAIR MARCUS: Thank you very much.

4 Board Member Esquivel?

5 BOARD MEMBER ESQUIVEL: I've been trying to give  
6 quite a bit of thought here on how best to sort of  
7 summarize some thoughts, knowing that there'll be  
8 other opportunities and discussions with staff and  
9 wanting to be brief.

10 You know, the last time obviously the Bay-Delta  
11 Water Quality Control Plan was last significantly  
12 updated was in '95, so I was in the 8th Grade.

13 CHAIR MARCUS: Oh, come on. Now, you show -- oh,  
14 come on.

15 (Colloquy from the audience.)

16 BOARD MEMBER ESQUIVEL: Sorry, sorry.

17 CHAIR MARCUS: Okay. Now you're distracting me.

18 BOARD MEMBER ESQUIVEL: With all due respect to my  
19 fellow Board Members.

20 CHAIR MARCUS: Can I talk about my aches and pains  
21 then next? No, I'm sorry, go ahead. (Laughter.)

22 BOARD MEMBER ESQUIVEL: So but it does give me  
23 sort of pause to think well what would 8th grade  
24 Joaquin think?

25 CHAIR MARCUS: Oh, no, that's great. Oh man, I

1 bet I'd love 8th grade Joaquin. Sorry, go ahead,  
2 I'm interrupting.

3 BOARD MEMBER ESQUIVEL: But how best to understand  
4 the work that we're contemplating here? You know,  
5 it's been incredibly humbling the last two days to  
6 sit here all day and listen and honestly listen to  
7 people's -- and I have to thank those people that  
8 have the did show up, that didn't kind of throw  
9 their hands up in frustration so far. And feeling  
10 there is benefit from engaging and having public  
11 comment and allowing for there to be dialogue in  
12 an open, public, transparent way when we're  
13 talking about these issues. So I had incredible  
14 gratitude for everyone that came out and those of  
15 you that are here, get extra points in that  
16 recognition, so thank you.

17 But what would 8th grade Joaquin think? And so we  
18 look at in going back to then the Bay-Delta Accord  
19 and D-1641 and the discussions then, the  
20 compromise was made that the projects, the State  
21 Water Project and the Central Valley Project,  
22 would be on the hook for meeting these water  
23 quality objectives. And the piece-meal approach  
24 doesn't work. If we have to -- and I understand  
25 the need to say if you're going to use flows,

1 environmental flows, that they need to be tied to  
2 specific objectives and they need to be quantified  
3 there. But the science isn't perfected at this  
4 point. Our models are crude, we don't have those  
5 capabilities at this point, we'll say.

6 So sort of in the absence of that how do we come  
7 up with a comprehensive approach that lets us be  
8 successful? That doesn't make us have to fight  
9 tooth and nail for every single drop, but instead  
10 provides us that budget; that certainty on the  
11 ecosystem side, which then provides certainty on  
12 the water rights side for everyone else. And I  
13 know there's a feeling out there that a drop would  
14 be too much. That not a single drop, we shouldn't  
15 give up any water, but I was very glad to hear  
16 that there are more moderate voices.

17 That there is an acknowledgement that there can be  
18 a way forward here and I'm completely in agreement  
19 that voluntary settlements can be more enduring.  
20 When you have the buy-in of communities around a  
21 suite of actions that should be taken with  
22 agreement on an amount of water needing to be  
23 defined and used and shaped, again the voluntary  
24 settlement process I hope resolves itself in a way  
25 that is successful.

1 And so I kind of feel how best do I from this  
2 single seat, contribute to that? And I think it  
3 is with continuing to signal and acknowledge that  
4 these rivers are complete and are incredibly  
5 complex. And it's hard to boil things down, if  
6 you will, in a way that satisfies everybody.  
7 Particularly, in this proceeding and I have to  
8 remind myself, well okay what is it that we're  
9 being asked to consider and vote on? And at this  
10 point it's simply that metric of defining that  
11 block of water, but so much more work will have to  
12 go in to sort of successful plan of  
13 implementation. Again, whether through voluntary  
14 settlement agreements or us having to just  
15 proceed, but this is an opportunity we can't just  
16 go away on.

17 And so to the extent that I can continue to be  
18 productive to a successful outcome and a  
19 successful outcome being having the buy-in of the  
20 communities, having people own the rivers, to  
21 recognize the resource and the need to protect it.  
22 And to do so clearly and in a way that is  
23 rational, has a process, and again clearly defines  
24 a block of water instead of the system that we  
25 have now, which is scattershot. It's incomplete.

1 It's not comprehensive.

2 And we're talking about a watershed that's 40  
3 percent of the state. And I think of the  
4 Chesapeake and the successes that we've seen in  
5 other huge estuaries, big challenges. This one is  
6 completely within our state borders and you have  
7 other estuaries that are multiple states that have  
8 to coordinate around this. So I think if no other  
9 place can get it right California is that place.  
10 We have the right mix of people. We have the  
11 ingenuity. We have the leadership. And I think  
12 hopefully a common vision here and that common  
13 vision is healthy thriving communities that have  
14 healthy thriving ecosystems that those economies  
15 that build those thriving communities are built  
16 upon.

17 I think it was Governor Brown in one of his  
18 addresses made the point that ecology and economy,  
19 Greek rooted words or Latin sorry, rooted words  
20 are lighted in the fact economies are within the  
21 ecology. That the ecology is the -- it is our  
22 baseline.

23 Anyway, I'll stop there, but is again I just want  
24 to thank all the staff and their work. And  
25 particularly thank all the community members that

1 have come out and continue engage with us and help  
2 us try to find that right balance.

3 CHAIR MARCUS: Thank you.

4 BOARD MEMBER DODUC: Oh, Joaquin.

5 CHAIR MARCUS: You can go ahead, 8th grade Joaquin  
6 or adult Joaquin?

7 BOARD MEMBER DODUC: Yes. Okay, 8th grade, 1995  
8 you were in 8th grade. Well, in 1995, actually in  
9 1993 Tom Howard hired me as an entry-level  
10 engineer to come work in the Bay-Delta Program at  
11 a place called the State Water Resources Control  
12 Board. And I was very excited to get to work on  
13 such a program as an engineer who is still very  
14 much a nerd and focused on analytical stuff.

15 The whole political aspect of water rights and  
16 especially Bay-Delta was just this new world to  
17 me. And as I worked on what was then called Draft  
18 Decision 1630, which well we won't get into, and  
19 then the subsequent 1995 Water Quality Control  
20 Plan, Tom Howard made a point of always telling  
21 his staff that it is our job, it is staff's job to  
22 conduct the best technical analysis possible to  
23 present analysis, recommendations, options to  
24 management and to Board Members, but always keep  
25 in mind that it is the Board Members who make the



1 decision. And then it's staff's job to support  
2 and implement that decision.

3 As a young bright-eyed idealistic engineer I  
4 really disagreed with a lot of what the Board  
5 wanted to do with respect to the Bay-Delta. So  
6 after 1995, after the Water Quality Control Plan  
7 was adopted I left the Board. And I left, because  
8 I wanted to explore other areas, wanted to do  
9 other things. But I left also, because I  
10 appreciated that as an engineer I needed to expand  
11 my focus, my understanding and need to try to  
12 better understand different perspectives and  
13 different aspects of the very important policy  
14 decisions and the fact that we all face.

15 Ten years later in 2005, I had the opportunity to  
16 come back to this Board as a Board Member. And  
17 after serving one term I was considering whether  
18 or not to apply for a second term in 2009. Well,  
19 actually in 2008 I had to make that decision. I  
20 was informed by the Governor's Office at that time  
21 that -- well, I was Chair of the Board at that  
22 time, and I was informed by the Governor's Office  
23 that I would not be reappointed as Chair.

24 Now, normally actually my first thought was, "Well  
25 then, forget this. I'm leaving. I'm going to go

1 do something else." But at that time we were  
2 starting the periodic review of the Bay-Delta  
3 Water Quality Control Plan. And it was at the  
4 time, and still is I believe, one of the most  
5 important things this Board will do. I applied  
6 for another term and I didn't realize it would  
7 lead to three more terms. But my focus then was  
8 recognizing how difficult it's going to be for  
9 this Board and for our staff to consider all the  
10 complexities, deal with all the challenge, and  
11 hopefully still have the courage to take the  
12 action and take the right steps towards doing  
13 something that I believe this Board should have  
14 done many years ago. And it's taken a lot longer  
15 than I thought it would, hence the third term and  
16 fourth term.

17 But throughout it all there are several constants,  
18 one of which is the commitment and the dedication  
19 and the excellent work from the staff. I know  
20 that when I meet with you that you are prepared,  
21 that you answer my questions, that you've done  
22 your analysis, that when I present options you  
23 analyze them, you provide responses, and you look  
24 for alternatives. Now, does that mean I get what  
25 I want? No, I will admit that I, in my various

1 meetings with staff, I've always pushed for higher  
2 level of flows. For higher commitments, because  
3 based on my judgement of balancing, and we'll get  
4 to balancing later, I feel the Board needs to do  
5 more in terms of providing instream flows.

6 But I recognize also that I am one Board Member,  
7 one perspective. And staff and staff needs to  
8 consider not only the technical aspect of what  
9 they are proposing, but they also need to again  
10 receive direction from the rest of the Board.  
11 They do not dictate what is brought to the Board.  
12 They provide us, as individual Board Members  
13 options, analysis, recommendations. And because  
14 they cannot violate Bagley-Keene in telling us  
15 what each other is saying, I trust that what they  
16 bring to the Board as a proposal represents the  
17 majority opinion of the Board even though I may  
18 disagree with it.

19 So I recognize the difficult spot that you have  
20 been in the last few years, not only in the  
21 challenging work that you must do on a technical-  
22 legal perspective, but also in balancing what I'm  
23 sure must be very diverse input from your various  
24 Board Members. And I appreciate that you have  
25 always kept in mind that you serve this Board by

1 conducting your analysis, providing your  
2 recommendation, but that you take direction from  
3 us. And I learned that from Tom Howard who later  
4 on became Executive Director of this organization,  
5 who I think is responsible for many of you being a  
6 part of this organization. And I believe that  
7 ethic, that principle is engrained in our entire  
8 organization.

9 So as a Board Member and as a former staff person,  
10 I want to acknowledge the hard work that you have  
11 done. And it is hard, because so much of what we  
12 need to make these balancing decisions is  
13 controversial and some of it is not available  
14 information to us. As an engineer, when I look at  
15 balancing I want an equation. I want formulas, so  
16 that I can plug into "this equals that" or if it  
17 doesn't then I have a way of weighing it. But so  
18 much of what we don't know is more than what we do  
19 know, especially when it comes to benefits, when  
20 it comes to benefits of the fisheries that we're  
21 trying to protect, the ecosystem.

22 And that's why I think biological objectives,  
23 ecological outcomes is where we do need to go.  
24 Because we need to make that linkage, but  
25 unfortunately we don't have that yet and in the

1 meantime we have to make decisions with these  
2 uncertainties. We have to weigh and balance the  
3 knowns and the unknowns as best as we can and make  
4 a decision going forward, because to not act is  
5 irresponsible. But to act in a measured way, in a  
6 balanced way, to provide the flexibility for all  
7 of us moving forward, to develop and implement  
8 solutions is what we need to do.

9 And I think that's what the staff has done. As  
10 challenging as this has been you've proposed  
11 something that's in the middle that doesn't  
12 reflect everything I want, definitely not. But it  
13 is I think reflective of the balance of this Board  
14 and it provides enough flexibility in the program  
15 limitations for us to move forward to hopefully  
16 encourage the development and implementation of  
17 successful VSAs. And to build on hopefully, the  
18 many successes at the local levels that we have  
19 seen with water agencies and growers and everyone  
20 else chipping in and helping us move forward in  
21 this manner.

22 I think we -- Mr. Moore made earlier mention of a  
23 motion that he was prepared to make today, and let  
24 me just say I'm also prepared to make that motion  
25 today. But I won't, because I believe in the work

1 that has been done. I believe that there are many  
2 more challenges ahead, but that we need to take  
3 that first step. We need to set the standards and  
4 the objectives that we believe to be best  
5 protective of the beneficial uses that we are  
6 charged to protect. And then we need to move on  
7 from there, but we need to take that step. And I  
8 would encourage us to do that as soon as possible.

9 CHAIR MARCUS: Okay. Well, thank you. You all  
10 put a lot more than I was expecting as we talked  
11 along. But it is very helpful to actually be able  
12 to hear everybody's thoughts. And I think I am  
13 going through every one of the points have been  
14 raised. I agree with a lot of what's been said.  
15 So I just want to through a few more thoughts out  
16 there, perhaps not as anywhere near as organized a  
17 way as everyone else.

18 And I am looking at the time and I know we have to  
19 be out of here at 9:00. And so given that I'm so  
20 much older than everybody here I am not going to  
21 use the story about my history around the Bay-  
22 Delta. And some of you know it and I've been up  
23 to my armpits from time to time with high hopes.  
24 And in the midst negotiating agreements, high  
25 hopes that those agreements would yield more than

1 they've yielded to this point, I have to say. And  
2 I came to the Board in part to be able to really  
3 do this work.

4 That said, I think it's hard, you've heard me say  
5 already in this meeting. And I've watched over  
6 the years as this Board has tiptoed towards doing  
7 something and either tip toed back or been yanked  
8 back or whatever, because it's hard.

9 And I just want to say that I think in this era  
10 the effort, my colleagues, the staff, have put in  
11 has been of a higher order thoughtfulness of  
12 thinking about how do we get towards that common  
13 objective of a vision where we actually are  
14 managing these rivers in a way that's shared, that  
15 honors the people who have been there and built  
16 homes and communities for many years, but which  
17 also honors -- I love that which has been lost and  
18 which we don't see, which is why I invoked a  
19 former colleague of mine's comment about it  
20 depends on when history begins.

21 And it is so -- I can do a narrative for every  
22 group we've heard and say why that view is  
23 heartfelt and genuine. I've been trying my whole  
24 life, but even during these hearings with each  
25 person to try and see how someone could see what

1 they're saying that way to try to get into it.  
2 And frankly, even with all the time we've spent,  
3 Board Member D'Adamo, I appreciate you being so  
4 candid about it. Because some of it I will want  
5 to be talking with you about, because I see  
6 certain things different ways, but it really helps  
7 me to see how you see it and how pained you are.  
8 But I think people have been trying very hard to  
9 come up with a pathway that doesn't just always  
10 put off dealing with the very huge imbalance for  
11 the ecosystem, natural resources that I think we  
12 have failed to deal with in many ways, which is  
13 why I have more patience sometimes than others  
14 with a critique that we get from some who go  
15 through the litany of all the things we've failed  
16 to do. And I think that's fair too.  
17 I also think the fear and the pain is fair. And  
18 it's the pain of colliding perspectives. And I  
19 think the challenge all earnestly held and the  
20 challenge for us is we need to make a decision.  
21 And what's different about this I think is that  
22 staff has put forward a framework. And you're  
23 right, they have the strange job of talking to  
24 five of us separately, sometimes two at a time,  
25 keeping track of who they are on every matter.



1 And trying to propose things that feel in the ball  
2 park of where they think we'll go.  
3 But frankly for those of us we don't what each  
4 other think's except in these conversations. And  
5 I sort of feel everybody's pain all the time, but  
6 I really think staff has done an incredible job of  
7 trying to do that. I think sometimes the language  
8 and place staff is coming from may be different  
9 from where all of us come from. And that  
10 translation, that bridging, that two-way street is  
11 something that we all have to do and struggle  
12 with. Some do it in fewer words than others. I  
13 am one of the ones who probably uses too many  
14 words and miss the key points I want you go get.  
15 I want to apologize for times when I've made you  
16 overwork, because you've overworked to respond to  
17 a question that I could have asked more simply.  
18 And there are times when I've asked the question  
19 and I haven't gotten the answer, but I don't take  
20 it as you haven't given it to me. It's you're  
21 speaking a different language sometimes. It's up  
22 to me to try and find that bridge. And I  
23 appreciate all the time you've spent with me on  
24 that.  
25 I do think it's impossible to think fish can match

1 a metric. It's not how biology works. But I like  
2 the fact that we're taking more ecological  
3 approach, thinking about the ecosystem. And I  
4 think ultimately that helps both the ecosystem and  
5 the people in it, as we come up with solutions.  
6 But frankly I want to reward the people who are  
7 willing to come together and figure out solutions.  
8 The doing class versus the talking class.  
9 And I think you cannot divorce this from some  
10 politics. I have liked these two days, because  
11 we've had more time with strongly-held views also  
12 coupled with stories, examples, talking about how  
13 to make it work rather than a lot of the vitriol  
14 on all sides. And noise, frankly that distracts  
15 from the points that people are trying to make.  
16 I think we have been quite generous on time in  
17 offering for years the opportunity for voluntary  
18 settlement agreements. I am not naive. I have  
19 settled more complicated things like this between  
20 multiple countries and multiple parties and  
21 multiple states. It can be done, but it requires  
22 people being ready to be done. And it also  
23 requires being willing to make a decision. I  
24 think it's always hard. There are people who  
25 would draw a ripcord far sooner than I would. I

1 I will always go that next mile. But I feel like  
2 we're nearing the end of time.

3 I will just say, I think we would be on totally  
4 solid ground to go with a higher number. I might  
5 feel much more comfortable with a higher number to  
6 start. And I understand the people who are so  
7 worried.

8 BOARD MEMBER DODUC: Oh, I'm sorry, what?

9 CHAIR MARCUS: I'm not done yet with my point.

10 BOARD MEMBER DODUC: Oh.

11 CHAIR MARCUS: But I have felt that staff was, I  
12 think I think I was surprised initially, with the  
13 thoughtfulness of staff in coming with a range  
14 that was not totally outside the art of the  
15 possible, that wouldn't cause as much dislocation  
16 and pain. I was surprised at that and I was  
17 happily surprised at that. We did move it up a  
18 little bit because we also listened to other  
19 people and the evidence they put in. And I've  
20 been watching the discussion about the importance  
21 of flow for many years now and I do think the  
22 science is very strong for it. But I like the  
23 idea of starting in a doable place. And I  
24 particularly like the idea that if you come up  
25 with real stuff that's grounded and we're going to

1 be in a robust process, that we could reduce it.  
2 But to just do it in theory before the proposals  
3 are in front of us I think is very difficult. At  
4 the same time, so the people who said it's flow  
5 only is actually the answer. I've been saying  
6 this all along, I think that's not great and it's  
7 a little naïve. And it's a nonstarter. For  
8 people saying it's not flow at all and putting a  
9 lot of barriers up to that, I think that's not  
10 helpful at all. I think where all of us are and  
11 where many of the people we've heard from, more so  
12 than I had heard from some of them before, open is  
13 finding that optimal blend.  
14 But we're very late in the game. And we do know  
15 that flow can help a lot on its own. But I think  
16 we all know and feel that flow combined with  
17 targeted non-flow that takes people coming  
18 together around a watershed to actually do the  
19 things and help from state and local and hopefully  
20 federal agencies to get them done, is where we're  
21 going to get to that phase we want to be in versus  
22 the "is so," "is not," "you're a jerk," "no, I'm  
23 not," level of discourse that has characterized  
24 California water conversations. And so, I'm  
25 comfortable with the proposal where we are as one

1 that's supportable.

2 But I do want to go that extra mile to really  
3 think about some of those things. I want to have  
4 yet another conversation about the Merced, because  
5 I do see it as different. I'm not sure what to do  
6 with it. But I do see it different. And I really  
7 tried to take off my conclusionary hat and really  
8 listen to some of the very more specific comments  
9 people made versus sort of the chaff or the  
10 fighting words that I think are distracting.

11 So I want to give an honest look at everything  
12 I've heard today and will ask, because of some of  
13 the issues that have been raised by my colleagues  
14 and by others. But I actually think we've been  
15 very generous with our time on that until now.

16 But I think it is time for us to act. And I hope  
17 it moves some people to have those productive  
18 conversations. Because I think I've been  
19 disappointed, although, of course I understand as  
20 a lawyer you go through the worst-case scenario.  
21 You fight to the end. You settle. You know, it's  
22 sort of I can lose it, I can't give it away, that  
23 class. I've been in those rooms, but I do think  
24 there's a lot of state care and people have pushed  
25 that pretty far along. Perhaps sometimes in the

1 hopes that it would just go away or be delayed so  
2 long it wouldn't happen.

3 So on the other hand I note there are people who  
4 are so impatient that they're ready to throw up  
5 their hands. And I just want to say what I've  
6 said a number of times today, not as much as I've  
7 had to say in other meetings, but I think this  
8 only works if one takes the time to be empathetic  
9 and try to consider that everyone is genuine in  
10 what they're saying versus jumping to what their  
11 intent might be, which would then allow you to  
12 dismiss what it is they're actually saying. And I  
13 think folks spending a little time on the details  
14 between now and then is going to make for a better  
15 decision.

16 So while I would be comfortable acting now, I'm  
17 really more comfortable being able to really  
18 listen and see what happens in the next few weeks  
19 before coming to a closure. And I'm very eager to  
20 get moving on the Sacramento side. We've tried to  
21 signal it, so people can see it as a whole. But I  
22 think the fact I was prepared to get into it, on  
23 it perfectly justifiable how you've bifurcated it.  
24 I didn't love it when it was the first one. I  
25 understand it. There's no way to do all of it at

1 one time, but I certainly think pulling it  
2 together will allow for a much better  
3 conversation. Because the concerns I can  
4 understand of people on the San Joaquin, that  
5 they're going to send all this water down. Maybe  
6 we'll have healthy fish getting past them and then  
7 they will all just disappear, because we haven't  
8 dealt with the rest of it. I do think we need to  
9 talk about it as a whole.

10 And I think there's time in the seemingly endless  
11 set of processes that we have to go through, but  
12 they are the ones we have go through in the  
13 future. That true voluntary robust settlements  
14 thinking about all of the implementation and the  
15 like can get us to a faster result. But I think  
16 we can't be afraid to act and go through our  
17 normal processes, if that's what we have to do.

18 So there's more I could say, but I just think  
19 please go home and listen to what you've heard.  
20 Put on your empathy hats and know that we're going  
21 to be diving back in to the details, but I really  
22 appreciate hearing from my colleagues in figuring  
23 out how to come to closure on this. But we still  
24 have plenty more work to do on this in moving on  
25 and always open to suggestion, but I also want to

1 be sure the Board Members all have all their  
2 questions answered as best we can. And so that we  
3 narrow down where we may disagree or whatever  
4 motions people may make when we get to an adoption  
5 hearing.

6 I always hold out hope for agreements, because I  
7 do think they can be much better and more durable.  
8 And without giving you chapter and verse of the  
9 examples where I've really seen in to work, I  
10 really do believe in it. But it takes people  
11 stepping up to do them with honesty, and as was  
12 said repeatedly today, owning each other's  
13 legitimate issues. But in the bigger picture we  
14 are long overdue to take this action whatever it  
15 ends up being when we're done.

16 So with that, because we don't have much time I  
17 think we need to close. And to -- I want to make  
18 sure I get the words right -- continue this  
19 meeting to an adoption meeting. If we end up  
20 talking about it before then too it's great. My  
21 understanding is that staff has combed our  
22 calendars and I think I actually wanted it to be  
23 sooner than it is, but the first time we're all  
24 here, because folks thought we'd be done by now I  
25 guess, and have long-standing commitments



1 elsewhere is November 7th, which was later than I  
2 hoped, but it may actually work. An odd day, but  
3 with that do I have to make a motion or do I --

4 MR. SAWYER: It's probably best to make a motion  
5 and I recommend you set a specific time just for  
6 consistency with Bagley-Keene's.

7 CHAIR MARCUS: 9:30?

8 MR. SAWYER: That sounds good.

9 CHAIR MARCUS: 9:300 seems to work for people's  
10 commutes, so that would be a special meeting day  
11 though. We're not going to be going through even  
12 uncontested items for something else.

13 MR. SAWYER: I think you would need a -- we'll  
14 check on whether you need a public forum, but no,  
15 there's no need for anything else.

16 CHAIR MARCUS: I would really like to have a day  
17 where we're just focused on this.

18 VICE CHAIR MOORE: It is the workshop day, it's  
19 the Wednesday?

20 CHAIR MARCUS: So it's already scheduled as the  
21 workshop day of that week.

22 VICE CHAIR MOORE: Correct.

23 MR. SAWYER: But I would recommend a motion  
24 continuing this to 9:30 a.m. November 7th.

25 CHAIR MARCUS: All right, do I have a motion? Can

1 I make a motion or will someone else make the  
2 motion.

3 BOARD MEMBER DODUC: I think you should, this is  
4 your chance to make a motion.

5 CHAIR MARCUS: I got to make one other, one other  
6 time. Yeah, I can't remember what it was.

7 BOARD MEMBER DODUC: Well, make this one.

8 CHAIR MARCUS: Okay. I move that we continue it  
9 until 9:30 on November 7th.

10 BOARD MEMBER DODUC: I second the motion.

11 CHAIR MARCUS: All in favor?

12 VICE CHAIR MOORE: Aye.

13 CHAIR MARCUS: Anything else?

14 VICE CHAIR MOORE: Let the record show it was a.m.

15 (Laughter.)

16 BOARD MEMBER DODUC: Oh, yes.

17 CHAIR MARCUS: All right, so thank you. More to  
18 be said, more to be thought about keeping open  
19 minds and moving forward.

20 BOARD MEMBER DODUC: Thank you.

21 (Whereupon, at 8:55 p.m., the public meeting  
22 was adjourned.)

23 --o0o--

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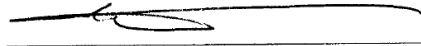
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PETER PETTY  
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