STATE OF CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

Public Hearing on the Adequacy of the Draft Substitute Environmental Document in Support of the Potential Changes to the Water Quality Control Plan for the San Francisco Bay-Sacramento/San Joaquin Delta Estuary; San Joaquin River Flows and Southern Delta Water Quality

JOE SERNA JR./CAL EPA HEADQUARTERS BUILDING

1001 I STREET

SACRAMENTO, CALIFORNIA

COASTAL ROOM/BYRON SHER AUDITORIUM

WEDNESDAY, MARCH 20, 2013

9:04 A.M.

Before Jacqueline Toliver Certified Shorthand Reporter No. 4808

1	APPFARANCES
1 2	BOARD MEMBERS.
2	Chairman Charles B. Honnin
<u>с</u>	Vice Chairperson Frances Spivy-Weber
5	Board Member Tam M. Doduc
6	Board Member Steven Moore
7	Board Member Felicia Marcus
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g	STAFF:
1 0	Diane Riddle, Environmental Program Manager
11	Mark Gowdy, Senior WRCE
1 2	Caren Trgovcich, Chief Deputy Director
13	Tom Howard, Executive Officer
17	Erin K.L. Mahaney, Senior Staff Counsel
15	Les Grober, Assistant Deputy Director of Water Rights
16	Larry Lindsay, Senior WRCE
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WEDNESDAY, MARCH 20, 2013, SACRAMENTO, CALIFORNIA 1 9:04 A.M. 2 3 --000--CHAIRMAN HOPPIN: Good morning, ladies and 4 5 gentlemen. There's too much for me to ad lib here, and so I apologize to you. I'm going to read from the 6 7 script, which is not my favorite thing to do in the 8 world, but at least everything will be covered that way; 9 so please bear with me for a moment. 10 This is the time and place for a hearing to 11 receive comments concerning the adequacy of the Draft 12 Substitute Environmental document in support of 13 potential changes to the water quality control plan for 14 the San Francisco Bay/Sacramento-San Joaquin Delta estuary, San Joaquin River flows and Southern Delta 15 16 Water Quality. Throughout the hearing, we will refer to this document as the SED. 17 18 I am Charlie Hoppin, Chair of the State Water 19 Resources Control Board. With me today, Vice Chair 20 Frances Spivy-Weber, Board Member Felicia Marcus, and 21 Board Member Steven Moore. 22 And Tom Howard -- Tom, do you want to introduce 23 your staff? 24 MR. HOWARD: That's fine. 25 CHAIRMAN HOPPIN: I don't need to? 1

MR. HOWARD: Go right ahead. 1 CHAIRMAN HOPPIN: Okay. Karen Kerkovich, Tom 2 3 Howard, Les Grober, Diane Riddle, Mark Gowdy and Erin 4 Mahaney. 5 My favorite part, as all of you know, in the 6 event of an alarm, if you would please exit through the 7 back down the stairs in an orderly fashion. And 8 wherever in the world J. Neely Johnson Park is on "F" 9 and 11th Street, that's where you're supposed to go and 10 stand in the rain until the smoke clears. If you would 11 just follow the crowd, I'm sure somebody is going to 12 know where to go. 13 This hearing is being held in accordance with 14 the Notice of Filing and Board Member Tam Doduc. It's 15 being held in accordance with the Notice of Filing and 16 Public Comment Period and Hearing for the SED dated 17 December 31, 2012, for the convenience of Mr. Tim 18 O'Laughlin so -- he had something to do on New Year's 19 Eve. 20 This hearing fulfills the requirements for 21 receipt of oral comments as described in the California 22 Code of Regulations, title 23, section 3779(c). 23 The purpose of this hearing is to provide 24 participants an opportunity to comment on the adequacy 25 of the SED. I'm going to repeat that: The purpose of

this hearing is to provide participants an opportunity
 to comment on the adequacy of this SED.

I know there's a lot of feelings about this one way or another, very strong feelings, and we're here to hear what those feelings are. All I ask of you is that you're civil to myself and my colleagues and my staff. And this is the opportunity to express those feelings.

8 The Board will not take formal action on the SED 9 during this hearing but will defer action until a later 10 Board meeting.

The Board will also provide an opportunity in the future to comment on the revisions to the Bay-Delta Plan following the future release of the final SED in a draft version to the Bay-Delta Plan. This will likely take place in late summer, depending on the extent of the comments we receive.

17 Please ensure your comments today relate to the18 adequacy of the SED.

We are broadcasting this hearing on the Internet and recording by both audio and video. A court reporter is also present to prepare a transcript of the proceedings. We will post the transcript on our website as soon as we receive the certified copy from the court reporter.

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To assist the court reporter and to be sure

1 those listening on the webcast can hear you, make sure 2 that you always speak into the microphone and identify 3 yourself at the beginning of your presentation.

On February 15, we sent an email to our Bay-Delta email distribution list and posted it on our website. This email asked participants that would like more than ten minutes to present their comments to make their requests by March 1st.

9 We also encourage participants with similar 10 interests to present their comments jointly. Based on 11 their requests we received, we prepared an order of 12 proceedings and sent it to our Bay-Delta email 13 distribution list on March 15, and also posted it on our 14 website. There are copies on the back table.

Accordingly, we will begin any opening comments that my fellow Board members would like to make and then hear a presentation from staff. Following the staff presentation, we will hear comments of participants who did not request extra time or tell us that they would combine with other participants for joint presentation.

21 Per the hearing notice, participants should 22 limit their comments to ten minutes. Depending on the 23 number of speakers, I may need to limit comments 24 further, depending on the number of people we have. 25 I realize you may have come a long ways to make

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1 your presentation and your comments on this matter. And 2 I do not want to cut anyone short, but I also want to 3 give everyone a chance; so I may have to limit the time 4 to ensure we have time to hear from everyone.

5 If you intend to speak, please submit a blue 6 speaker card. You can find one in the front of the 7 room -- or the back of the room, excuse me -- if you 8 have not done so already.

9 Following the general public comments, we will 10 hear comments from those participants that told us that 11 they plan to make joint presentations and requested 12 additional time.

I would also like to have blue cards from those participants. If you think you will need less time than you originally projected, would you please note your new estimate time on the card.

As you know, the hearing was noticed and continued as needed through Friday. I hope to move this hearing along efficiently, and it will end once we have heard all the participants.

21 Please be ready to present your comments when 22 you are called.

23 There are several points about this hearing that 24 I would like to emphasize:

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First, the purpose of this hearing is to receive

comments concerning the adequacy of the SED. This means 1 2 we want to hear about how well the SED analyzes the 3 effects of the proposed changes to the Bay-Delta Plan. 4 I realize it can be difficult to separate comments about 5 the adequacy of the SED from your opinions about the proposed amendments in general, and we will give 6 7 commenters some leeway on this; but please do your best 8 to keep to the purpose of this hearing.

9 We are required to respond to the oral comments 10 we receive during this hearing, and those responses will 11 be included in the final SED.

While I may ask staff for clarification on information in the SED, the formal response to your comments will not occur during this hearing. I'm sure you can appreciate these are issues that are complex, and I do not expect staff to respond without time to carefully consider your comments.

18 Since we are required to respond to significant 19 environmental issues raised in the comments, please make 20 the essence of your comments clear to us, especially for 21 those of you who are making longer presentations.

We would appreciate you making clear the points you have about the adequacy of the SED during your presentation. A summary of these points at the beginning or the end would be helpful.

Finally, I realize that after all the 1 2 presentations are heard, some of you might feel the need 3 to respond to what others have said. We will not 4 provide people an opportunity for rebuttal of these 5 comments in this hearing. If you have something else to say after your turn at this hearing, you may give us 6 7 that comment in writing by March 29th on the deadline. Are there any questions concerning the 8 procedures for this hearing? 9 10 Good. Do any of my colleagues have comments 11 before we begin? 12 Next we'll hear a staff presentation from Diane 13 Riddle, Manager of the Bay-Delta and hearing section of 14 the Division of Water Rights, and Mark Gowdy, Senior 15 Water Resources Engineer, also from the Division of 16 Water Rights. 17 And, Mark, I really didn't forget your name. Ι 18 was just stumbling through something else. 19 MS. RIDDLE: Good morning, Chair Hoppin, members 20 of the Board. I am Diane Riddle, Environmental Program 21 Manager with the Bay-Delta unit. 22 And, again, before we get started with the 23 public comments, Mark Gowdy and I are going to provide 24 some background on the draft Substitute Environmental 25 Document, the process we have gone through up until 7 1 today's date, and the draft water quality objectives of 2 the San Joaquin River flow and southern Delta salinity 3 objectives.

We're going to spend a little more time on the presentation than we usually due to the complexity and importance of this matter. And we're also looking forward to hearing comments from the public and listening attentively to those in order to determine what changes may be needed to the Draft Substitute Environmental Document over the proposed project.

I'll start with some background on the process and an overview of the proposed San Joaquin River flow objectives and program of implementation, and then I'll turn it over to Mark to give you an overview of the proposed southern Delta salinity objectives and program implementation.

Mark will then provide an overview of the environmental impact analysis that we've performed in the Draft Substitute Environmental Document. We will then turn it over to public comment.

21 (Thereupon an overhead presentation was 22 presented as follows:)

MS. RIDDLE: Okay. Sorry about that.
 So before I discuss proposed changes to the
 Bay-Delta Plan and the Draft Substitute Environmental

Document, I'll go over a little bit of the background 1 2 behind the process and how we got to this point today. 3 The current review and update of the San Joaquin 4 River flow and southern Delta salinity requirements is 5 part of a larger coordinated effort between the State 6 and Regional Water Quality Control Boards, the San 7 Francisco Bay, and the Central Valley Regional Board, to 8 address issues affecting potential and beneficial uses 9 in the Bay-Delta watershed. 10 In 2008, the State Water Board and the Central 11 Valley and San Francisco Regional Water Board identified 12 actions within the Water Board's purview and committed 13 to taking actions to address those issues. That was 14 memorialized in the 2008 Strategic Work Plan. 15 Within that work plan, we identified flow -- we 16 identified flow and non-flow-related actions that the 17 boards would take. Many of those actions we've 18 completed and we're in the process of completing, and 19 we've also moved forward with new projects. 20 --000--21 Related to today's proceeding MS. RIDDLE: 22 consistent with the Delta Reform Act of 2009, the State 23 Water Board is currently undertaking a phased process to 24 develop and implement updates to the Bay-Delta Water 25 Quality Control Plan and flow objectives for priority

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1 tributaries to the Delta to protect beneficial uses in 2 the Bay-Delta watershed and assist in achieving the 3 co-equal goals of water supply reliability and ecosystem 4 protection identified in the Delta Reform Act.

5 The State Board is phasing this review in order 6 to move forward with pieces of the process that are ripe 7 for review, while still maintaining a coordinated and 8 consistent process for that review.

9 Phase I of the review is the focus of today's 10 proceedings and involves review of the San Joaquin river 11 flow objectives and southern Delta water quality 12 requirements included in the Bay-Delta Water Quality 13 Control Plan.

14 Phase II involves other elements of the 15 Bay-Delta water quality control plan not addressed in 16 Phase I, including Delta outflow, Sacramento River flow, 17 and project operational constraints.

MS. RIDDLE: Phase III involves changes to water rights and other measures to implement changes to the Bay-Delta Plan from Phases I and II.

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22 Phase IV involves developing and implementing 23 flow objectives for priority Delta tributaries outside 24 of the legal Delta and outside of the Bay-Delta Plan. 25 CHAIRMAN HOPPIN: Diane, can I interrupt you for

just a moment? 1 2 MS. RIDDLE: Sure. 3 CHAIRMAN HOPPIN: Senator Wolk is here, and I know she has a lot of things to do over at the capitol. 4 5 Lois, would you like to come forward. We're very rarely given the courtesy of you 6 7 being here. You're the only one today, so -- no. I'm 8 kidding you. 9 SENATOR LOIS WOLK: Thank you, Mr. Chair. Ι 10 appreciate the courtesy. 11 Good morning to all of you. Thank you for the 12 opportunity to provide some comments today on this 13 issue. 14 As we are all aware, the Sacramento-San Joaquin 15 Delta is in trouble. Decades of reduced fresh water 16 flow to the estuaries have resulted in plummeting fish 17 populations, increasing salinity in the south Delta. 18 Many studies, including your own 2010 Flow 19 Criteria Report, have concluded that the current levels 20 of fresh water flow are insufficient to sustain the 21 public trust resources of the Delta and the downstream 22 bay. 23 As the State agency responsible for protecting 24 and balancing the public trust resources of this 25 wonderful state, the decisions that you make in the near 11 1 future will determine whether this iconic delta 2 ecosystem will recover or whether the Delta will 3 continue to decline.

4 I urge you today to provide for fresh water 5 flows necessary to protect the public trust resources of 6 the State from the San Joaquin River and its tributaries 7 through the San Francisco Bay Delta. Sufficient 8 scientifically justified San Joaquin River inflows are 9 necessary to improve the water quality, improper water 10 temperature conditions, increase floodplain inundation, 11 and reduce the impact of gradation.

12 The State Water Resources Control Board must 13 take action to correct the environmental degradation of 14 the Delta and to protect these resources that are vital 15 to our state.

As your first task in revising the Bay-Delta Nater Quality Control Plan, your decision on the San Joaquin River will set the precedent for future flow-criteria decisions that will affect the Delta.

I urge you to provide San Joaquin River flows that are sufficient and consistent with the State Board's own findings in the 2010 flow criteria document.

And thank you very much for your time. I
appreciate it very much. And your consideration.
CHAIRMAN HOPPIN: Thank you, Senator.

Any questions? 1 2 Thank you for taking the time. 3 Sorry to interrupt you Diane. 4 --000--5 MS. RIDDLE: So for those not familiar with the 6 Bay-Delta Water Quality Control Plan, it identifies 7 beneficial uses of water to be protected, narrative 8 numeric and -- narrative and numeric water quality 9 objectives for the reasonable protection of those 10 beneficial uses, and a program of implementation for 11 achieving the beneficial uses -- or the objectives. 12 Sorry. 13 The program's implementation identifies actions that both the State Water Board will take and actions 14 15 that other entities should take to achieve the water 16 quality objectives. 17 While the Bay-Delta Plan identifies 18 implementation activities, the Bay-Delta Plan is not 19 self-implementing and requires additional action in 20 order to implement, including changes to water rights. 21 As a result, this review of the Bay-Delta Plan will not 22 directly result in any changes to water rights or other 23 permit requirements. Those changes will be part of 24 Phase III. 25 The Porter-Cologne Water Quality Control Act

requires that water quality control plans be reviewed 1 2 periodically. And the Clean Water Act requires -- I'm 3 sorry -- periodically -- the Clean Water Act requires 4 review every three years. 5 The State Water Board last conducted a periodic 6 review of the Bay-Delta Plan in 2009 and last updated 7 the Bay-Delta Plan in 2006. However, the last major 8 update to the Bay-Delta Plan for which the current San 9 Joaquin River flow objectives were established was in 10 1995. 11 --000--12 MS. RIDDLE: So relating to the current update 13 to the Bay-Delta Plan, the State Water Board formally 14 began its review several years ago with a Notice of 15 Preparation and Scoping Meeting in early 2009. 16 In late 2009, the State Water Board completed a 17 technical review related to salt tolerances of crops 18 grown in the southern Delta. Related to the Phase I 19 process but separate, in August of 2010 the State Water 20 Board also approved a report prepared pursuant to the 21 Delta Reform Act, identifying flow criteria for the 22 delta ecosystem if flow alone were the only 23 consideration. 24 The report includes flow criteria for the San 25 Joaquin River that were based on, again, only

consideration for protection of fish and wildlife
 without considering all of the factors: Impact to
 agriculture, hydropower, and economic consideration.

In October of 2010, the State Water Board completed a draft report on the scientific basis for alternative San Joaquin River flow and southern Delta salinity objectives, and held a workshop on the report in early 2011.

MS. RIDDLE: In February of 2012, the State Board then released a revised scientific-basis report, as well as technical reports on the agricultural economic effect and hydropower and electric grid analysis of the potential alternative San Joaquin River flow objectives.

Both a scientific basis report and economic analysis were peer reviewed. In addition, the Delta Independent Science Board conducted a review of the scientific basis report, and we're expecting that we will get further comments from them on the Draft Substitute Environmental Document as part of the comment

1 process. 2 --000--3 The State Board released the Draft MS. RIDDLE: 4 Substitute Environmental Document for public review at 5 the end of the 2012. As Charlie mentioned, in order to allow parties 6 7 additional time to comment on things that they hear 8 today, final comments on the draft SED are due on March 29th. 9 10 Comments on the draft objectives and program implementation are welcome, as well as information 11 12 concerning the Draft Substitute Environmental Document. 13 --000--14 MS. RIDDLE: So moving on to the purpose of the 15 SED. 16 The purpose of the SED is both to document the need for and potential effects of changes to the 17 18 Bay-Delta Plan. 19 The SED evaluates the general or, in CEQA terms, 20 programmatic effects of changes to the Bay-Delta Plan, 21 not the project specific on the ground effects of 22 specific changes to water rights, or other measures. 23 During the implementation process, the State 24 Board will conduct additional project-specific analyses 25 of potential effects on individual water right holders

and other measures that need to be conducted to
 implement the objectives.

In addition to other legal requirements, the State Water Board must comply with the requirements of the California Environmental Quality Act, or CEQA, when adopting a water quality control plan.

7 CEQA authorizes the Secretary of Resources to
8 certify a regulatory program as exempt from the
9 requirements of preparing environmental impact reports.

10 The State Water Board's water quality control 11 planning program is a certified regulatory program and, 12 as a result, we're preparing a substitute environmental 13 document rather than an EIR.

The SED fulfills the requirements of CEQA and the State Board's regulations to analyze the environmental and economic effects of proposed regulatory activities and other factors, essentially an EIR-plus.

19 The final SED and other information will inform 20 the Water Board's consideration of potential changes to 21 the San Joaquin River Flow and southern Delta salinity 22 requirements.

23 --oOo--24 MS. RIDDLE: The final SED will be prepared 25 after making needed changes to the draft SED based on

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public comments we receive today and comments that we 1 2 receive before the close of the comment period. 3 The final SED will include any necessary changes to the draft SED and responses to comments document. 4 5 If the comments that we receive as part of the 6 comment process identify any new significant impacts 7 that were not identified in the SED, or significant new 8 information is brought forward that was not included in 9 the draft SED, the State Water Board may need to 10 recirculate the draft SED prior to finalization. 11 If we do not recirculate the draft SED or plan 12 for finalization of the SED is to have that completed by 13 the late summer or early fall. 14 15 MS. RIDDLE: Now I'll discuss the proposed San 16 Joaquin River flow objectives and program of 17 implementation and alternatives that were evaluated in 18 the SED. 19 In order to determine what San Joaquin River 20 flows are needed to protect fish and wildlife beneficial 21 uses, the State Water Board prepared the 22 scientific-basis report that I referred to earlier. Ιn 23 the report, we evaluated current information concerning 24 San Joaquin River flow needs for the protection of fish 25 and wildlife, including information from the 2010 Delta

1 flow criteria proceeding.

The analysis focused primarily on fall-run Chinook salmon and, to a lesser extent, on Central Valley steelhead, which are among the most sensitive species to inflow from the San Joaquin River, for which we have scientific information on which to base flow objectives.

8 The scientific-basis report also focuses on the 9 importance of the flow regime and maintaining general 10 ecosystem processes.

The scientific-basis report concludes that more flow of a more natural pattern is needed from the February through June time period on the salmon-bearing tributaries to the San Joaquin River, including the Merced, Tuolumne, and Stanislaus River.

In the SED, the State Water Board evaluates a range of different flow levels from tributaries to the San Joaquin River during the February through June time frame in order to inform potential changes to the San Joaquin River flows.

21 Specifically, the State Water Board evaluated 22 flow levels of 20, 40, and 60 percent of unimpaired 23 flow, in addition to a No Project Alternative. This 24 range generally captures the range of flow conditions 25 currently occurring on the tributaries which are as low

as about 20 percent, and a range of flow levels 1 2 determined in the flow criteria report to be fully 3 protective of fish and wildlife beneficial uses without 4 considering other factors. 5 For those not familiar, in the Flow Criteria 6 Report the State Water Board determined that 60 percent 7 of unimpaired flow would be needed to fully protect fish 8 and wildlife beneficial uses if you were not to consider other factors. 9 --000--10 11 In developing the proposed changes to the San 12 Joaquin River flow requirement, we went beyond the Delta 13 Flow Criteria Report and did consider all the other 14 factors that they were determining what flows are needed 15 to protect fish and wildlife. 16 Specifically, we considered information included 17 in the Delta Flow Criteria proceedings and updated 18 information concerning the prolonged trends of defining 19 salmon populations on the San Joaquin River, and 20 scientific information indicating that reduced flows 21 during the spring period are contributing to those 22 declines, though not the only cause. 23 However, in addition to this information, we 24 also considered economics, impacts to agriculture, 25 hydropower production, and groundwater. We also

1 considered that other measures in addition to flow would 2 be needed to protect fish and wildlife, including 3 habitat improvement, hatchery management practices, and 4 measures beyond Vernalis and the Delta and the ocean.

5 Given all these factors, it cannot be overstated 6 what a difficult circumstance this is and what a tough 7 decision this will be for the Board.

8 The State Board and staff take very seriously 9 the decision to balance the various competing uses for 10 water and wants to be sure that this decision is well 11 informed. There will be certain tradeoffs, but we think 12 we can make those tradeoffs in an intelligent way 13 through continued adaptive management and evaluation.

14 In order to develop a more intelligent framework for the San Joaquin River flows, the proposed flow 15 16 objective and program of implementation depart from the current format of the flow objectives which involve set 17 18 numeric flows based on water year type determinations 19 that are not always reflective of hydrologic conditions 20 within the San Joaquin basin or the needs of fisheries. 21 --000--22 MS. RIDDLE: So what we're proposing:

23 Under the proposal, the existing numeric
24 objectives would be replaced by the above narrative
25 objectives shown in the next two slides, which calls for

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1 maintaining flow conditions from the San Joaquin River 2 watershed to the Delta, together with other reasonably 3 controllable measures in the San Joaquin River 4 watershed, to support and maintain the natural 5 production of viable native San Joaquin River watershed 6 fish populations migrating through the Delta.

7 The narrative indicates the flow conditions that 8 recently contribute toward maintaining viable native 9 migratory San Joaquin River fish populations include but 10 may not be limited to flows that mimic the natural 11 hydrographic conditions to which native fish are 12 adapted, including the relative magnitude, duration, 13 timing, and spacial extent of flows as they would 14 naturally occur.

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MS. RIDDLE: The narrative objective would apply on the San Joaquin River, as well as the three salmon-bearing tributaries to the San Joaquin River, including the Merced, Tuolumne, and the Stanislaus River, unlike the current objectives which apply only at Vernalis.

And the purpose of adding these additional compliance points is to provide flows throughout the lower San Joaquin River migratory corridor for all three tributaries, which is expected to contribute to improvements in abundance, distribution, and genetic and life-history diversity of salmon and other fish and wildlife species.

The State Board is not currently considering establishing flow requirements upstream of Vernalis, given that the river upstream does not currently support salmon runs. However, the State Water Board has committed to reevaluate this issue in future reviews of the Bay-Delta Plan after the San Joaquin River restoration effort has progressed further.

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MS. RIDDLE: So the program of implementation indicates the measures that would be needed to implement the narrative flow objective, including actions by the State Water Board and other entities. Because in addition to flow from the San Joaquin River, other actions will be needed to protect fish and wildlife.

We acknowledge that the status quo of flows is likely inadequate to protect fish and wildlife; however, we also acknowledge that there's no magic number or flow level that will both protect fish and wildlife and perfectly balance the different competing uses of the water.

24 Based on these considerations, the proposed 25 flows called for in the program of implementation are 1 expressed as a range to be implemented in an adaptive 2 management framework and formed by realtime monitoring 3 and special studies.

4 The framework is intended to allow the 5 objectives to respond to new or evolving scientific 6 understanding and changing environmental conditions, 7 including habitat improvement and climate change, 8 without going through the water quality control planning 9 process again, which I think we all understand is a 10 rather long and laborious process.

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12 The proposed minimum flows identified in the 13 program of implementation are 35 percent of unimpaired 14 flow on a 14-day running average from February through 15 June from each of the salmon-bearing tributaries to the 16 San Joaquin River, not to exceed flood control levels.

In addition, the proposal calls for a base flow of a thousand cfs at Vernalis. The adaptive management provisions allow these minimum flows to be adaptively managed on both an annual and a long-term basis within a range of 25 to 40 percent of unimpaired flow based on considerations of evolving science and input from fishery agencies, reservoir operators, and others.

It should be noted that the proposed minimum
flows do not constrain higher flows, unless it is likely

1 that in many months of many years flow will actually be 2 higher than the minimum flow levels.

3 Further, the adaptive management provisions 4 allow for the timing of flows to be modified within the 5 While scientific information indicates that the season. natural flow pattern is a favorable pattern of flows, we 6 7 appreciate that the lower San Joaquin River has been 8 dramatically modified by decades of water use and land use activities, and that our proposal involves something 9 10 less than natural flows. 11 Accordingly, the proposal allows for flows to be 12 molded on an annual long-term basis to provide for 13 specific functions such as higher peak flows for 14 out-migrating juveniles. 15 In essence, the proposal can be viewed as an 16 account of water that can be used to optimize flow 17 conditions in any one year. 18 While the flow levels are not the optimal flows 19 identified in the Delta Flow Criteria Report, we believe 20 that 35 percent does represent a significant improvement 21 in flow conditions, especially on the Merced and 22 Tuolumne Rivers and, to some extent in drier years, on 23 the main San Joaquin River 24 --000--25 These next few slides depict the different --25

the increase of inflows that are expected pursuant to 1 2 our modeling. 3 You'll see that the dark blue line which runs parallel to the lighter blue line is our model's 4 5 baseline condition. The red line referred to as 6 "current run" on this slide would be the 35 percent of 7 flow alternative. 8 And you'll see on the "X" axis we're moving from 9 wetter to drier years. And on the "Y" axis, we're 10 moving from drier to wetter conditions. 11 So you'll see that in drier years you're seeing 12 a significant improvement on flows in the drier 13 60 percent of years. You see a similar trend on the Merced River as 14 15 well. 16 So the analysis we did for the Stanislaus River 17 is somewhat complicated by the biological pinion flows, 18 which in this graph we included in the baseline but not 19 in the alternative. 20 However, the State Board does not have the 21 ability to change the flow requirements. It is not 22 proposing to do so as part of this process. 23 So where you see that flows are reduced compared 24 to baselines, we're not sure that that would actually 25 occur. But you also see that there are improvements in 26

1 flows again in the drier year types, the red dots 2 compared to the dark blue dots at the tail end of the 3 graph from the 70 percent to a hundred percent level in 4 the "X" factor. 5 --000--6 Lastly, shown here is the model MS. RIDDLE: 7 changes in flows at Vernalis. You'll see that for the 8 drier 60 percent of years flows would increase and would 9 increase substantially in the driest years. Again, at 10 the tail end of that graph. 11 --000--12 MS. RIDDLE: Regarding regulatory implementation activities: 13 In order to allow the San Joaquin River flow 14 15 requirements to be refined and integrated with other 16 planning activities, the program of implementation 17 allows the flows to be phased in over time with full 18 compliance by 2020. The State Water Board intends to 19 implement flow requirements through one or a combination 20 of actions, including water rights actions, federal 21 energy regulatory commission permitting activities, and 22 water quality actions. 23 At that time when the specific implementation 24 measures are determined, the State Water Board and other 25 entities will perform the project specific impact 27

1 analysis.

2 During the implementation process, the State 3 Water Board will take actions to ensure that flows 4 provided to achieve the flow objectives are protected 5 from diversion.

The State Water Board will also evaluate the need to establish requirements to avoid cold-water pool impact for fishery resources and groundwater impact.

9 During the Phase II process that I mentioned 10 previously, the State Board will evaluate the needed 11 measures downstream of Vernalis to protect fish and 12 wildlife beneficial uses, including Delta outflow and 13 State and federal water project operational constraints.

It is the State Water Board's intention that the implementation of the San Joaquin River flow requirements will serve to meet the San Joaquin side of the contribution to Delta outflow requirements during the Phase II process. However, that would not constrain future reviews of the Bay-Delta Plan.

20 CHAIRMAN HOPPIN: Diane, can I interrupt for one 21 second?

MS. RIDDLE: Sure.

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CHAIRMAN HOPPIN: For those of you standing in the back, I can see at least six empty seats up here towards the front. One of them is actually next to Bill

It might provide you with an autograph 1 Jennings. 2 opportunity. 3 Suit yourself, but there are seats up there. Excuse me, Diane. 4 5 So as mentioned previously, staff MS. RIDDLE: 6 recognizes that flow alone isn't sufficient to achieve 7 the narrative flow objective. And in the update to the 8 Bay-Delta Plan, we include actions that need to be 9 implemented by other entities that are not specific to 10 flow, including habitat restoration, hatchery management 11 improvements, improved predator control, and other 12 measures. 13 These actions are explained in further details 14 in the program of implementation. And the staff is 15 specifically requesting comments from interested parties 16 and those more familiar with the specific activities 17 that need to take place to improve habitat conditions 18 and other factors, and is looking forward to comments on 19 that aspect of the program of implementation. 20 So in addition to measures during the February 21 to June time frame, the program of implementation 22 includes provisions relating to flows outside of the 23 February through June timeframe, which include October flows, July through September flows, and November 24 25 through January flows.

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1 The program of implementation states that the 2 Water Board will reevaluate the assignment of 3 responsibility for the October pulse flow requirements 4 and will also develop, through the monitoring and 5 evaluation program, specific information to inform 6 whether changes may be needed to the fall flow 7 requirements, or whether we should adopt flow 8 requirements for other times of the year for which we 9 currently do not have flow requirements. 10 So, as I mentioned, the program of 11 implementation includes special study monitoring and 12 reporting requirements that will be needed in order to 13 inform both the real-time adaptive management and the 14 long-term adaptive management, as well as future changes 15 to the Bay-Delta Plan. 16 And those, again, will be implemented through 17 the Phase III process. 18 So that concludes my presentation of the San 19 Joaquin River flow objectives and the introduction to 20 the substitute environmental document. 21 I'll turn it over to Mark to talk about the 22 southern Delta salinity objective and our impact 23 analysis. 24 MR. GOWDY: For the record, my name is Mark 25 Gowdy with the State Water Board Division of Water
Rights. 1 2 First, I'll provide --3 BOARD MEMBER MARCUS: Can you say that again? Could you say that again slowly for the Board Chair? 4 5 MR. GOWDY: First, I will provide an overview of 6 the southern Delta water quality objectives and their 7 program of implementation, and then an overview of the environmental and economic impacts evaluated in the SED. 8 9 (Thereupon an overhead presentation was 10 presented as follows:) 11 MR. GOWDY: The southern Delta is the lower tip 12 of the legal Delta, the bulk of which is within the 13 boundaries of the South Delta Water Agency shown here 14 with the red dashed line. According to the DWR, or Department of Water 15 16 Resources' crop surveys, the total irrigated 17 agricultural acreage in this area was about 100,000 18 acres in 2007. 19 Crop yields can potentially be impacted if 20 salinity of the irrigation water supply in this area 21 gets too high, particularly for more salt-sensitive 22 crops such as dry beans. 23 Over the last 30 years, dry bean acreage in the 24 south Delta Water Agency has ranged from about 4,000 to 25 9,000 acres.

The Bay-Delta Plan currently has salinity 1 2 objectives for the protection of these agricultural 3 beneficial uses, and these objectives are .07 4 deciSiemens per meter, which is a measure of electrical 5 conductivity -- or often referred to as EC -- in the 6 months of April through August, and 1.0 deciSiemens per 7 meter from September through March. Both is a running 8 30-day average of daily maximum values.

9 These objectives apply on the San Joaquin River 10 at Vernalis, where it enters the southern Delta, and at 11 the three interior southern Delta locations: the San 12 Joaquin River at Brandt Bridge, Old River at Middle 13 River, and Old River at Tracy Road Bridge.

Salinity levels in the southern Delta are driven in large part by salinity entering the southern Delta from the San Joaquin at Vernalis. NPDES permitted discharges and agricultural discharges throughout the southern Delta also contribute to elevated salinity levels throughout the area.

The Central Valley Project and the State Water Project export pumping operations can also impact the assimilative capacity of the southern Delta waterways by reducing -- potentially reducing water levels.

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MR. GOWDY: And since the early 1990s, temporary

seasonal tidal flow barriers are installed by the 1 Department of Water Resources to mitigate the effect of 2 3 export pumping operations. 4 --000--5 MR. GOWDY: In 2006, the State Water Board in response to litigation D-1641, committed to reevaluate 6 7 the salinity objectives. Subsequently, with funding 8 from the Department of Water Resources and the San 9 Joaquin River Group Authority, we oversaw and 10 contributed to a study by Dr. Glenn Hoffman, a retired 11 salinity expert from the USDA's salinity laboratory in Riverside. 12 13 This study assessed cropping, soil and other 14 conditions in the southern Delta, and generally found 15 current irrigation supply salinity levels to be suitable 16 for all agricultural crops. 17 Based on available drainage damage, he also concluded that leaching fractions were relatively high 18 19 in portions of the south Delta where dry beans were 20 typically grown. 21 Leaching fraction is a measure of how much 22 additional water is applied to a crop for the purpose of 23 flushing salts out of the root zones. 24 Dr. Hoffman also recommended that a study state 25 modeling approach with consideration of seasonal

precipitation would provide an appropriate methodology 1 2 for establishing protective salinity objectives. 3 Applying this recommended approach to dry beans, he estimated that electrical conductivity levels of 1.0 4 5 deciSiemens per meter year round would be appropriate. In addition, he suggested further study of dry 6 7 beans salt tolerance, leaching fractions, and boron 8 toxicity might be useful as well in the future. 9 --000--10 MR. GOWDY: Based on the recommendations of this 11 study, we've constructed three southern Delta water 12 quality objectives for a detailed impact evaluation in 13 the SED. 14 The first is the No Project Alternative and is 15 one required by CEQA regulations. 16 Alternative 2 represents the recommendation from 17 Dr. Hoffman for reasonable protection of dry bean 18 vields. 19 And Alternative 3 is a reasonable upper end of 20 salinity concentrations where yield impacts start to 21 become significant. 22 CHAIRMAN HOPPIN: Mark, when you get to a 23 juncture where you can stop a minute, I have two members 24 here that I'm going to have speak, and then you can 25 start again.

MR. GOWDY: Yes. Actually, yeah. Just one 1 2 final word. Of these, we selected Alternative 2 as our 3 preferred alternative in the SED. 4 CHAIRMAN HOPPIN: Would Member Berryhill like to 5 come up? MR. GRAY: He's outside. Senator Canella would 6 7 like to go first. 8 CHAIRMAN HOPPIN: Fine. I was going to call you 9 next anyway. 10 SENATOR ANTHONY CANELLA: I know. I know. 11 Thank you for giving us the opportunity to speak. Ι 12 know this is a very busy meeting, so I'll keep my 13 comments brief. 14 CHAIRMAN HOPPIN: I would like to think you have 15 busy things to do when you go back to the Capitol. 16 SENATOR CANELLA: Yes. Yes, we do. 17 Well, again, thank you again for the opportunity 18 to address an issue of critical importance to my 19 district. 20 Your proposal to dedicate 35 percent unimpaired 21 flow to fish and wildlife, quite frankly, will devastate 22 the district that I represent. 23 As you well know, our region is still reeling 24 the effect -- or feeling the effects of the recession. 25 Stanislaus, Merced, and San Joaquin counties have among

1 the highest unemployment rates in the state.
2 Agriculture has been one of the only bright spots, and
3 now this proposal stands to devastate an already
4 troubled region.

5 Your own staff's impact analysis forecasts 6 significant and unavoidable damage to the region's 7 economy, including reductions in water deliveries that 8 would require fowling of 128,00 acres of farmland, 9 agricultural sector income losses that could amount to 10 \$187 million, and job losses that would exceed 1200 a 11 year.

Your proposal would also adversely impact hydropower production by taking water from reservoirs during the spring, which would leave less water available in the summer when it's critically needed to irrigate crops and take pressure off the State's power grid.

This proposal takes water at a time when it is most valuable and sends it down river with only a hope that it will benefit the fish population. Water is too valuable to waste on the hope that it will make a difference.

I hope that you will rethink the approach you have advocated and develop a plan that works to the mutual benefit of the region.

Thank you again for giving me the time to speak. 1 2 CHAIRMAN HOPPIN: Thank you very much. 3 Mr. Berryhill. SENATOR TOM BERRYHILL: Well, good morning. 4 5 Thanks for having me here today. I'm going to make a couple brief comments here, 6 7 and then I've got a couple of other things to say. But 8 I want to preface what my remarks are and let everybody 9 here know that I am an avid fisherman. 10 I've used the waterways for years. I love the 11 fact that we're doing lots of different things to 12 improve the fish quality all through the Delta, and I 13 commend you for those efforts. However, I do want to 14 make a couple comments on the impacts of what this is 15 going to do to my constituents. 16 Increasing flow from February to June generates 17 more energy at a time of low energy demand. So 18 basically what we're asking to do here is -- we're going 19 to have big flows when we really don't need the power, 20 leaving us in June and July for agriculture and the 21 working families of the Central Valley that has 22 currently double-digit unemployment, we're going to hose 23 those folks, the way that this thing reads right now, in 24 my opinion. 25 To account for lost service water, users will

1 increase pumping of groundwater by approximately 25 2 percent, Over-drafting of the water table and 3 increasing energy use and costs. We're doing that right 4 now.

5 And we're finding in the Central Valley, as we 6 deplete that aquifer, that the ground is actually 7 sinking. What we're asking to do with this proposal is 8 even make that a worse problem.

9 Hydropower is a valuable contributor to 10 obtaining California's goal of 33 percent because it is 11 highly flexible. Hydropower, unlike wind and solar, 12 cannot be generated by demand.

13 So having said that, I'm here today to take a 14 hard look at this -- have you take a hard look at the 15 devastating impact your proposal would inflict on all 16 the Central Valley. And I represent -- or will 17 represent clear from Antioch clear down to Sacramento 18 here, and all the Central Valley.

Your proposal to dedicate 35 percent unimpaired flow from February 1 to June 30th for fish and wildlife beneficial uses will create, in my opinion, significant and unavoidable impacts on the economy -- my agricultural economy especially -- and groundwater basins in the district that I represent. I question the wisdom of a proposal that

1 conflicts with a legislative mandate for a comprehensive 2 Delta Plan under the bipartisan 2009 water package, of 3 which I was a very big part of. And in those working 4 groups we tried to come up with a comprehensive plan 5 that made some sense. I've got a few concerns about 6 this proposal.

7 This proposal takes water at a time when it is 8 most valuable and sends it down the river with only a 9 hope that it benefits the fish. That's very dangerous. 10 And despite the high stakes and tremendous cost of this 11 proposal, there is no proven benefit of what it is or 12 isn't going to do to the fish population.

13 The Central Valley counties have among the 14 highest unemployment rates in the state, as I mentioned 15 before. Agriculture has been one of the only bright 16 spots in this terrible economy for the last few years; it's been a great job creator, and what this proposal 17 18 will do from Fresno to Sacramento is devastate an already troubled region. And I think that's very 19 20 dangerous.

Locally, the agricultural sector income loss could total as much as 187 million a year during the dry years. And it's a dry year this year so far this year. And a major region struck with this lingering recession. So, again, I ask you to take a long, hard look

at what the impacts of this proposal do. Nothing about 1 2 this proposal says comprehensive -- or balancing equal 3 goals as we tried to do in that water bond. 4 So, with that, I want to thank you for giving me 5 this opportunity to say hello. And I think we have to take a very hard look at this policy. 6 7 Thank you. 8 CHAIRMAN HOPPIN: Thank you, Mr. Berryhill. 9 While you're there, is there a hope that we're 10 going to get a revision to the water bond that's 11 something the Governor can put before the voters of this 12 State? I think the Governor 13 SENATOR BERRYHILL: Yes. 14 is going to be very engaged in this upcoming water bond. 15 We've got some concerns of opening it up, quite frankly. 16 But having said that, there is a couple billion 17 dollars that we think we can cut out of that bond to get 18 below \$10 billion. And I think if we can do that, 19 keeping the policy -- that was ten years in the making 20 to create that policy, and I think it's solid. And so 21 if we want to open that bond up and we want to cut out 22 the fat and put it in front of the people, I would be 23 all for it and will be working for it. 24 CHAIRMAN HOPPIN: And I think I can certainly 25 speak for myself and, hopefully, my colleagues, that the 1 co-equal goals of that legislation in 2009 were 2 something that caught my interests, and I thought that 3 it was something that was a very admirable compromise by 4 the Legislature.

5 Unfortunately, that bond, as often happens, had a lot of fat in it; and I think the Governor was wise 6 7 not to put before the voters. But we're trying to do 8 our facet of -- you know, our obligations are here but 9 we're only part of it. And without that comprehensive 10 view that all of you have that could be facilitated with 11 that water bond, it's going to make it very difficult. 12 So hopefully that gets done.

13 SENATOR BERRYHILL: The co-equal goals was a 14 local idea, and we spent hours negotiating that bond, as 15 you well know. And a key component in that bond was 16 above-ground water storage, and you can't keep --17 especially if you're going to start doing early 18 releases, you have to have additional storage so that we 19 can have that in dry years and have it especially for 20 our agriculture in some of these towns throughout the 21 valley.

So we're fully engaged in it. I think the Governor is going to be fully engaged, and hopefully we can spit something out at the end of the day that's going to make some sense.

1 CHAIRMAN HOPPIN: Thank you, sir. I appreciate 2 your comments. 3 SENATOR BERRYHILL: Thanks for having me. CHAIRMAN HOPPIN: Mark. 4 5 (Thereupon an overhead presentation was presented as follows:) 6 7 MR. GOWDY: In addition to the numeric 8 objectives I just described, there is a program of 9 implementation for the objectives which describes the 10 various actions that will be taken to ensure that we 11 achieve the objectives. 12 The following is a list of the major components: 13 First, the U.S. Bureau of Reclamation, or USBR, 14 will be required to continue meeting the existing 15 compliance requirements at Vernalis. With this 16 requirement being lower than the new objectives being 17 considered at Vernalis during the April through August period, helps maintain downstream of similar capacity 18 19 for downstream uses, beneficial uses. 20 --000--21 MR. GOWDY: Next, USBR and the California 22 Department of Water Resources, or DWR, together will 23 then be required to develop and implement a coordinated 24 operations plan to address the impacts of the Central 25 Valley project and State water project export pumping

operations -- the effect those operations have on water 1 levels and flow conditions in the southern Delta. 2 3 It will also be required to perform monitoring 4 and modeling studies that will help inform the 5 development of a long-term monitoring and reporting protocol which, in turn, will help assess the 6 7 effectiveness of the comprehensive operations plan. 8 --000--9 MR. GOWDY: And, finally, USBR and DWR will be 10 required to continue installation and operation of the 11 temporary seasonal barriers which have been in operation 12 since the early 1990s. The program of implementation also states that 13 14 the State Water Board may consider future changes to the 15 salinity objectives and program of implementation based 16 on information and recommendations developed by the 17 ongoing CV-SALTS process. 18 And, finally, the program of implementation 19 describes ongoing upstream salinity control programs 20 being conducted by the Central Valley Water Board and 21 other agencies which should assist in the attainment of 22 the new proposed salinity objectives. 23 --000--24 MR. GOWDY: So now I'm going to shift gears and 25 provide an overview of the analysis contained in the

1 2,000 pages of substitute environmental document, or 2 SED, which is the analysis of the potential 3 environmental impacts associated with the flow and the salinity objectives. 4 5 In the interests of time, I can only provide a 6 brief overview and touch on major elements. And I also 7 just want to clarify, as we begin, that when we speak of 8 impacts from the CEQA perspective, we mean negative 9 impacts. 10 The SED itself is focused on estimating 11 potential negative environmental and economic impacts of 12 the different alternatives. The potential benefits of 13 the proposed alternative have already been addressed as 14 part of their development. 15 --000--MR. GOWDY: A preliminary screening of the 16 17 potential environmental impacts of the flow and salinity objectives across 17 different environmental resources 18 19 was performed using the framework of the environmental 20 checklist contained in the CEQA regulations which are 21 applicable to State Water Board planning processes. 22 From this screening, the environmental resources listed 23 on this slide were identified as needing further 24 analysis. 25 The SED also evaluates potential economic

impacts of the alternatives in Chapter 18 and Appendix G 1 2 and Appendix J. 3 The SED also includes consideration of 4 cumulative impacts and growth-inducing effects and 5 consideration of environmental and economic impacts of potential methods of compliance with our objectives. 6 7 Not available in time for the draft SED but to 8 be included in the final draft will be antidegredation 9 analysis as required by both state and federal 10 antidegredation policies. And then, finally, several appendices to the SED 11 12 provide supporting technical and background information 13 --000--So now that I have discussed the SED 14 MR. GOWDY: 15 in general, I want to focus on these next few slides on 16 the SED analysis as it relates to the flow objectives of 17 the three tributaries. 18 The potential environmental and economic impacts 19 of the flow objectives are associated with either 20 changes in river flows, available surface water 21 diversions, or changes in reservoir storage levels. 22 Changes in river flows have an effect either 23 positively or negatively on various aspects of the 24 environment, such as aquatic and terrestrial biology and 25 water quality.

1 It can also affect things like flooding and bank 2 And changes in timing of flow can also have an erosion. 3 impact on things like hydropower. 4 Changes in available surface water diversions 5 can have a very direct impact on agriculture and 6 municipal water supplies, but also can have indirect 7 impacts on groundwater resources, energy consumption, 8 and greenhouse gas emissions resulting from any 9 corresponding increase in groundwater pumping. And, finally, changes in the amount and timing 10 11 of reservoir storage can impact hydropower production, 12 water quality, such as cold water pools in the 13 reservoirs, recreation, and cultural resources. 14 -----15 MR. GOWDY: To estimate the changes in river 16 flows, available surface water diversions in reservoir 17 storage, we used the CALSIM 2 model of baseline 18 conditions and developed an in-house model referred to 19 as the Water Supply Effects Model, or WSE, for the 20 different flow alternatives. 21 The San Joaquin River module of this CALSIM 22 model was developed by the U.S. Bureau of Reclamation 23 and others to represent the current operating requirements of the various facilities on the 24 25 Stanislaus, Tuolumne, Merced, and Joaquin rivers.

The model takes 82 years of historical hydrology from water years 1922 through 2003 and runs it through representations of current-day facilities and operations to get an estimate of how the system would respond under these hydrologic conditions.

6 Captured in this historical record are various 7 wet periods and periods of drought such as those in the 8 early 1930s, mid-'70s, and early '90s.

9 While the CALSIM model was widely used at the 10 time we started our analysis, it was not well suited for 11 evaluating the types of changes we were considering, so 12 we developed our own in-house model which operates on a 13 similar but simpler fashion. It runs on the same 14 historical input hydrology as the CALSIM model and 15 produces 82 years of results.

I won't go into the details of this line, but it outlines how the model takes these hydrologic inputs and readjusts available surface water diversions to achieve our desired flow requirements.

In line then with the intentions of -- the stated intentions of our program of implementation, the model is then operated to maintain a pattern of year-to-year reservoir storage levels similar to baseline conditions. This represents a reasonable assumption based, in part, on wanting to maintain

cold-water pools in the three main reservoirs. 1 We are confident in our use of the WSE model. 2 3 It was peer reviewed as part of our development of the 4 technical report contained in Appendix C and tracks well 5 with the results of CALSIM when set up to simulate 6 baseline conditions. 7 That said, we will get comments in how system 8 operations could be modified better or differently, and 9 look forward to evaluating whether such changes to our 10 approach are warranted or how they would actually affect 11 results. 12 --000--13 MR. GOWDY: While all the potential impacts --14 environmental and economic impacts of our proposed 15 objectives are important, for the sake of time I'm going 16 to focus on the larger and more controversial ones. 17 The first of these are the potential impacts on economic resources and the related sectors of the 18 19 economy. 20 The analysis in this appendix -- in the 21 agricultural economics appendix follows three major 22 steps: 23 First, the effects of allowable -- excuse me --24 of available surface water diversions from each of the 25 alternatives are estimated relative to baseline

1 conditions using the WSE model.

2 This then provides input to the Statewide 3 Agricultural Production, or SWAP model, and is used to 4 estimate the direct effect on agricultural production 5 and revenues.

6 Thirdly, the Impact Analysis for Planning, or 7 IMPLAN, regional economic model, is used to evaluate the 8 total economic and job effects, including the indirect 9 and induced effects of these changes on related regional 10 economic sectors.

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MR. GOWDY: The CALSIM 2 and WSE models provide estimates of the available surface water diversions from each of the tributaries across 82 years of hydrology.

From the SED, this plot shows available surface water diversions from the Tuolumne River under baseline conditions.

18 We can see, starting on the left, maximum 19 diversions of about 1.1 million acre-feet generally 20 occurring in wet years, going down as you move to the 21 right to about 540,000 acre-feet in what are generally 22 drier years. This is about a 50-percent reduction 23 between wet and dry years under baseline conditions. 24 --000--25 MR. GOWDY: Next, for the 40 percent unimpaired

flow alternative, we can see a maximum allowable 1 2 delivery -- excuse me -- available delivery of about 3 880,000 acre-feet in wet years, going down through about 4 350,000 in dry years, or about a 60 percent difference 5 between wet and dry years. So, across the spectrum of 82 years we can see 6 7 that the distribution of these two curves has a similar 8 dropoff percentage-wise from wet to dry years, that they 9 track roughly parallel. 10 But the 40-percent alternative runs about 11 to 11 35 percent lower than baseline. But it does so fairly 12 consistently across the spectrum of water year types. 13 --000--We have a similar observation on the 14 MR. GOWDY: 15 Merced River. But on the Stanislaus River we have --16 existing flows are already higher and reductions to --17 diversions aren't needed as much, so we have very similar available diversions on the Stanislaus for our 18 19 alternatives relative to baseline. 20 BOARD MEMBER MARCUS: What's your stray dot at 21 the bottom? 22 MR. GOWDY: I think that's -- I don't know right 23 off the top of my head. 24 CHAIRMAN HOPPIN: Does that answer your 25 question?

1 BOARD MEMBER MARCUS: We'll follow up on those 2 graphs. 3 MR. GOWDY: Yes. 4 --000--5 MR. GOWDY: In the second step of our economic 6 analysis, we used the Statewide Agricultural Production 7 Model. This was developed by U.C. Davis, and has been 8 used for a number of policy analyses, including the 2009 9 California Water Plan. 10 I really want to emphasize here, though, that 11 for the purpose of this economic analysis it was assumed 12 that groundwater pumping would not be increased to make 13 up for any reduction in the surface water diversions 14 needed for a particular alternative. 15 While this is a conservative assumption for the 16 purpose of CEQA analysis, it's not necessarily a 17 reasonable assumption -- a realistic assumption about 18 what actually would happen in the watershed. 19 It is likely that conjunctive use and additional 20 groundwater pumping strategies would be used to make up 21 some portion of the surface water diversion impacts and 22 help minimize the crop production impact. 23 We will be taking a closer look at some more 24 realistic estimates of this in the final SED, and are 25 hoping for useful information from the stakeholders as

1 part of their comments. 2 --000--3 Briefly, the third step is to take MR. GOWDY: all of the output from the SWAP model and run it through 4 5 the IMPLAN model, which provides then an estimate of the 6 indirect and reduced effects, including jobs on 7 connected sectors of the economy. And, by the way, was 8 the model used by a number of agencies and was used in the D-1641 analysis. 9 --000--10 MR. GOWDY: Briefly, here we have the summary of 11 12 the total economic impacts as experienced across all 13 three watersheds. 14 Because the spatial resolution of the SWAP model 15 couldn't distinguish between the impacts in the 16 individual watersheds, we went ahead and showed the 17 impact here for the area as a whole. 18 And the dark blue line is economic activity 19 under baseline conditions. The green line is that for 20 40 percent. And you can see impacts ranging from about 21 40 million on the left end, down to about 190 million in 22 the worst-case drier years. 23 Again, I want to point --24 BOARD MEMBER MARCUS: Can I ask you a question? 25 MR. GOWDY: Yes.

BOARD MEMBER MARCUS: I think I understand this, 1 2 but just to be sure -- I need remedial graph work at 3 some level, because I think it's not -- what you're 4 actually measuring isn't as obvious, I think, to someone 5 who's reading it, the words on the page, to let you know 6 in your head. 7 MR. GOWDY: Sure. 8 BOARD MEMBER MARCUS: And I'll try and help you 9 with that once I understand, which I'm not sure I do. 10 So these charts here and the earlier ones are 11 conservative, and the economic impacts are inflated 12 because you assumed that people wouldn't pump 13 groundwater? That's correct. This assumes that 14 MR. GOWDY: 15 there would be no makeup of reduced surface water 16 supplies from any other sources. 17 BOARD MEMBER MARCUS: Right. And so you've 18 asked people to give more information on what's more 19 realistic so by the final we'll have a more realistic 20 assessment of what's likely to happen. Perfection is 21 not required under this, but something more realistic 22 than an artificial conservative assumption? 23 MR. GOWDY: Yes. 24 BOARD MEMBER MARCUS: I think that would be 25 important for a lot of people's understanding of what it

is we're really proposing, as well as for us. 1 MR. GOWDY: Yes. Actually, that was the next 2 3 set of comments I was going to repeat, so thank you for 4 shortening my presentation. 5 --000--So we also took a look at the impact 6 MR. GOWDY: 7 of our flow objectives, hydropower generation. There's 8 two main things that happen to hydropower generation as 9 a result of our flow impacts. One is a shifting of flow 10 from the summer months to the spring months, and the 11 other is any potential changes to reservoir elevations 12 which impact hydropower generating capacity. 13 --000--14 MR. GOWDY: The baseline -- the blue baseline 15 here is the average energy consumption in gigawatt hours across the calendar months of the year. And the green 16 17 line -- the blue line is for baseline. The green line 18 is under our 40 percent alternative. And you can see an 19 increase in the amount generated in the months of May 20 and June but a decrease in the months of July and 21 August. 22 This has an impact on revenues associated with 23 hydropower because the price of energy in the spring 24 months is not as high as in summer months. 25 We also calculated impact on greenhouse gases, 54 1 assuming that -- excuse me. I skipped over the fact 2 that over the year the total amount of energy generated 3 is very similar but slightly less under our 40 percent 4 alternative, about 1.4 percent less, and our analysis 5 looks at the impacts on greenhouse gas emissions, 6 assuming that that makeup would come from fossil fuel 7 plants.

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9 MR. GOWDY: The other consideration is whether 10 or not our objectives have an impact on reservoir 11 elevations, particularly the months of July and August. 12 But as I mentioned earlier, we're operating and assuming 13 that reservoir storage levels would be similar under our 14 alternatives to baseline conditions. So this plot of 15 baseline and 40 percent alternative numbers, or estimate 16 of generated capacity, show very little difference.

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17 In addition to this, we also did a power flow 18 analysis model of the regional electric grid in the 19 vicinity of these three watersheds. And even though 20 we're not observing any impacts here in the reservoirs, 21 we still looked at a 5 to 8 percent increase in 22 generating capacity, and still found that the grid was 23 able to operate within its normal reliability levels 24 under the 40 percent alternative.

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Moving on then, groundwater impacts, 1 MR. GOWDY: 2 of course, are important. This analysis, however, 3 opposite to the agricultural economic impacts, assumes 4 that all the surface water diversions would be made up 5 for by additional groundwater pumping. This was a conservative assumption to sort of 6 7 test the worst-case potential impacts on groundwater. 8 We also then evaluated potential increase in 9 greenhouse gases from the energy needed to do this 10 additional groundwater pumping. 11 --000--12 MR. GOWDY: Another important potential impact 13 is that on service providers due to potential reductions 14 in available surface water diversions. So we took a 15 look at folks who were getting surface water supplies 16 and evaluated their potential to have alternate supplies like groundwater, and also took a look at a general 17 18 level at sort of the contractual relationships that they 19 had and how they might be able to find other supplies, 20 and whether or not they might need to construct new 21 facilities to tap into those supplies. And we found 22 that there's a potential, particularly on the Tuolumne 23 and Merced rivers, to be impacted by this. This was not found to be the case for the City 24 25 and County of San Francisco due to their water banking

agreement with the Modesto Irrigation District and
 Turlock Irrigation District that they have in New Don
 Pedro Reservoir.

And while some portion of the increased flows needed to meet our flow objectives might need to be shared by the City of San Francisco, this may only require a change in their water bank accounting.

And this would also not likely interfere with the City of San Francisco's aqueduct diversion from Hetch Hetchy because its share of water rights on the Tuolumne is usually greater than its diversions. Therefore, it is not expected that the City would have a significant impact on its diversion from the Tuolumne River.

And then, finally, we did a brief analysis of how exports to the CVP and SWP might be impacted by changes in flow at Vernalis, and actually found a slight increase in the amount of exports given current export jimitations and, therefore, we did not find a negative potential impact to exports as a result of our flow objectives.

So all of that for the flow objectives and that one slide to describe the impact of our salinity objective.

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And basically the analysis is quite 1 MR. GOWDY: 2 a bit simplified because we're really not making any 3 changes to the physical environment. There would be no 4 direct changes to the physical environment associated 5 with our objectives in the program of implementation. This is in large part due to the USBR being held 6 7 to the same compliance requirements that they currently 8 have at Vernalis. 9 We would also expect reduced loading from 10 municipal discharges in the southern Delta as they 11 receive permit limitations implementing our new 12 objectives. 13 And then as I mentioned earlier, we have a 14 number of upstream salinity reduction efforts that are 15 anticipated to actually improve salinity conditions --16 salinity levels entering the southern Delta at Vernalis. 17 That said, there is a significant impact, 18 obviously, to local wastewater treatment plant 19 dischargers like Tracy and the City of Stockton, but 20 we're hoping that there will be some flexibility in the 21 implementation of their NPDS permits so that there can 22 be as good a balancing as possible between their need to 23 discharge and agricultural beneficial uses. 24 And, certainly, as we are working on the final 25 SED, are looking for suggestions on how we can work that

sort of flexibility, or at least make sure we're not
 getting in the way of that flexibility for those
 dischargers.

And so this concludes my summary of things.
The draft SED was issued with the best available
information at the time. And we are interested in
knowing and understanding the potential impacts of our
plan amendments on the environment and the economy and
take their evaluation seriously.

10 So, to that end, with the issuance of this 11 draft, we are soliciting information from any and all 12 stakeholders to help ensure that the analysis is correct 13 and as comprehensive as possible.

14Possible formal written comments are due --15CHAIRMAN HOPPIN: Go back to the last slide.

As it relates to USBR and their requirements at Vernalis, it's pretty clear that we're not going to have all this work done in the next month or so. Would you anticipate the Bureau meeting their requirements at Vernalis during this interim?

MR. GOWDY: Yes. Those requirements exist in
 D-1641 already, so those requirements --

23 CHAIRMAN HOPPIN: There's a question about their 24 interpretation of that, though, I believe, isn't there? 25 MS. RIDDLE: They currently meet the Vernalis

salinity objectives. So what we're proposing is to 1 2 remove the requirement from -- before the interior 3 southern Delta compliance locations -- Brandt Bridge, 4 Old River and Middle River. So that would no longer be 5 a responsibility of the Bureau. In the interim, between 6 when we implement the current -- or adopt and implement 7 the current objectives and -- you know, now, I'm not 8 sure, you know, what the status of compliance will be 9 given that it's a drier year. This is typically the 10 times that they have problems achieving those southern 11 Delta compliance locations. But they are very 12 consistently compliant at Vernalis. 13 CHAIRMAN HOPPIN: Thank you. 14 MR. GOWDY: So that's pretty much it, other than 15 to remind folks that formal comments are due by 16 March 29th. We will then recirculate, if and as necessary, with the intent of having a final draft SED 17 18 for your consideration of adoption later this year. 19 CHAIRMAN HOPPIN: Thank you, Mark. 20 BOARD MEMBER MOORE: Chair Hoppin, I have a question for Mark. 21 22 Thanks everybody for making time today to join 23 the workshop. I welcome everyone here and your comments 24 on this draft environmental document. 25 Mark, one issue that was a little confusing to 60

me, and may be for other folks, is on the one hand you've pointed out the assumption in the modeling was there was not increased groundwater pumping as a result of lower diversion, and yet on the other hand you did describe potential environmental impacts projected for the different alternatives due to groundwater pumping. Could you help me reconcile that disconnect?

8 MR. GOWDY: Yes. We really were, from a CEQA 9 perspective, wanting to bracket worst-case conditions.

Admittedly, these are worst-case conditions that can't exist at the same time. There, however, for economic analysis isn't really that much of an impact associated with the impacts on groundwater, say, relative to agriculture; so there wasn't necessarily an overlap in that analysis.

But I think for the final, as I mentioned before, we really want to, rather than just do the bracketing required by CEQA, actually come up with a more realistic estimate of what we would actually expect that balance to be.

21 CHAIRMAN HOPPIN: Mark, did you give any 22 consideration to the fact that -- you know, in my mind, 23 certainly any reduction in surface water delivery will 24 be equaled by a corresponding amount of groundwater 25 delivery as long as groundwater is available. With the

additional demand on the groundwater, aside from
 subsidence, have you looked at the potential for
 degradation of groundwater quality in the scenario?

4 MR. GOWDY: Yes, we looked at the increase. And 5 it's a difficult thing to estimate, but it seems as 6 though there could be some increase without it leading 7 to an immediate collapse of the aquifer. And it would 8 be our intention, obviously, to monitor that situation to make sure that it didn't get out of hand. And we can 9 make adjustments in the future, if necessary, to 10 11 avoid --

12 CHAIRMAN HOPPIN: Those adjustments would be 13 pretty critical. And, in your view, obviously we 14 haven't reconciled all this. There are two ways of 15 going about it. You either -- if there is pronounced 16 degradation of groundwater and groundwater subsidence, 17 there's one or two ways in my mind you can deal with 18 that. Either increase the amount of surface water 19 available or tell those people that they're out of luck. 20 Obviously, either scenario is going to displease 21 someone. But it would seem like the potential for that 22 scenario in the not too far distant future would be, you 23 know, a reasonably acceptable idea.

24 MR. GOWDY: Yeah. You know, I think as we try 25 to develop an estimate of what a sustainable level of

additional groundwater pumping may be we may want to consider, say, some conjunctive use or other strategies that could be employed to minimize those effects but not over rely our analysis on, you know, a level of groundwater pumping that would not be sustainable.

6 MR. LES GROBER: If I may add -- Les Grober, 7 Assistant Deputy Director of Water Rights. The intent 8 of looking at the analysis both ways is really to look 9 at something that we can easily bracket to what is the 10 maximum possible effect for either one; but, of course, 11 either extreme is no realistic. It becomes more 12 speculative to determine, well, what is the right mix?

And that can be formed by -- even as now we have the information that shows during dry years much of the water supplies are made up by groundwater, and these areas served by surface water generally have good groundwater supplies, and that's how they've been able to upgrade at such times.

So, Felicia, as you suggested, there's some right mix that will likely happen. And that's going to be based on making sound business decisions in the area and is likely to draw more heavily from groundwater to make up for the reduced surface water supplies but not to the full extent of the surface water supplies, because it then becomes an economic decision because of 1 those increased groundwater costs.

2 CHAIRMAN HOPPIN: Les, you referred to local 3 economic decisions. We really have no authority at this 4 point to regulate that groundwater pumping. We're going 5 to tell people, You go out and do the right thing, 6 without some coordinated effort. That seems like a 7 dangerous scenario to me.

8 MR. GROBER: Well, that's why it's difficult for 9 us to advance. "This is what's going to happen" becomes 10 very difficult because we can't dictate what exactly 11 will happen, and we can't know all of the information 12 that goes into making that decision.

But just as we see now, many of those surface water supplies are made up to some extent by groundwater pumping. They're not fully made up because decisions are made even in the baseline economic analysis to not grow some of the lower-value crops sometimes. So that's going to happen.

And we can make some sort of assumptions to show -- because you see many of the numbers that have been presented to you here today, those extremes of, well, this is how much fowling is going to happen, or this is how much groundwater pumping. None of those extremes are going to happen, but we cannot say with precision it's going to be exactly this; but we can come

up with a better idea of what the mix would likely be. 1 2 But that number, of course, is going to be highly 3 debated. CHAIRMAN HOPPIN: I'm going to call Assembly 4 5 Member Gray up now. Member Gray, would you like to come forward? 6 7 ASSEMBLY MEMBER ADAM GRAY: Good morning. My 8 name is Adam Gray. I am the Assembly Member that 9 represents the 21st Assembly District, which encompasses all of Merced County and the western portion of 10 11 Stanislaus County. 12 I'd first like to thank the Board for allowing 13 me to share some thoughts on the decisions that are 14 before us today. 15 You know, we're celebrating just a few blocks 16 from here Ag Day at the State Capitol and celebrating 17 the contributions that agriculture makes to California, 18 one of our great industries, and certainly the industry 19 in the part of the State that I come from. 20 It seems a little bit ironic that we have before 21 us a decision to remove the very life blood of what 22 makes agriculture tick in Merced and Stanislaus County, 23 which is our water. 24 I wanted to take this opportunity to speak with 25 the Board not just about water and the impacts but the

1 economic realities that face my region in the Central 2 Valley. 3 We have experienced unemployment rates, and 4 continue to today, as high as 40 percent, unemployment 5 rates more akin to the Great Depression than the Great 6 Recession. 7 You can certainly understand it doesn't take a Ph.D in sociology to realize the impacts not just to 8 9 jobs but the impacts across the community when you face 10 such rates of poverty. 11 The Board's own economic projections illustrate 12 that the proposal before you could result in a loss of 13 up to a thousand jobs, millions of dollars in 14 hydropower, tens of million of dollars in crop revenue, 15 and hundreds of millions of dollars in lost economic 16 activity. Taking more water from three rivers so vitally 17 18 important to our economic wellbeing is like asking 19 somebody on unemployment for a loan. 20 What does the Board say to the people in Dos 21 Palos where unemployment rates exceed 40 percent, in 22 Planada where it's almost 40 percent -- 37.6? 23 A few years ago on the west side of the valley 24 we saw the combination of high unemployment rates and 25 cuts to water result in food lines. Something you 66
wouldn't expect to see in the modern era. Something we
 saw during the Great Depression.

Democrats and Republicans, I think, have many differing ideas on how to solve the problem of food lines, but I think one thing we all agree on is not putting policies in place that create them.

As an elected official, I'm often asked to vote on difficult issues, just as the difficult issues that face this Board, and I oftentimes ask myself what are the potential outcomes? And we balance those issues in our own mind.

As I understand it, the science has not guaranteed that increased flows will increase the salmon population. But the studies have indicated that there is catastrophic, economic damage as a guaranteed result. It seems to me in such a context that this is not such a difficult decision.

I would like to suggest that the Board explore other options, including floodplain habitat restoration and mitigation of predatory and invasive species in the Delta.

I'm certainly not here to argue today against the importance of the Delta. It is a great State resource and needs to be protected. However, the reality is we face unemployment and economic catastrophe

in the Central Valley, and I'm here to appeal to your 1 2 sense of decency and your sense of humanity in making 3 these considerations. Thank you for your time. 4 5 CHAIRMAN HOPPIN: Thank you, Assembly member. VICE CHAIR SPIVY-WEBER: Mark, I have a 6 7 question, particularly around your water supply effects 8 model. 9 MR. GOWDY: Yes. 10 VICE CHAIR SPIVY-WEBER: And it comes out of 11 CALSIM. And you're making assumptions based on 12 historical data of water year types, but from what I 13 understand -- and that certainly has been the practice 14 up until now, but as we're starting to look ahead we're 15 starting to see a change in the water year types and the 16 And so how are you -- are you planning to rerun mix. 17 your water supply effects model as you get more 18 scientific information about how that change in water 19 year types might unfold into the future? 20 MR. GOWDY: The model is certainly capable of 21 evaluating a change in hydrology that we might 22 anticipate in the future. And depending on the comments 23 that we get in the information that we obtain to that 24 effect, we will consider it and do the necessary model 25 runs.

We're definitely open to whatever analysis is
 appropriate.

3 VICE CHAIR SPIVY-WEBER: That's great. So for 4 those who are here with information, particularly on 5 climate-related issues in the future, that's something 6 I'll be following.

7 A second area is in looking at hydropower, you 8 were looking at -- you are assuming no other alternative 9 energy supplies, like wind and solar and bio gas and, 10 you know, all the other things that are being developed 11 And I one hundred percent understand that, but is now. 12 that a factor that you'll be interested in looking at as 13 we move forward -- the alternatives, the alternative 14 powers to mix and match?

MR. GOWDY: Right. I see a couple of things there. You know, we assume that all the additional powers or changes in power associated with alternatives will be made up for by fossil fuels. To the extent that there's actually a mix that would be the source of that power, we could take a look at that and adjust our estimates accordingly.

We would also be interested in how -- the makeup of the total portfolio of generating capacity in the grid changes, what the needs are for peaking power, and how hydropower would be fitting into those plans in the 1 future; but to date, we haven't gotten a lot of feedback 2 on that. And it would be useful information to 3 understanding whether our changes to generating capacity 4 would fit well or not with what the future holds.

5 CHAIRMAN HOPPIN: Ladies and gentlemen, there 6 are more people here than we anticipated. We have the 7 opportunity to move next door to the Air Resources Board 8 Hearing Room where there will be more space. We've got about half to three-quarters of another room full on 9 10 overflow, so we'll try and accommodate all of you in a 11 comfortable way. We're going to take about a ten-minute 12 break and move next door.

13 (Thereupon a break was taken, after which the 14 proceedings were continued in the Byron Sher 15 auditorium.)

16 CHAIRMAN HOPPIN: We've got about 50-some odd 17 cards. Those of you that have not pre-requested a block 18 of time for group presentation, I'm going to have to 19 hold you to like a three-minute comment period. So, if 20 you would -- that's going to cut you short a minute or 21 so, if you could kind of think of how you could condense 22 your comments.

If not, we're going to have people that traveled all the way up here that we're going to run out of daytime.

Also, Mr. Guinee -- I don't see you out there, 1 2 but when we finish with the legislative folks, would 3 your group like to go? Are you there? 4 Thank you. 5 Do we have someone from Senator Denham's staff? 6 Congressman Denham. Excuse. 7 If you all would speak very directly into the 8 microphone. These are all very poor microphones and the 9 court reporter is having a difficult time hearing, and 10 I'm sure you want your comments on the record. 11 Go ahead, sir. 12 MR. DARREN McDANIEL: Good morning, Chairman, 13 Board members. My name is Darren McDaniel. I'm here on 14 behalf of United States Representative Jeff Denham, and I'd like to request the following to be placed in the 15 16 record on his behalf: 17 It's a great honor to serve in the United States 18 House of Representatives on behalf of the people of 19 California's Tenth Congressional District. 20 Like you, I share a passion for California's water, as well as a reverence of water rights. 21 22 We have a responsibility to those we serve to 23 provide a government that works efficiently and 24 cooperatively to solve problems. Such cooperation is 25 particularly critical with a resource as vital to

1 California as water.

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The Central Valley of California is home to the world's most productive farmland. The economies of most communities in the valley are buoyed by the agricultural production that occurs throughout the Valley. As such, our farmers and communities alike depend on a reliable water supply, both in the form of surface water and groundwater.

9 Unfortunately, the San Joaquin River flow
10 proposal from the Board being discussed today is bad.
11 It's bad for those I represent; it's bad for the people
12 and the industry of the Central Valley already decimated
13 by economic pain.

But, above all, this proposal is bad because it punishes agricultural water users and water districts who have been efficiently putting water to its most beneficial use since the water began to be diverted on the tributaries affected by the proposal.

Further, the substitute environmental document being presented makes sweeping assertions and stands in direct conflict with the Delta stewardship councils' co-equal goals of providing a more reliable water supply for the State and protecting, restoring and enhancing the Delta's ecosystem.

The public expects government actions to be

anchored in evidence. However, this plan provides no 1 2 scientific proof that increasing flows will help native 3 fish populations. 4 To move forward with the project without any 5 rationale or scientific basis behind it is 6 irresponsible. 7 But the issue here is not just water. 8 Stanislaus, Merced, and San Joaquin counties rely on 9 summer water supplies from reservoirs for irrigation and 10 hydropower. Under this proposal, water deliveries will 11 be cut, thousands of acres will be fallowed, and we will 12 need to purchase energy elsewhere during time of peak 13 demand. 14 I strongly encourage you to consider the 15 devastating impacts your proposal would have on our 16 communities and the farmers and ratepayers who call them 17 home. And then please take a hard look at the lack of 18 evidence supporting this proposal. 19 We've all heard the expression, "The devil's in 20 the details." And with California water, that's 21 especially true. 22 We can do better. California deserves better. 23 You must do better. 24 Thank you. 25 CHAIRMAN HOPPIN: Thank you. 73

MR. McDANIEL: And I also have his written 1 2 comments. 3 CHAIRMAN HOPPIN: You can give it to the young lady here in the blue blouse, please. Thank you very 4 5 much. Is Member Olsen here or a member of his staff 6 7 here? Member Olsen? 8 9 Sherri Brennan, Board of Supervisors, Tuolumne 10 County? 11 Vito Chiesa. 12 MR. CHIESA: Good morning, Mr. Chair, fellow 13 members. We could play basketball in this place. I 14 thought I had a great seat. I went back to the other 15 auditorium and had a great seat up front. 16 CHAIRMAN HOPPIN: The trouble is when you are 17 old like I am and you haven't capitulated to bifocals 18 yet, you spend half the day putting on different pairs of glasses so you can see who's in the back. 19 20 I know there's people in the back, but it's It's a difficult challenge. It comes with age, I 21 hard. 22 guess. You don't know yet. You will. 23 MR. CHIESA: I definitely know, and that's why 24 I'm holding the paper close to my face. 25 Well, thank you again for the opportunity to 74

come. My name is Vito Chiesa. I am a member of the 1 2 Board of Supervisors for Stanislaus County, and I am 3 currently serving as chairman of the Board. 4 I am not a water expert, nor do I purport to be 5 I am going to talk a little bit about some one. perspectives from the County of Stanislaus and some 6 7 potential impacts. 8 Stanislaus County is a suburban county of about 9 a half a million folks. We're blessed with a temperate 10 climate, very rich soils, and mountains on the east of 11 us which accumulate snow. I think you'll be hearing 12 that over and over here about how we're blessed. 13 Agriculture is our number one industry by a long We have about three hundred commodities grown. 14 shot. 15 About a hundred of those commodities are exported to 90 16 countries. Our top ten manufacturing employers are 17 largely based around agriculture like Del Monte, like 18 Gallo, like ConAgra; so we're very agricultural centric 19 there. 20 I want to point out that farmers are resourceful 21 people. It took about a hundred years for them to get 22 to a billion dollars in farm gate value in Stanislaus 23 County. It took them 16 years to get to \$2 billion, and 24 it took them five years to get to \$3 billion. So you 25 actually see the acceleration.

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Why is that? Global demand for our products, 1 2 for wine products, for nut products -- increase in 3 technology, water efficiencies, fertilizer efficiencies. 4 And most of all, it's because we had a supply of water 5 that is apt. I don't want to say that we have excess water; I think that is a misnomer, but we do have water. 6 7 We are a county of challenges. And this is very 8 important. I think I've heard that from the other 9 electeds from our area. 10 We are ground zero for the foreclosure crisis. 11 We have chronic unemployment that is double the national 12 average. You can just track it for the last 30 years. 13 It's the same thing. We have 43,000 residents that 14 leave our county for their employment too. And high 15 poverty, and one in every three residents in Stanislaus 16 County is on some form of public assistance. 17 And that's a key factor. Because when things --18 the economy gets worse, we have less revenue; there's more people that need assistance. And we are the safety 19 net for most of the folks. 20 21 I'm going to give you a little merry-go-round on 22 the County's revenue stream, so if you'll just bear with 23 me. 24 We have about a billion dollars budget. Of 25 that, 14 percent is discretionary; and that's 76

1 essentially what myself and four colleagues have an 2 opportunity to have a say in. Most of that goes to law 3 enforcement: To the sheriffs, probation, district 4 attorney, library, things like that.

5 The majority of our discretionary revenue, the 6 important revenue, comes from property taxes. It's 7 close to 60 percent property taxes. And if you take 8 this full circle, what value is our property taxes?

9 And out in the ag area, it's the ability of the 10 land to produce, the soil type, and it's the 11 availability of water. And not just the availability 12 but sufficient water.

We're always on that fine balance dealing with groundwater pumping and surface water. We're very fortunate.

But the reason we have expanded acreage to the east of us, most of it is on deep wells and is starting to impact the water quality in the cities.

Again, we're not purveyors of water -- I'll let the cities speak to that -- but because the whole property tax system in Stanislaus County, our discretionary revenue, is predicated on property taxes, it is essentially predicated on the availability of water. So that's very important to recognize going forward.

I think if you look at what you're talking 1 2 about, it could have a profound effect and a detrimental 3 effect going forward. I would see this as cataclysmic. 4 As I said earlier, one problem begets another. 5 And as our economy -- if we lower property tax values, 6 we have less discretionary revenue to spend on things 7 when the need increases. 8 We've just gone through essentially the worst 9 economic situation since the Great Depression. I don't 10 want to see that happen again. And for a county that 11 continually struggle with chronic unemployment and 12 poverty, it seems to be an extreme stance to me. 13 I think it's ironic --14 CHAIRMAN HOPPIN: Can you answer a question for 15 me? 16 MR. CHIESA: Yes, sir. 17 CHAIRMAN HOPPIN: With the enormous growth and 18 revenue from the agricultural sector, I would like to 19 think that there would be a corresponding increase in 20 employment. With that growth, does it seem strange to 21 you that you have such chronic unemployment? 22 MR. CHIESA: The unemployment -- you know, we 23 are a bedroom community, and the housing market is what 24 really crashed us, not the ag economy. That's the 25 bright spot that we have.

1	If you talk to the tractor dealers are
2	growing, all the ancillary businesses associated with
3	it. If you talk to Del Monte, they are on an increased
4	hiring. If you talk to Gallo, they're doing expansion.
5	So there is an increase in hiring in the
6	agricultural sector, but we've lost a proportional
7	amount of jobs in the housing sector and businesses, the
8	service sector. So there is a tradeoff.
9	CHAIRMAN HOPPIN: Thank you.
10	MR. CHIESA: And I wanted to point out one thing
11	that I thought was pretty ironic. Mr. Chairman, if you
12	remember riding in the elevator with me a couple of
13	months ago I was here in this building. I just
14	happened to ride down and talk to you for a couple of
15	moments.
16	CHAIRMAN HOPPIN: The way I was dressed, you
17	said, "You must be a farmer"?
18	MR. CHIESA: I said, "You must be a farmer."
19	That's right.
20	It's ironic because I was here to talk about Cal
21	EnviroScreen. And Cal EnviroScreeen is something that
22	CalEPA is doing. It's talking about the health impacts.
23	They're down to ZIP codes, and it talks about the
24	cumulative health impacts. And so then it allowed the
25	State to target disadvantaged communities.

If you look at the map, the top 10 percent of 1 2 the disadvantaged communities almost exclusively are in 3 the Central Valley, from San Joaquin down to Kern. 4 There are hotspots around where there were air 5 bases, and there's some pollution issues, but by and large the majority of those are in the Central Valley. 6 7 So what you are charged with here, what you're 8 talking about, has a potential negative impact and will 9 just accelerate the enviroscreen of covering the valley 10 essentially in the top 10 percent. So be very careful. 11 And I think that's ironic that we're having this meeting 12 here. 13 Last night I wanted to talk about -- we had a 14 Board of Supervisor's meeting, and we passed a 15 resolution opposing the State Water Resources Control 16 Board's Draft Substitute Environmental Document. I'm 17 going to put that as a part of the record. 18 I just hope going forward -- it is really 19 important -- oh, one other fact I learned last night. Ι 20 think I learned it. I heard a little something 21 different from your staff. I heard that the upper 22 watershed, which is the Hetch Hetchy system, was exempt. 23 And that was very worrisome to me because that comes to 24 a conquer-and-divide-type strategy. 25 I'm always cognizant of why San Francisco is

1 not a part of this fight standing along the tributary 2 authority. So I hope to hear an explanation -- a little 3 bit explanation of that going forward.

But I fully expect that all your decisions going forward -- you know, my hope, but I expect it, is that it will be based upon sound science. I think we will hear that over and over again. It's very important going forward.

I would also like to tell you that I would love 9 10 to have a meeting down at the impacted area. It seems 11 only fair that -- you know, all these folks that drove 12 up here -- I took a bus up here myself -- that you guys 13 would come down. And I invite you. I will get you the 14 forum; I will get you the venue; I will get you the 15 speaker system; I will get you the security, everything. 16 Guaranteed.

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So I really appreciate the time.

One last thing. I see your Board uses levity.
I like to see that. That builds cohesiveness. You
collaborate better that way.

Last night I used something tongue in cheek after the presentation and talking about the counties, and we had something on the agenda about enterprise zones. So the State took our redevelopment zones; they're trying to take our enterprise price zones;

they're attempting to take our water, but they gave us 1 2 their prisoners. 3 Thank you very much. (Laughter and applause.) 4 5 CHAIRMAN HOPPIN: One thing about it, it looks like those prisoners are a sustainable population. 6 7 (Laughter.) 8 CHAIRPERSON HOPPIN: Mr. Larry Byrd from MID. 9 MR. BLOM: Actually, my name is Nick Blom. I'm 10 from MID also. 11 Larry's deferred. He's the vice president of 12 the Board; I'm the president of the Board, so he's 13 deferred to me to make a presentation today. 14 Thank you very much for providing us this 15 opportunity and to voice our concerns on the proposed 16 required 35 percent unimpaired flow from the Tuolumne, 17 Merced, and Stanislaus rivers. 18 As I said, my name is Nick Blom, and I am not 19 only the chairman -- or the president of the Board of 20 Modesto Irrigation District, I'm also a farmer in that district. 21 22 MID, together with TID, owns some of the oldest 23 water rights in the State, and since the last 1800s has 24 managed these water rights to serve thriving 25 agricultural communities in the Central Valley. 82

MID water rights are put to beneficial use 1 2 either as water storage, irrigation water for 3 agriculture, water for drinking, and other urban uses or 4 environmental water releases that support fish and 5 wildlife in the river ecosystem. We provide irrigation water to approximately 6 7 3100 agricultural customers who irrigate close to 8 60,000 acres of almonds, walnuts, peaches, grapes and 9 other crops. 10 Since 1994, MID has had a successful partnership 11 with the City of Modesto treating and delivering up to 12 40 million gallons of water per day to provide up to 13 half of the City's drinking water needs. 14 The Modesto Regional Water Treatment Plant is 15 currently being expanded to double its capacity, which 16 will allow MID to provide up to two-thirds of Modesto's 17 drinking water supply. 18 The 35 percent unimpaired flow proposal would redirect water supplies away from our communities 19 20 without any recognizable benefit to salmon or the rest 21 of the Delta ecosystem. 22 The State Water Board staff's own impact 23 analysis forecasts significant and unavoidable damage to 24 the region's economy. But, in reality, the damage is 25 measured in lost crop production, lost farms, lost jobs,

1 and downturn to an already struggling economy.

MID would have to sacrifice up to a hundred thousand acre-feet of water annually. Reductions in water deliveries could require thousands of agriculture acreage within MID to be fallowed in the dry years. And almond crops, unlike some of the seasonal crops, you cannot foul.

8 Agriculture sector income losses in our 9 community could be tens of millions of dollars during 10 dry years. Resulting job losses would exacerbate 11 already high unemployment in our region.

With less water and power available, our rates for both would have to rise, further straining households and businesses.

15 Without the hydropower, there will be pumping. 16 And with that pumping there will be costs to the 17 farmers, and those costs will then be redirected to the 18 consumers, which you just -- it's that cycle.

The impacts to our hydrogeneration conflicts with the State's proposed goal of increasing green energy or production.

Increasing flows from February to June generates more energy when low energy demand -- when it's a low energy demand. Leaving less water in the reservoirs in the summer means less hydropower at the time of peak

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1 demand. Reductions in hydroelectric generation create 2 the need to buy costly supplemental power from carbon 3 producing conventional sources.

To account for lost surface water, users will increase the pumping of groundwater, overdrafting of the water table and increasing energy uses and costs.

7 MID, together with TID, take the brunt of this8 impact at great cost to our customers in our community.

9 We have always been good environmental stewards 10 of the Tuolumne River, participating in habitat 11 restoration, as well as river flow experiments; however, 12 with the proposed 35 percent unimpaired flow criteria, 13 our communities are looking at significant cost with no 14 evidence that additional water will get where it needs 15 to go or achieve the fishery goals identified by the 16 State.

The Board makes an assumption that greater flows will meet these objectives, but no evidence to support this assumption has been provided.

20 We hope the Board will take these community 21 impacts into consideration as you move forward with this 22 process.

23 Thank you.

24 CHAIRMAN HOPPIN: Thank you, sir.

25 Michael Frantz.

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Mr. Guinee, if you could kindly assemble your 1 2 group. 3 MR. FRANTZ: Good morning, Chairman Hoppin and 4 members of the Board. My name is Michael Frantz. 5 Before I begin, Chairman Hoffman, I should thank you for your years of service and congratulate you on 6 7 your upcoming retirement. 8 CHAIRMAN HOPPIN: Thank you. I'm not really 9 going to be retiring. It's just kind of like changing 10 your socks. 11 (Laughter.) 12 MR. FRANTZ: For the last three years, it's been 13 my honor to serve the communities of Turlock, Denair, 14 Hickman and Hughson as their representative to the TID 15 Board of Directors. 16 My constituents are both electric ratepayers and 17 small family farmers. The average parcel size in my 18 division is 24 acres. Many families have farmed on 19 their land for multiple generations. 20 This matter being discussed today has the 21 potential to impact them severely, and as their elected 22 representative it is my duty to share our grave concerns 23 with this SED. 24 I would like to comment specifically on four 25 areas of potential inadequacy. The first is that we, as 86

an irrigation district, at TID do not feel heard by your 1 2 organization. 3 TID, as the operators of the New Don Pedro Project, have invested heavily in the Tuolumne River. 4 5 We have tremendous pride and love for the health of the river. 6 7 We have had a full-time biologist paid for by 8 both MID and TID for over 40 years studying the 9 Tuolumne. We have conducted and published more studies 10 about the health of the fish and wildlife in and along 11 the Tuolumne River than any other agency or NGO. 12 Seemingly, none of the 650 pages of comments 13 that we have submitted through our agent, the SGTA, 14 through the comment period, as was said was being 15 formulated -- apparently nearly none of them have been 16 incorporated into your document. 17 How is it possible that the agency closest to 18 the river with more institutional knowledge about this 19 precious resource than any other could possibly be 20 completely disregarded? 21 My central concern is the overriding thesis in 22 the SED that increased in-stream flows will improve 23 salmon smolt returns. Volumes of peer-reviewed science 24 show this belief to be incorrect. I can list the 25 studies. NMFS 2009. The list goes on, but I'll, for 87 1 the sake of time, spare you. Just to name a few.

2 Unfortunately, staff seems willing to ignore our 3 science and fallow vast swaths of productive farmland to 4 increase the flows.

5 The fallowed land listed in your environmental impacts are stated as unavoidable, but is it really? 6 Ι 7 implore you this: Before you ask some of the most 8 disadvantaged communities in the State with our 9 unemployment, as you heard from Supervisor Chiesa, as 10 high as it is, to give up a third of their economic 11 engine, the Porter-Cologne Water Quality Control Act, 12 common sense, and even just basic human compassion would 13 compel you to consider alternatives.

My request is that you would partner with us, partner with the resource closer to the river, bring your ability to affect statewide policy changes and our understanding of the resource.

18 I'm going to veer from my script for one second. 19 When you were having your conversation, Chairman Hoppin, 20 I believe, Ms. Marcus -- Mark. Mark, I'm sorry. I'm 21 talking to the back of your head. But when it talked 22 about the conjunctive use of groundwater and the model 23 you are using and the model that you are hoping to use, 24 I can't help but think as I'm sitting here in the crowd, 25 we have a hundred years of experiential data.

We don't have to model it. We can look back at history. We know that when times are dry we rely more on groundwater; and when times are more wet, more flood stages, we're able to recharge.

5 For example, at the end of the '80s and early 6 '90s and the end of the seven-year drought, we were out 7 of surface water, and we had numerous lawsuits come our 8 way at TID because we were running residential and 9 municipal groundwater wells.

So we know that the model that we run at today during periods of dry runs out of both surface water and groundwater. And we can show you that based on a long track record. We don't have to model it. We can give you hard, factual data.

15 CHAIRMAN HOPPIN: Mr. Frantz, this is a golden 16 opportunity for me to remind not only you but others 17 that are here today that's why we're dealing with a 18 draft and that's why we're here taking your input and 19 why your written comments following this meeting will be 20 so critical. It's not that that data and those ideas 21 are going to be precluded.

This is an opportunity for people to come up, just as you're doing, and present their point of view and follow it up with whatever they need to substantiate it and have it considered as the Board goes forward. I'm not just saying that to you but everyone in the room. MR. FRANTZ: Well, thank you. That embodies the concept of the critical goals, so thank you. My third concern is that the south Delta Salinity is the stated reason for the increased flows. However, our increased flows -- I'm sorry. Our current

8 existing flows are not allowed to help flush the 9 salinity out of the Delta.

We have studies -- Susan Poulson, 2006, will prove that 98 percent of our existing -- all of the existing San Joaquin River flows never make it past the south Delta. Virtually all flows are picked up by both the State and federal export pumps.

15 Why not wait until the BDCP has concluded its 16 plan, which would allow the State Board to look at the 17 Delta in a more comprehensive fashion?

To rely on a plan that requires increased flows at the expense of senior water rights holders for the benefit of those with junior water rights puts the State Board in an awkward legal position of facilitating an illegal taking from one region to the benefit of some of the richest in the state.

Lastly, this document has areas that makes it difficult to assume that fish, wildlife and Delta

salinity are the true objectives. How am I to explain 1 2 to my constituents why the Hetch Hetchy water system is 3 excluded from the mandate? 4 How do I explain that the SED excludes the 5 entire upper San Joaquin River with source of approximately one-third of the San Joaquin's unimpaired 6 7 flows? 8 How do I explain that the plan proposed today is 9 an adaptive one, yet the plan for next year's flow rates 10 will be determined before the snowfall hardly begins? 11 In addition to asking you to give serious 12 consideration to the points that I have raised, I have 13 one other special request, and that's already been heard 14 today: Please hold a listening session in the Modesto 15 or Turlock area. 16 The sacrifices you are asking the families of my community to make are great. I respectfully ask that 17 18 you meet them and to hear their stories. Come visit our 19 farms. 20 If you come to my family's farm, you will find 21 micro irrigation and an elaborate water recycling 22 My farm is not unusual. Most of the farmers I system. 23 meet are experts at conserving water. No one wants to 24 overwater their crop and, therefore, reduce their yield. 25 If you would be willing to invest one day of

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your time, I suspect you will come away impressed with 1 2 the farming practices currently in place in my district. 3 In closing, the farms in my community only exist because of the sacrifices of prior generations. Our 4 5 parents and grandparents mortgaged their farms that we now inhabit to pay for the irrigation system that greens 6 7 the San Joaquin. Today we feed the world, and the 8 economy of the entire state benefits. 9 Before you propose to turn parts of it back to a 10 brown, fallowed, barren land, the people that I serve 11 deserve answers to the questions we have raised today. 12 They deserve better. 13 Thank you for your time and your consideration. 14 CHAIRMAN HOPPIN: Thank you, sir. 15 (Applause.) 16 CHAIRMAN HOPPIN: Ladies and gentlemen, before 17 Mr. Guinee and his group come up -- we are not going to 18 take lunch today. And I have enough cards here and -- I know people have traveled a long way. I don't want to 19 20 get to the end of the day and tell people that's the end 21 of public comment and then you need to turn around and 22 come back tomorrow. 23 I know that's going to be a burden on staff 24 because -- you know, I hope you can rotate out and go 25 get something to eat.

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If for some reason you decide to leave and go 1 2 down to the cafeteria -- which I can assure you won't 3 take very long for you to get your fill down there --4 and I call your name and you're out, I will not discard 5 I will put it aside and call it later in the day. it. So, sorry for that inconvenience, but it's really a 6 7 matter of courtesy. 8 Mr. Guinee? 9 MR. GUINEE: Thank you, Chairman Hoffman, for accommodating us going now. We have a couple presenters 10 11 that are not available to come back tomorrow or Friday. 12 I think we're going to take the chairs up in the 13 front. 14 CHAIRMAN HOPPIN: Before you start, there are some people in the overflow in the Coastal Room. 15 Ιf 16 they would like to come into this room, there are plenty 17 of seats in here. Please take advantage of that. 18 Excuse me. 19 Talking about glasses, the comment that I 20 received, there are still some personal items left in 21 the Coastal Room. If you are missing a purse, a lunch 22 bag, an iPhone, or something, you might check and get it 23 before somebody else does. 24 MR. GUINEE: Again, thank you, Chair Hoppin. 25 John Shelton from the State Department of Fish and

Wildlife is going to start on behalf of the fish 1 2 agencies. 3 CHAIRMAN HOFFMAN: Roger, is that microphone 4 turned on? 5 MR. SHELTON: The green light is on. Can you 6 not hear me. How's that? Is that better? 7 So first thing I want to do is again thank Board 8 Chair Hoffman and the rest of the Board members for 9 having us here. As you understand from your staff, and 10 I'm sure you're going to hear in the next couple of 11 days, this is a very complex set of documents; and the 12 science behind it is pretty complex, both the ecological 13 science and the social and economic sciences. 14 So we did put together a panel of the fish 15 agencies. It includes the State Department of Fish and 16 Wildlife, U.S. Fish and Wildlife Service, the National 17 Fishery Service and the US/EPA. We are including them 18 as the honorary fish agency, although they look more at 19 water quality and the Clean Water Act. 20 BOARD MEMBER MARCUS: That's about 20 years too 21 late, but I appreciate that sentiment. You're going 22 back to old history. 23 MR. SHELTON: So I'll go ahead and start off on 24 this. And I think at the end we do have a little bit of summary slides. But most of us, although we have worked 25 94

together, we have separate slides, separate agency 1 2 missions. There's a lot of overlap, but we tried to not 3 focus on saying the same thing over and over again. 4 CHAIRMAN HOPPIN: You know, if you said the same 5 thing over and over again, it might mean you all agree. 6 I kind of find that refreshing. 7 MR. SHELTON: One of those that I think we all 8 agreed on is we do think your staff has done an 9 excellent job of working through this. We don't think 10 they got everything right, but if they got everything 11 right that would be just -- that would be tremendous, 12 because it's very, very tough to just figure it out. 13 So we do have some recommendations, but we do 14 believe your staff did a very good job. 15 Now if I can get the mouse to work. 16 (Thereupon an overhead presentation was 17 presented as follows:) 18 MR. SHELTON: So the Department of Fish and 19 Wildlife has a few key points. This is the recommended 20 summary of the things we're going to do at the 21 beginning. So this is your slide. You can look at it 22 at again to go back to see what we said. 23 So the first thing is we would like to see the 24 salmon doubling goals included in --25 CHAIRMAN HOPPIN: Can I interrupt you for one

1 second?

Larry, this panel has a more complete presentation than some. Would this be a good time for the court reporter to take a break? Why don't you do that?

And I think we've probably got enough material here that we can include it in the record and not have her fingers cramp up and not, you know, delete a comment from someone else, if that's all right.

MR. SHELTON: So are you saying you won't type this into the record?

12 CHAIRMAN HOPPIN: Are you going to have enough 13 for the record that you can supplant it? Or is that a 14 good idea?

MS. MAHANEY: I think the purpose of the court reporter is to transcribe the entire proceedings. So I think if someone is speaking, it would be appropriate for her to be transcribing.

19 CHAIRMAN HOPPIN: All right. Young lady, when 20 you start cramping up, make a signal and we'll take a 21 little break.

22 MR. SHELTON: So our first key point is we do 23 believe the salmon-doubling goal should be explicitly 24 stated in the Water Quality Control Plan. We had talked 25 to your staff, and they said the intent wasn't to really not have it as part of it, but we do think it is should
 be explicitly in the document.

Second point, our department analysis does show that the 35 percent of unimpaired flow isn't adequate for juvenile salmonid outmigration pulse flows. Our recommendations -- and I have future slides that will show what we mean on that.

And it's also not adequate if you're trying to combine both what we would like to see for pulse flows and to try to mimic the natural flow regime. You can't do both. You have a hard-enough time doing our pulse flows by themselves. If you do those, you definitely don't have enough room to do anything else with the natural flow.

And the other is that our analysis is that 50 percent of unimpaired flow does achieve what -- our recommendations from prior times. Those recommendations that we had made, those pulse flows were based on the old Vernalis criteria. They were also based on something we were doing before we started talking about natural flow regimes.

So we had worked pretty hard to try to put it and change it into a flow amount per year. And I think the work that your staff did didn't quite hit it the same way we would hit it. And I'll have a slide on that

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1 to show you that. So I think they tried, but I think
2 they missed it.

The other thing that we wanted to point out, the SED does recommend a 14-day running average at the 35 percent unimpaired flow. We also see that doesn't achieve the salmon-doubling objective. It does pretty well wipe out a lot of the reason for the unimpaired flow.

9 And while it will show that the economic impact 10 to declining fisheries are very significant and they are 11 important to consider as part of your balancing, we did 12 hear your staff say that, you know, CEQA does not 13 require the analysis of positive impacts. So if you did 14 better things for salmon, salmon fisheries, and the 15 economic services that go through, that doesn't 16 necessarily get into an SED format; but we understand 17 that you do need to balance. And in balancing you 18 should have a big picture idea of the economics that are 19 both negative to continuing declining salmonids and, 20 also, what could be possibly done.

And, the last one, the revised water quality control program of implementation needs details, and we have some suggestions on that.

24 CHAIRMAN HOPPIN: Excuse me, John. What was the 25 REC period on that last slide?

The recommended period. 1 MR. SHELTON: 2 --000--3 So this is just the existing water MR. SHELTON: 4 quality Lower San Joaquin Fish and Wildlife objective, 5 just again to show that it does have the doubling in 6 there. We think it's important. The other part of that 7 is -- if I can get it to move. 8 The other is both State and federal laws require 9 doubling. So Fish and Game Code section 6900, etc., 10 Salmon, Steelhead Trout, and Anadromous Fisheries 11 Program Act requires it, and then also the Central 12 Valley Project Improvement Act. So it is the basis for 13 both of these. 14 ------15 So flows needed to achieve the MR. SHELTON: 16 salmon doubling. The development of flow criteria for 17 the San Joaquin-Sacramento Delta ecosystem 2010 report. 18 The flow criteria seek second criteria that you did. 19 One of the important things that came out of 20 there was the idea of threshold flows. There were two 21 things that we quoted in here. I won't read the whole 22 quote, but it basically says that March through June 23 flows of 5,000 cfs out of the San Joaquin are important 24 basically just to sustain. It will do some things, but 25 if you really want to do good things and start heading

towards the doubling, they recommended a flow of 10,000 1 2 cfs average flow during that period. So it's very 3 important to get up to these threshold flows to be able 4 to do things. 5 --000--One of the ways we wanted to look 6 MR. SHELTON: 7 at this -- if you can see on this chart, there are two 8 bars, two solid lines that are flat that go across. 9 Those represent the two threshold flows, the 5,000 and 10 10,000. And then there's three lines that look at 11 different alternatives. There's the 35 percent 12 alternative, which is the recommended alternative; 13 60 percent alternative, and then we added a 60 percent 14 of unimpaired at Vernalis. This would be the total 60 15 percent of flow at Vernalis if you included all the 16 different tributaries to show that at the Vernalis area 17 when you're talking about how much flow would be there 18 under unimpaired conditions. 19 There's actually more than what we're requiring

20 in the SED and the draft Water Quality Control Plan. We 21 include that amount just to give you kind of a basis for 22 what the overall system could be doing.

The important takeaway on this is that if you look at the 35 percent flow, right about 50 percent exceedance you drop below the 5,000 cfs threshold. So we're not even getting to the lower threshold that your own document recommended that we needed to get up to most times.

We believe that there are the times during the dry years, the normal years, and below-normal years, that are really very critical to maintain the fisheries. We also believe that the wet years are very good on increasing the fisheries, but you need to at least maintain during the dry and normal years.

And this shows right here a 35 percent right about the average, the 50 percent year, you get underneath that threshold; so you're not maintaining very well even in normal years.

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15 MR. SHELTON: So our analysis of the 35 percent 16 unimpaired: We do look at what the State Board did. 17 The State Board underestimated our total volume of flow. 18 So the idea that your staff had put into the SED -- they 19 took a look at our recommendations, and our 20 recommendations came as pulse flows on top of base 21 blows. And they looked at our base flows and they 22 looked at the figures that we had put together for our 23 pulse flows and just took the times of years from that 24 for our base flows.

We are actually showing you when the pulse flows

1 should occur and not how long the base flows should 2 happen.

In our own Fish and Game Flow Criteria Report that we put out, we showed a further extension of when those base flows should be happening. It basically goes throughout the February through June period. So we need those base flows. We need water in the river through the whole season, through the whole spring.

9 It would not be a very good idea to have no flow 10 at all just so that we can mold our pulse flows for a 11 couple weeks and then all of a sudden be water again.

12 CHAIRMAN HOPPIN: John, historically there were 13 times when there was little, if any, flow in the lower 14 San Joaquin; is that not correct?

15 That is correct. What we did MR. SHELTON: 16 looking at our base flows, is we looked at -- basically, what has historically been going on over the last decade 17 18 A lot of of the flows coming down the system right now. 19 those flows are required from other agreements, FERC 20 agreements, some two-party, three-party agreements. So 21 that water is in there. And the ability for us to mold 22 that water into a pulse flow would be difficult.

23 So that water is still there; you still need to 24 add that water to the system to keep it in there.

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We also come back with the idea -- I think you
hear this more from the National Fishery Service. We have a fishery that is on the edge. When you look at steelhead, it's, you know, formally recognized as being on the edge. But even the fall-run salmon are on the edge. And we will recommend strongly that you've got to protect it in the low-flow years. Because if you don't protect it, it can get wiped out.

8 Historically, our great years were great --9 hundreds of thousands of fish -- and so we could rebound 10 through some of the bad years. Now, when we only get up 11 to thousands of fish, at best sometimes, we need 12 protection during the dry years.

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MR. SHELTON: The other thing that we showed -or that we had put in our earlier comments, is that we want to make sure everybody understands that when we put together our pulse flows, we're looking at one species, one life stage. All right. There is a critical life stage for fall-run salmon, and fall-run salmon are a critically important species for this system.

But we have said over and over again that species needs -- other times of the year needs the water, during the summer for any juveniles that hold over. We definitely need fall pulse flows, and we have a little bit in October, but we've got to make sure

there's enough there. So it's year-round protection. 1 2 The other thing is there's a lot of other 3 species, like the steelhead, that definitely needs 4 year-round; but there's other ones too that are both 5 within the watershed but are in the south Delta and 6 central Delta that need the extra flows. 7 So although we understand the reasoning behind 8 looking at this particular time, we want to keep making 9 sure that everybody understands the rest of the year 10 water is important. 11 And the other thing is that ecosystem functions 12 and services are important. So this is just the whole 13 idea of the natural-flow concept and what those natural 14 flows are supposed to support and maintain, is the ecosystem services and functions beyond just the native 15 16 and individual species. I don't know if it's a bad battery or -- there 17 18 we qo. 19 --000--20 MR. SHELTON: I've got a series of slides. This 21 is the figure from the SED, figure 3.2. And it does 22 show what your staff put together as our 23 recommendations. 24 So the red line is our recommendations. This is 25 an exceedance spot, which sometimes makes it a little

1 bit difficult to initially look at.

2 What it does tell you is that -- on the hundred 3 percent side. So the "X" axis is the amount of times 4 something is exceeded. So as you get further and 5 further on that, we have drier and drier years, which means we have more times where we have less water and 6 7 not as much times that we have the high water. So 8 50 percent exceedance is about the normal on this stuff. 9 What we have done -- I'm hoping -- there it 10 qoes. 11 --000--12 MR. SHELTON: So we added a couple lines just to 13 help show you where these things are. There's a 14 35 percent alternative and a 50 percent alternative. 15 And in one of our earlier recommendations -- I 16 think it was the revised notice panel when we were a part of that -- we did say that 50 percent of unimpaired 17 18 flow basically gives us enough water to work with our 19 pulse flows for most of the years, especially the wet 20 years; so we included the 50 percent in there. 21 Then we add the black line. The black line is 22 the department's recommendations when you include the 23 base flows throughout the February through June period. 24 So it increases the amount, the volume of water. This 25 graph is based on volume but not flow.

1	And what it shows you is that, yes, it does
2	increase the amount of water that you need. And the
3	35 percent no longer really hits our numbers very well.
4	It's mostly below our line.
5	If I can go one more there's our line.
6	And the other thing that we can see on this is
7	it's only about 30 percent of the years that are above
8	the black line that gives us enough water to be able to
9	get to our pulse flows. And those are mostly the wet
10	years.
11	We also included some graphs that we have of
12	some years that we used just as examples. We tried to
13	pick a few different types of years, but the most recent
14	ones of wet, dry years.
15	This is a wet year, 35 percent of unimpaired
16	flow is sufficient. We think we can move things around
17	fairly easily and get the pulse flow.
18	So the red line in there is our recommended
19	flows. We think we can move things around in a wet
20	year.
21	But if you get into an above-normal year, it's
22	still got a fair amount of water but not as much as a
23	wet year. We start running into problems, and the
24	ability to adaptively manage during that year and remold
25	that water into the pulse flows is going to be quite

difficult without dipping into our regular base flows 1 2 later on. 3 We are very concerned, also, about just the practicality of trying to get these sort of agreements 4 5 in place as you're trying to forecast what the rest of the year is going to be. 6 7 Basically, in order to do our pulse flows, you 8 would have to look at the beginning of the year and 9 start saving water, hoping that you still have that sort 10 of year at the end of the year. 11 --000--12 MR. SHELTON: During a below-normal year, this 13 does show that -- the green line, the 35 percent, would 14 be very difficult. In this instance, if you try to mold 15 pulse flows, we'd be taking water away from the 16 remainder of the 35 percent of the year. 17 And I would suspect the water suppliers would 18 come up and say, Well, we don't think we're going to 19 have that water; or, We're not sure we're going to have 20 that water, so we should be conservative and not put it into a pulse flow. 21 22 --000--23 The other thing, the SED, their MR. SHELTON: 24 14-day averaging doesn't help restore and maintain the 25 ecosystem functions and services.

Remember, the natural flow regime is based on 1 the idea that you have some fairly high peaks at natural 2 3 times when precipitation events are occurring and other 4 times are occurring. That helps set the times for seed 5 set, for germination of riparian plants, for growth of There are other animals that rely on 6 riparian plants. 7 this stuff. The 14-day averaging does away with those 8 peaks.

9 We did point out your basis of science report 10 for the natural flow regime. Again, a very good report. 11 And I think, as some have already come up and said, that 12 there's not much science. There really is a tremendous 13 amount of science.

14 And your report, both the flow criteria and the 15 basis of science report, is very good on this. It shows 16 that the natural flow regime is the state of the science 17 and does show that you can maintain variability in 18 patterns of hydrograph when you maintain the ecosystem 19 services and functions. But that requires the right 20 timing, the right magnitude, and the right duration of 21 high flows.

Also, usually it does require low flows. But then we have the problems in the system in that we've had so many low flows in the past that are unnatural that we've got a system in crisis, so we do need to be

careful in the very low flows. 1 2 --000--3 MR. SHELTON: The other thing that we have 4 concerns with in the Department, the model. I can't 5 remember the name of your model, but your spreadsheet model that was put together to look at the water supply 6 7 impact, the WSE model, it has in there limits because of 8 flood impact. 9 The problem with that limit for flood impact is 10 that sometimes it gets in the way and conflicts with the 11 ability to get the threshold of 10,000 cfs. And so 12 having that in there and having it in your water quality 13 control plan may not allow us to do some of the 14 ecosystem services and functions that we need to do. And I know this is a question between 15 16 authorities on how far you can go on flood flows and 17 all, but it's something that seriously needs to be 18 considered. 19 We also have this question, because we couldn't 20 find it in the document -- it might be there -- what 21 happens to those flows if you're 200 or 300 cfs about 22 flood flows? Is that just something that doesn't belong 23 to the environment anymore and has been given away? So 24 on a wet year is it actually less than 35 percent that's 25 required because you've hit maximum in some of the

1	systems? So we had looked at that. I think our
2	recommendation is to make sure that that's clearly
3	defined and that's just stored for later. If you can't
4	put it down then, you can put it down later.
5	000
6	MR. SHELTON: This is actually a slide that Les
7	presented at a Davis conference, and it just shows the
8	difference between the 3-day and 14-day averaging. I
9	think we have an arrow that points to them.
10	So the red line is the daily observed. The blue
11	line is a 3-day averaging. You're able to keep your
12	peaks. Right underneath in between is the green line
13	which is a 14-day averaging. You've lost that peak
14	there at the 14-day averaging completely.
15	So a three-day averaging, which we think is
16	possible for the operators to be able to work with, is a
17	much better averaging period to work with.
18	We've had internal discussions where we've said
19	three to five days. We're not set that it has to be one
20	day or two days or three days, but we know 14 days does
21	away with a lot of the peaks.
22	000
23	MR. SHELTON: The next idea: The economic
24	impacts of declining fisheries are significant and
25	important.

For balancing, the Board needs to understand the 1 2 full range of economic impact. I've already explained 3 that, yeah, in a single document you don't necessarily 4 need to look at positive stuff. But for your balancing 5 you do, you need to see both positive and negative impacts, recreation, commercial fisheries. 6 7 Again, you've already had people already testify 8 that, you know, you have in these communities a lot of 9 very low-income folks. Low-income folks very much enjoy 10 going out to the river where it's free. 11 The ecological services -- not just fishing but 12 including fishing. Just going out on the river, going 13 out and going for a swim in a nice thriving, living 14 river is very important to areas that have high poverty. 15 So it is very important to have a high quality of life 16 for everybody that's out there. 17 So when we look at this, there are economic 18 impacts. If we talk about driving the value of the 19 land, again, if you have a living river next to your 20 land, you usually have a higher-valued land. 21 So it's very important to look at these things 22 and try to make this part of your balancing. 23 The other thing that we did look at in our 24 written comments, we looked at the economic impacts to 25 agricultural use. And I think you had said you had 111

heard from your staff saying that the model that was 1 2 used, it is basically some state of the art model on 3 there but it has assumptions in there, one of those 4 assumptions being groundwater taking the place of 5 surface water. But the other assumption that they do explicitly 6 7 state in there is that it's a short-term model. Ιt 8 looks like short-term impact to the agricultural 9 economics. It doesn't allow farmers to make a decision 10 in the model for long term. 11 So if you shut down the amount of water that 12 they get over a period of time, there are ways that 13 farmers will adapt to what's coming down the system. We 14 have seen that with both the State and federal 15 contractors, that they have done a lot of things to 16 still keep vibrant economic conditions on the west side. 17 There are issues out there, but they can do some things. 18 So the model is about as good as you can have, 19 but there are some things that need to be addressed on 20 the model, too. 21 CHAIRMAN HOPPIN: John, I think we should be 22 mindful of the fact that a lot of the things they have 23 done is go to the permanent crops with micro irrigation, 24 but those permanent crops don't allow for fallowing and 25 a great deal of annual variability.

Yeah. And, you know, back to 1 MR. SHELTON: 2 the -- again, this is not my area of expertise, other 3 than this is the area that I live. I also know it's 4 also very tough as you go to more high-dollar value 5 crops you also have less need for a lot of basic farm labor. So there's still employment issues. We 6 7 recognize economic impacts and employment issues are 8 impacted. CHAIRMAN HOPPIN: I don't think we're ever going 9 to get to the point where we encourage people or force 10 11 them into lower-valued crops so they can hire more 12 people. I guarantee you that. 13 MR. SHELTON: Yeah. But what I'm saying is that 14 the economic impacts of the model do not capture that very well. And that is said in the SED and the 15 16 appendix. It's more like, yeah, this is just more that 17 needs to be done. So I agree with Les's 18 characterization that it gives you a book end, but how 19 far from that book end it really is -- especially over 20 time. 21 And then you also had somebody already say that 22 this is a \$4 billion industry, and you're talking about 23 2 percent that's moving it, which is important, 24 especially to the people who are feeling that 2 percent. 25 But with the fishery industry -- the fishery industry 113

1 gets a huge percent. 2 --000--3 So the SED on this last -- on this MR. SHELTON: one, the SED does not assess the future negative impact 4 5 of the salmon fisheries which will continue to decline under the 35 percent. 6 7 We do agree with a lot of the folks who have 8 come up and said that we don't think 35 percent is going 9 to be enough to really stop the decline. It's not much 10 better than what's going on right now. We think you need more. We would be happy to 11 12 give any improvement in the system, but if we want to do 13 adaptive management, we have to get enough in the system 14 to see what's going on so we adaptively manage. 15 If you give us a very little amount and then you 16 say we can go up or down, depending on how well we're 17 doing and we don't have enough increase or decrease in 18 the system -- I'm afraid we may have enough decrease to 19 make a determination; but if we don't have enough 20 increase in the system, we're not going to ever be able 21 to say we can come back down. 22 So part of the idea that we've talked with a lot 23 of people is if you want to adaptively manage, you've 24 got to have enough water in there to show some results. 25 We would recommend more than 35 percent.

1 --000--MR. SHELTON: 2 This is some of the figures on 3 costs to fisheries. So back in 2010 Jeff Michaels from 4 UOP did a study. And, actually, his numbers were the 5 conservative numbers. He went through and worked on 6 this stuff: The income losses and job losses, 7 commercial and fisheries, commercial and recreational 8 fisheries. 9 Our department helped the Governor come out with 10 a proclamation for a declaration of state of emergency 11 to the salmon industry. We estimated \$275 million in 12 income impact and a loss of 2,690 jobs in the salmon 13 industry. Now, there are big numbers if you go with the ag 14 15 economics. When you look at the fishing folks, again, a 16 lot of these folks are not well off. They're struggling to survive. And when you look at these numbers, this is 17 18 a significant part of their numbers. This is a high 19 percentage. 20 So the revised water quality control program of 21 implementation needs detail. The SED omitted that and 22 was looking for the Department to make some of this, but 23 we want to make sure this is what you follow, our 24 recommendations is what you follow. 25 You should include a clear governance structure.

1 You should base it on specific measurable, achievable, 2 relevant, timely objectives, smart objectives. It's 3 very important to have this set up so that you can know 4 how you are going to adapt and manage it into the 5 future. Have management triggers, performance measures, 6 7 and times frames identified as interval components. 8 You should include an adequate process for 9 implementing and evaluating higher flows. 10 You should expand the incorporation of the 11 independent science review and advise. We think that is 12 very, very important before you go to make 13 determinations in the next go-round. As you know, we 14 will continue to have those. 15 BOARD MEMBER MOORE: I have a quick question. 16 On those smart objectives and getting more details in 17 the program of implementation, are you going to furnish 18 some suggestions in your written comments? 19 MR. SHELTON: We have some. Some of those are 20 still based on the doubling goals, so there are some 21 pretty good numbers out there. 22 Some of those suggestions are also on how to 23 develop those smart objectives. So we may not have 24 them, but it's our focus to have them when we get to the 25 implementation. And we have so far worked very well

with your staff, and they have worked with all the 1 agencies. We have monthly calls that they are a part 2 3 of, and we hope that will continue. 4 BOARD MEMBER MOORE: I just would point out 5 there is attention there between how specific we are in 6 the Bay-Delta Plan versus as we work through our 7 adaptive management collaborative structure that we're 8 proposing when we get that far down the road. 9 I think we all understand the importance of that 10 kind of adaptive management approach. It's just where 11 do we place it, the plan and the program of 12 implementation? 13 VICE CHAIR SPIVY-WEBER: I'm assuming that 14 you're assuming the range is basically 25 to 45, but if 15 the range is 35 to 45, are you analyzing activities 16 within the range or are you just targeting 35? 17 MR. SHELTON: We looked at with our analysis the We like the idea of the range. One of our issues 18 35. 19 with the range based on past experience is the 20 practicality of moving things within a year. 21 And this may go back to the way we set up the 22 And I can't remember what the COG stands for, but COG. 23 the different implementation committees and groups. We 24 have some specific suggestions on that. 25 But we think implementing from year to year is 117

1 fairly tough. And one of the things we do recommend is 2 that if you have a range, you need to start on the high 3 end of the range because coming down is relatively easy 4 to do.

And not that we always see everything perfectly as a State department and other trust agencies, but if we have information that says, yes, we are getting enough other actions taking place and that we're doing great and we can have less water in the system, we have -- that information will get developed and will be in front of us.

12 But the other way around, if the system is doing 13 the same as its always done and its variation and other 14 things are in there so we don't know what's going on, 15 our arguments for more flow to show that it is going on, 16 we'll have the same argument that we always get: No, 17 it's something else. It's gradation or it's -- or we 18 don't have enough habitat that you guys paid for, or 19 something like that.

20 We know all those are important, but we need the 21 flow, and we think we need the flow ahead of time. A 22 lot of restoration actions take time.

23 MR. LINDSAY: Chairman Hoffman, I've gotten the 24 signal from the court reporter. If we're changing in 25 speakers, this might be a good time. CHAIR HOPPIN: All right. We're going to have a
 break for about 15 minutes.

3 (Break taken.) CHAIRMAN HOPPIN: I'm going to do what I can to 4 5 accommodate those who came by bus that I assume may not be on the bus tomorrow, but we will have an 6 7 opportunity -- we've got about a three-and-a-half hour 8 presentation to start at 9:00 o'clock tomorrow morning, 9 and any cards that I call and the people aren't here, if 10 you need to leave, I will call them again tomorrow 11 sometime after 1:00 o'clock. I can't tell you exactly 12 what time it would be. Mr. Lindsay has been flooded by 13 people who need to go next.

I'm not trying to be rude; I just can't change it all that much. So please know if you don't get a chance today there will be an opportunity tomorrow. And I apologize for the inconvenience.

18 No pressure, Roger.

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MR. ROGER GUINEE: Thank you, Chairman Hoffman.
Can you hear me with the microphone? Okay.
Thank you, again.

22 Chairman Hoffman, members of the Board, and 23 Board staff, I appreciate the opportunity to come talk 24 to you today.

And on behalf of the U.S. Fish and Wildlife

Service, my name is Roger Guinee. I'm the Assistant
 Field Supervisor for the water operations and science - Water Science Division in our Sacramento Bay-Delta
 office.

5 And with me is my colleague, Julie Zimmerman. 6 She has a Ph.D in fisheries and extensive experience on 7 flow management for aquatic resources. She and I are 8 going to share this presentation.

9 I'll start with, first of all, acknowledging the 10 effort of the State Board staff and the hard work that 11 they put into preparing the environmental document, and 12 we appreciate that the SED evaluated the percent 13 unimpaired in all three tributaries: Stanislaus, 14 Tuolumne, and Merced. That's going to be important to 15 restoring salmonids in all those tributaries.

16 In the spirit of Chair Hoppin's comments at the 17 beginning, to make sure we let you know some of the 18 specific comments on the adequacy of the SED, I will 19 start by saying that in our view the SED didn't do an 20 adequate analysis of the effects of the alternatives, 21 especially the third alternative on fish, habitat, and 22 particularly things like inundated floodplain, things 23 like that.

Also, the SED does not encompass a reasonable range of alternatives -- excuse me. The Board's

narrative objective of supporting reasonable natural 1 2 production of viable native fish populations is not 3 specific or measurable. 4 And then -- let's see if I can talk and run this 5 at the same time. It's going to be an adventure for me. (Thereupon an overhead presentation was 6 7 presented as follows:) MR. GUINEE: So it is unclear why the SED does 8 9 not evaluate the service's proposed alternative from the 10 AFRP 2005 report as part of evaluating a full range of 11 alternatives to encompass all strategies that can 12 achieve the Board's objectives; and so -- here we go. 13 --000--14 MR. GUINEE: So I wanted to put this graph up to 15 point out that the Service, in developing the Anadromous 16 Fish Restoration program's doubling, this is an example 17 of a specific and measurable quantitative goal. 18 You can see under CVPIA doubling goals for all 19 three tributaries. Well, maybe you can't see it. Here 20 we go. 21 The baseline during the '67 and '91 period was 22 approximately 39,000 fish in those three tributaries. 23 The doubling goal since the CVPIA was enacted in 1992 is 24 78,000 salmon, fall-run Chinook salmon, again combined 25 for all three tribs.

And the current population estimate from '92 to 1 2 2011 has been a little over 19,000, which represents 3 less than half, 50 percent, of what was there, even 4 during the baseline. So we're not making progress 5 toward doubling. In fact, the population has continued 6 to decline. But, again, these are examples of 7 quantitative goals. 8 So, just again, that comes up over 50 percent 9 decline central baseline. 10 --000--MR. GUINEE: So in addition to not evaluating 11 12 the AFRP 2005, the SED does not evaluate or link the 13 percent of unimpaired flows to its ecological functions. 14 And those ecological functions are intended to provide 15 habitat variability, to mimic the natural patterns and 16 enhance functions, to inundate floodplain habitat for 17 juvenile rearing, and to provide emigration cues for 18 salmonid smolds going to the ocean. 19 The Board may remember this table we submitted 20 in our AFRP 2005 showing an average total annual volume 21 of water in acre-feet and a percent unimpaired flow 22 required to increase fall-fun Chinook salmon in this 23 first table by 53 percent, and then in the table below 24 by a hundred percent, or IE doubling. 25 So Julie will discuss adaptive management and

uncertainly in her talk, so I'm going to move on to an 1 2 example of an analysis that the SED could do in the 3 future. And this slide is based on preliminary data and 4 analysis from Mark Gard from the Fish and Wildlife 5 Service, and it's on the Stanislaus River. You can see he has several study sites where he 6 7 has modeled and evaluated flows up to 5,000 cfs, and the 8 amount of wetted acres. As soon as I can get that to 9 come up. There it is. 10 --000--11 MR. GUINEE: So those are the study sites from 12 Goodwin Dam down to Ripon. Those are the three that 13 modeling has been completed. 14 There's another study site downstream of Ripon 15 that he's still working on, and hoping to have his 16 report -- the goal is to get it completed by the end 2013. 17 18 And so this table is something that one of our 19 staff, J.D. Wiker, did for us, and it shows how you can 20 link the flows to average minimum acres inundated for at 21 least two weeks, which provides the benefits of 22 floodplain inundation. 23 So you have the actual from 1995, which shows 24 that you have the 145 acres under the 35 percent 25 alternative. In the SED, it would be 95 acres, or about 123

65 percent of what was actually seen in the last 18 1 2 years. And then under the AFRP doubling flows, you 3 would get 296 acres, or 204 percent. 4 And so this is an analysis that the Board could 5 conduct, because in terms of using a combination of 6 flows and non-flow habit restoration measures, you can 7 see the minimum acres needed for doubling and how short 8 the alternative is; so you would have to try to 9 establish some non -- some minimum acres using non-flow 10 measures. 11 --000--12 MR. GUINEE: Here we go. Another way of looking 13 at this bar graph is a hundred percent, '95 and 2012, 14 and then 65 percent in the SED, and 204 percent in the 15 doubling. 16 --000--17 MR. GUINEE: So my next slide also has a few animations. Let's see if I can get this to work. 18 19 The first line you see is the Goodwin flow. 20 This is an example, again, of a year such as 2000, which 21 is an above-normal year. And on the left side is wetted 22 acres of floodplain. So in the blue you saw how many 23 acres of floodplain were inundated in the actual year 24 2000. 25 The red is what would have been inundated using 124

1 the Board's 35 percent of natural flow in the SED.

And then the next line is this green line, which is the same 35 percent using a two-week averaging period. And it makes the same point that John made earlier: That you lose a lot of the peaks in terms of acres of inundated floodplain when you smooth it out over a two-week period.

And then this next slide is -- or this next line is -- dashed line is representing the AFRP doubling flows. Not from that previous table but, I believe, it's Table 2 in that report. And they were displayed as monthly averages but intended to be implemented as a percent of unimpaired.

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MR. GUINEE: Lastly, is this graph where you see in the black is a full 100 percent of unimpaired. So just to kind of give you a basis of comparison again for that same year, 2000.

So I offer this as an example of an analysis that our staff did. And we'd be happy to work with the Board to do additional analyses like this to connect the percent of unimpaired flow to the actual ecological function that it's intended to address in this case -inundated floodplain.

BOARD MEMBER MARCUS: Did you analyze 45

1 percent? 2 MR. GUINEE: No, we did not, Felicia. We just 3 took the time to do this one. But it could easily be 45, 50, 60 percent, all of those could easily be 4 done. 5 done. Not by me but my staff. --000--6 7 MR. GUINEE: So moving on then, the next slide 8 is just sort of a visual and -- okay. So back it up for 9 a minute. This is an example of a photograph taken by J.D. 10 11 on the Stanislaus River. This is floodplain habitat 12 where some non-flow habitat restoration has been done. 13 It's near Lover's Leap, for those of you familiar with 14 the Stanislaus River. 15 --000--16 MR. GUINEE: And this next slide shows that same site with water in. And so, again, to emphasize the 17 18 point that we can't just accomplish -- you know, 19 there's -- how do I go back? Oh, there it is. 20 There are no fish going to be able to use this habitat, obviously; and so it's important to have a 21 22 combination of flow and non-flow measures when restoring 23 habitat for the management of fish, and particularly 24 salmon and steelhead. 25 --000--126

MR. GUINEE: And so this last slide, I think the 1 2 point I want to make here -- you know, John kind of 3 covered this one pretty well. And I think the main 4 point I want to make with this slide is the box that's 5 going to come up -- as soon as I figure out how to --6 there we go. 7 Looking at the 40 percent of unimpaired, 8 approximately 42 percent of the points on the graph 9 exceed the AFRP -- 33 out of 79 -- and the rest do not. 10 So we're highly concerned there that the analysis didn't 11 fully encompass the range of alternatives needed to 12 achieve the Board's objective for viable fish 13 population. 14 15 MR. GUINEE: And to recap then, the SED -- there 16 The SED did not include specific measurable we qo. objectives such as doubling. The range of alternatives 17 18 did not fully encompass the AFRP 2005 flows, and the SED 19 didn't link the percent of unimpaired on the effects on 20 fish, their habitat, and ecosystem function. And so 21 that would be important in terms of addressing the 22 natural variability, the inundated floodplain habitat, 23 riparian colonization of native species, of willows and 24 cottonwoods, and adequate juvenile salmon emigration 25 flows during the February through May period.

And so before we transition to Dr. Zimmerman and 1 2 her adaptive management presentation, you can either --3 well, I quess we're transitioning. So you can ask 4 questions at the end again. 5 CHAIRMAN HOPPIN: Is it true that that last photo was a sonogram of the inside of a striped bass? 6 7 (Laughter.) 8 MR. GUINEE: No. I think those are actually a 9 sample in one of the --10 DR. JULIE ZIMMERMAN: So I'm going to focus more 11 on adaptive management as it was described in Appendix 12 And we think that it is important that adaptive Κ. 13 management is included in the SED, so we applaud that. 14 And that encompasses the range of unimpaired flows, but 15 we think there needs to be a lot more specificity in how 16 it's intended to be implemented and what it is intended to achieve. 17 As it's described in Appendix K, it sounds like 18 19 it's more allowing for flexible regulations rather than 20 providing a science-based framework to achieve 21 information or gain information to improve 22 decision-making over time. 23 So we would encourage the Board to think about 24 the latter: That it really needs to be more of a 25 science-based program for gaining information and 128

1 improving decision-making.

2	So just to give an overview of our points, we
3	think adaptive management should be included as part of
4	the decision-making framework and as part of the
5	Workshop 3 from Phase II of the update of the Bay-Delta
6	Plan I presented on structured decision-making as an
7	approach that we recommended for doing the whole overall
8	decision-making. And adaptive management is a special
9	case of structured decision-making and is a good way to
10	integrate it into the whole decision-making framework.
11	And this would be a good reason not to do
12	animation in your slides.
13	000
14	DR. ZIMMERMAN: And the second point we really
15	want to highlight is that we think the objectives in the
16	SED were not measurable and specific enough to really be
17	able to determine what was meant to be accomplished.
18	So one of the main points in adaptive management
19	is that measurable objectives need to be defined. And
20	not just for fish but for other objectives that are
21	trying to be achieved.
22	Models and metrics need to be developed so that
23	you can begin to examine the predicted effects of
24	management alternatives on your performance metrics and,
25	ultimately, your objectives. And then you can evaluate
	120

tradeoffs among those objectives and have it be clear 1 2 for everyone how you're doing your balancing. 3 And then, finally, targets and triggers need to be quantified for all actions. So not just flow but 4 5 also the restoration actions and predation and other actions that are included in the SED as ways to achieve 6 7 the narrative objective for fish. 8 --000--9 DR. ZIMMERMAN: And this is just an overview of 10 structured decision-making. I presented this slide in 11 that last workshop. As part of a structured 12 decision-making framework, you have a problem that 13 you're trying to solve, and then you develop your 14 objectives. And so those would be value based. 15 So it would be not just the fish objective that 16 you're trying to achieve but what are your other objectives for balancing beneficial uses for water 17 supply? And those should all be very specific and have 18 19 performance metrics associated with them. 20 --000--21 DR. ZIMMERMAN: Once you have those objectives, 22 you can come up with management alternatives that you 23 would predict would achieve those objectives, and then 24 develop models that let you examine the consequences of 25 implementing different alternatives.

And then, finally, once you can model those 1 2 consequences, you can look at tradeoffs between your 3 objectives and do some sort of optimization to see what 4 you predict to be your best solution. And then that's 5 where you actually make a decision and take action. And then, depending on what you actually observe 6 7 after you take action, you go into the adaptive 8 management loop. So then you go back to your 9 alternatives and revise accordingly, or try different 10 actions until you gain the information that you need to 11 improve your position. --000--12 So what we would suggest as the 13 DR. ZIMMERMAN: 14 first place to start would be to develop a specific 15 adaptive management plan as part of the SED so that 16 everybody is clear about what's trying to be achieved 17 through the adaptive management process. So this would 18 include, again, measurable objectives, and then 19 performance metrics that are associated with them. 20 Management actions should be linked explicitly 21 to those metrics. And then that can inform your 22 monitoring plan so that you would collect information 23 that may need to change, and not just monitoring for monitoring sake but where do you have significant 24 25 uncertainties that if you could reduce that uncertainty

would actually cause you to make a different decision. 1 2 And then, finally, you incorporate new data into 3 whatever model you have to base your predictions on your alternatives to improve decision-making. 4 5 So the rest of what I'm going to talk about with these slides really are focused on how to create this 6 7 plan or what should be included in it. 8 --000--9 DR. ZIMMERMAN: So the fish viability metric is 10 the narrative objective for fish in the SED, and we 11 think that that is a good one; but, again, we don't 12 think that it's measurable or specific enough. 13 And then, again, there aren't any other 14 objectives that are included in there, other than the discussion about balancing for beneficial uses; so we 15 16 would like to see very specific metrics for each of 17 those beneficial uses so that it's clear what's being 18 evaluated and how they're being developed. 19 So then in the plan you have all of these 20 different actions that you could take. You have flow, 21 habitat restoration, predation, water quality and 22 changes in temperature and dissolved oxygen. 23 And for flow, there are some targets that were 24 examined, such as the 20 up to 60 percent of unimpaired, 25 and then the preferred alternative of 35 percent. But

there weren't any targets specified for these other
 actions, these other management alternatives.

So in your adaptive management plan you would need to have targets for all of these management actions. And you would gain those targets from models and from analyses such as what Roger showed earlier about looking at the floodplain inundation under different flows.

9 And then you would want to link those targets to 10 all of your performance metrics for your objectives. 11 So, for example, for fish viability, you might have 12 performance metrics that included natural production, 13 number of spawning populations in the basin, spawning 14 grounds, or number of juvenile out-migrants.

These are things that are really specific and can be measured, and you can either decide to try to maximize those performance metrics or come up with some numbers that you want to achieve.

And then for your other objectives for other beneficial uses, you should also have specific performance metrics that are associated with them.

And then when you're implementing adaptive management, you would need to have some sort of triggers that would cause you to evaluate different targets for each of your different management actions or different 1 alternatives.

2	So, for example, if you're trying to figure out
3	where in the 35 to 45 percent range of flow, what would
4	cause you to evaluate 35 percent versus 45 percent, for
5	example? Would it be based on a performance metric and
6	on what the fish population is doing, or would it based
7	on the water year type? Those things should be
8	specified so that we actually get to the point where
9	we've evaluated all of these alternatives and can gain
10	some useful information.
11	000
12	DR. ZIMMERMAN: Another thing that needs to be
13	addressed in the plan is the amount of uncertainty in
14	the information that we have. We know there's
15	uncertainty linking flow to fish population. We know in
16	general fish populations improve as flow increases. And
17	we have a lot of information on that, but it would be
18	useful to narrow that amount of uncertainty through an
19	adaptive management plan.
20	But to do that, you need to examine the flow
21	range that's broad enough to actually detect a response.
22	So in that 25 to 45 percent range that was suggested for
23	adaptive management, it's likely that you won't see
24	enough of an effect in fish populations to really look
25	at the response relationship.

So we would suggest that you may need to increase that up to 60 percent, which is what has been identified as what's needed to show recovery.

So if you can encompass what's needed for recovery, then you would have a broader range that will let you look at the sensitivity of your performance metrics to your management action, as well as the shape of that response. It might not be linear; it might have some other shape, and then within that 25 to 45 percent.

And then another concern we had that wasn't very clear to us is the difference between the annual and long-term adaptive management. So it seems like in the SED there are two different time scales and two different objectives.

15 So for the annual adaptive management, it looks 16 more like allowing for flexible implementation within a 17 year. And so you need to average 35 percent of 18 unimpaired flow within the February to June time period, 19 but we can reshape those flows if we want to achieve 20 some other benefit, like floodplain inundation.

But that's doing something a little different, so you're not implementing unimpaired flow then; you're implementing an ecosystem function flow. And so, if that's the case, if we want to evaluate that as a management action, we would need to set up an adaptive

1 management plan to let us see if that does a better job 2 than straight percent unimpaired flow at getting the 3 response that we're looking for.

4 So it should be integrated with this long-term 5 time scale of adaptive management which seems to be set up more for determining the actual percent of unimpaired 6 7 flow that would be most beneficial; although, without the specific objectives it's a little bit unclear as to 8 9 what that percent unimpaired is meant to achieve. Is it 10 supposed to provide the greatest fish benefit within 11 that 25 to 45 percent, or is it supposed to balance 12 between beneficial uses?

13 So I think we just need -- it just would be 14 useful to have more clarity in that plan about what you 15 actually are trying to get within the range of flows.

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DR. ZIMMERMAN: So I have in here just one conceptual model example of adaptive management. So the first thing to do, again, is to define specific and measurable objectives. And this one here might be to have juvenile salmon survival of .5. This is just for hypothetical purposes.

23 So then you would use models to determine the 24 flows, as well as other management actions that you 25 would need to meet that biological objective, and then

1 alternate targets that you would want to evaluate. 2 So for flow alone, we have here 25 percent of 3 unimpaired, 45 percent, and 65 percent; but you have to 4 incorporate the other actions, too. 5 So if you have low levels of unimpaired flow, 6 25 percent of unimpaired is not going to provide 7 floodplain inundation; you're not going to get that 8 function, whereas you might with 65 percent. So 9 obviously you would have to do a lot more of the other 10 actions, like floodplain restoration, to achieve the 11 necessary benefits in the lower flows. 12 So these alternative actions are linked in that way, and they have to be thought through. 13 14 So then you would implement your experimental 15 flows based on triggers of what water type it is or what 16 the population is doing and which one you want to 17 examine. And then you monitor where your objective is 18 achieved with that flow level that was prescribed, as 19 well as the other actions that were implemented. And

20 then you see what happens.

If yes, then you continue your present flow standards and monitor in case of changes in the feature. You might have some confounding factors that you need to take apart, but you would stay with what you were doing until that happened.

If no, then you would go back and modify the 1 2 flow standards, and then go through that loop again. 3 And I'd like to point out, too, that we have a 4 lot of information on the low end of this range, the 5 25 percent to 35 percent. That's a lot of what we see, 6 and we have data for that. But up to the 55 percent is 7 where the focus should be at the beginning because 8 that's where we don't know the relationship. That's 9 what has not been implemented. 10 --000--11 DR. ZIMMERMAN: And so just as a recap for the 12 adaptive management team, we would suggest having more 13 explicit, measurable objectives with performance 14 metrics, and then developing models to make the 15 alternative measuring actions to those performance 16 metrics, and let you quantify tradeoffs between your 17 objectives. 18 There needs to be an explicit directing of 19 uncertainties to make sure that you are looking at the 20 right range to actually find the response. 21 And then the plan should be included in the SED 22 and be science based. So rather than just allowing for 23 flexible regulations, we think there should be a 24 science-based plan to make sure that we actually do gain 25 useful information. It should include all the 138
1 management alternatives, the specific targets, the 2 performance metrics, and the triggers as to when each of 3 these management alternatives would be implemented so 4 that we get data points across the whole range and 5 actually see what works best.

6

MR. GUINEE: Thank you, Julie.

7 And then before we yield to Rhonda Reed from 8 NOAA Fisheries, I did have a couple of closing points 9 that I missed earlier, if I could just add those right 10 now.

11 You know, we said that the SED needs to evaluate 12 effects on aquatic resources and the habitats they use 13 of both flow and non-flow measures. As you know from 14 past presentations we've made, the service and its 15 partners, both federal and stakeholder partners, have 16 been implementing a lot of non-flow habitat measures using CVPA funds or CALFED bond money. And we've been 17 18 doing this for about 20 years, and yet the populations 19 continue to decline.

And so when we're asked, "Why is that?" it's mainly because we haven't been able to achieve the flow objectives that have been described not only in the AFRP 23 2005 report but we haven't even met the ones in the AFRP 24 2001 restoration plan.

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And I know you're going to hear from others --

1 maybe even tomorrow morning -- that we've already done 2 flow; we did VAMP and all that. But, again, those flows 3 were not adequate in the same level to flow that was 4 needed and so, again, those entire flows, as Julie just 5 said, should be more thoroughly evaluated.

Also, as was mentioned earlier, we're at a 6 7 critical juncture right now where the Board has the 8 opportunity to not only provide adequate flows for the Delta in Phase II to, you know, sustain a healthy 9 10 productive Delta ecosystem, it needs to ensure a healthy 11 productive ecosystem in the San Joaquin basin as well; 12 and so the SED should evaluate the relationship of the 13 San Joaquin flows in Phase I in the Delta and Phase II.

14 And then the last couple of points I wanted to 15 mention is that with me today in the audience are 16 members of our Fish and Wildlife service staff in Lodi, 17 and we would be really happy to invite any of the 18 members of the Board or the Board staff to come see some of the salmon restoration sites at the inundated 19 20 floodplain on the Stanislaus River, Tuolumne River, or 21 Merced, whichever you would prefer.

And I think it's important to get out and see those, and we can explore opportunities to co-exist with agriculture. Because it's not really about agriculture versus fish -- and we can consider examples like the

Cosumnes River where agricultural production co-exists 1 2 with the inundated floodplain and fish reproduction on an annual basis. So all of that the SED needs to 3 evaluate. 4 5 So thank you. Do you have any questions for 6 Julie or I before we defer to Rhonda? 7 Thank you for your time. 8 MS. REED: My name is Rhonda Reed. Good 9 morning. Good afternoon, Chairman Hoppin and other members of the Board. I want to say thank you for 10 11 allowing us to have this block of time to present our 12 concerns to help address the question of the adequacy of 13 the substitute environmental document. 14 I am the San Joaquin River Basin Branch Chief for the National Marine Fishery Service out of our 15 16 Central Valley Office here. And you've seen me here 17 before talking on San Joaquin issues. 18 (Thereupon an overhead presentation was 19 presented as follows:) 20 MS. REED: So I wanted to start with a quick 21 kind of run-through of some of the key issues that the 22 National Marine Fishery Service has brought to the 23 attention of the Board with respect to our concerns on 24 the San Joaquin River and the flows associated with it. 25 The previous comments that we've provided

identified our desire that the Board identify standards 1 2 at Vernalis, as well as with each tributary, because 3 each of the tributaries that stream to the San Joaquin 4 River are salmonid streams, and particularly they have 5 steelhead populations which are listed as threatened 6 under the Endangered Species Act. And those populations 7 are not doing well, so we're seeking opportunities to provide benefits and ways of supporting those 8 9 populations.

10 We agreed that the concept of using a percent of 11 unimpaired flow was a good starting point, with the 12 concept that it can provide the sorts of natural signals 13 and ecosystems services that our species need in order 14 to survive in the rivers; but the caution that we had 15 was using unimpaired flow metric, given that our systems 16 are very flashy -- we can have high water years and very 17 low water years -- a percent of unimpaired flow in a 18 variable water year can be disastrous for fish and be 19 totally not sufficient.

20 Our experience also in developing the reasonable 21 and prudent alternative suite of actions on the 22 Stanislaus River for the 2009 biological opinion and a 23 lot of the modeling we did gave us a certain amount of 24 experience in understanding that if you are looking at 25 increasing flows at one time of the year you may have an

unintended consequence of reduced reservoir storage 1 2 which may have temperature consequences. And so looking 3 at an annual flow schedule which allows you to model 4 both the desired effects for fish, as well as the 5 potential effects on reservoirs and other operations 6 that can also affect fish habitat, is important. And 7 looking at an annual schedule that includes not just 8 flow but effects on temperature, on habitat quality, and 9 the geomorphic processes that are important for rivers 10 to kind of maintain the natural functions of rivers.

11 In particular, on the rivers of the San Joaquin 12 system, the summertime temperature is especially 13 important and critical for steelhead because they are in 14 the river year-round. And if you look at the 15 temperature modeling that has been done in the past, and 16 even in the SED, it identifies that there are some very 17 key areas, especially late summer, that are problematic 18 for temperatures for fish in the San Joaquin.

19 So the key issues that we had with the adequacy 20 of the substitute environmental document is that the 21 thousand cfs criteria for Vernalis is inadequate. We 22 recommend that the Board reconsider some of the previous 23 criteria that were established for guiding the VAMP 24 period, which were based on water year type. And they 25 varied, if I recall correctly, from about 3,000 to 8,000

1 to 10,000 cfs, depending on the water year type.

Okay. I think Valentina will talk a little more about the modeling under the SED and how that tracks the Vernalis flows. But I guess the point is if your proposed alternative is going to meet a particular standard that is significantly greater than the thousand cfs, it's like a thousand cfs doesn't create any value, and biologically it's not a useful biological flow.

9 The specific justification for the 35 percent 10 unimpaired flows in the analysis. It doesn't show how 11 specifically the doubling objective would be met. I 12 think that's been identified by my previous fish agency 13 partners.

The analysis, as your staff identified this 14 morning, it doesn't meet the RPA flows. The analysis 15 16 says that in some years it provides more. I would like 17 to point out that the reasonable and prudent alternative is a suite of actions that are intended to avoid 18 19 jeopardizing the continued existence of the species. Ιf 20 your objective is to double the species, just avoiding 21 jeopardy is not going to get you there.

And, as your staff has identified in terms of the larger picture, the reasonable and prudent alternative is a flow component that's part of a larger suite of actions that need to be addressed. And it is a

minimum flow that -- the modeling, using the conditions 1 2 defined in the reasonable prudent alternative and 3 current CALSIM models will also include additional flows provided at other times of year for water quality. 4 5 So the comparison of the models using the 6 SED with -- you know, calling them RPA flows is not 7 necessarily an exact comparison. It's basically the 8 that flows haven't given existing conditions on the 9 D-1641, as well as flows required by the biological 10 opinion. 11 We believe there is an over reliance on 12 restoration and other actions to offset the need for 13 real flows in the rivers. And, as you are aware, that 14 restoration actions take time to implement and also time 15 to show the benefits on a population level. We've yet 16 to see those, except in certain areas in the areas where 17 we've made great investments under the Central Valley 18 Project Improvement Act. These are the areas of the 19 CVPIA where we've had significant changes in the fish 20 populations. It's usually been accompanied with an 21 increment -- at increment flows. Specifically, I'm 22 thinking of Clear Creek and Butte Creek. 23 Further, we are a little confused on why the 24 selection of the third alternative, the 35 percent 25 unimpaired flow, doesn't seem to correlate with the 2010

1 report that calls for 60 percent unimpaired flow 2 requirement for the Delta. Given that fish move through 3 the Delta, we need a healthy environment there for them. 4 I was trying to buy some time. I will continue 5 with my notes, and eventually I'm hoping that the slides 6 will catch up. 7 --000--8 MS. REED: The 14-day running average tends to 9 flatten the flows and defeats the purpose of having an 10 unimpaired flow metric that could give some of the 11 natural signals of an unimpaired flow. 12 We also had concerns with respect to the model 13 time steps that are used. A monthly temperature time 14 step is not biologically valuable, and neither is an 15 average maximum temperature for the fish in a month. 16 Day-to-day temperatures are important. Just 17 yourself, if it's a hundred degrees today but it's 18 80 degrees tomorrow, if your average temperature is then 19 90, you're still a lot hotter on the day that it was a 20 hundred degrees than when it was 80 degrees; so 21 biologically it makes a difference, and fish are exactly 22 the same. 23 Trying to use these sort of broad-brush model 24 tools to make comparisons with the RPA flow schedule is 25 kind of like comparing apples and pears. The flow

1 schedule that was designed under the reasonable prudent 2 alternative looked at a variety of things, not just a 3 percent of unimpaired flow. I mean, it does bring in 4 some of that natural variability that we would expect 5 from an unimpaired flow, but it was crafted with a 6 variety of conditions in mind: The water year type, 7 because if it's correlated with reservoir storage, and 8 that's correlated with cold water that can be 9 immediately available to achieve the temperature 10 objectives for the fish.

11 We are also concerned that the preferred 12 alternative has a very low cap on the peak flows that 13 are called for in the percent of unimpaired flows. They 14 don't correlate with the allowable flood capacity for 15 any of the rivers; and they are, in general, lower than 16 what's needed to be able to do geomorphic work to 17 maintain gravel, spawning gravel, and riparian habitat 18 in those floodplains.

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We are also echoing that we are concerned with the adaptive management process as described is not likely to be successful. It doesn't have a clearly defined decision-making process. We felt that the objectives were unclear. And we also thought that the process was delegated very strongly from the Board to

1 another party.

2 So we would recommend that the Board staff lead 3 such an adaptive management process and be very clear 4 about the objectives and the outcomes that they are 5 looking for.

6 The proposed model includes a lot of involvement 7 from local stakeholders and agencies, including NMFS. 8 And I know we all have limited resources, so the ability 9 to participate and make that process effective could be 10 very challenging for NMFS.

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MS. REED: We're also concerned that the economic analysis is inadequate. The preferred alternative seems to be driven by the economic analysis of presumed agricultural changes or agricultural impacts from the status quo.

17 It also does not consider the economic benefits 18 of doubling on recreational commercial fishing-related 19 activities, or the consequences, as was brought up by 20 the Department of Fish and Wildlife, of not improving 21 the fishing conditions for the -- the fishery conditions 22 and continuing the trajectory that the populations are 23 going so it would be not viable and not able to support 24 those fishing and migration activities.

With respect to the agricultural effects and the

models that were done, we believe it's flawed. 1 We 2 assumed that there would be no shift to groundwater. 3 The diversification of agricultural water supplies is 4 already under way. If you did take a trip down to 5 Modesto to hold a listening section down there, you would be very aware of the number of new trees and new 6 7 orchards that are being planted in the areas of concern. 8 It is true that these are permanent crops, and they 9 require water every year.

10 And what isn't happening and is beyond the 11 purview of the organization is to -- it would be, from a 12 logical perspective, useful to have a holistic 13 perspective in terms of how our agricultural uses impact 14 us and the crops we choose as a society, or 15 individually, to support how that comports with 16 available water supply, whether it's groundwater, 17 surface water, whatever.

As totally dependent on surface water -- we're in a Mediterranean climate. That is, we have wet years and dry years, and permanent crops are always challenged by those dry years. So assuming that the changes in surface water would have the drastic effects that were categorized in the worst-case scenario models, I think, is an unrealistic assumption.

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Cameron Speer, who is an economist -- we are

part of the Department of Commerce. He's an economist 1 2 working in our history/science center, and he has 3 provided an analysis of the agricultural evaluation 4 that -- economic evaluation that was done. The models 5 that were used were consistent with the models that are 6 used for these sorts of analyses, but they're known to 7 overestimate the impacts. And, in particular, there was 8 a study done that estimated the impacts in 2009 of water 9 policy decisions and the effect of the biological 10 opinions on the Delta export facilities. 11 In January of 2009, in a report done at UC 12 Davis, the projected impact was 40,000 lost jobs and a 13 loss of revenue of \$1.4 billion. Those estimates were 14 revised in May of 2009, September 2009, and 15 September 2010. The ultimate model analysis estimated a 16 loss of 7500 jobs, as compared to the original estimate 17 of 40,0000 jobs, and a revenue loss not of \$1.4 billion 18 but of \$307 million. The actual figures in that time 19 period were changed in 1900 jobs and \$340 million. 20 So the message is that these models need to be 21 taken with a grain of salt to kind of understand the 22 range of variability in the -- in their reliability to 23 do predictions. 24 While the agricultural community is able to 25 diversify their water supply, there are a number of

1 programs that have been in place through the Department 2 of Water Resources and other CALFED funding, etc., to 3 encourage agricultural conservation, diversity, and 4 conjunctive use to be able to use the water, surface 5 water and groundwater, in a more conjunctive and 6 creative way to be effective.

7 On the other hand, with respect to fishery 8 resources, the fish cannot diversify their water supply. 9 And we have requested the Board consider in your 10 balancing that the fish have just one source of water 11 for survival, and that is the water that's in the 12 streams.

13 So we're concerned that third alternative relies 14 upon economic analyses that are variable in their 15 reliability, but we're concerned about real effects to 16 fish as a result of changes in in-stream flows.

17 Our recommendations are that the Board adopt protective standards at Vernalis and for each 18 19 contributing tributary; that the Board look at a 20 year-round flow schedule for each tributary that 21 addresses temperature, summer conditions, and habitat 22 maintenance. The spring period is important, but it 23 needs to be supported by a year-round flow for the fish 24 in the river.

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If the Board chooses to move forward with the

percent of unimpaired flows, we advise starting at a 1 2 higher level, at least 45 percent, which is an 3 improvement on the conditions in all of the rivers, and 4 revise that level as populations respond and restoration 5 actions are brought online, rather than waiting for the 6 fish to try to survive with an inadequate flow and hope 7 that the restoration efforts become successful. 8 Thank you. 9 MS. CABRERA-STAGNO: I'm Valentina 10 Cabrera-Stagno, and I work at the watershed office of 11 the EPA. I have a background in water quality and I'm 12 with the San Joaquin River Basin in the EPA office, 13 which is why I am here today. 14 EPA greatly appreciates the opportunity to 15 comment, and we're encouraged the SED the State Board 16 has proposed fresh water flows for the protection of 17 aquatic water. We do fully recognize that there are 18 multiple stressors in the Bay-Delta aquatic ecosystem. 19 --000--20 MS. CABRERA-STAGNO: We urge the Board to 21 update the water quality control plan as expeditiously 22 as possible. 23 It is important that the State Board act and use 24 the authority that it does have to control the stressors that it can. 25 152

The Board has articulated a valid approach to addressing flows as a primary stressor. Many other agencies, as well as other Waterboard actions, are already addressing contaminants in restoring habitats in the basin. The benefits of increasing fresh water flows can be realized quickly and help recover struggling native migratory species.

8 Once the Board concludes these actions, EPA will9 review any new or revised criteria.

I'm going to cover for you on the screen the text of the narrative objective as proposed in the SED. It describes having flow conditions that are protective of viable native migratory fish population. This is a great goal and very compatible with Clean Water Act goals.

16 One concern we do have is that it's only identified as occurring from February through June. 17 Ιt 18 seems contra to the goal itself to say that you only 19 want a viable native migratory fish population in just 20 five months of the life cycle, so we think that one 21 approach could be to only have the program 22 implementation apply actions to certain months of the 23 year, as it currently does, yet has the goal overall 24 defined as addressing -- as occurring year-round. 25 As it is now, both the narrative criteria and

the program of implementation are identified as only
 occurring five months of the year.

3 We are also looking at the Board could clarify the relationship between the business narrative criteria 4 5 that is proposed in the Water Quality Control Plan and 6 another one, the salmon-doubling objective that's 7 already in there. We're wondering if "viable" 8 means doubling or if viable means better than doubling 9 the salmon population. Some clarity on that would be 10 qood.

11 And then the last thing I'm going to point out 12 from the definitions in the SED is the phrase "together 13 with other reasonably controllable measures." We think 14 that this phrase confuses the purpose of the objective. 15 It's unclear whether only if these other measures are 16 happening then the flow conditions are required. And 17 it's also unclear what those other reasonably 18 controllable measures are. Are those the things that 19 the Board is already doing with its many other programs 20 and policies, or are these things that are outside of 21 the Board's control? 22 --000--

MS. CABRERA-STAGNO: So, as you heard here today already, the 35 percent of unimpaired flow as proposed applies to the three tributaries and does not apply at

Vernalis. So it translates to something less than that
 at Vernalis. The flows were very appropriately
 apportioned to the three tribs based on their historic
 percent of unimpaired contributions.

5 The upper San Joaquin River, however, was left 6 out of the analysis and modeled at something less than 7 the 35 percent. So when you look at what would be seen 8 at Vernalis, it becomes lower than the 35 percent on 9 average.

10 What we've got shown on the screen is a passage 11 of time, so 1984 to 2009. And the "Y" axis is the 12 percent unimpaired flow for the February through June 13 period. And those little red squares are what was 14 observed at Vernalis in each of those years. And the 15 predicted is the little -- it's the orange circles. And 16 that's showing what is the 35 percent alternative 17 modeled that would be reaching Vernalis. And the models 18 stop for 2003, so that's sort of where those dots stop.

19 One thing that popped out to us as we were 20 looking at this is that these two sets of numbers aren't 21 a lot different. So we looked at the period after 1995, 22 which was the last major update to the Water Quality 23 Control Plan that required flow changes, and when you 24 look at the median flows that are observed in that 25 period, it's about 31 percent. And when you look at the

1 median of the observed flows that would be predicted for 2 that period, it's about 33. So there's a difference 3 there but not a huge difference.

I searched around the SED to see if I could find
a margin of error for the model and I couldn't find one.
I'm guessing that's within the margin of error.

And as you're well aware, these conditions are not adequate for salmon and steelhead populations. This is identified by both the Department of Fish and Game biological objective that they recommended in 2010 and the State Board's 2010 flows report. A meaningful change from the status quo is going to be necessary to improve conditions.

As you heard in Phase II workshops, other countries and other parts of the U.S. have also adopted similar flow standards. The example, though, that are represented from other basins usually include a much greater percentage of flow that is left in the river.

This flow is 35 percent. The standards make it hard -- I'm sorry -- the flows are no longer adequate for such basic functions as flushing of gravel, activating floodplains, and providing adequate temperatures.

This underscores a need for base flows at the tributaries and at Vernalis to allow the survival of 1 sensitive species in critical years.

2 --000--3 MS. CABRERA-STAGNO: This graph that I am showing here is one that you have seen before. 4 This 5 actually is the Fish and Wildlife Service's recommended doubling flows from their 2005 report. That's the red 6 7 line. But let me sort of describe it because it is very 8 important. 9 The "X" axis is the exceedance frequencies. So 10 on the right-hand side is the very dry years and on the 11 right-hand side is the wet years. And then the "Y" axis 12 is the cumulative flow in thousand-acre feet for the 13 February through June period. The three sets of lines -- sorry -- four sets of 14 15 lines describe the hundred percent unimpaired flow scenario, the 60, the 40, and the 20. 16 17 The 35 percent flows analyzed in this particular section of the SED is a graph pulled from there, but 18 19 even at this 40 percent, as you heard before, the 2005 20 salmon doubling flows are only met in 42 percent of the 21 years. 22 The Department of Fish and Wildlife shows on the 23 their chart their recommendations. And something that 24 pops out from both those and these is that the 25 recommendations in the dry set of years, which is at the

bottom 10 to 15 percent -- so in the 85 to 100
percent on the chart -- aren't adequate in that they
don't meet what fishery agencies have been recommending
for flows. This suggests that the 1,000 cfs at Vernalis
is not adequate as a base flow for protecting sensitive
species.

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8 MS. CABRERA-STAGNO: As you heard a few times 9 now, the proposed flows are restricted to February 10 through June. And particularly this is problematic 11 because there are other sensitive species in the fall 12 run and other parts of the year in the system. For 13 example, fall-run Chinook salmon migrate from September 14 through October; they spawn October through December, 15 and steelhead rear from June to September. These time 16 frames are almost entirely out of the window that is 17 being considered.

18 One thing that is concerning about that is that 19 when you look at the analysis of temperature, there are 20 some things that pop up outside of the window that are 21 rather important and dramatic to aquatic life. The 22 40 percent unimpaired flow alternative was analyzed in 23 the SED, and the temperatures show that on average in an 24 average year they would reach equal limits in September 25 on Stanislaus, Tuolumne, and Merced; and then in the

lower San Joaquin River, in August September and
 October.

It seems that if the purpose of this exercise is to support salmonid populations, any water that is sent down in the spring during rearing would ultimately be wasted if the salmon trying to migrate in the fall spawn are decimated from high temperatures.

Another related concern that we have in the lack of year-round standard is that the SED very simplistically assumed that people aren't going to modify their behavior. When it comes to water diversion and water storage, experience in the system shows that people do modify their behavior.

It was assumed in the SED that outside of this five-month window diversions wouldn't increase more than they did in the baseline. The SED should analyze the indirect impact to aquatic life during the other seven months of the year from the newly proposed flow objective.

It would be unfortunate if July 1 and January 31 became very inhospitable places on the San Joaquin River for fish as an indirect impact of a very well-meaning new criteria intended to protect fish.

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MS. CABRERA-STAGNO: So a picture of the Delta.

1 That's the Bay into the ocean. As you know, native 2 migratory fish migrate. So salmonids from the San 3 Joaquin River basin have to make it all the way out into 4 the Bay to the ocean, and then turn around and find 5 their way back.

6 The return journey in the San Joaquin River 7 becomes a little bit complicated because the physical 8 and chemical cues that would typically be used to find 9 an available stream by a salmon are no longer there. 10 Sufficient flows are needed from the San Joaquin River 11 basin to address this issue. If it's not addressed now 12 in Phase I, it should be revisited in Phase II.

Additionally, the EPA recommends the State Board analyze the effects of the proposed flows, the base flows at Vernalis, and the alterations to the salinity standard on meeting dissolved oxygen objectives in the Stockton deepwater ship channel, the main stem of the San Joaquin, the Old and Middle rivers, all the channels in which salmon must migrate.

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MS. CABRERA-STAGNO: You're heard a lot about adaptive management here on the panel, and EPA echoes the same concerns. Greater clarity on the goals, the decision-making structure, and the triggers from the management actions are going to be needed in the

framework in order to make sure that the intent of the 1 2 objective is carried out by the COG. 3 Additionally, the State Board should clarify its 4 authority to make sure to avoid the appearance of 5 transferring authority to a third party. We are also concerned with the range of 25 to 6 7 45 percent that was included for the adaptive 8 management. In dry years, we think this would be too 9 restrictive. To achieve the salmon doubling objective, 10 Fish and Wildlife Service had recommended flows between 11 76 and 97 percent of unimpaired flows from the three 12 The ranges currently proposed does not allow the tribs. 13 flexibility to protect salmon in the critical years. 14 ------15 MS. CABRERA-STAGNO: So this is actually my last 16 slide for EPA's comments; however, we have one final slide which is how we heard -- what we heard from our 17 18 sister agencies on the panel. It is sort of the common 19 theme throughout each of our presentations that we sort 20 of want to reiterate at the end. 21 --000--22 MS. CABRERA-STAGNO: As you heard, the adaptive 23 management has caused all of us to sort of scratch our 24 heads. Defining the measurable performance targets and 25 decision rules in the narrative objective and then also 161

in the adaptive management framework will be necessary for establishing an effective objective, if possible to be measured. A decision support structure with built-in triggers will also be necessary so that the difficult natural resource management choices can be made effectively.

Secondly, you heard from all of us our agency is having a year-round standard. All months of the year should be included in the proposed objectives because native and migratory fish are the system in all months of the year.

12 And, lastly, the proposed plan of implementation 13 does not provide enough water to reach the existing 14 salmon doubling objective.

15 The panel would like to thank you for your time, 16 and we'll open the floor to any questions.

17 BOARD MEMBER DODUC: Not a question, thank you, 18 but a suggestion. It seems like you have some notes 19 from which you are reading. It might be helpful to the 20 court reporter if you could share those with here in the 21 event she couldn't hear quite what you were saying. 22 CHAIRMAN HOPPIN: Thank you very much. 23 Has Representative Olsen or a member of his 24 staff arrived? 25 Sherri Brennan from the Tuolumne Board of

1 Supervisors?

I'm going to call up five public members. If the folks right on this end of the first row, if you can move over and give me five seats there, then I can call people up in groups.

6 The first group will be led my John Rubin. 7 After that, Chris Scheuring from the Farm Bureau, or 8 Justin -- Frederickson is not here. John Sakura, Kala 9 Hirschbein and Bill Mattos. If you'd stage yourselves 10 up here in the first row.

11 Mr. Rubin, do you want to lead off, please? 12 MR. RUBIN: Good afternoon, Chair Hoppin, 13 members of the Board. My name is John Rubin. I'm 14 Senior Staff Counsel for the San Luis & Delta-Mendota Water Authority. I'll be presenting today, coordinated 15 16 with representatives from the State Water Contractors 17 and Metropolitan Water District. And you'll also hear 18 from Allison Feebo and Rebecca Sheehan.

I would like to start by commending your staff. The proposed update contains a substantial improvement upon the draft objectives presented in the April 1, 22 2011, Revised Notice of Preparation, and specifically noting the elimination of the water level and circulation narrative objective.

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I also wanted to note that the proposed update

1 reflects an important change. The program of implementation contained in the 2006 Water Quality 2 3 Control Plan, and specifically the elimination of an 4 intent to condition the water rights of Reclamation and 5 DWR on compliance with interior south Delta salinity 6 objectives -- those measured in the San Joaquin at 7 Brandt Bridge, Old River near Middle River, and Old 8 River near Tracy Road Bridge.

9 With that being said, the San Luis &
10 Delta-Mendota Water Authority and State Water
11 Contractors have significant concerns with the proposed
12 update and the draft SED.

13 The State Board's update to the Water Quality 14 Control Plan presents important opportunities. It 15 presents an opportunity to improve the understanding of 16 the factors comparing beneficial uses by fish and 17 wildlife within the Bay-Delta estuary to move past 18 surrogates to consider mechanisms that are directly 19 impacting fish and wildlife.

The update presents an opportunity to improve the likelihood proposed actions will provide the intended benefits to meaningfully assess whether proposed actions will address the mechanisms that are affecting fish and wildlife.

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The update also presents an opportunity to

1 establish salinity objectives and a program of 2 implementation for those objectives based upon a 3 complete and balanced presentation of information. 4 Unfortunately, the proposed update and the draft SED do 5 not take full advantage of those opportunities. I will be discussing two critical failings, and 6 7 Ms. Allison Feebo will expand on the second. 8 Ms. Rebecca Sheehan will be presenting two additional 9 failings. 10 The first failing I will be discussing concerns 11 the south Delta salinity objectives. 12 By raising a concern with the objectives, the 13 San Luis & Delta-Mendota Water Authority and the State 14 Water Contractors are not advocating at this time for specific increases to the objectives. Rather, we are 15 16 seeking sufficient information to be presented to you to 17 allow you to balance all relevant factors before 18 determining what objectives are reasonable. 19 Simply put, the documents released for review do 20 not provide sufficient information to allow the State 21 Water Board to determine what amount of increase is 22 reasonable. And I'll provide some examples to 23 demonstrate the failing. 24 The draft SED indicates that an increase in the 25 south Delta salinity objective to 1.4 EC would impact

1 two crops: Dry beans and almonds. The document 2 indicates a 5 percent yield reduction to dry beans and a 3 3 percent yield reduction to almonds. 4 The draft SED, however, does not characterize 5 the highly conservative nature of those impact 6 The draft SED should have explained that the estimates. 7 underlying analysis are based upon assumptions that are 8 not realistic, and that if realistic assumptions were 9 used -- excuse me -- if realistic assumptions were used, 10 lesser or no impacts would be identified. The draft SED also does not attempt to monetize 11 12 the impacts to the southern Delta agricultural 13 community. Based upon information published by the San 14 Joaquin County Agricultural Commissioner, assuming the 15 extent of impacts identified in the SED are true, 16 southern Delta agriculture would experience roughly \$500,000 of economic loss due to the yield reduction. 17 18 That information is not presented. 19 Further, the draft SED does not consider those 20 monetary losses in relation to the costs for 21 implementing the salinity objectives. If it did, the 22 draft SED would likely show that the costs for 23 implementation are magnitudes greater than the 24 overstated impacts to southern Delta agriculture. The 25 annual installation and operation of the ag barriers

1 alone run approximately six million dollars a year.

Finally, the draft SED fails to consider how changes in salinity may impact water service providers. As you probably are aware, salinity in drinking water can cause corrosion, unpleasant taste and odor, economic impacts to utilities and their customers, and can constrain water recycling and groundwater management programs.

9 With changes in salinity, entities that supply 10 drinking water may experience increased costs because of 11 the need to blend the water with water of lower 12 salinity. And with the changes, entities that supply 13 drinking water may also experience increased costs 14 because of the need to incorporate additional facilities 15 or processes to treat the water. And these options may 16 not be available to all service providers.

17 These types of issues are not discussed in the18 draft SED.

I'll now turn to the second concern that the San Luis & Delta-Mendota Water Authority and the State Water Contractors will highlight today, and that is on the factors that are discussed that affect salinity in the Delta.

And on this second issue I will highlight two failures. And these failures appear to cause the salinity program of implementation to assign improperly
 significant responsibility to Reclamation and the
 Department of Water Resources.

First, the proposed update and the draft SED do
not appreciate the results of drainage management
efforts that have occurred on the west side of the San
Joaquin Valley.

8 The draft SED does not acknowledge that the 9 entities that discharge to the San Joaquin River have 10 substantially reduced their discharge of salt, selenium, 11 and boron.

And as many, if not most of the Board members, have seen personally, the Grassland's Bypass Project has been a very successful program. And I'll highlight here and our written comments will expand on this.

But if you were to compare the conditions in 17 1995 to 2012, what you would see is the Grasslands 18 Bypass Project reduced the annual salt discharge by 19 84 percent, from approximately 237,000 tons to 20 38,000 tons.

Comparing that same period, the Grasslands
Bypass Project reduced the annual selenium discharge by
94 percent, from roughly 11,900 pounds to 750 pounds.
And during that period, the lands that are served by the
Grasslands Bypass Project have remained highly

1 productive.

There's no discussion about the program -- any meaningful discussion about the program and the benefits of the program in the documents that are out for review.

5 The second failure that appears to cause the 6 program of implementation to improperly assign 7 significant responsibility to Reclamation and DWR 8 concerns water levels and circulation.

9 The proposed update in the draft SED do not 10 appreciate the limited effect that operation of the 11 Central Valley project and State Water project 12 facilities in the Sacramento River Basin and Delta have 13 on water levels and circulation in the Delta.

At this point, I will turn to Ms. Feebo, who will now discuss some data concerning water levels and circulation in the south Delta data that are not apparent in the draft SED.

MS. FEEBO: Good afternoon. I am Allison Feebo. I am a Senior Water Resource Scientist with the State Water Contractors. I am going to specifically discuss, as John Rubin just mentioned, the effects of CVP and SWP pumping on south Delta water quality, water levels and circulation.

Department of Water Resources has performed a significant modeling effort using DSM 2, and they've 1 submitted that modeling effort to you and your staff.

That effort specifically analyzes the effects of CVP and SWP pumping on the south Delta issues. And while it analyzes that, it does not consider effects of other factors that might contribute to issues in the south Delta, including channel configurations, including delta inflows, and including other local users in the south Delta.

9 So this analysis specifically just isolates the 10 effects of the CVP and SWP pumping and probably 11 over-characterizes theses effects because it's an 12 isolated analysis.

13 This modeling information can be used to dispel 14 three major myths that have been ongoing about the 15 effects of CVP and SWP pumping.

The first myth is that CVP has to be pumping and caused -- increased their elevated salinity in the south Delta. The reality, when you look at the DSM 2 modeling result, you see that the CVP and SWP pumping actually have a neutral effect on south Delta water quality or actually sometimes improve south Delta water quality, or actually, sometimes improved south Delta water quality.

The second myth that we see is that CVP and SWP pumping cause water levels to drop below acceptable levels more often than would occur without CVP and SWP 1 pumping.

2	The reality, again, when you look at the DSM 2
3	modeling, is that you see that with CVP and SWP pumping
4	and without temporary barriers installed, you see a
5	decrease in water levels relatively small, about six to
6	eight inches; and the amount of time that it drops below
7	the commonly acceptable levels that are reached by local
8	pumps and siphons is increased by maybe two to three
9	hours per day.
10	With temporary barriers installed, those effects
11	go away and the water levels increase to levels far
12	beyond what they would be without CVP and SWP pumping;
13	so the effects of the CVP and SWP pumping are highly
14	over-mitigated with installation of temporary barriers.
15	We believe that there are other ways to deal
16	with these relatively small water level effects,
17	including agricultural management practices, different
18	ways to irrigate the land in the area, different
19	timings. Also, possibly, physical changes, including
20	physical changes, including physical changes in the
21	location of the pumps or siphons in the south Delta that
22	are experiencing issues due to water levels. The third
23	myth that we see is that salinity spikes experienced in
24	the Delta are due to poor circulation and that poor
25	circulation is caused by CVP and SWP pumping. And based

on preliminary analysis of the DMS 2 modeling, we looked at null zones which are a common metric for analyzing circulation, and found that the occurrence -- the frequency of occurrence and duration of occurrence are generally the same with and without CVP and SWP pumping. The actual location of null zones just changes within the south Delta.

An additional consideration is that salinity 9 spikes do occur in the south Delta and have been 10 observed even at periods of high flow, indicating that 11 it is possible that null zones and poor circulation are 12 not the problem or are not causing the salinity spikes 13 that we're seeing.

So based on the modeling evidence, we believe it's inappropriate to assign significant responsibility to the Bureau of Reclamation and Department of Water Resources for activities for implementing south Delta water quality objectives.

We also believe that requirements for installation of the temporary barriers is not appropriate to address water quality concerns in the south Delta.

I was unable to attend earlier this morning, but I was told there was some discussion on project effects or effects from CVP and SWP pumping on assimilative

capacity in the south Delta. I don't totally understand 1 2 this assertion at this time, and so I would need more 3 information before I can comment on that issue. 4 And I also believe that Department of Water 5 Resources will be providing more detail on the modeling analysis that I've discussed here later to you. 6 7 Thank you. 8 MS. REBECCA SHEEHAN: Good afternoon. 9 My name is Becky Sheehan. I'm Senior Deputy 10 General Counsel with Metropolitan Water District, and 11 I'm here on behalf of the San Luis Delta-Mendota Water 12 Authority and State Water Contractors. The proposed amendment to the San Joaquin River 13 14 numeric flow criteria contains analytical and technical issues that rise the level of the Stanislaus with the 15 16 Bay-Delta Plan, as well as invoking several CEQA 17 concerns. Primarily, we're concerned about the failure 18 to rigorously apply the best available science. 19 The proposed narrative objective is based on two 20 fundamental assumptions that are not evaluated anywhere 21 in the SED or in Appendix C, which does purport to be 22 the document that describes the biological benefits of 23 the proposal. 24 The first not evaluated -- unevaluated 25

assumption is that by mimmicking the percent of the

1 hydrograph and using that as the approach that there 2 would actually be a measurable benefit in the salmon 3 viability factors.

The second assumption that is also not evaluated is that by mimmicking the percent of unimpaired hydrograph that this represents conditions to which the native fish are adapted.

8 The SED does not contain any analysis showing 9 that by using the percent of unimpaired hydrograph 10 approach there would be any measurable improvement in 11 any of the salmon viability factors in the system.

Appendix C contains a partial description of the results of experiments around the world where a similar approach has been attempted. However, what Appendix C does not explain is that the results of these studies are mixed. Those studies do not support the concept that more flow will always enhance the targeted environmental conditions.

As Poth and Zimmerman reported in their 2010 paper after reviewing 165 papers on this topic, they also concluded that the results are mixed and uncertain. Their analysis revealed that there is apparently some sensitivity to different ecological groups that alterations inflow magnitudes, but they found no consistent robust statistical relationships between
1 flows and many important biological responses of the 2 aquatic community.

As Pauth in his 1997 paper reported, that using natural flows as a restoration tool could be effective, although to varying degrees, depending on the present extent of human intervention and flow alteration effecting a particular river. And, of course, our system is one of those highly altered systems.

9 The SED should have evaluated the extent that 10 flow can be used as a restoration tool in our system.

However, even if that showing had been made, there is also no analysis or discussion in the SED about to which using a percent of unimpaired hydrographic approach is -- or represents natural conditions to which native fish were adapted.

The percent of the unimpaired hydrographic approach might approximate natural flows or more natural flows very high up in the system of the tributaries, but it does not do so down in the valley in the main stem of the San Joaquin or in the south Delta.

As described in the recent SSFEI report, the physical environment has been significantly altered from historic or natural conditions and, as a result, the natural historic flow and flow patterns are very different; and under today's conditions, regardless of

1 the magnitude of flow, the physical environment is so 2 changed.

3 What the Water Board needs to do is undertake a 4 rigorous investigation using various analytical tools to 5 approximate the natural physical environment, and then 6 determine what ecological functions flows served in that 7 environment and then take action to target those flow 8 functions. And while flow may be one of the tools, it 9 is certainly not the only tool. And the Board should be 10 looking at other actions as well, including gravel 11 augmentation and habitat restoration.

Our second category of scientific concern is actually with the Adaptive Management Plan. And we actually might have agreement with the fishery agencies on this one.

16 The Adaptive Management Plan is an overlay on 17 every one of the implementation programs or plans for 18 the fishery flows, and it contains a COG group that 19 would advise the executive director on what flows should 20 be ordered in any year or in any portion of the year. 21 We categorized or summarized our concerns into five main 22 points.

First, this is not adaptive management.
Adaptive management in the scientific context is very
different than what's being proposed.

Second, the SED does not provide any analysis or any disclosure of what the range of actions may be that the executive director may take. And those environmental effects are not evaluated, rendering the SED inadequate.

We're also concerned that -- as was also raised by the fishery group -- that this appears to be an inappropriate allocation or dedication of responsibility to the fishery agencies and the executive director, and may also be a violation of due process as flow schedules could be changed at any point of the year without any hearing or review by the Water Board.

We're also concerned that this adaptive management proposal really changes the nature of the unimpaired-flow approach, making more of a water bank, the bounds of which, the quantity of which, are bound by a percent of the hydrographic approach but the actual flow actions and actual flows that will be ordered are dictated by the executive director.

And, finally, we're concerned that the Adaptive Management Program's success will be measured by its ability to increase the standard viability factors; but there's no evaluation of the actual 20, 40 and 60 percent of hydrographic approaches and their ability to achieve the salmon viability factors.

In fact, many of the benefits that are 1 2 hypothesized to occur in Appendix C, when you look at 3 Chapter 7 of the SED, they in fact are not occurring at 4 There's a fair number of them. I won't say half, all. 5 but probably about four of the big ones won't occur based on the analysis in Chapter 7. 6 7 And, finally, we have a number of legal concerns The one that I'll share with you this 8 as well. afternoon we think is the most fundamental, and that 9 10 being that the proposed implementation plan appears to 11 be making project-level determinations without providing 12 procedural protections of a water rights proceeding. 13 In the 1995 and 2006 Water Quality Control 14 Plans, those implementation programs were truly 15 programmatic; however, the currently proposed 16 implementation plan is allocating responsibility to 17 certain users and also limiting the tools the Board will 18 have available to it to meet those standards. 19 As Judge Robie's decision reminded us, the water 20 quality control plan objectives have to be fully 21 implemented, but what the proposed implementation does 22 is limit the water forces scratched in, in determining 23 who is responsible, and limiting the tools available to 24 the Board in fashioning an implementation plan that can 25 fully satisfy the proposed water quality standards.

1	We will be submitting a joint written submittal
2	with more technical comments and concerns.
3	CHAIRMAN HOPPIN: Thank you.
4	MR. SCHEURING: Good afternoon, Chairman Hoffin
5	and members of the Board. I am Chris Scheuring, and
6	today I appear on behalf of the California Farm Bureau
7	Federation and its statewide membership. I apologize if
8	I'm squinting. I did not prepare my remarks in 24 point
9	font like John Rubin did, so I may have to squint here.
10	Thank you for the opportunity to appear before
11	you today and to provide some comments on what we think
12	is a very important public policy issue in its
13	environmental review in the substitute environmental
14	document. We are fully intending to provide extensive
15	written comments before the deadline on March 29th, so
16	what I am giving you today is just a brief set of
17	highlights.
18	On behalf of agriculture, we certainly have a
19	number of concerns about the proposed flow standards and
20	their environmental impacts in the SED and other
21	analysis the staff is putting in front of you. We're
22	going to focus in greater detail in a written
23	submission; but, in shorthand, these are the main
24	points.
25	The first relates to and I won't belabor

1 this. It relates to the project's purpose and need.
2 And as you've already heard, folks have concerns about
3 the classic issue of a flow centric approach to
4 rehabilitating fisheries in a system that is as altered
5 as the Delta watershed is and with as many stressors as
6 it has which are apart from the flow regime.

7 We question the science and the scientific-basis 8 report which would underpin these flow standards and 9 whether there is any meaningful basis on which to trade 10 off the numerous certain adverse agricultural impacts 11 for the elusive goal of rehabilitating fisheries through 12 flows. And I would stress the word "elusive" again in 13 that context because I think that -- and I'm not a 14 scientist but as near as I can tell, it remains an 15 elusive goal to rehabilitate a fishery through flows.

16 Secondly, we are concerned, of course, about the 17 fallowing of what is a marvelously productive 18 agricultural landscape which has been water for 19 generation by very senior water rights on these rivers.

It is important to note not only the economic impacts of that, which you've heard about today, but also the environmental impacts in terms of habitat, recharging, and all the other public good that are supported by the application of water to a working agricultural landscape. Third, as the SED notes, there's going to be a serious impact in groundwater resource as farmers turn to their pumps increasingly. This is probably only the most obvious of the substitution effects that are going to result from the implementation of flow standards.

6 Like anything else in the field of water policy, 7 proposed flow standards run the serious risk of a ripple 8 effect on other water resources across the Board as 9 farmers and other users cast about for other sources of 10 water to replace what may be lost in the flow standards. 11 Those are the so-called redirected impacts.

12 And then, finally, we would most definitely 13 support flexibility and implementation to relax the flow 14 standards during certain very dry years in order to 15 avoid the worst impacts to agriculture which I just 16 discussed.

So those are just a few of the highlights. Thewritten submission will be a lot better than that.

I should finally also note that we at the State Farm Bureau are supportive of protecting the agricultural beneficial use of water throughout the delta watershed upstream and downstream.

23 So I appreciate your time today and your careful 24 review of what the State Board staff has put in front of 25 you and the comments that you're going to hear, and we

look forward to further engagement on the issue. 1 2 CHAIRMAN HOPPIN: Thank you. MR. SCHEURING: Thank you. 3 CHAIRMAN HOPPIN: Mr. Sakura. 4 5 MR. SAKURA: Good afternoon, Mr. Chair and 6 I'm John Sakura, and I'm from Trout Unlimited. Board. 7 I've been a fisherman for about 60 years, and 8 I'm speaking on behalf of myself, as well as I'm the 9 secretary of the California State Council of Fisheries. 10 We represent over 10,000 members in the State. 11 I'll be brief. You've heard a lot of discussion 12 on various aspects of your draft. Bottom line is we see 13 from all the studies, all the surveys, that 35 percent 14 is just not adequate. That's not going to cover the water needed to sustain the fisheries. 15 16 What appears to be the ticket item is like 17 60 percent of the unimpaired flow, and we would support 18 that. But also understanding we're looking at 19 compromise here, 50 percent might cut it. And that 20 would probably be about as low as we could safely say 21 would be adequate for trying to either restore or 22 sustain the fisheries. 23 And, too, that's our main purpose, is we're 24 trying to sustain and restore the cold water fisheries 25 in California. We're doing it up and down the State.

I'm with the chapter out in El Dorado County, and we've got our hands full working with the forest service to do exactly that.

But with respect to this identified area, you talk about the adaptively managed flows, and on that respect I would just say that we are supportive; however, the way it's drafted -- at least the way I read it -- it's not clear enough to me with any specificity to know what you're getting.

10 The comments earlier about the devil being in 11 the detail I certainly think applies here; that you do 12 need to have a little more specificity.

13 If it goes as drafted, then I would say that 14 then you would probably be required to scope every one 15 of those adaptively managed flow returns for the various 16 stretches of the tribs or the San Joaquin.

Later on, more of our staff will be here talking about this in detail; but, you know, I've been listening to a lot of the comments, and to a certain extent I guess I'm going to take off my team off my TUD hat and speak as John the fisherman.

The obvious under statement: Not enough water; too many users. And how do you manage that? I mean, it's an incredible burden you guys have.

25

One thing that kind of jumps out at me is that

when we talk about -- we just heard that, you know, for years the senior water rights users had plenty of water to water their fields. But if you took that number of acreage and looked at what they're trying to water now, you're probably going to find it's doubled or tripled or quadrupled. That's one of the big problems.

7 There's only so much water coming out of the 8 faucet and you can only put so many teacups under three 9 to keep drawing that water out. So somebody has to say, 10 hey, there's is a limit on this. You can't keep coming 11 back here trying to take more of the finite amount of 12 water and infinitely spreading it around. How do you do 13 that? Maybe it's the water districts. Maybe it's the 14 counties.

15 We heard earlier today where one county was 16 talking about how they've really increased the amount of money they've been receiving. Their profits are up in 17 18 the -- in five years they're up to \$3 billion, even 19 though their unemployment is down. And I share your 20 same question, Mr. Chairman. How does that happen? 21 But, again, maybe they need to look at how they are 22 doing things a little differently.

The fishing industry is a booming industry and the outdoor recreation industry is a booming industry. Through the depression, fishing has increased 1 dramatically in the state. Over \$2 billion is spent in 2 this state in fishing, and that's as of 2006. And it's 3 increased since 2006 and 2011.

The outdoor recreation is up to about
\$85 billion in this state. So when you talk about
increasing the flows through the San Joaquin and through
its tribs, you're talking about now opening up more
recreation for all of California.

9 So possibly in these areas where they may be 10 losing some of the ground that they want to water and 11 not being able to produce some of the crops that they 12 want to produce and they can't add more acreage, as we 13 just heard they're doing, they're kind of, like -- to 14 me, it's like adding, you know, more problems to deal 15 with, not trying to solve the problems that you 16 currently have. Maybe we should focus on 17 fishing-related or outdoor-related activities and see 18 what kind of income you can generate for that specific 19 area.

20 One of the reasons you don't see a lot of it in 21 the lower San Joaquin is because the river has been 22 dried up so much. It's not a great fishery, although it 23 could be. It could be a great fishery.

I don't know. I'm just saying as far as what TUD and what most of the fisherman like to see is to 1 have a happy medium. Farmers and ranchers are some of 2 our best friends. You know, we work with them; they 3 work with us all over the state. And we'd like to keep 4 that harmonious relationship going.

5 But as far as their comments here, the comments 6 to you today, I would just ask for more specificity on 7 what kind of flows you intend to put out there. The 8 35 percent is just not going to cut it. That's way too 9 low. Even starting at 45 percent as a minimum might be 10 a bit on the low side. But, again, I'll let the experts 11 deal with that.

I like to fish. I want you to know that there's a lot of us out here. And there's also quite a number of commercial fishermen who may not be able to get here to speak who have a lot of the same interests and share a lot of the same interests we do.

17 Thank you for your time.

18 CHAIRMAN HOPPIN: Thank you.

If all of you for public comment could do your very best to limit your comments to three minutes, I'd really appreciate it, in consideration of those following. I've got about 60 cards left to go through. We're clearly not going to get through them today.

I am going to call one more five-group panel up, and then I'm going to get to the folks that I believe 1 are the ones who came on the bus, which I am assuming it 2 is going to be difficult for you to get here tomorrow. 3 But if you would please keep your comments as concise as 4 possible.

5

Go ahead.

6 MS. HIRSCHBEIN: I'm Kalla Hirschbein. I'm here 7 on behalf of the Pacific Coast Federation of Fishermen's 8 Associations and Salmon Aid. Both are nonprofits. Both 9 represent fisherman, fishing interests. PCFAA generally 10 represents commercial fishermen.

11 We have hundreds of members among 13 member 12 ports along the Pacific Coast. A lot of them fish for 13 salmon. Salmon is the lifeblood of California's fishing 14 industry. And we, in the 1980s and 1990s, had about 15 5,000 fishing boats fishing for salmon. We had some 16 droughts. We had two years of closure. We definitely 17 understand the unemployment because during those two 18 years we had a hundred percent unemployment in the 19 commercial fishing sector of those who fished for 20 salmon. It still is remaining, and a lot of people are 21 still feeling from that. Right now we have about 22 600 boats that are fishing that fished in 2012.

I am trying to go through my notes and not repeat things said by the agencies and go quickly. I was really encouraged by a lot of the agencies' comments that they would like to see an economic analysis of fishing in the SED. It's the oldest industry in California, and salmon is an iconic species. And we have here an opportunity to really restore the fisheries. And the fishermen will come back if that salmon were back. So it would be a travesty to let them continue to decline.

And I also want to make the point that the Delta and the Bay don't only support salmon. They also support Dungeness crab and herring, which are two really important fisheries in the Bay Area as well.

I want to encourage you not to let your focus stray to gradation. It's an issue that's in the Delta, but it really is not the main issue here. We really should be focused on flow, which is the master variable. It will affect all the other variables, and gradation will be diminished if flow is increased.

We can waste a lot of time on money like they did on the Columbia River where they implemented a lot of gradation reduction programs and it just really wastes time and money. So I encourage you, just focus on the flows.

All of the fish agencies support increased flows, and we support their comments and their percentages.

1	That's pretty much it. I wanted to be brief,
2	and I know a lot of other people are going to be
3	speaking on behalf of fisheries, so thank you.
4	CHAIRMAN HOPPIN: Thank you.
5	Bill Mattos.
6	MR. MATTOS: Good afternoon, Mr. Chairman,
7	members of the Board. I'm Bill Mattos, president of the
8	California Poultry Federation. I'm here on behalf of
9	Foster Farms, who is the largest employer in Merced
10	County and the largest chicken producer in the west.
11	Just for your information, obviously water is
12	the lifeblood of agricultural, but we don't talk a lot
13	about birds. A lot of times you are hearing about
14	crops, so I want to bring you up to date.
15	Foster Farms in Merced has 12,000 employees
16	throughout the nation. In the Merced County/Stanislaus
17	County area, they employ about six to seven thousand.
18	Most of these folks are unskilled laborers.
19	They're trained to work in the processing facilities.
20	And they have complete medical and health benefits;
21	they're members of UFCW, Teamsters, the Machinists
22	Union. And it's a good employment for the Merced County
23	Area.
24	You heard earlier about the lack of employment
25	in that county. And this is one industry that's very

1 employee rich.

We're very concerned about what you're considering today just because we're just not sure where the water is going to come from in the future for what we do.

Foster Farms, for example, Livingston processes
450,000 to 550,000 chickens a day. All those chickens
take water to wash. They have a very sophisticated
system to where the water is recycled and reused. Their
waste treatment plant is recycled and reused.

But outside of the ranches, they're raising in Merced County 80 million chickens in a year; in the Stanislaus County, 55 million chickens a year. So all those chickens also take water. And they've done as efficient a job as they can. They've worked on the carbon footprint.

They're out at the Ag Day today announcing that they're the first American humane certified large company in the nation, and they're announcing that up and down the West Coast today.

They're a very good company in Livingston and in Turlock. They are in Fresno and in other places throughout the Central Valley, but the two impacts in Stanislaus and in Merced County could be devastating if there's not enough water there to actually process the 1 product.

The reason their plant is large -- and they're only about the ninth largest company in the nation, but their plant is the largest plant in the world because they tried to reduce the carbon footprint and do most of it in one area rather than having it in all the different communities where the trucks would go up and down the Central Valley.

9 So it's a very progressive family oriented 10 company. It's only one of our companies, but it is the 11 biggest. And they wanted me to at least come here and 12 testify on behalf of them today, saying it's potentially 13 very -- could be devastating to the employees that they 14 would have to let go if they have to shift chickens or 15 stuff -- growing so many birds in that particular area.

I really appreciate the opportunity to speak to you. The industry is a \$22 billion economic-generated industry for California, which is a lot, and Foster's probably 90 percent of the chicken industry and half of the turkey industry.

So I appreciate being here today. CHAIRMAN HOPPIN: Thank you very much. Will the next five come up, please. Jacky Douglas, Roger Thomas, Ruth Muzzin, Mike Perreira, and Stan Zen.

Jacky, why don't you go right to the podium, 1 2 please. 3 MS. DOUGLAS: Thank you. Thank you very much for your time. And I'm surprised that I'm still here. 4 5 I don't know how many times I've had to get up and say, 6 "Yeah for Salmon." Well, I'm still doing it. I really 7 appreciate you listening for a couple of minutes. 8 First of all, I am on five different boards. 9 No. Three boards and five different outfits. The first 10 one I joined even before I became a skipper years ago 11 because I fell in will love with salmon. Thank heavens 12 I did, or I wouldn't be able to stand here. 13 The Golden Gate Fishermen's Association back 14 in -- well, early 50s -- 60s. I'm sorry. And that was 15 my beginning. I didn't know I was going to become a 16 skipper and to be able to take thousands and thousands 17 of people out fishing and enjoy it like I do. 18 And, also, as I raised four girls, they had fish 19 all the time. Now they're fully grown and their way and 20 out of the house and everything, and now they say, 21 "Where's the fish, Mom?" 22 It's just like you've got to save the anchovies 23 for the fish, you've got to save -- everything's for the 24 fish, but mainly they need water. They can't be 25 subsidized. They need water. And the only way we are 192

1 going to get water is from you people figuring out how 2 much water that they can have. And I hope they can get 3 it.

I have a bad osteoporosis problem, and I just kind of, like, was really fading if it wasn't for salmon. Not just because it's fun to get out there and enjoy the whole outdoors and the water and fresh air and all the nature around you but it's so good to eat.
There's nothing better than the wild salmon.

10 And I wish the commercial boys were here. I 11 think back to the Yukon gang with their little 12 commercial boats going out there, and I think of old 13 Captain -- oh, boy. I better watch my English here. 14 Wait a minute. Captain Al Sancimino, the Spadaros, all 15 the old-timers. I miss them. But if they were here, 16 you'd get a mouthful, believe me. They were pretty 17 strong, witty guys, I know, and tuff. But I managed to 18 get through all that and enjoy life with them for a 19 while. Thank God. 20 I appreciate your time, and God bless the

21 salmon.

22

CHAIRMAN HOPPIN: Thank you, Jacky.

23 Roger Thomas.

24 MR. THOMAS: Good afternoon, Mr. Chairman, and 25 members.

My name is Roger Thomas. I'm the president of 1 the Golden Gate Fishermen's Association. 2 3 Jacky Douglas is one of our great members. We 4 represent the majority of the commercial passenger 5 fishing vessels from Morrow Bay north to the Oregon 6 border. 7 I think all of you know but I'm going to say it 8 again: Salmon is the heart of fishing on the Pacific 9 Coast from Morrow Bay to Oregon -- the Oregon, 10 Washington border, and our Central Valley fish make up 11 the majority of the fish that are caught. 12 You can see what happened when the runs went 13 down when the seasons were closed or shortened 14 dramatically. Many harbors lost their fuel docs. They 15 lost the shipyards. They lost everything in the smaller 16 communities. 17 Salmon is a great resource. It saves all the 18 coastal communities, the infrastructure. It's estimated 19 if the doubling happens the commercial industry will 20 employ 23,000 people, and that will contribute 21 one-and-a-half billion dollars. So doubling is very 22 important; and, obviously, water is very important to 23 doing that. 24 We all support the fish and wildlife agencies 25 and their recommendations, and we hope that you folks

consider that very seriously. 1 2 Thank you for the opportunity to speak with you. CHAIRMAN HOPPIN: 3 Thank you, Roger. Stan Sabin. 4 5 MR. SABIN: My name is Stan Sabin. I'm from 6 Pacifica on the coast, and I'm here because I love the 7 Delta. 8 I don't think anybody would argue that the Delta 9 is one of the great ecosystems in the western United 10 States, and at this point it is broke. 11 Human beings are one of the most adaptive 12 species in the world, as evidenced by seven billion of 13 us sharing this planet. However, fish and flora and 14 fauna have a very narrow window for adaptation. And that's why the Delta is broke. 15 16 I've heard all the numbers today that everybody 17 else has heard, so I'm not going go to -- I'll throw 18 that away and basically say I'm for the 50 to 60 percent 19 of flow that most of the scientists back. 20 I believe we're here to and we are responsible for protecting the land that we live on, and a healthy 21 22 Delta will lead to a healthier California. 23 Thank you. 24 CHAIRMAN HOPPIN: Thank you very much. 25 Ruth.

MS. MUZZIN: Board members, thank you very much. 1 My name is Ruth Stoner Muzzin, M-u-z-z-i-n. 2 Ι 3 live in Montara on the San Mateo County Coast near the 4 harbor where a lot fishermen are based. I work in San 5 Francisco. I'm an attorney. I'm a member of the Loma 6 Prieta chapter of the Sierra Club, which has territory 7 both on the Bay and on the Pacific Ocean coast side. 8 And I'm also a member of NRDC. But I'm here today just 9 to give you my own view.

And I believe that the decision you need to make has to be supported by the best available science. I think that there is substantial evidence in the record that is before you and that is being developed today -because clearly you're getting a lot of information that you didn't already have -- and it will go into the final environmental document.

I think there is substantial evidence to support a decision for a 60 percent flow. And I think the fishery agencies have some very interesting information that appeals to me to consider a range that could be variable, you know, five percent up or down from a basic flow number; and I encourage you to think about that as you're coming to a final conclusion.

Now, I do sympathize with the farmers and the communities in the Central Valley. I understand that we

need to be having, perhaps, a very comprehensive 1 statewide conversation about the crops that we grow in 2 3 California, where we grow them, how and when we irrigate 4 But that's not the issue that's in front of you them. 5 today and with this document. The issue that you are addressing is restoration 6 7 and protection of the Delta. And I think that you have 8 a lot of very good information; you may need some more, 9 and it seems to be coming towards you. 10 And I'm very grateful for your time and 11 attention and the ability to speak to you today. Ι 12 encourage you to consider something in the neighborhood 13 of 60 percent flows. 14 Thank you very much. 15 CHAIRMAN HOPPIN: Thank you, Ruth. 16 MS. MUZZIN: And I also join in Senator Lois 17 Wolk's comments. 18 CHAIRMAN HOPPIN: Mike Ferreira. 19 MR. FERREIRA: Good afternoon, Commissioners. 20 I'm Mike Ferreira. I'm from the small town of Moss 21 Beach currently on the San Mateo coast. I'm a former 22 council member and planning commissioner for the City of 23 Half Moon Bay just south of Pillar Point Harbor, which 24 went through some stressful years, economically 25 speaking, when we had the salmon and other species shut

1 down.

What brought me here today is -- and I'm not a scientist, but intuitively a crashing ecology that evolved at the hundred percent flow is not likely to be restored by a 35 percent.

I would just like to say that in coming here I have listened to the agencies' presentations to you. I would agree with what they've put forward; that we need to follow the science carefully. The 2010 plans at 60 percent, to me that seems a bit chancy even at 60.

One other thing that I think I would like to add is that, you know, we are aware that climate change is staring us in the face. It's highly unlikely that climate change is going to give us more water. We need now to be looking at some ways to try to control and protect the environment, as well as to help our agricultural community.

Speaking as a taxpayer, I have no problem with the idea that the State should try to invest in helping our agricultural community, make better use of the dwindling resources.

And the last thing I would say is that -- I don't know that it's within your purview, but I don't know that it's helpful for these water-wheeling things to be done that would move water to large developments

1 of the Bay Area. 2 That would conclude my remarks. I would hope 3 that you could direct staff to move to a more protective 4 percentage. 5 Thank you. 6 CHAIRMAN HOPPIN: Thank you. 7 The next group of five, if you'd come up. Bret 8 Warner, Andy Gottlieb, Karen Bryant, Carolyn 9 Campodonica, and Tony Betschart. 10 MR. LINDSAY: I think we might have missed one 11 person. 12 CHAIR HOPPIN: What was your name? 13 Mary Cutleman. MS. CUTLEMAN: 14 CHAIRMAN HOPPIN: I didn't call you. I'm sorry. 15 Bret. 16 MR. WARNER: My name is Bret Warner. 17 I'm a walnut farmer in the Turlock Irrigation 18 District. My family is third generation. My 19 grandfather started farming our ranch in 1913. 20 It's funny how everybody else has an opinion 21 about our water; that we're senior water rights holders. 22 My livelihood is worth nothing, I guess, to these people 23 and the under-assessment of what it costs to aq. And as 24 far as I'm concerned, we're the food basket of the 25 world. You can starve people by doing this.

And we're talking 35 percent. I never heard of 1 this 60 percent and more of our water. 2 3 Every person in the District would have to put in a well. And the fish quy was saying that there's 4 5 more trees going in and more ag going in. There's more ag in, but it's all -- they supply their own water. 6 7 The irrigation district has not grown. The 8 district was set back in the beginning and it's still 9 the same. There is no more land in the district than 10 there ever was. We aren't taking more water than we ever did. 11 12 I'm between the Turlock main canal and the 13 Tuolumne River at the spawning grounds, so I'm right in 14 the middle of all this. We've had with the Salmon River 15 Reclamation projects trying to take property from us. 16 They put billions of dollars and millions of dollars 17 into salmon riffles. Every five years Bert takes more 18 water from us for salmon. Yet, constantly the numbers 19 have gone down. 20 You are going to take away my livelihood, my 21 kids' livelihood. Would you guys like to give up 22 50 percent of all your income and give it toward salmon? 23 That's what you're asking me to do. 24 There's six billion people in the world and 25 we're trying to feed them. When we have a few salmon

and no people left, maybe everybody in this room will be 1 2 happy. I think it's coming at a huge cost. 3 I ask you not to do this. There's other -- I don't know what the answer is, but there's too little 4 5 water. All the new acreage is going in are all wells. 6 7 In my situation, I have 77 acres of walnuts. If you do 8 this, even the 35 percent level, I would have to put in 9 a well. That costs about \$150,000. I'd have to pay an 10 additional \$1500 in property taxes for that improvement. 11 It would be about \$6,000 a month for electricity. 12 Right now I have gravity-flow irrigation. I 13 have micros on the gravity flow, so no pumps. I'm not 14 using electricity. Electricity would be probably 20 15 times more electricity than I am using now. 16 I have rights on the Tuolumne River, too. 17 Because with the regulations and whatever, I probably 18 couldn't irrigate. We have some ponds. It's illegal to 19 pump from those. My only choice is to dig a well. 20 I think this is insanity, really. All the lies 21 and the assumptions that I've heard today is -- I can't 22 believe. 23 Choose fish or people. We've all got to get 24 along somehow, but -- that's all I have to say. 25 Thank you for your time. 201

CHAIRMAN HOPPIN: Thank you for your time, Bret. (Applause.)

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3 Chairman and members of the MR. GOTTLIEB: 4 Board. This is the first time I've spoke to the State 5 Board. We did get a -- the Divisional Board sometimes 6 comes out to our aq building in Modesto, and we 7 appreciate that. And we get time to talk to them on the 8 side. But I just never could get up here until they had 9 a free bus today from the MID; so, thank the people that 10 put that together -- TID and MID.

I came specifically to talk about two manmade pollutants that are being eventually dumped into the San Francisco Bay, even starting up in Merced and Los Banos.

14 The name of the -- well, San Francisco Water 15 Department switched from chlorine to sanitize the water 16 to chloramine.

And about four years ago I did a -- I was invited by the Internet to put together some comments on the effects of ammonia. Because when you put chlorine and ammonia together, which tells you on your bleach on your washing machine don't do that, but somehow they figured out how to do that.

And, now, what they assure me is at the wastewater treatment plants they're taking the ammonia out. But I don't think all wastewater treatment

plants -- it may not be tertiary. Maybe somebody is 1 2 getting waivers. I'd like to have you check that out. 3 I made 15 copies of my meta study that I did. 4 The other thing is that for over 40 years I 5 calculated that there's like two rail cars per every two days, like San Francisco; and they're going to the water 6 7 treatment plant and the East Bay MUD water treatment 8 plant where they put in what's called silicofluoride. 9 And silicofluoride comes from the phosphate, or 10 primarily phosphate -- or there's a national shortage of 11 it right now. We're importing containers of it, 12 primarily from China right now. You can get those 13 reports on the Internet. 14 But what happens is there's been some big 15 studies where silicofluoride and chloramine get together 16 and it pulls the lead off the plumbing. And so the 17 schools, specifically in the towns of Washington D.C. 18 and Seattle, had to do some replumbing because they 19 determined the lead was too high in their drinking water 20 due to that fact of those two getting together. 21 Anyway, San Francisco sells their -- wholesales 22 their water for about 29 -- I've lost count -- cities 23 around the San Francisco Bay. They wholesale it to 24 And they deliver it already treated with the them. 25 chloramine and this silicofluoride.

You can read the whole study. There's a major 1 2 study here that relates specifically to salmon. What 3 happens is when they get hit by fluoride, they lose 4 their sense of direction on how to get back to where 5 they came from. An Oregon State has done extensive lab studies 6 7 and realtime studies on the Snake River and Columbia River, and those are all shown in this report. I would 8 9 appreciate if you would read about that. Plus there's some other studies of how these 10 11 chemicals affect salmon. And I think the end result is 12 the whole putting of those chemicals in for what's 13 called better oral health should be stopped. Many 14 cities are stopping this in the U.S.A. because -- well, 15 primarily now because --16 CHAIRMAN HOPPIN: Andy, if you could wrap it up 17 so I don't run out of time for other people here, 18 please. 19 MR. GOTTLIEB: Yes, sir. And I'll leave these 20 with the secretary. 21 CHAIRMAN HOPPIN: Karen, do you want to come up? 22 MS. MAHANEY: Chair Hoppin, just as a reminder, 23 if the speakers would identify themselves for the 24 record, that would be helpful. 25 CHAIRMAN HOPPIN: Karen Bryant.

Carol? 1 2 MS. CAMPODONICA: Hi. Carolyn Campodonica, and 3 I am from Merced. 4 And I want to tell you that I am really 5 disappointed with a lot of you people because I think you're overzealous. I think some of the things that you 6 7 do are right. 8 I save all my bottles and bring them back to 9 have them replant -- or recycled, most of the stuff. 10 But, you know, farmers are the best caretakers of the 11 earth, and you don't give them credit for it. 12 And I believe the panel is biased. You make a 13 hundred bucks a day, each one of you. I believe you 14 make up stories and your facts are incorrect. I think 15 they're embellished. I think you use scientists -- I 16 don't know if they got paid off or what. 17 CHAIRMAN HOPPIN: Let me tell you something. We're here listening. Don't call us zealots and --18 19 Well, I do believe you are. MS. CAMPODONICA: 20 CHAIRMAN HOPPIN: All we're doing is listening 21 to you. 22 MS. CAMPODONICA: Because guess what you're 23 doing? You are not -- you are listening to these 24 people, and I bet if you turn around you will wind up 25 not hearing what they say.

And the thing of it is, Foster Farms is not too 1 far away from me, and guess what? I know a lot of 2 3 people who work for Foster Farms. If they lose their 4 jobs, they've probably lost their houses and they've 5 lost their cars. And you people would be responsible for it. 6 7 The thing of it is, is that we have a lot of 8 people -- we had 30 to 40,000 people on the west side 9 who lost their jobs. They've never ever been in the 10 food stamp line, and they were stuck in the food stamp 11 line. A lot of them have moved to Fresno and that area. 12 We have a lot in the Merced area. They're still in the 13 food stamp line. They are very proud people. 14 It's unfortunate that a lot of you mess with the 15 water and think that it's a A-okay. Well, it is not 16 A-okay. 17 Everybody eats. Everybody thinks, oh, well, let's see. We'll get it from Argentina. We'll get it 18 19 from there. We're broke. Folks, we are broke. 20 We're not only broke as a state but we are also 21 broke as a nation. We're printing our own money. And 22 when the other countries -- we used to be the number 23 third one for people to want to invest in our country. 24 In Nevada state, I'm sure they did. Because there's a 25 lot of businesses fleeing out of this state and going to other states. And it's because of the regulations and the older regulations that you have created for all the farmers for every single business person that is here in California. They are leaving in droves.

5 I've seen vehicles from other states come in. 6 And I know that they're probably from the state, and 7 they have enticed people to leave. You have Governor 8 Perry. You had North Dakota governor. You had New 9 Mexico governor coming in and enticing. I saw three --10 three trailer trucks -- they were called cattle drive --11 and they were leaving the state. Our cows were being 12 hauled to Utah.

13 And so people from all the other states are 14 coming and enticing businesses. And I'm going to tell you that off of farming, whether it's directly or 15 16 indirectly, let me tell you something. There are 300 17 different businesses, and when you mess with one -- when 18 one farmer goes out or one person goes out, that deals with -- okay. You got the paper. Okay. Who has the 19 20 Somebody else has the -- what do you call it? paper? 21 Carolyn, would you wrap up CHAIRMAN HOPPIN: 22 your time, please? 23 MS. CAMPODONICA: The cell phone. They have 24 different -- and the ink. And you're -- all those are 25 indirect businesses, just like the bank. They loan

1 money.

2 So I'm letting you know. Do not cut our water 3 in Merced nor Stanislaus because we need that water. And I'm going to tell you personally -- I don't 4 5 I hate salmon. I don't like the taste of salmon. care. I don't care which side of the river it comes on. 6 But 7 you know what? What you need to do is what Santa 8 Barbara did. You need to do desalinization. 9 CHAIRMAN HOPPIN: Please finish your comments. 10 MS. CAMPODONICA: Then you'll have plenty of 11 fresh water. 12 CHAIRMAN HOPPIN: Thank you very much. 13 MS. CAMPODONICA: You're welcome. 14 CHAIRMAN HOPPIN: Tony Betschart. 15 MR. BETSCHART: Good afternoon. My name is Tony 16 Betschart. I'm in the Turlock Irrigation District, 17 Stanislaus County. And I don't know if I want to talk 18 after that, but --19 (Laughter.) 20 I'm a farmer there. And I've never -- you know, 21 I've heard all of this about water and for the fish and 22 stuff, but I haven't heard anything about maybe putting 23 up more dams for just the fish to bank their own water 24 and release it down the Tuolumne or, you know, rivers as 25 they need it.

They just want to take and -- you know, I have 1 2 to buy the water. I pay the water that my grandfather 3 helped put on it behind that bank, you know. If I want 4 a new vehicle, I go buy one. I don't take somebody 5 else's. Thank you. 6 7 CHAIRMAN HOPPIN: Thank you. 8 (Applause.) 9 CHAIRMAN HOPPIN: If the next five speakers 10 would come up, please. Jake Winger, Jeffrey Goshen, 11 Debbie Webster. 12 You came on the bus, Debbie? 13 Joe Scoto and Loren Scoto. 14 Jake, come up to the podium, please. MR. WINGER: Good afternoon. 15 16 My name is Jake Winger, fourth-generation farmer 17 from Modesto. We farm walnuts and almonds. It's 18 "am-monds" not "all-monds." We've got to get that set 19 first off. Just like you don't say "saul-mon"; it's 20 "Sam-mon," right? 21 (Laughter.) 22 First off, I want to address just a few of the 23 comments that were made. There was one that -- you 24 know, a lot of this comes up we gotta -- we gotta pull 25 water from the farmers. They gotta do more. We need to 209

do better. One comment was: I would even invest in 1 2 something in the state to help farmers come up with a 3 better way. 4 Well, we have, since 1914 when the Cooperative 5 Extension was created for the UC system through the land grant university system. 6 7 I've worked really close with agents from our 8 cooperative extension, and we take very serious how we 9 irrigate. We use pressure testers, and we actually pull 10 leaf samples off the trees and test the amount of 11 moisture within that leaf to determine exactly what that 12 tree needs so we know exactly when to irrigate, how much 13 water to put on, so we're not over-irrigating our trees. 14 It does a multitude of things for us, because 15 when those trees sit in an environment that's over 16 watered -- at least in walnuts specifically -- they can 17 develop diseases that are going to hinder their growth; 18 so I don't want to overwater them. I don't want to put 19 on too much. 20 So we are doing everything that we can to try 21 and establish how much water we need and how much we 22 need to use. 23 We've heard that, well, drip irrigation will 24 solve all of our problems. Everybody needs to go to 25 drip irrigation. Well, NRCS does soil mapping to
determine what types of soils that we have in our areas.
I have a neighbor who has a ten-acre block who has four
different soil types on that ten acres. Each one of
those soil types is going to take that water
differently.

6 So to say we're going to do a massive cut to the 7 amount of water available to you and everybody go to 8 drip irrigation would be like telling everybody in this 9 room you need to survive on a thousand calories a day.

10 Some people -- a few of them might get by, but 11 pretty much everyone else, you are going to start to 12 whither away and hope to survive. Because maybe not all 13 of our diets, depending on our activity levels, 14 depending on our metabolisms -- they cannot sustain that 15 massive decrease in need of nutrients. I think the 16 metaphor, at least, is fitting to an extent.

We heard that the models that we're using over estimate the impacts on agriculture, when we also know that they don't even take into consideration the groundwater effects. That's kind of peculiar.

We heard a little bit to the extent of what's going to happen within the districts. And that's where my main concern is as an irrigator in the Modesto Irrigation District.

25

If we're going to go to groundwater pumping,

which would have to happen, we're going to have to start putting in a lot of pumps. We already know that the water table is going to drop. The City of Modesto gets most of their water -- much of their water from pumping. They now have to offset some of that water with surface water.

A lot of their pumps that are still in existence, the water that those pumps produce by themselves is not fit for human consumption because the levels of arsenic. So they are dependent upon that surface water to help dilute the levels of arsenic to make the water drinkable for the residents of Modesto.

13 So what happens when there's less water out 14 there and we're pumping more groundwater? We're not 15 only reducing the table but now the arsenic levels go 16 up. So what happens? They need more water.

Well, Modesto Irrigation District was just cut back on their allotment, so they don't have a lot more water to give. So where is that water going to come from? Well, it's going to be converted from ag use to municipal use. And what happens then is we need more wells. And it creates this vicious cycle.

I know my time is already up. Man, three minutes goes by awfully fast.

25

So I just want to sum it up with one thought.

1 It seems on the outside looking in that this is a 2 complicated issue with an easy solution: More water. 35 percent, not enough. Let's go to 60. Let's crank it 3 4 on. More water is the solution. 5 Unfortunately, as we all know, complicated 6 issues aren't generally solved by simple solutions. 7 They require complicated solutions. If simple solutions 8 worked, I think our government would be in a little 9 better position. We wouldn't be in sequestration. We 10 wouldn't have bailouts, and I wouldn't be in this 11 meeting. I'd be flying to my beach house in my flying 12 car. 13 Thank you. 14 (Applause.) 15 MR. JEFF GOSHEN: He made a lot of sense. He's 16 a hard act to follow. 17 My name is Jeff Goshen. I'm from Oakdale, 18 California. I'm a local businessman. 19 The numbers in some of the things I'm seeing 20 here scare the living heck out of me, simply put. 21 One of the things too I have is a community 22 center. I actually hear all the needs of families and 23 everything else. Some people may love salmon. You know something? I love families. I love the families in my 24 25 community and I love my community.

From what I am seeing, the pictures you had up there -- from my backyard I actually see Lover's Leap. That was Knights Ferry Bridge that you're seeing. I actually go out and see the salmon run. I fish. I'm that average guy. I'm the one that everybody is trying to protect.

Sure, you have 10,000 people. I represent those millions of people that use our natural resources. We really care about this stuff. What's going to happen with these type of flows? We're going to devastate areas.

12 There's other ways to do things. The salmon 13 industry, maybe take less salmon. Just common sense 14 stuff. I'm just the average guy. It worked for rock 15 fish in Chesapeake Bay. You can tell from my crazy 16 accent I came from Maryland. I've been here twenty 17 years.

I've seen what can happen to a ecosystem. I'm an environmental Republican, which is an oxymoron. I have solar at my house. I truly care. But at the end of the day, I see some false science here.

When I hear a gentleman saying we'll pull twice as much or three times -- oh, by the way, we'll still base all our hydroelectric rates on a full flow, the math doesn't make sense. You just drained it down.

1 I would have you -- please look at some of the 2 information you're looking at. I don't think the 3 numbers are correct. 4 So, on that, love family. Everybody loves 5 family. Please protect my family and other families in 6 our area. Because California, this is what made us 7 special -- where people care. I'm seeing some things 8 that really concern me. 9 Thank you for the time. 10 CHAIRMAN HOPPIN: Thank you. 11 Debbie Webster. 12 Did you really come hest on the bus, or did you 13 just figure that was a good way to speak? MS. WEBSTER: No. I came in at the same time. 14 15 CHAIRMAN HOPPIN: All right. 16 MS. WEBSTER: Good afternoon, Chair Hoppin, 17 members of the Board. Debbie Webster. I'm with the 18 Central Valley Clean Water Association. 19 I appreciate this time to talk. 20 (Thereupon an overhead presentation was 21 presented as follows:) 22 MS. WEBSTER: The substitute environmental 23 document appropriately states that POTWs will not 24 significantly affect the salinity problem -- affect the 25 objectives and could result in some significant

1 requirements for POTWs.

2 About six years ago there was a modeling effort 3 that was done with multi-stakeholders that included some 4 of the cities, DWR, CSPA, and others to model what the 5 effects of some of the POTWs were. --000--6 7 MS. WEBSTER: They looked at comparisons and 8 flows and high exports. And we're looking at current 9 objectives. And basically here's the low export slide. 10 And the next slide will show you the high. It found 11 that the POTWs are *de minimus* requirements. 12 --000--13 MS. WEBSTER: However, if we go to this table 14 from table 17.1, when we look at the alternatives, we 15 see that the only significant impact comes to service 16 providers, or POTWs. So we're looking at a significant 17 impact with insignificant results. And so that's what 18 I'm here to talk to you about. 19 I think that there's remedies that you can do in 20 order to minimize the significant impact. And that 21 includes looking at an alternative salinity effective 22 somewhere between Alternative 2 and 3, say 1200, because 23 that's where POTWs comply without having to go to 24 reverse osmosis. 25 You can look at other things like different

averaging periods, mixing zones, variances. There's a 1 2 slew of ways that you can address this without causing 3 significant impact. 4 So we've had a chance -- we really appreciate 5 We've had chance to talk to your staff about that. it. We will be submitting written comments. They will also 6 7 include some revised estimates on the costs, which we think are about two-and-a-half times lower than they 8 9 really should be. 10 And we'd love to be able to continue this 11 conversation with you, but this is an important issue 12 where I really think common sense is needed. 13 So thank you for your time. 14 CHAIRMAN HOPPIN: Thank you, Debbie. 15 Joe Scoto. 16 MR. SCOTO: Good afternoon. Hello. My name is Joe Scoto. I'm a lifelong citizen of 17 18 California, and I'm a third-generation farmer of more 19 than 32 years. 20 First off, to begin with, I thank you for the 21 opportunity and time that you have given to hear what I 22 have to say. 23 Number one, I'd like to make a few comments. 24 One of the individuals said that -- they assumed in one 25 of the PowerPoints that there's not going to be any

1 groundwater pumping. That's incorrect.

I mean, we have lots of pumps in the area. The city of Merced is 100 percent groundwater. If agriculture gets the water cut off, we're going to starve all our wells.

6 When I was a young -- I'm 51 years old. When I 7 was 13 years old, the water level was around 12 feet. I 8 went and measured the well the other day; it was 45. 9 45 feet and it's dropping. You cannot cut the water 10 from agriculture and keep it that way.

And the other comment was that the Merced River, if we keep the flows going down there, that the people -- the low-income people are going to go to the river. They are going to go to the river because there won't be any water to take a bath. They're going to go to the river to take a bath. That's the only water that's going to be around.

And the value of the property is going to go up. I don't own any property next to the river, so my property values are going to go down if I don't have the water.

22 So water, especially here in California, is the 23 backbone of what has driven the State and its populace 24 to become the eighth largest economy in the world. 25 However, as of late, water usage by agriculture seems to have come under attack. At the core of this
 attack lies the Delta smelt, as well as salt water and
 brackish water issues from the Delta.

I am sure the Board has heard many facts about how devastating a cutback of water to valley farms is and will become. These facts are relevant and pertain to however much water you choose to take from us.

8 Today I will not be restating these same facts. 9 I am going to present a hopeful solution to the Board 10 with a sense of urgency and concern.

If the Board makes a decision that includes the use of our 35 percent of unimpaired flows, my life's work, as well as my farm's future and California, will turn to dust. But I digress.

As I stated earlier, I come before the Board today with a solution. I believe that the future of water usage can be accomplished with the use of desalination plants.

In 2008, a Connecticut-based firm won approval to build a desalination plant north of San Diego that would produce 50 million gallons of drinking water per day. This would be enough water for 100,000 homes at the cost of 81 cents per cubic meter, or 264 gallons, equaling three one hundredths percent of a cent per gallon. This plan has got to be fully operational

1 because of environmental issues.

A San Leandro company has been desalinating water for 46 cents per cubic meter, or one hundredth of a cent per gallon. This company has installations all over the world from Istanbul, Australia, Europe, India, and many more locations. A desalination plant can make its own energy to power itself.

8 The Board is asking us farmers to give up 9 approximately 1,260,000 per-acre feet per year. This 10 could feed over one million people per year. This would 11 equal 252,000 acres of farm ground that would need to be 12 set idle.

13 With each side attacking each other -- farmers 14 versus environmentalist -- we are not really on the same side providing for the people. Shouldn't we really be 15 16 trying to work toward a common goal, which is ensuring 17 that the populace has enough water and food to feed 18 present and future generations? 19 First and foremost, humans and --20 CHAIRMAN HOPPIN: Joe, can I give you Loren's 21 Is that all right with Loren? time? 22 I'm done. I'm done. MR. SCOTO: No. 23 California is always ahead of the curve. Let's 24 keep the water in the reservoirs to be productive and 25 grow the safest and most cost-effective food in the

1 world.

2	We have one thing that other highly populated
3	states don't have, and this is 840 miles of coast line.
4	Let us be like other countries around the world and make
5	a sensible decision by building cost-effective
6	desalination plants and provide for future generations
7	and keep water in the Delta.
8	Thank you.
9	CHAIRMAN HOPPIN: Thank you, Joe.
10	Loren.
11	(Applause.)
12	MR. LOREN SCOTO: Well, I believe you met my
13	father.
14	(Laughter.)
15	Hello. I'd like to start by expressing thanks
16	to the Board by allowing me to speak today.
17	My name is Loren Scoto. I'm 23 years old, and I
18	was born and raised in Merced. I come from a family of
19	farmers that stretches back three generations. I just
20	graduated from college, and I represent one side of the
21	two-sided coin that the Board is flipping and making
22	these water decisions.
23	Surrounding me here today are individuals whose
24	experience far outweigh mine. These individuals' trials
25	and tribulations in agriculture have helped California
	2.0.1

become a powerhouse in the world economic front. The respect that I have for these ladies and gentlemen is so high that it is hard to describe, and I can only hope to emulate their life's work. They all represent the first side of the coin.

However, I am not representing this group of
people. I am here representing the upcoming generation
of farmers and agriculturalist.

9 I represent the side of the coin that many 10 people seem to forget about, the side of a coin that has 11 undoubtedly fallen to the wayside. There's not much of 12 my generation willing to take the step forward and be 13 heard or stay involved with the farm they grew up on and 14 have come to love.

I do not want the Board to forget about this important group of people when making a decision. There's no doubt that you have been bombarded with facts and solutions all day today, and I assume you are all tired of hearing the same thing. I will not barrage you with these same numbers.

I feel it is more important for the Board to get to know exactly who is affected by the decision that will be made.

24 My entire life all I've wanted to do is farm and 25 to be involved in agricultural, like my father, my

1 grandfather, and my great grandfather.

I have grown up in the fields filled with tomatoes, alfalfa, corn and cotton. Much like the almond trees that I've come to love across Merced County, I have grown in Boston.

Molded by my surroundings, agriculture is part of me just as much as are the roots of said almond trees. My heart and soul are intertwined with the land.

It was my intent to come back from school -excuse me -- and help my father and my uncles prosper and grow. I have the tools in front of me, a four-year crash course in crop science, and over a hundred years of combined experience to help me learn along the way.

The best way to move forward is to embrace old and new. I represent the new technology and hope to blend with the tried-and-true technology of years past.

There will always be challenges ahead of me. I have accepted that. And with my face turned toward the rising sun, I've confidently embraced these challenges and learn and grow.

However, there's some challenges that may be too much for me. The Board's decision on unimpaired flows will be one of these challenges that happen to fall under this category.

I want the Board to understand -- I'm sorry. 1 Ι 2 want the Board to understand that the result of your 3 verdict will directly affect me and young people exactly 4 like me. Your ruling could very well spell an end to 5 the family farm, and it's been in my family for three 6 generations. 7 Sorry. You guys are intimidating. 8 CHAIRMAN HOPPIN: Take a deep breath, Loren. 9 You'll be fine. 10 MR. LOREN SCOTO: I'm sorry. I'm not feeling 11 too well. I'm going to go ahead in there and -- I do 12 have to sit down. 13 (Applause.) 14 CHAIRMAN HOPPIN: Will Amanda Carvagal, Jake 15 Verburg, Richard Long, Jennifer Carlson, Jim Morrison, 16 and Kent Higgins come up. 17 To the best of my knowledge, that's the last of 18 folks that were on that bus. If there's anybody that 19 needs to speak, if you would see Mr. Lindsay, the 20 gentleman in the blue shirt in the front of the room, 21 give him your name. I will do my best so you're not 22 separated from the bus. If you're not on the bus and 23 you try and tell me you are, then make sure you're on 24 the bus when you go home tonight. 25 (Laughter.)

Amanda, do you want to go ahead? 1 MS. CARVAGAL: Good afternoon. My name is 2 3 Amanda Carvagal. I'm the executive director with the 4 Merced County Farm Bureau. Thank you for listening to 5 all of us today. I know it's been a long day for you. 6 It's been a long day for us as well. 7 Just to start off, Merced County Farm Bureau 8 represents 1500 farmers and ranchers in Merced County since 1917. We're the fifth most productive county in 9 10 the United States, and we are a \$3.2 billion industry as 11 of last year. That is annually, and that is just cash 12 receipts. That does not include anything that is a 13 multiplier fact which, if in fact was the case, is 14 almost \$10 million. So that said, why do we have concern? 15 16 Obviously -- you've heard repeatedly -- water is our 17 lifeblood. We need it in every aspect of our lives, in 18 agriculture and in our day-to day lives. 19 Some of the biggest problems that I have seen with the SED is the document itself -- and I think it's 20 21 been touched on repeatedly -- is the analysis of the 22 environmental aspect versus the economics. And I know 23 in CEQA you don't have to analyze the environmental 24 impact as thoroughly. It still needs to be touch on. 25 However, when the two numbers don't compare and

1 you don't find a full analysis, you make us question 2 everything that you guys are doing. And so we just want 3 to make sure that the analysis is full.

4 And if you guys are going to look at the fullest 5 impact that could occur, we need to see all the same types of numbers, including groundwater. And, 6 7 ultimately, we have large numbers, and our guys are not 8 going to step down, because productivity is required. 9 Not because they want to make the money but because we 10 have a population that is still growing -- and 11 rapidly -- that we have to continue to feed.

12 So this is something that I am just trying to 13 kind of hope that resonates with you guys, is what all 14 of our guys are trying to reach out to you today.

15 Not only will this groundwater be affecting our 16 farmers but, like was mentioned earlier, all of the cities on the east side of the county, not just Merced 17 18 City, are reliant on groundwater. That means not only 19 will the farmers be fighting with the cities but all of those in the rural communities who aren't farming, just 20 21 a rural residential house, we will all be competing for 22 this groundwater.

And we've already had issues with this. And in our area alone, that's over 20 -- or 130,000 people we're talking about.

So this is a very, very specific concern that 1 2 isn't just relative to agriculture; it's my home town 3 and my community that we're trying to direct here. 4 Specifically, the other aspect that I'm not sure 5 was touched on -- we got here a little late, so it might 6 have been touched on -- is during the presentation when 7 we were talking about the groundwater and everyone 8 turning on the pumps, is there an analysis of the air 9 quality impacts of the pumps? I know there is, but is 10 that at the fullest extent possible? 11 Because if we have guys who are going to be 12 turning on their pumps, which they are, we're going to 13 have air quality issues. And we are in Merced County 14 and we regulated to the nth degree. And it's really 15 frustrating because my guys are paying for it day in and 16 day out. And this is another thing that ultimately is 17 going to fall on -- the burden on them. And we just want to make sure that this is included in the analysis 18 19 to the fullest extent possible. 20 Finally, we do have a major concern with the 21 fact that this decision, though your guys are proposed 22 at 35, it could vary from year to year, going up to 45. 23 In planning for your next season -- these guys are 24 starting in October and November when they are 25 harvesting their last fields. This makes it really

difficult. When you don't know how much water you're going to have, you can't plan for the future. That means your employees, your long-term employees, who they consider family, cannot have their plans made. They can't really plan for the future. My guys like to plan for the future. Let me tell you.

7 Finally, one of the things that was mentioned 8 with the CEQA process, CEQA doesn't require perfection. And we understand that. However, it does require the 9 10 adequacy, the completeness, and good faith. And in 11 reading some of this document in our analysis, it's not 12 there right now. And we need to have that whole faith 13 in your guys in the conversation that goes between 14 anyone in the agriculture industry, may it be water purveyors or other, and you guys. Because we don't feel 15 16 like that communication has been there.

So thank you so much, and I look forward toworking with you in the future.

19 CHAIRMAN HOPPIN: Thank you, Amanda.

20 Jake.

21 MR. VERBURG: My name is Jake Verburg. I'm a 22 dairy farmer in Modesto, California. I've been there 23 for 49 years. I'm an immigrant from Holland, so I 24 wasn't born here but -- there was a comment made in the 25 Modesto Bee, and that comment was made by this gentleman

here this morning, about, well, we just need to go to 1 2 high-valued crops, like almonds. 3 I'd like to know how he's going to feed my cows 4 with almonds. I don't think they're going to eat them. 5 So we need alfalfa. We need corn. We need those types of crops to sustain the dairy industry. 6 7 The dairy industry today in California is 1600 8 of us. Within the next year, there's going to be 1400 9 of us. We're being forced out of this state as it is 10 already. All this is going to do is accelerate an 11 industry which is the number one industry in this state. 12 That's all I have to say. Thank you. 13 CHAIRMAN HOPPIN: Thank you, Jake. Thanks for 14 your time. 15 (Applause.) 16 CHAIRMAN HOPPIN: Jennifer Carlson. 17 Jim Morrison. 18 Kent Higgins. 19 MR. HIGGINS: Thank you for letting me speak. 20 My name is Kent Higgins. I am just a concerned citizen. 21 I am familiar with what happened at the 22 Siskiyou/Klamath River dams awhile back, and I just 23 wondered if there's any parallels to what's going on 24 right now. The Department of the Interior and other 25 229 environmental groups, including the Fish and Game, were
 there, and they wanted just to take down the dams.
 There were three dams in California, one in
 Oregon. One was the Iron Gates. The other one was the
 Copco 2 and the other up with was Copco 1. That was in

6 California. Then there was a John C. Boyle, and that
7 was in Oregon. And this was all about saving the coho
8 salmon. They wanted to blow these dams up.

9 And it was later proven that the fish were not a 10 threat -- or were not threatened. And they weren't 11 native; they weren't a native fish, and they had no 12 commercial value.

13 And if they destroyed all these dams, which they 14 didn't -- the people fought against this and they stopped it. There was just too much upheaval about it. 15 16 But if they did, it would have taken away a low-cost 17 energy from the dams, a clean energy source, carbon There were 70,000 homes that would have been 18 free. 19 Their electricity would have been gone. affected. They 20 would have been gone anyway. The fish hatchery that 21 produced six million king salmon and 200,000 steelhead 22 and 75,000 coho salmon would have been gone too.

It would have wiped out the agricultural area there, which was 97 percent of the whole economy there, and property values would have fallen. They already did

while they were talking about the dam. They fell 1 2 50 percent. And the taxpayers, to be completely 3 insulted, would have had to pay for the dams, which for 4 the dams to be taken down would have been millions of 5 dollars. So I just would like to say that in conclusion 6 7 maybe we should -- let's see. Instead of speculation, 8 why don't we just look into science more? This could be 9 just speculation science we're talking about. None of 10 this stuff can really be proven. We're just talking 11 about it. 12 So I thank you. I hope I got under my three 13 minutes. Thank you very much. 14 CHAIRMAN HOPPIN: You did. You might want to 15 check some of those dam facts, as they say. 16 MR. HIGGINS: Well, can you give them to me? 17 CHAIRMAN HOPPIN: Kent Higgins. Oh, that was 18 you. 19 MR. HIGGINS: That was me. 20 CHAIRMAN HOPPIN: I thought you were confused 21 and it was me. 22 Louie Bandoni, Ashley Bandoni, Pamela Sweeten, 23 and Richard Ulm, if you'd come up, please. 24 MR. LINDSAY: We might need to take a brief 25 break for the court reporter.

Is she cramping up? We'll let 1 CHAIRMAN HOPPIN: 2 the court reporter take a little break here. 3 (Break taken.) 4 MR. BANDONI: Chairman Hoppin and fellow Board 5 members, thank you very much for giving me the 6 opportunity to speak. 7 My name is Louie Bandoni, and I'm from Merced. 8 I am a third-generation farmer. That's what I've done 9 all my life. I know farming in and out. 10 One thing I would like to say is that there's a 11 big turnout of farmers today. There's a reason for 12 that. It's really, really hard to get farmers to go to 13 any functions at all. They're so busy and so dedicated 14 to what they do, and the fact that there's so many of 15 them here goes to show how important we feel this issue 16 is. It's extremely important. Water to us is 17 everything. 18 The one thing I'd like to say is my father 19 taught me everything I knew from when I was a little 20 kid. He really worked with me. And I'm doing -- I did 21 the same with my son when he was growing up. That is a 22 resource. To have a family farm and have children that 23 are willing to take over the farm is a resource that you 24 do not want to lose, because you cannot replace somebody 25 who's willing to get up at two in the morning and go

check for frost, which my son right now is irrigating,
 believe it or not. And to have that kind of work ethic
 and to be a farmer is a resource that you cannot lose.

And so that's why it's so important to protect that resource. And I'm fortunate to have not only my son who wants to farm. Also my daughter-in-law, who's right here and she's going to be speaking after I am, that's totally involved in agricultural -- both of them. And I think that's something that is very important.

The one thing that I think you have to realize is that farmers are also endangered. You start taking water away from us, you are endangering something that cannot be replaced.

And, also, the San Joaquin Valley, food equals water, or vice versa. And without water, especially in the San Joaquin Valley which can grow upwards of 300 different crops, you cannot grow food.

And the issue with the pumping, around our area we already have what's called subsidence, which land is sinking. And that's from overpumping. You're going to force us to pump.

We're so fortunate to live in a district where we can use gravity water and supplement with pumping. But when you're forcing us to use pump water as one of our main sources to try to -- you know, if, for

instance, we got the 35-acre unimpaired flow 1 -- 35 percent, excuse me -- we would be down to a little 2 3 over one foot, and so we would have to supplement all 4 that water. And we would be over-drafting our 5 underground to the point that I don't know if we would start subsiding. So I think that's an important issue. 6 7 So, anyway, I don't have much else to say. And 8 so thank you very much for letting me speak. 9 CHAIRMAN HOPPIN: Thank you. 10 Ashley. 11 I've got about 45 cards left to go. You can do 12 the math on three minutes. I don't know how to say it 13 other than ask -- when it gets to three minutes, I'm 14 going to ask you to sit down. And I'm not trying to be 15 rude, but we've got people from all over. We didn't 16 anticipate this many cards, so please understand that we're not trying to cut you off. If you can, kind of 17 18 gather your thoughts up. 19 With that, Ashley. 20 MS. BANDONI: Thank you, Board, for the time. 21 I'm very honored to follow my father-in-law, who is a 22 very inspiring man. And I hope to be as successful in 23 life as he has been. He's truly wonderful. 24 I'd like to give you some perspective who I am 25 and why I am here. I'm a pest control adviser/crop

adviser. My husband, a fourth generation farmer, and 1 2 myself, are almond growers. 3 I'm a sales representative with Syngenta. Ι 4 sell seeds, seed care, and crop protection chemicals to 5 thousands of growers in Merced, Stanislaus and San Joaquin. 6 7 I'm the secretary for Merced County Young Farmers and Ranchers. I'm also the first vice president 8 for Merced County California Women for Agriculture. 9 10 I came today to try and represent all of these 11 people and organizations, as well as the next generation 12 of California, but especially the next generation of the 13 world. Just yesterday, I helped to host an event with 14 450 women in attendance who support and are ready to 15 fight for California agricultural. 16 I understand that in this room there are many 17 people who would call themselves environmentalists. I 18 believe that the passengers on the buses that came from 19 Merced and Stanislaus counties today are by and large 20 the true environmentalists in this room. 21 By the nature of the job, a farmer has to be 22 sustainable and environmentally conscious. I challenge 23 you to find a better steward of the land than a farmer. 24 Members of the Board, each of you have been appointed to make decisions which will affect the future 25 235

1 of California's economy and, most importantly, the 2 world's food supply.

California produces high quality, safe food that the world relies on. It is time for each of you and this State to realize that you are threatening to destroy our State's sustainable food supply.

7 I am worried about the future of the State and 8 the future of California agriculture. Ask yourselves if 9 you want to continue eating safe and affordable food, 10 and if you want your children to have that same 11 opportunity. Ask yourselves if you'd like to know where 12 your food comes from and if you'd like to keep it that 13 way.

By approving this proposal, you are killing jobs for California; you are killing our state food supply. You are choosing for countries who rely on California produce to struggle to feed themselves.

Members of the Board, if you're considering to approve this proposal, I'd like to invite each of you to come to the Central Valley. I would gladly introduce you to the families and show you the fields which will no longer be producing your states an affordable food.

I have heard many comments today concerning an inadequate flow of water for the salmon population.
What I have not heard is the concern for adequate amount

of water to grow the food for our increasing population 1 2 of the world. 3 People will not -- California will not feed the 4 world with salmon. California will feed the world with 5 our agricultural products. When I got here this morning, I noticed some 6 7 individuals wearing badges saying, "California needs 8 salmon." California needs agriculture. California needs to feed the world. 9 10 Members of the Board, do not take this decision 11 lightly. Please do not take the water which feeds the 12 world. I urge you to choose California agriculture. 13 CHAIRMAN HOPPIN: Thank you, Ashley. 14 (Applause.) 15 CHAIR HOPPIN: Pam. 16 MS. SWEETEN: Members of the Board, I, too, am 17 with California Women for Agriculture, representing 18 over 200 farm families in Stanislaus County. And we actually have our meeting tonight on classic wine 19 20 vinegars. 21 Agriculture is doing more and more every day. 22 Farmers are innovative and always changing what they're 23 doing and how they're working to have value-added crops. 24 Those value-added crops add jobs. Just last week in Fresno, there were over 60 25 237 1 companies from the Central Valley represented, showing 2 off their wares to the world and to the country, and 3 people coming in from Costcos and Sam's clubs. And 4 these are creating very big jobs.

5 Did you realize that one out of every four 6 containers that leave a port in Long Beach are leaving 7 with ag products in them?

8 So it's not just California ag jobs that we're 9 worried about. What about these jobs in the ports in 10 Oakland? They're going to lose jobs over there too. 11 It's not just the farmer.

But less than 10 percent -- I'm going to just read this one quote here that I've got because I think it's very important. It says it all. "Americans spend 10 percent of their income on food, the lowest of any country, thanks to farmers and smart farm policies."

And if all of you can just remember this, the FFA motto is: "Learning to do, doing to learn, earning to live, and living to serve."

Your farmers are involved in your school boards, your city councils, your water boards. We're just not on the farm doing our own thing. We're involved in the community in lots of other ways -- serving as board of directors for various organizations and nonprofits. And all of these things will be impacted if you're going to

impact the farmer and what's happening on that farm. 1 2 I support an organization called Sierra Vista 3 Children's Services out of Modesto. We put on a golf 4 tournament and raised over \$40,000, and that money goes 5 back to families. But you know what? It's agriculture that puts 6 7 on that tournament and raises that money. It's 8 agricultural that brings that money in to support these 9 families that need this help. So without the 10 agricultural dollars that are being made on the farms, 11 those are going to be other issues that are going to 12 come up that won't be supported because agricultural 13 loses out because we don't have water. 14 Thank you. 15 CHAIRMAN HOPPIN: Thank you, Pamela. 16 Richard. 17 MR. ULM: Thank you, Mr. Chairman, members of 18 the Board. Richard Ulm. I'm the Director of Utility 19 Planning and Projects for the City of Modesto. And in 20 the interest of full disclosure, I'm also a third-generation farmer. And usually -- sometimes I 21 22 have conflicts between my city work and farming 23 interests, but we're fully aligned here today. 24 So I just want to put a little face on another 25 type of user that hasn't gotten too much -- other than a

mention today, which is the municipal user. 1 2 The City of Modesto serves a population of 3 265,000 people today. We ultimately plan to serve 4 400,000 people with water. Currently, we spend -- or we 5 get 45 percent of our water from surface water in a 6 partnership that we have with Modesto Irrigation 7 District; and ultimately we plan -- our urban water 8 management plan indicates that we are planning on 9 ultimately serving 65 percent surface water for our 10 residents. 11 We are also working with the cities of Turlock 12 and Ceres to try to work with a similar-type project 13 south of the Tuolumne River with Turlock Irrigation 14 District. 15 One thing I wanted to point out is that 16 Modesto's surface water supply is directly tied to the ag supply. We have an agreement with the Modesto 17 18 Irrigation District that we get a proportional -- if there's a cut in ag water supply, we get a proportional 19 20 cut in the municipal water supply. 21 Modesto learned the hard way in the '80s that 22 going to groundwater is not sustainable. We had 23 precipitous drops in our groundwater table. Those have 24 recovered somewhat, actually, probably back to the 25 levels they were in the 1970s. But groundwater is --

1 the point I want to make is groundwater pumping is not 2 sustainable in the long run.

3 Modesto is an aq-based economy, and it relies on a lot of the farm community and the food processing for 4 5 employment. And a lot of our lower resident -- many of our lower-income residents rely on that industry for 6 7 employment. And I just want the Board to consider that 8 reducing the ag economy will have an impact -- a 9 disproportionate impact on some of our disadvantaged 10 communities in the area. 11 So looking at the SED, I saw very little 12 information in there about the impacts to your municipal 13 service providers. I think that's something that really 14 needs to be stepped up in there. It's really kind of a

15 footnote in a few of the tables.

So that's probably the main point I wanted to make, other than I wanted to reiterate an invitation to have you come down to the Stanislaus County/Modesto. We'd do our best to set up a venue if you are interested in talking to some of the people that may be impacted by this decision.

22 CHAIRMAN HOPPIN: Thank you, Richard.23 Loren.

I want you to know, Loren, I've done exactly what you did a couple times. I get so wound up in what

1 I'm talking about I forget to breathe. 2 MR. LOREN SCOTO: Thank you. 3 Just stop and take a deep CHAIRMAN HOPPIN: breath. I've been there. 4 5 MR. LOREN SCOTO: I'm kind of embarrassed. 6 Thank you for letting me finish this. 7 I just have, like, two more quick points that I 8 want to say and that I believe I left you guys at. That 9 there are some challenges that may be too much for me. 10 The Board's decisions on unimpaired flows will 11 be one of these challenges that happen to fall into this 12 category. I want the Board to understand that the 13 result of your verdict will directly affect me and young 14 people exactly like me. 15 Your ruling could very well spell an end to a 16 family farm that has been in my family for four 17 generations, with a loss of employees who have worked alongside of us for over 25 years. 18 19 The thought of losing everything my family has 20 worked for and everything I've ever wanted to do is 21 truly the definition of heartbreak. 22 Imagine with me for one moment that each one of 23 you has built something that you want to pass down to 24 your kids or your grandkids. Now imagine that the dream 25 is taken way from you and you are left with only the

1 story of what once was.

I understand that it may be hard to imagine this, but it is a grim reality for myself and my father to watch the land that is fallowed by this reduction in water.

We are on the verge of a judgment of a lifetime, 6 7 and so I stand before the Board not as a Democrat, not as a Republican, not as an environmentalist or an 8 agricultural zealot. I stand before you as a humble, 9 10 scared young man who is hoping that you may make the 11 right decision not only for my livelihood and my dream 12 but for the generation like me whose voices cannot be 13 heard and whose livelihood relies on you.

And for the record, I just wanted to ask the Board a quick question: Do you guys know where you would be without the farmer?

17 CHAIRMAN HOPPIN: We do. I guarantee you I do.18 MR. SCOTO: Naked and hungry.

19 Thank you.

20 (Applause and laughter.)

21 CHAIRMAN HOPPIN: I can see why you didn't cede 22 your time to your father-in-law.

23 Michael.

24 MR. MACIEL: Good afternoon. I'm Michael 25 Maciel. I'm mayor pro tem for the City of Tracy.

CHAIRMAN HOPPIN: I didn't even come close, did 1 2 Ι? 3 MR. MACIEL: Close enough. Somebody told me 4 that they were talking about me, so I took their word. 5 And even if you were wrong, I'm here now. (Laughter.) 6 7 First of all, I'd like to share with you the 8 insignificant fact that I actually grew up and lived in 9 Vernalis. I thought I was the only person in the room 10 that could make that claim, but there was a gentleman 11 here earlier who was also from Vernalis. It's a real 12 place. It's actually not where your station is, but

14 Thank you for the opportunity to speak today.
15 The City of Tracy is keenly interested in the proposals
16 here for a couple of reasons. One, it could affect our
17 prospective water supply. And it could also have an
18 impact on our wastewater discharge salinity into Delta.

it's about six miles away as the crow flies.

13

19 Tracy takes its environmental responsibility 20 seriously. We've worked very hard over the past 20 21 years to reduce salinity. We've achieved significant 22 reductions. We're at about half the discharge levels as 23 we were in the '90s.

24 We've done this largely through switching to the 25 use of surface water. We're previously a community that 1 was dependent upon groundwater. Our groundwater sucked.
2 It was very high in salinity. In fact, if we were to
3 pump our groundwater directly into the Delta, it would
4 not meet standards.

5 So we backed away from using groundwater. We're 6 at 98 percent surface water now, and 70 percent of that 7 we get from the South San Joaquin Irrigation District.

8 They've expressed concerns that some of these 9 regulations could result in reduced supplies to us in 10 dry years. That could conceivably force us back to 11 using groundwater, and then we'd be back in that 12 situation of struggling to meet salinity discharge 13 standards. So the potential here is that it could cause 14 us to take a significant step backwards.

I encourage the Board to consider the ideas proposed by the technical people that will come up here. I'm certainly not a scientist. I don't envy you trying to interpret all the graphs that were presented throughout the day. I couldn't. But that's your charge, and that's what you are faced with.

Again, we've heard a lot from agriculture today; we've heard a lot from environmental fishing interests. And, again, we come from a different perspective.

I think I've talked quickly enough. I probably
only have a few seconds left.

Taking off, my representative of Tracy -- and speaking just as a person in the audience, this, unfortunately, almost shapes up as an agricultural interest versus environmental interest issue. And maybe that's unavoidable. The end result will probably have to involve

7 some sort of compromise. I don't want to sound too 8 judgmental, but some of the folks on the environmental 9 side, they're talking about 60 percent-plus. I would 10 bet you every penny in my wallet that the ag people are 11 insulted by those proposals. It just won't work for 12 them. And in our concern that probably would cause us 13 some concern also.

14 So please keep in mind that there needs to be 15 compromise. And some of these proposals, you know, from 16 the ag perspective, are just not viable.

In full disclosure, I also come from an agricultural background prior to my law enforcement career, prior to my public service career as an elected official.

So thank you very much for your time.
CHAIRMAN HOPPIN: Thank you, Michael.
Sherri.

MS. BRENNAN: Sherri Brennan, Supervisor,Tuolumne County. Thank you very much for the
1 opportunity to speak to you today.

2 Tuolumne County is home to the reservoirs that 3 we're talking about -- the Stanislaus and Tuolumne 4 River.

5 More importantly, 75 percent of our county is 6 public lands and makes up the watersheds that feed those 7 reservoirs and subsequently supplies the water that 8 we're talking about today.

9 We all have to be saddened when we hear two 10 industries battling each other for a resource -- the 11 fisheries and the ag community, a community that 12 literally is feeding the world.

13 Tuolumne County will be submitting extensive 14 comments on accumulative impacts, but I really want to 15 talk about those watersheds for just a minute.

16 We have had a situation in Tuolumne County with 17 our public lands where we have been engaged in 18 management of single species for a number of years. 19 Currently, the Stanislaus National Forest, those 20 two watersheds, grows approximately 130 million board 21 feet every year. Something in the neighborhood of 22 14 million board feet and woody mass is taken out of the 23 watersheds. That means every year cumulatively we are 24 adding a hundred million board feet to those areas. 25 We have good science. We know that two-thirds

of the moisture that falls goes directly into the woody
 forest. Two-thirds.

If we had any kind of an active forest management that managed for biodiversity instead of single species, we wouldn't be having this discussion today. If we had just 25 of that two-thirds available coming down into the reservoirs, we really would not be having this discussion.

9 So I would encourage you -- I have not seen any 10 language that is looking at the watersheds in this 11 document, and lack of management in those watersheds.

I know the National Forest is in the process of doing their land management plans. A number of the southern forests have already started them. Everyone in this room needs to be engaged in those conversations, and we need to be looking for healthy forests.

We have the technology; we have the ability, and it really is part of the answer to the problem that you're discussing today.

20 Thank you.

21 CHAIRMAN HOPPIN: Thank you very much.

22 (Applause.)

25

If I could get John McManus, Bill Mar, SallyBenatar to come up, please.

John, if you'd come to the podium.

MR. McMANUS: Chairman Hoppin, members of the Board. Chairman, we're going to miss you. I know you're moving on soon. And I know you have some experience in southern Oregon, and so what you were told about the Klamath Dams, I think you know there's some corrections there.

7 I want to talk a little bit -- I'm the executive 8 director with the Golden Gate Salmon Association, which 9 is a coalition of sport and commercial salmon advocates, 10 fishermen and related businesses. We feel the flow 11 proposal is currently inadequate because it doesn't go 12 far enough to restore salmon.

I want to talk just a little bit about the need for flows in the spring. There's been a tremendous amount of technical discussion of it here today, but one thing folks may not know is that in the spring juvenile salmon, smolts, come out of the river systems, and they're very poor swimmers.

They have evolved to be flushed out of river systems with big snow melts. But we don't have those anymore because of dams, and that's why we need you to help us get some flows.

23 With the snow melt events that they evolved to 24 flush out of the river swift, typically there was 25 turbidity, i.e., mud, or color in the water that would help them hide from predators. They don't have that
 anymore. They're coming out of low-flow situations. So
 we need some flows, particularly in the spring.

I want to salute the fishery agencies that were
up here earlier today. They made many of the points
that I had intended to make.

7 I heard what they said about the need for 8 baseline throughout the year. That was kind of an eye 9 opener for me, but it was appreciated. We don't mean to 10 insult anybody by asking for 60 percent. We're just 11 trying to get some fish back.

12 I want to say that State and federal regulations 13 give you all the legal underpinnings you need to require 14 some more flows because, among other things, the 1992 CVPIA has the doubling index, and that requires that 15 16 water's managed to hit 78,000 adult natural spawning 17 salmon in the San Joaquin and its tributaries. Last year there were 14,007. 78,000 is the doubling target. 18 Last year it was 14,000. 19

We know that increasing the flows will restore salmon because we've seen it in high rain and snow years. In those years, the system's overwhelmed with runoff -- I'm talking about really wet years -- and we get closer to the 60 percent unimpaired flows called for by scientists. Then we've seen the numbers of salmon in

1 the San Joaquin rebound.

And I think, perhaps, you've seen the chart from the Bay Institute that documents this since the late '50s. If you haven't, you will later today in their panel.

I want to make the case for our members. 6 Tens 7 of thousands of jobs are tied to the state salmon 8 fishery, many on the coast but also in the Central 9 Valley. The most obvious jobs are those of commercial 10 fishermen, seafood processors, the boat-and-tackle shops 11 that sell to sport salmon fishermen, the charter boats 12 like those run by Roger and Jacky that take sport fishermen out of the harbors and marinas that service 13 14 the fleet.

In the coastal towns, there are less obvious jobs in the machine shops that service the fleets, the auto truck -- the truck dealers in town that sell to fishermen, the local supermarkets, and all normal business that you would have in any small town rely on salmon income on the coast. And that's where I come from. That's my home.

Where there's salmon harbors, restaurants and hotels do a brisk business.

24 CHAIRMAN HOPPIN: John, I'm not trying to be 25 rude, but if you would, we've got to keep going here.

MR. McMANUS: All right. Let me just say 1 2 there's no doubt that for historical reasons salmon and 3 the tens of thousands of workers tied to them have been 4 left out or, at best, left last in line when water was 5 being allocated. You have an historical opportunity here to help us rectify some of those. 6 7 We all recognize that restoring more flows is a 8 challenge to many. So we hope that you think about 9 those of us on the coast as you approach this decision, 10 and remember that you can't grow salmon everywhere on 11 They only grow in a few places. The San this earth. 12 Joaquin tributaries are among those, and we value them. 13 Thank you. 14 CHAIRMAN HOPPIN: Thank you, John. Bill Mar. 15 16 Sally Benatar. 17 I'm making up for lost time. Peter Drekmeier. 18 19 MR. KOEPELE: If it's okay, Peter is my 20 colleague, and he had to leave. 21 My name is Patrick Koepele, and I work for the 22 Tuolumne River Trust. I live in Sonora, California. 23 I've worked within a number of collaborative 24 efforts to find working solutions to resource management 25 issues throughout the Tuolumne watershed. In the Upper 252 1 Tuolumne Watershed, I've worked within the Clavey 2 Watershed Coalition, the Tuolumne-Stanislaus Integrated 3 Regional Water Management Plan. And in the Lower 4 Tuolumne River, I've been part of the Tuolumne River 5 Technical Advisory Committee and the Tuolumne River 6 Coalition.

7 The Tuolumne River Technical Advisory Committee 8 was formed as a result of a negotiated settlement 9 between the irrigation districts, resource agencies and 10 conservation groups in 1996, and wrote the Habitat 11 Restoration Plan for the Lower Tuolumne River corridor.

12 The Tuolumne River Coalition was formed in 2000 13 by local agencies and stakeholders to create a vision 14 for improved habitat, flood management, and recreation 15 on the Lower Tuolumne. And the Tuolumne River Coalition 16 developed this division called the Lower Tuolumne 17 Parkway Framework for the Future.

A key recommended action that both the Habitat Restoration Plan for the Lower Tuolumne River corridor and Framework for the Future identified for a healthy fish population and a healthy river and ecosystem is a restored floodplain and restored channel floodplain conductivity.

It is well known that healthy floodplains and channel floodplain conductivity improve rearing and 1 migratory conditions for juvenile salmon. Young salmon 2 that grow and forage on floodplains are known to grow 3 more quickly than those restricted to channels, and 4 enter the bay and ocean stronger and more healthy.

5 What a group like the Tuolumne River Trust can 6 do is restore conditions and habitat on floodplains. 7 And that's been occurring on the Tuolumne over the past 8 ten years or so.

9 Two projects that I have been involved with 10 include a project called the Big Ben Project, which was 11 250 acres of floodplain, and more recently, a project 12 called the Dos Rios Project, which is 1600 acres of 13 floodplain at the confluence of the Tuolumne and San 14 Joaquin rivers.

Beyond those two, I can think of about 1200 additional acres that have been restored or are in the process of being restored.

18 So the point is that floodplain restoration is 19 happening. But what groups like ours cannot do is 20 provide water to inundate those floodplains. As I said, 21 we need that channel floodplain conductivity. And we 22 need agencies like the State Water Resources Control 23 Board to help us get sufficient water.

24 So I'm concerned that the proposal under 25 consideration, 35 percent of unimpaired flow, won't get

us there. To achieve this necessary amount, we've got 1 2 to get to a higher level. And we believe that at least 3 50 percent is going to be needed to get us there. So we hope that the Board will go back and look 4 5 carefully at those numbers and look at the science. The science is there that justifies it. 6 7 Those are my comments. 8 CHAIRMAN HOPPIN: Thanks, Peter. 9 Jose Ramirez, I should have called you on this 10 If you'd come up after Leonard, please. panel. 11 MR. VAN ELDEREN: Good afternoon. My name is 12 Leonard Van Elderen. I'm president and CEO of Yosemite 13 Farm Credit. We're an ag lending association. We 14 currently serve members in Merced that are served by 15 Merced Irrigation District, Turlock, Modesto, and 16 Oakdale Irrigation District. Our loans total about \$1.75 billion. 17 About 18 85 percent of that is in Stanislaus and Merced Counties. 19 We have loans to 1450 farmers, and we employ about 106 20 people with a budget of \$20 million that we feed into 21 the local economy. 22 Loans that we have, 65 percent of them are made 23 up of dairymen, almond farmers, and walnut farmers. The 24 balance of those crops are typically irrigated crops 25 also.

The proposal that you've put in front of us today will drastically alter the momentum that ag has carried in the region.

An unreliable source of surface water will do permanent damage to the families that farm an impacted area. They cannot afford to sit out of farming during the dry years and jump back in during the wet years.

8 Many of our borrowers own one parcel and rely 9 solely on surface water. You can't just cut that out 10 and stop farming 35 percent in a year when you've got 11 permanent plantings.

Our loans, like most loans, require monthly, quarterly, annual installment. The place where we get our money from, our bond holders, aren't going to allow us to skip payments on a dry year.

Dairies do not have the option of simply shutting down like a factory. Cows need to be fed each year.

19 Irrigated orchards that last 25 to 40 years need 20 water each year. They can't go fallow 20 to 30 percent 21 of the time. Trees die without water.

22 Reducing the water supply will also hurt the 23 economy with jobs. And you've heard enough about that. 24 Our loan application process, when we have it, 25 first of all, we talk about location of the property and

the type of soil we're dealing with. The next question 1 2 is water. And that's quickly becoming the first 3 question we ask. 4 Is it a reliable source and is it clean? Ιf 5 it's not reliable, we loan less money on those 6 properties. And typically those properties are valued 7 less. That's an impact on our growers. 8 As a lender, it's a high risk to lend to farmers 9 that do not know if they'll have the water they need 10 until they're well into the growing season. This isn't 11 the kind of risk that our association was built on. 12 Our lending cooperative serves many of the young 13 people that you have seen here today. Some of those 14 that are under 35 trying to get started, some of those 15 that are new in the ag business -- and ag is a 16 capital-intensive business -- and those young, beginning 17 entrepreneurs, cannot get off the ground not knowing 18 what their income is going to be each year. They can't 19 go into a business plan with little equity, little down 20 payment, and try to make that work, not knowing when 21 they're not going to have income. 22 The vast majority of our farmers are family 23 operations that have been established for decades. We 24 make 25-year loans. How are we going to judge which 25 years are the dry years and which won't have water

1 involved?

2 You're asking the two counties that we serve to 3 bear the burden of this proposal, a proposal that your 4 documents say will benefit south Delta farmers with 5 junior water rights. This adds additional risk to our institution and to our members. 6 7 With that said, as a representative of the 8 members and borrowers of our association, we request 9 that you do not approve the 35 percent, and certainly 10 not go up to 60. 11 Thank you. 12 CHAIRMAN HOPPIN: Thank you, Leonard. 13 Jose. 14 MR. RAMIREZ: My name is Jose Ramirez. I'm currently the city manager for Livingston, and I thank 15 16 you for the opportunity to speak. 17 I would like to just comment that we are home to 18 Foster Farms Chicken. And, also, it's sweet potato 19 country. 20 Last night our City Council voted to actually 21 pass a resolution in opposition of the current proposal 22 that's on the table. 23 But what I want to do is I want to talk a little 24 bit about where I was at before. I used to be the --25 for eight years I was the city manager of the City of

1 Firebaugh, which was ground zero for what happened.

2 You guys all know what happened back in 3 2008/2009. I mean, it was the alignment of the stars. 4 You know, the impact to the people. And I personally 5 seen -- you know, I had to look at all these people in 6 the eye coming to these food lines. I actually seen a 7 lot of the farms being lost and people that worked --8 farm workers that used to live in those homes out in the 9 farms move into the city where we had two or three 10 families in one home. And the loss of jobs and the 11 homes that they had once owned.

The curtailment of water -- you know, a lot of my colleagues beforehand mentioned a lot of the impacts, and I don't want to talk about it. I just want to talk about the impacts to people.

We lost a parochial school because of the curtailment of water. I saw the fallowing of thousands of acres of land. I got to see the school district lose \$500 for every student because there was actually folks that were moving away to find a job somewhere else.

One of the things that came up back then was, you know, that we shouldn't question reports; that we shouldn't question authority. And one of the things that we did was to go out there -- you know, municipalities out there, we can't even drop one gallon of sewage water in the river; but yet if we look further north and there's several communities who dump a lot of their waste discharge. And we have pharmaceutical issues; we have ammonia issues, and so forth. And those are things that at one time they didn't even want us to actually talk about.

So we're doing our part to educate people
because -- about water, and there's a campaign going on
for the Hispanic community right now that's one of the
sectors of the community that's not that much educated.
It's called "El asunto de aqua es de todos," which means
that water is all of our business. And so it started a
couple of weeks ago and it's already in the airways.

And if you haven't seen that documentary that's out there called "The Fight for Water; The Farmworkers Struggle," that documentary is out there for you guys to look at. It had a real impact, and the impacts are still being felt today.

Again, thank you for the opportunity, and have a good afternoon.

21 CHAIRMAN HOPPIN: Thank you, Jose.
22 If the next five group would come up. Larry
23 Kolb, Nick DiCroci, Deana Wolf, Barbara Barrigan-Parilla
24 and Michael Marsh.

25

Larry, if you'd come to the podium, please.

MR. KOLB: I'll keep this brief. I spent over 1 2 30 years working for the San Francisco Bay Water Quality 3 Control Board. The biggest single frustration I had in 4 that period was that the fish were going to hell while 5 we were making great progress on pollution. And this 6 disconnect bothers me, and I'm sure it bothers you. And 7 now you're starting to do something about it, and it's 8 painful. And I feel for you in doing this, but I hope 9 you follow it through.

I know that the people you represent include the people who live in the lower San Joaquin Valley. It also includes everybody else in California, all 38 million people, including millions of people who care a lot about the health of our fish, even if they don't fish them. You represent all of these people.

I'd like to talk about the value of agriculture in California. All the crops grown in California have a value at the farm gate of \$36 billion. A lot of money. It's the biggest in the country. On the other hand, the California total economy is \$1900 billion. So that 36 works out to less than 2 percent.

Of the water we take from nature, 80 percent of it is used for agriculture. And of the water used for agriculture, over 60 percent of it is used on low-value field crops like wheat and corn, and especially alfalfa.

1	If you want to grow food efficiently "I don't
2	know if you grow cow food." That's the most efficient
3	way to feed humans line I've heard many times today.
4	The value of these low-value crops that use
5	about half of the total water and 60 percent of what
6	agriculture uses works out to about one-third of one
7	percent of the California economy. Let me say that
8	again: One-third of one percent of the California
9	economy.
10	So I think that without taking water from the
11	high-value crops, the orchard crops, the vegetables, the
12	fruits, we can afford to free up a little bit of water
13	from California agriculture.
14	Thank you.
15	CHAIRMAN HOPPIN: Thank you.
16	Nick.
17	MR. DiCROCE: Chairman Hoppin, members of the
18	Board, my name is Nick DiCroce; and I'm a facilitator
19	for the Environmental Lawyer Caucus. We are a caucus of
20	30 grass-roots environmental organizations, all with an
21	interest in water issues.
22	We have the following comments related to the
23	adequacy of the San Joaquin SED:
24	The State Water Board has failed to carry out
25	its public trust responsibilities for the people of

California. Let me describe the main deficiencies that 1 2 we have noted. 3 First, there's a failure to apply the State 4 Water Board's public trust responsibilities. Under that 5 public trust doctrine, the State Water Board must take 6 the public trust into account and balance public trust 7 values. That was established in the Mono Lake case, 8 which you certainly remember. 9 In the development of the State Water Board's

2010 Flow Criteria Report, the Board identified a set of broad flow regimes and concluded that 60 percent of the unimpaired San Joaquin River inflow from February through June was necessary.

The SED selection of only 35 percent of unimpaired flows during February through June for the main three tributaries is not based on an analysis of flows needed to preserve and protect public trust values.

The Board must know that the selection of a 35 percent flow criteria will do little to reverse the decline of fisheries. As pointed out in the Department of Fish and Wildlife's earlier presentation today, the 60 percent flow requirement established by the Board review is much closer to what is necessary to recover fish species.

Since the landmark application of the public 1 2 trust doctrine by the State Water Board in the Mono Lake 3 case, the principle of how extractive water demands can 4 be alternatively met while ensuring the public trust 5 values are protected is well established. In fact, the 6 Los Angeles Department of Water and Power, which 7 vociferously objected to relinquishing flows, now extols 8 the virtues of their water efficiency program that has 9 resulted in meeting the public trust values.

I have written that up because today I hear what I don't like to hear about fish versus water versus farms versus environmentalists, and it does not need to be that way. And the result of the Mono Lake case where all the parties came out beneficially better than they went in is where I like to go.

16 Secondly, the plan illogically segments the San 17 Joaquin River. The SED arbitrarily limits the plan area 18 to the San Joaquin River to the confluence between the 19 Merced and the Stan. Left out of the flow consideration 20 is the river's main unimpaired flow above the confluence 21 with the Merced up to Friant Dam. It only seems logical 22 that the exporters who receive the bulk of the San 23 Joaquin --

CHAIRMAN HOPPIN: How much longer do you have?
 MR. DiCROCE: I'm about 90 percent -- 75 percent

1 through.

2 -- where Friant Dam should be participating in 3 mitigating the impacts.

4 So we agree with what we heard this morning from 5 the Turlock Irrigation District and NOAA on this point. The last deficiency is a weakened salinity 6 7 standard in the south Delta. The clean Water Act and 8 the Porter-Cologne Act clearly intend that water quality 9 control plans are intended to improve water quality, not 10 degrade it. 11 The proposed plan, by relaxing salinity 12 standards in the Delta, will harm beneficial uses and 13 does not meet the statutory requirements. 14 CHAIRMAN HOPPIN: Be sure to include the rest of 15 your comments in your written stuff. I have to move on. 16 I'm not trying to be rude. 17 MR. DiCROCE: That's all right. CHAIRMAN HOPPIN: Deanna Wolf. 18 19 Barbara.

20 MS. BARRIGAN-PARRILLA: Thank you, Chair Hoppin, 21 and Board members.

I'm Barbara Barrigan-Parrilla, executive
director for Restore the Delta. And on behalf of our
10,000 supporters -- in fact, I'm probably the only
person here today representing agricultural interests

and fishermen -- I want to thank you for the opportunity 1 2 to speak on the San Joaquin River flows plan. 3 However, our concerns today -- in our comments, we are expressing our grave concern with the document, 4 5 the SED, a proposed plan that fails to rectify years of water quality violations in the San Joaquin River and 6 7 south Delta. 8 This plan fails to increase flows sufficiently 9 to restore steelhead and salmon in the San Joaquin 10 River. 11 It fails to provide sufficient water quality to 12 protect and enhance south Delta agriculture as mandated 13 in the Delta Reform Act of 2009. 14 It fails to balance public trust, and it fails 15 to protect all parties equally dependent on the health 16 of the San Joaquin River by giving priority status and 17 protection to upstream users, all at the expense of 18 water users on the Lower San Joaquin River, Delta 19 farmers, Delta residents and Delta fisheries. 20 The SED selection of only 35 percent of 21 unimpaired flows during February through June for the 22 three main tributaries to the Lower San Joaquin will not 23 preserve and protect public trust values. 24 This plan clearly prioritizes no net loss to 25 water exporters or maintaining the water yield for 266

Central Valley and State water project water takers over
 all beneficial Delta uses and more senior right
 diverters on the Merced, Tuolumne, and Stanislaus
 rivers.

5 The Board has ignored its responsibility to 6 evaluate and balance competing water needs and 7 developing flow and water-quality objectives in such an 8 arbitrary proposal to value one group over Delta 9 communities violates Delta Reform Act requirements to 10 reduce reliance on the Delta in meeting California's 11 future water supply needs.

12 It is a concern that protects a specific group, 13 a powerful corporate agricultural interest. Through 14 this plan, it is clear that the State Water Resources 15 Control Board has forgotten about the sizeable area of 16 the Delta agricultural economy and the area dependent 17 directly on water quality and quantity from the San 18 Joaquin River.

The Delta recreation economy, valued at over \$650 million annually, in addition to the coastal salmon fishery, is dependent on the protection and restoration of the San Joaquin River and adequate flows in the Delta.

24 The SED, as it stands right now -- I just want 25 to conclude -- will continue the dewatering of the Delta

for years to come of the San Joaquin River, of the 1 2 estuary, and the San Francisco Bay; and it's going to 3 have a horrible impact on those economies that depend on 4 the health of that ecosystem. 5 Thank you. Thank you, Barbara. 6 CHAIRMAN HOPPIN: 7 Michael Marsh. 8 MR. MARSH: Good afternoon, Mr. Chairman, members of the Board. 9 10 My name is Michael Marsh. I'm the chief 11 executive officer of Western United Dairymen. 12 Western United Dairymen is the largest dairy 13 producer trade association in the western United States, 14 but we only represent dairy producers here in the great 15 State of California. 16 My members produce about 60 percent of the State's milk. And to Pete Verburg's comment, it really 17 is tough to feed them almonds. 18 19 We have about 900 dairy families within our 20 association. 21 According to a Milk Advisory Board study that 22 was commissioned in 2008 by J.D.G. Consulting, the dairy 23 industry in the State of California contributes 24 \$63 billion in economic activity to the State. It also 25 is responsible for 443,000 jobs. We are the number one

1 ag commodity in California with farm gate receipts at 2 about \$7 billion a year.

3 According to the Board's modeling, a lot of the reduction in the water that would be coming through this 4 5 plan would fall on low-value crops, crops such as alfalfa, crops such oat, hay-use for silage, or corn 6 7 that's used for silage, as well; and that simply doesn't work for dairy cattle. I guess maybe you can give them 8 9 a shot to give them pistachios, but they have a tough 10 time cracking those shells.

11 At the same time, the proposal before you -- as 12 we've just gone through the fiscal cliff in Washington, 13 D.C., and we've seen that one of the pieces --14 unfortunately, what wasn't able to pass was the Farm 15 Bill. And really what was tied up in the Farm Bill was 16 concerns over spending cuts between food stamp programs, 17 women and infant children programs, the SNAP program, if 18 you will.

Those programs are not going to give more money. And if we're going to increase the price of food, let's get the hunger advocates in here, too, and listen to them as well as to what this will do to their programs and feeding the hungry in the great State of California.

24 Thank you for your time. Good luck with your 25 decision.

CHAIRMAN HOPPIN: Thank you, Michael. 1 Next five panel group will be Patrick Koepele, 2 Spreck Rosekrans, Julie Barrett, Sonia Diermayer, and 3 4 Hal Candee. 5 Patrick, would you come to the podium. MR. LINDSAY: He already spoke. Spreck, please 6 7 go to the podium. I know you want ten minutes, but... 8 MR. ROSEKRANS: Thank you, Chairman Hoppin. Ι 9 do. I have a PowerPoint. I'll try to go quickly. 10 CHAIRMAN HOPPIN: Try to do it. MR. ROSEKRANS: First of all, thank you for your 11 12 service, Mr. Hoppin. And I think the succeeding chair 13 will have a high standard for levity to bring to 14 proceedings such as these. I wish you luck. 15 CHAIRMAN HOPPIN: I wasn't joking about the ten 16 minutes. 17 (Laughter.) 18 I also want to thank the court reporter. 19 (Thereupon an overhead presentation was 20 presented as follows:) 21 MR. ROSEKRANS: What I want to do today -- I am 22 Director of Policy for Restore Hetch Hetchy. Restore 23 Hetch Hetchy's mission is to restore Hetch Hetchy Valley 24 and Yosemite National Park, while protecting all users 25 of water and power on the Tuolumne River.

While this proceeding is really about downstream 1 2 resources, whether they be diversions for consumptive 3 use or water left in the river for fisheries, the 4 upstream needs are relevant as well; and we believe that 5 before this Board there will be, as a result of either public mandate or legal mandate, cause to consider 6 7 restoration of Hetch Hetchy. 8 We don't want you to do anything in this process 9 that would make it more difficult to proceed with 10 restoring Yosemite National Park for the American 11 people. 12 Fortunately, that's not as difficult to do as 13 you may see. 14 Next slide, please. 15 --000--16 MR. ROSEKRANS: Before you are four green bars 17 for all the water supply impacts -- just on the 18 Tuolumne, not that you are proposing for your 20 19 percent, 40 percent and 60 percent alternatives with 20 interpolations for 35 percent. 21 And then the small blue bar on the side is what 22 we have found would be necessary for restoring Hetch 23 Hetchy Valley that is operating San Francisco's system 24 with reduced diversions from the Tuolumne. 25 These are numbers found by the Environmental 271

Defense Fund, but they are very similar to what was 1 2 found by UC Davis and the United States Bureau of 3 Reclamation. 4 --000--5 MR. ROSEKRANS: Water rights on the Tuolumne. San Francisco gets lots and lots of water in almost all 6 7 years, except for the very dry years. What they fear is 8 the drought, a repeat of the 1987 or 1992 conditions 9 where their allocation of water supply under their water 10 rights is far below what they like to divert from the 11 Tuolumne to the Bay Area. As a result, they have 12 invested in Cherry Reservoir, as well as Hetch Hetchy, 13 and a water bank in Don Pedro that is twice the size or 14 more of Hetch Hetchy Reservoir. 15 They divert about 20 percent of the river water 16 that's diverted overall. Here you see them compared to 17 Turlock and Modesto. 18 --000--19 MR. ROSEKRANS: And then two examples. And you 20 had examples like this in your report. Here's sort of a 21 median year. And what you see is the 35 percent running 22 average line that you've proposed pretty much stays in 23 that baseline senior water rights water that goes to 24 Turlock and Modesto. Only in late June and a repeat of 25 the hydrology of this year 1971 would some of it be part

of San Francisco's water. And in a dry year it doesn't 1 2 even get near San Francisco's water. 3 --000--MR. ROSEKRANS: So what we're talking about 4 5 here -- next slide -- is on average if you look at the base flow which belongs to Turlock and Modesto and the 6 7 surplus flows that belong to San Francisco and the base 8 flows that you guys are looking for the river, there's 9 very few times when it overlaps into San Francisco's 10 threshold. 11 --000--12 MR. ROSEKRANS: So the recommendations here are 13 think about -- whether it's this Board or it's a 14 reconfigured Board -- when you're going to be hearing about Hetch Hetchy. It's not a lot of water, but it is 15 16 some consideration that you should make. And so think 17 about that San Francisco might have to give up a little 18 bit of its Tuolumne River Water in order to restore this 19 national park. 20 And I apologize that I'm not going to take sides 21 on which alternative you are looking at here, but I do 22 want you to consider this thing for the future. 23 Thank you very much. 24 CHAIRMAN HOPPIN: Thank you very much, sir. 25 Julie Barrett. Is Julie here? 273

1 Sonia. 2 MS. DIERMAYER: Good afternoon, members of the 3 Board, Chairman Hoppin. 4 My name is Sonia Diermayer. I live in Oakland. 5 I'm an advocate for sustainable urban water use and 6 reuse. 7 I welcome the draft SED's approach in terms of 8 being a percent of unimpaired flows, but the SED appears 9 to have glaring inadequacies. 10 My concerns include the fragmentation and 11 isolated focus on certain factors to the exclusion of 12 others, which I think renders the SED an orphan policy 13 document destined to fail on every front. 14 I find it inexplicable that -- the exclusion of 15 flows upstream of the Merced confluence and what happens 16 to the water downstream of Vernalis. You can't 17 partition a watershed any more than you can partition 18 one piece of the human circulatory system. 19 I'm also questioning the exclusion of flow needs 20 in lakes and falls, the exclusion of impacts on other 21 species and Delta habitat in general. 22 Everything in Phase I is inextricably linked to 23 Phase II, so I don't know how those can be considered 24 separately. 25 Increasing withdrawals from the Delta ecosystem 274

have driven salmon to the brink of extinction. The
 Delta is becoming unlivable as a habitat for almost
 anything other than invasive species.

I don't think there is any use in trying to remove those invasives unless the conditions for the native species are then in place.

So there is no new water coming from anywhere that we know. In fact, climate change is likely to make water less available than it has been. And I think what distinguishes us as a human species is that we have the intelligence, the tools, and the wherewithal to foresee these climate changes and adapt to them. Other species don't have that possibility.

I think we need to -- all water users need to share equally in the sacrifices, and it's our obligation to make sure that the environment which serves us -serves up all of that water we're using gets it equal share. We have the tools and now is the time to implement them.

I and organizations I work with are putting tremendous pressure on our urban water agencies and urban fellow water users, including the SFPUC to reduce withdrawals, to cut waste, to conserve and reuse, and look for local resources for water supplies.

25

We're fighting to keep water safe for essential

uses, such as efficient farming and human use, and out 1 2 of the hands of damaging uses such as fracking. Given the Board's own Delta flows criteria 3 report stating a need for 60 percent of unimpaired 4 5 flows, the retreat to 25 to 45 percent is very distressing. 6 7 I feel the SED is relegating the consideration 8 of far too many critical factors to the implementation 9 phase, future Delta plan phases, adaptive management, 10 other regulatory bodies, and the BDCP. 11 So I must conclude that the draft SED is 12 inadequate in addressing impacts. And I would greatly 13 urge you to revisit the plan in a more comprehensive, 14 integrated manner and set higher unimpaired flow 15 objectives. 16 Thank you very much. 17 CHAIRMAN HOPPIN: Thank you very much. Hal Candee. 18 19 MR. CANDEE: Thank you, Mr. Chairman. 20 I'm Hal Candee, and I'm here on behalf of 21 Defenders of Wildlife. Defenders has over 180,000 22 members in California. 23 We would like to join with the other speakers 24 from the fishing and conservation community in pointing 25 out that the draft SED is not adequate to meet the goals 276 1 and the needs of fishery recovery.

5

I know there's going to be a very extensive panel presentation -- I don't know if it's later today or tomorrow by the --

CHAIRMAN HOPPIN: It won't be later today.

6 MR. CANDEE: Okay. Well, Trout Unlimited and 7 the Bay Institute and other groups will be addressing 8 the specifics, so I just want to make three very general 9 point, if I might.

10 First, the fisheries are in crisis. You've 11 heard this today from the federal and State agencies; 12 you've heard it from other speakers. And this is really 13 the time -- this is the time for strong action. I think 14 that's the opportunity that's presented to you; it's a 15 challenge, and I think it's essential that this Board 16 take the steps necessary to help bring back the fishery. It's just not going to work if we just maintain the 17 18 status quo, if we don't take a strong step forward.

19 Second, in the balancing that you have to do, I 20 think we need to remember that agricultural and urban 21 water users can become more efficient. We've seen it 22 over and over again in California. And whether it's 23 from an increase in price or a drought or from 24 regulatory action, they have shown enormous resilience 25 and creativity in being able to diversify their sources, 1 increase their efficiencies, adapt to new technologies, 2 whatever. So I think that historical record needs to be 3 kept in mind.

4 Finally -- and I think this is the most 5 important point: This should be about law and science. A lot of times those of us who work on water who go back 6 7 20, 25 years know that it's often very political and 8 very emotional. And I understand all of these issues 9 are hugely important to everybody on both sides, on all 10 sides; but it's really up to the decision-makers to 11 focus on the law and the science.

And if you look back -- whether it's Mono Lake, Kesterson, Friant -- the big decisions where we really made some progress is because decision-makers, whether it's a court or the State Water Board, did what needed to be done based on the law and the science.

And I urge you to do that in this case.Thank you.

19 CHAIRMAN HOPPIN: Thank you, Hal.

25

20 The next five-group panel. Is DeeAnne Gillick 21 here? April Premo, Jerry Powell, Melissa Thorme, 22 Kristine Williams.

23 CHAIRMAN HOPPIN: I know you want five minutes
24 but...

MS. DEE ANNE GILLICK: Good afternoon, Chairman

1 Hoppin and members of the Board.

I'm DeeAnne Gillick from Neumiller and Beardsley on behalf of the County of San Joaquin and the San Joaquin County Flood Control and Water Conservation District.

As you all know, San Joaquin County is very 6 7 interested in the decision before you as over two-thirds 8 of the Delta is located in San Joaquin County. All of 9 the south Delta locations and measuring locations are 10 located within San Joaquin County, and the County is 11 bordered on the south -- or part of the border by the 12 Stanislaus River, which is one of the affected 13 tributaries.

So, geographically, San Joaquin is one of the areas that's most affected by the decisions of the State Water Board, and is very interested in the health of the Delta, the security of the farmers in the south Delta, and the water supply of those that rely upon the Stanislaus River.

First, on the south Delta salinity objectives, The County is concerned with the proposal to relax the summer salinity standard from .7 to 1.

The County's concern is based upon South Delta Water Agency's concern and the concern of the farmers in the South Delta Water Agency in which the agricultural 1 beneficial use objective is designed to protect.

Now, consistently throughout this process -- and I believe South Delta Water Agency has a presentation prepared for tomorrow or the following day -- they've expressed concern in flaws with the Hoffman Report, which the State Water Board and the SED relies upon to support the proposed relaxation of the salinity standard.

9 The South Delta Water Agency has expressed the 10 Hoffman report is not reflective of the applied water 11 quality, the soil, the leaching factors, the groundwater 12 characteristics, and the tidal influences that occur 13 within the area of the south Delta affected by the water 14 quality problem and the area of the south Delta in which 15 the interior standards were designed to protect.

Based upon the concern of South Delta Water Agency and farmers in the area, the County -- the County supports these concerns.

19 It is my understanding -- and John Herrick will 20 comment on this further -- that due to South Delta's 21 concerns and the continued reliance upon the State Water 22 Board on the Hoffman Report, South Delta, in cooperation 23 with the U.S. Cooperative Extension in San Joaquin 24 County, is conducting a study in the subject area of the 25 south Delta.

As you recall, the Hoffman Report said more 1 studies should be done. The study that will be 2 3 conducted this year, my understanding the first tests 4 will occur on Friday, as long as that can occur. 5 Funding is available and it will be completed this year. The purpose of the study is to determine or to 6 7 analyze those conditions and those items which the south 8 Delta and the farmers question of the Hoffman Report. 9 The County requests that State Board delays any 10 action on relaxing the south Delta salinity objectives 11 until this additional study is done by the water agency 12 and the farmers at issue who criticize and are concerned 13 over the flaws of the Hoffman Report. 14 So the County respectfully requests that the 15 State Water Board, you know, delay any decisions until 16 it receives South Delta's report that will discuss those 17 conditions actually within the south Delta. 18 Furthermore, meeting the current water quality 19 standards has consistently been the position of the 20 County and consistent with federal law; and the County 21 continues to remind the Board and the Bureau that 22 meeting water quality standards should not 23 disproportionately rely upon New Melones; and that HR 24 2828, the federal law, mandates reliance on New Melones 25 is reduced. We've expressed this position for many

years, and we continue to assert that. 1

2 Secondly, on the San Joaquin River flow objectives, the County is equally concerned with the 3 4 proposal from the February through June flow 5 requirements in the San Joaquin River; and the SED fails 6 to adequately evaluate the significant impact to San 7 Joaquin water users due to the proposed 35 percent flow 8 standard.

9 Significant impacts that are not adequately 10 evaluated in the SED include but are not limited to: 11 Reduced water deliveries to municipal and agricultural 12 users within the county due to demands placed on the 13 Stanislaus River; the resulting increase in groundwater 14 use, and the further exasperation of groundwater 15 overdraft within eastern San Joaquin County; significant 16 agricultural sector income impacts, and seasonal seepage 17 impacts along the Stanislaus River due to increased 18 spring flows which may threaten ag land currently in 19 production.

20 The County is also concerned --21 CHAIRMAN HOPPIN: Can you wrap it up? 22 MS. GILLICK: Yes -- with impacts to carryover 23 storage equally; that parts of the system is not 24 required to make a contribution. 25

And the County will be submitting written
comments, and the additional items will be included in 1 2 that. We just ask the State Board to consider carefully 3 its actions before. 4 Thank you. 5 CHAIRMAN HOPPIN: We're going to take five 6 minutes so the court reporter can make a phone call. 7 (Break taken.) 8 CHAIRMAN HOPPIN: Melissa Thorme. 9 Christine Williams, if you would come up, 10 please. April? Are you here, April? 11 12 Jerry Powell. 13 MR. POWELL: My name is Jerry Powell. I'm here representing the Turlock Chamber of Commerce. 14 We've also passed a resolution opposing this report on behalf 15 16 of our 400-plus members who are all small businesses. 17 And basically we all thrive off the local agricultural 18 businesses, such as Blue Diamond, United -- boy. I'm 19 sorry. 20 We've got Foster Farms, creameries, all kinds of 21 stuff based around there. Multiple shellers and 22 hullers. And what it brings to our community is that 23 those people bring those dollars back in town. It's not 24 \$7 billion being exported out of here. It turns over in 25 the economy several times.

All of our downtown restaurants and businesses
 thrive because of our ag businesses and owners and
 farmers.

If you come to our downtown and you look at who owns the buildings and, also, who comes in there and runs businesses, a lot of them are local families who depend on ag. And a lot of them are ag families who have reached out into other businesses.

9 Water and reliable power are key issues in our 10 community. Reasonable prices -- I'm sorry. They help 11 sustain business and bring business to the community. 12 Not just ag but other ones as well. Power and water are 13 the keys in this valley.

Also, the impacts to our local residents. This policy would also impact our local residents, as these policies will increase electrical rates and water rates, which will cost jobs, inflate the cost of food, food production, which will ultimately impact everyone's disposable income.

20 Let's see what else. That's basically our 21 concern is business.

A couple of things that I was listening to today that concerned me was, one, the level of -- it was brought up that right now the proposal is 35 percent; but if you approve it, you can do whatever you want

without bringing it back. That's pretty scary. 1 2 Where is the limit? You can't farm that way 3 when you don't know what your water is going to be every 4 year, if it's fluctuating or what. You can't do that. 5 Especially with the crops. Especially with the trees. Also, groundwater pumping. I'm involved in our 6 7 community. Groundwater pumping is not the solution. As 8 was mentioned by many other cities up and down the 9 Valley, these wells cost, actually, millions of dollars 10 to put in. 11 Also, the levels of arsenic and other 12 contaminants continue to rise as the standards continue 13 to increase as well, which means these wells go out of 14 service. They either run out of water or they're no 15 longer to be in the system because of contaminants. 16 And, also, the drain. You heard one farmer talk 17 about the water level was 13 feet; it's now 45. It's 18 just going to get worse. 19 Jerry, thank you. CHAIRMAN HOPPIN: 20 MR. POWELL: Thank you very much. 21 CHAIRMAN HOPPIN: Melissa. 22 CHAIRMAN HOPPIN: Sonia, is there a reason you 23 wore a salmon-colored sweater? 24 SONIA: No. It's springtime. It's a spring 25 color.

MS. THORME: Chairman Hoppin, this may be the 1 2 last time I testify before you, so good luck in your 3 next endeavors. 4 CHAIRMAN HOPPIN: Thank you. 5 MS. THORME: I'm here on behalf of the City of 6 Tracy today. And the mayor pro tem gave you some 7 initial comments, but I wanted to echo the solid 8 commitment of the City to reduce the salinity. And they spent more than \$200 million already without a 9

10 requirement to do so to locate lower salinity water 11 resources and to reduce the salinity in their wastewater 12 aqueduct.

And these efforts have paid off. Between 2004 and 2012, the total dissolved solids declined from 15 1100 milligrams per liter to below 700 milligram per 16 liter, which in the EC world is about 1.2; so, there is a lower limit that the City can reach without having to 18 spend an inordinate amount of money and go to really 19 advanced treatment.

So one of the things that we wanted to talk to you about was the alternative that was the preferred alternative which has significant and unavoidable impacts to the City of Tracy. And we think that these can be avoided with certain modifications to either the objectives themselves or to the plan of implementation. And the modifications include, as Debbie from CVCWA
 said, picking a different number.

So right now you have three alternatives: One is to maintain the status quo, one is the 1.0, one is 1.4. But if you picked 1.2 for the city of Tracy, that's probably attainable without advanced treatment.

7 The other thing that you could do, even if you 8 stuck with a 1.0, is a longer-term average. And the 9 concern in the document was that a longer-term average 10 would not protect against high numbers in the short 11 term, but you could backstop that with the 30-day 12 average of another number.

Or you could have a specific mixing-zone policy that would allow higher level discharges in the mixing zone which is allowed by EPA and by water boards under the law.

Another thing you could do for purposes of NPDS permitting, that the objectives only apply to the compliance points, the four compliance points in the basin plan, Delta plan.

And you could also say where the location for reasonable potential is to be determined would be at the compliance points, which is what the court said in the case that Tracy brought on these issues.

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There's other implementation language that could

1 be included. I think Debbie Webster talked about that a 2 little bit. Compliance schedules, variances, drought 3 policies, which we've used in other regions, and other regulatory relief mechanisms. 4 5 The concern that we have is that the staff expressed their hope that there would be flexibility by 6 7 the regional boards, and we don't really want to rely 8 only on hope. 9 So we really need to make sure that you have 10 reasonable objectives translated into reasonable permit 11 limits. 12 And we also have one issue with the staff 13 characterizing the Delta plan as not being 14 self-implementing, but in the case of NPDS permits they 15 are. Because if you have a new objective, the permits 16 have receiving water limitations that say you can't 17 cause or contribute to an exceedance of a water quality 18 standard. So once that standard is changed, it's in a 19 permit. 20 So I thank you, and I hope that you'll consider 21 our comments. 22 CHAIRMAN HOPPIN: Next group will be Justin 23 Fanslau, Steve Chetesheer, Nick Long, Anthony Rugero, 24 and Eric Prifro. 25 Please identify yourself. I certainly don't 288 1 have a full panel here.

2 MR. FANSLAU: Sure. Justin Fanslau. 3 I'm here today representing International Brotherhood of Electrical Workers Local Union 1245. 4 5 We're the union members that work at the 6 utilities with Turlock Irrigation District, Merced 7 Irrigation District, Modesto Irrigation District, South 8 San Joaquin Irrigation District. Roughly made up of 9 about 20,000 members, all whose jobs are in jeopardy 10 should this proposal pass. 11 I'd also like to briefly offer thanks to the 12 farmers who came up today. We stand beside you opposing 13 this proposal. We recognize what you do every day, and 14 coming up here today to talk about how you farm and how 15 you've been doing it for a hundred years is certainly 16 something that I know you didn't want to do today. Our 17 members are standing beside you. 18 Two quick points: One, the environment. Our

10 nembers are committed to meeting the State's goals of 20 greenhouse gas productions. This proposal is contrary 21 to that.

If we're moving water that can be produced into or turned into energy in low-energy usage months when we need to produce more energy in the summer when there is less flow, we are going to be using sources that create

1 That does not help us get to our 30 percent. emissions. 2 Our members, like I said, have been committed to this 3 and are doing that job right now. 4 The second is, obviously, these are our jobs. 5 Much was said about jobs by the other industries 6 interested here today. The men and women that work in 7 the valley for these utilities have no interest in going 8 to the Bay to work in canneries, or wherever else these 9 10,000 jobs are that they're speaking of. Thank you for your time. 10 11 CHAIRMAN HOPPIN: Thank you, Justin. 12 Cindy Charles, Jeanette Okuge, Sandra Ketchpel, 13 and Randy Hanvelt. MS. CHARLES: Good afternoon. I'm Cindy 14 15 Charles. I'm here to represent the Golden West Women 16 Flyfishers, and also the Northern California Council 17 Federation of Flyfishers. 18 I'm the conservation chair for both of those 19 nonprofit groups. I serve on a voluntary basis. I have 20 been involved in the Merced and the Tuolumne rivers for 21 several years. 22 I'm here to just echo the -- well, let me back 23 The Golden West Flyfishers is a 30-year-old group up. 24 of anglers. We have about 125 members throughout 25 Northern California. We support various communities 290

services, such as providing fish camps, scholarship to 1 2 children to go learn how to fish. We also donate funds 3 to education -- or watershed education programs within the Bay Area. 4 5 The California Federation of Flyfishers also is involved in many other conservation activities. 6 7 So, I wanted to address you as a person who's 8 actually fished in these rivers. I fish the Tuolumne 9 River and the Merced River, and I have fished in Stanislaus. I live in San Francisco. I have a place in 10 11 Tuolumne County. I drive up there and I float the 12 rivers. And I have done so for a number of years. Particularly the Tuolumne and the Merced 13 14 watersheds, which I'm most familiar with, have an 15 amazing riparian corridor. And not only is it the 16 salmon and steelhead that I greatly enjoy and treasure, but I've seen beavers and otters and the water fowl. 17 18 And it's just a part of California that, yeah, it has a 19 lot of invasive species, but there are -- but it does 20 represent what California once was. 21 I do want to say that we believe -- my 22 organization believes that this proposal of 35 percent 23 is not going to do much to move the needle. I fish 24 there, and after high-water years there are fish to be 25 caught. I've seen salmon and I've caught the steelhead

or the resident trout. And when there are low-flow
 years, the fishing is terrible.

I know the fly fishing guides that take people down river that do contribute to some economic activity cannot take people down there because when there's no fish, there's no business.

7 There's been talk about a lot of, you know, generations in the farming community. I also want to 8 9 say my father -- I grew up in San Francisco, and I 10 learned -- I fished on the ocean for salmon and I fished 11 for trout in the Bay. I have an 18-year-old son who has 12 a lifetime fishing and hunting license. He fishes and 13 he duck hunts, and I sure hope that he will be able to have some fish to fish for in the future and that his 14 15 children will also have fish to fish for in the future.

I'm just concerned -- a lot of my work is done on a voluntary basis because I'm really concerned about the future of these resources, the water, the salmon, the fisheries for future generations.

And things have been out of balance for quite a while, and I appreciate you addressing it. And I know it's very difficult, but I just wanted to tell you that definitely when there is more water, there is more fish. Those fish are resilient. They'll come back if given half the chance.

With that, I thank you. 1 CHAIRMAN HOPPIN: Thank you very much. 2 3 Jeanette. MS. OKUGE: My name is Jeanette Okuge. I'm from 4 5 Livingston, Merced County. I have a fifth generation on my ranch. Young people are coming back. My daughter 6 7 even came back. So, I am hoping that we will be able to 8 have a farm when, you know, their kids are older too. 9 I'm president of the Farm Bureau for Merced 10 County. You might see my shirt: "We farm. You Eat." 11 The Future Farmers Of America, one chapter won \$500 from 12 us for coming up with this logo here. 13 And I'd just like to say that, as with all of 14 us, we require four things for our habitat: Food, water 15 shelter and air. And those have to be protected. 16 I also enjoy fishing. I have 200 feet on the 17 Merced River not too far from my 88 acres of almonds. And we do fishing, and I love the wildlife. 18 19 In fact, I even represent environment as the 20 Farm Bureau president of Merced County. I'm 21 representing the environment on the Integrated Regional 22 Water Management, the advisory committee in Merced. 23 And we're working on a grant right now. 24 Hopefully, we'll get it with Proposition 84 money to 25 help educate people about the values we have, you know, 293

1 for our rivers and our land.

So I'm a small farmer on a special place on earth that other people would like to have. My land and water continue to be threatened. The City wanted to move out three miles to take my land for an urban preserve. The irrigation district is forced to pump the water under my land to provide enough water for all their demands.

9 Farmers are forced to put more straws in the 10 ground as surface water becomes more scarce. We all 11 know this is not sustainable. In a short time of 12 playing with nature, we have created a mess.

I don't want to see our Central Valley become another Owens Valley. And I've heard that referred to just recently. I'm reading *The Cadillac Desert*, and it's a very, very good book with a lot of information; and I just don't want us to be another a bowl.

We must protect those four requirements. We need to survive. That's food, water, shelter, and our air. And provide a healthy -- having healthy water and air and food. So we all need to conserve more, use less; something farmers have modeled with their new irrigation methods. We've changed from solid-set sprinklers to drip.

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We also need a government by and for the people

which will act to protect a sustainable life. 1 2 So please dig deep before you take the water 3 from these three rivers for other uses. We farmers in 4 the valley cannot dig anymore. 5 Our groundwater is a very, very serious thing. 6 I'm grateful that you have the Integrated Regional Water 7 Management Plan, because we're putting the waste water, 8 the surface groundwater and we're looking at it all 9 together. Very Important. 10 Thanks. 11 Thank you, Jeanette. CHAIRMAN HOPPIN: 12 Sandra Ketchpel. 13 MS. KETCHPEL: Good afternoon, and thank you for 14 letting me talk. My name is Sandy Ketchpel. I'm a 15 California native. I am an eastern Contra Costa 16 resident, County of Contra Costa. I live on the Delta. 17 I have probably one of the few recreational 18 boating credentials here today because I've heard a lot 19 from other people. But just as a citizen of the State of California, I've been a member of American Watercraft 20 21 Association for ten years, and I am one of the founding 22 members of the Northern California Watercraft 23 Association, and my brother-in-law is a member of the 24 SoCal Watercraft Club. So we're all very concerned, and 25 I'm here representing them today.

I also work at UC Berkeley, which is probably a 1 curse word to many people here. But I'm a graduate of 2 3 that as well -- excellent. Glad to hear it. I've 4 worked for 23 years in the Department of Economics and 5 the Goldman School of Public Policy, including working 6 on a multi-million dollar grant with Professor Michael 7 Hanemann, who was awarded a grant from you guys 8 recently -- now at Arizona. Also, John Jacob and 9 Caitlin Dyckman, one of their Ph.D. students, now a 10 faculty member. 11 I know how complicated these matters can be. Ι 12 know that you're doing a lot of things that are 13 competing for very minimal resources, but there are 14 things that I have learned and picked up when I listen 15 to things. 16 And one of the things I heard today is the 17 antidegredation analysis is not yet available and it 18 will not be available until the comment period is 19 closed, and it will be included with the final report, 20 which I find quite concerning. 21 Also, the model uses similar storage levels to 22 the baseline requirements. The word "similar" concerns 23 me. 24 Three, in the model, three watershed districts 25 are combined. And has been previously mentioned,

1 combinations and averages can skew these results quite a
2 lot, and I would urge you guys to think about looking at
3 it as distinct watershed districts instead of as
4 averaged or combined.

5 Fourth, we're told that there will be 6 significant effects on local wastewater agencies, and, 7 quote, "We're hoping that there can be some flexibility 8 for them." I would really like some analysis that 9 doesn't rely on hope and crossed fingers.

Again, this does not breed confidence that this has been a thorough analysis for the State residents and the voters have all the info before they're allowed to comment on such an overwhelming and historic moment.

Finally, power availabilities is absolutely an issue. California has gone through brownouts and all kinds of things. The idea that hydroelectric power cannot be generated on demand, yet the plan clearly shows that five to eight percent less power in summer months will be available from the hydroelectric process.

I think what we've all said here today in nearly eight hours of commentary is that we're not confident that this draft is ready for prime time in terms of its assessment of the complicated tradeoffs that are required.

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If Governor Brown would like a legacy in water

1 policy like his father did, or does, I would urge him to 2 deliver a policy that is thorough and comprehensive and 3 integrated.

I would urge him to consider things such as a statewide plan on capture, a statewide plan on regional self-support, a statewide plan for storage, transport and required efficiencies, and possible bond measures that also include dams and desalination.

9 The watercraft members are a laid-back group. 10 I'm not sure they're going to enter any commentary in 11 your public record, but I just wanted to say thank you 12 but there are a lot of concerned boaters who come to 13 California from Arizona and Oregon that I've personally 14 met, and this really matters to them greatly as well.

There isn't a lot in Southern California for them to do other than the ocean, and the Delta is an amazing resource. Please don't mess it up.

18 Thank you.

19 CHAIRMAN HOPPIN: Thank you, Sandy.

VICE CHAIR SPIVY-WEBBER: I just wanted to clarify really quickly that there will be an opportunity for the public to comment on the antidegredation analysis and, also, future opportunities to hold comments on the draft water quality control plan. And then assuming we don't recirculate, which is a

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possibility as well on the final document before it's 1 2 adopted by the Board. So there are many additional 3 opportunities for public comments. This is the first in 4 a series. 5 CHAIRMAN HOPPIN: Thank you. Randy Hanvelt. 6 7 MR. HANVELT: Thank you very much, Mr. Chairman, members of the Board. My name is Randy Hanvelt. I'm an 8 9 ag guy. I grow grapes and make it into wine. Most of 10 you like that kind of thing. I'm also a scientist. I'm 11 not a hydrologist but I am a scientist. Physics is my 12 training. I'm a former global executive for a major 13 industrial company, and right now I'm the Chairman of 14 the Board of Supervisors of Tuolumne County. 15 Most of the water you're talking about these 16 days in this meeting, we're your source -- the drip 17 system. And I hear all these comments about we want 18 fish; we want water for aq. And, you know, I want all 19 those things too; but we can't be myopic about this. We 20 need to have a major solution. And we've been talking 21 about the use of water. You need to deal with the 22 source term. The only person I've heard talk about that 23 was my colleague, Ms. Brennan, a member of our board. 24 Our forests are in terrible shape. We've got less water in our rivers, creeks and streams because our 25

forest isn't managed. She's told you about two-thirds
 of the water never hits the ground.

Last year we were in a major drought situation, as you all know. You probably suffered from it too. We had a stupid argument over the lay of level of the water in Pine Crest Lake and whether we could use it for consumptive use or we needed to maintain it for recreation. Now, that's a stupid argument.

9 The State Water Resources Control Board dallied 10 with that equation for a long time until we didn't need 11 it anymore. What saved us was PGE not running a power 12 plant.

We need a comprehensive solution to this problem. And it's not just the source term you're talking about. It's the entire source of Delta water. I mean, you could solve the Delta problem by stopping the shipment of water to Southern California. I don't think anybody is signing up for that. I'm not.

You can't have simple solutions. Nothing is that simple. I'm hearing myopic things here today, broad solutions. This is not ready for prime time. And we urge you to look at the source term, because if we had more water we'd also make this problem a lot easier to solve.

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I would prefer to see everybody have adequate

water. I don't want to see fights, but the years where 1 we have drought are the years where the fights will 2 3 occur because everybody wants it. So let's work on the source term because there 4 5 is a solution. Good science says so. So thank you very much for your time. Thank you 6 7 for what you do, by the way. You sit here all day and take this abuse, including from me. And I look forward 8 9 to the right answers, not just expeditious, convenient 10 answers. 11 Thank you. CHAIRMAN HOPPIN: Thank you for your comments. 12 Mike Maciel. Michael's not here. 13 14 Rhonda Lucas. 15 Wayne Zipser. 16 MR. ZIPSER: Thank you, Mr. Chairman. 17 My name is Wayne Zipser, and I guess with a Z --18 am I apparently the last speaker? 19 CHAIRMAN HOPPIN: You are. 20 MR. WAYNE ZIPSER: Oh, yeah? 21 (Laughter.) 22 Well, thank you. And I do have to catch a bus 23 at 5:00 o'clock, so I'll be brief. 24 CHAIRMAN HOPPIN: I hope the terminal is pretty 25 close. 301

MR. ZIPSER: I might have a ride home with 1 2 somebody. I don't know. 3 Again, my name is Wayne Zipser. I'm the 4 executive director of the Stanislaus County Farm Bureau. 5 I'm also a third-generation farmer from Turlock, 6 California; and I also serve as the co-founder of the 7 East San Joaquin Water Coalition. And as you may know, 8 as the new Long-Term Irrigated Lands Program that's just 9 been launched, we are the very first one. So, lucky me 10 so far. 11 But today I'm here representing 1800 farm 12 families and an additional 2,000 supporting agricultural 13 members in Stanislaus County. 14 Stanislaus County Farm Bureau is a nonprofit 15 grass roots organization that represents farmers and 16 ranchers at all levels of government. For the last 99 17 years, by the way. We're going to be celebrating our 18 hundredth year next year. 19 Our local board is made up of 37 members 20 representing five regions of our county. At the last 21 board meeting at the Stanislaus County Farm Bureau last 22 month, the board passed a resolution to unanimously 23 oppose the proposal SED today on unimpaired flows of the

24 Tuolumne, Stanislaus and San Joaquin rivers.

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I'm not going to get into the facts of what --

Supervisor Chiesa talked about some of the economic impacts. You've heard all those today. I do have those in prepared statements. We are going to include those into formal comments, along with the California Farm Bureau. But I'd just like to bring up just a couple of points.

7 One of the things that kind of bothers me a 8 little bit we've been talking about is lower-value 9 crops. Stanislaus County is a home to about 250 10 different crops, according to our crop report from our 11 ag commissioner. What makes this most unique in 12 Stanislaus County and throughout a lot of the Central 13 Valley where we have available water is our diversity. 14 And that's one thing that is very, very important.

What may be a low-value crop today may not be tomorrow. You know, we can't all grow almonds, grapes and walnuts. And we don't really want to because the diversity is what makes us a world center for agriculture.

20 One of the other things I'd just like to quickly 21 bring up and I mentioned about -- that was talking a 22 little bit about stewardship today. Our farmers and 23 ranchers of Stanislaus County have made amazing strides 24 in improving water quality in surface water when we look 25 at what the coalition and the farmers who have become a 1 part of that coalition.

I'll give you one real quick example, and that is the Dry Creek through Modesto has totally eliminated pesticides from any exceedances that they find anymore. And that's because of the work of the farmers and ranchers.

I can see my three minutes is up, but I also want to close by saying I've lived through what some folks are talking about -- the '87, '92 droughts. I lived through the '77 drought. We only had 12 inches of water that year. We had to beg, borrow and drill wells and find water. And we lost -- our groundwater was immensely depleted in those years.

So I urge you to -- as Michael Frantz mentioned, look at the data that they already have, a hundred years of data at Turlock Irrigation District.

And also I would submit to you -- we invite all of you to come to our community and talk and have workshops there and listen to those folks. And I think it would be a very, very important thing to do.

And we absolutely thank you so much.

And, again, Chairman Hoppin, thank you for all your service, and good luck to you in your farming endeavors.

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CHAIRMAN HOPPIN: Thank you very much.

1	Wayne was our last speaker. Do you want to eat
2	up five minutes or do you want to go home?
3	No comment.
4	We will see you tomorrow morning at 9:00
5	o'clock.
6	(Thereupon the hearing was adjourned, to be
7	continued the following day, Thursday, March 21, 2013,
8	at 9:00 a.m.)
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2	REPORTER'S CERTIFICATE
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4	I, Jacqueline Toliver, a Certified Shorthand
5	Reporter for the State of California, do hereby certify:
6	That I am a disinterested person herein; that
7	the foregoing hearing was reported in shorthand by me, a
8	duly qualified Certified Shorthand Reporter, and
9	thereafter transcribed into typewritten form by means of
10	computer-aided transcription.
11	I further certify that I am not of counsel or
12	attorney for any of the parties to said hearing or in
13	any way interested in the outcome of said hearing.
14	IN WITNESS WHEREOF, I have hereunto set my hand
15	this 8th day of April 2013.
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20	JACQUELINE TOLIVER Certified Shorthand Reporter
21	License No. 4808
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