BEFORE THE
STATE WATER RESOURCES CONTROL BOARD

In the Matter of:
Amendment 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 and on the Adequacy of the Supporting Recirculated Draft Substitute Environmental Document (SED)

PUBLIC HEARING

Stockton Memorial Civic Auditorium
525 N. Center Street
Stockton, CA 95202

Friday, December 16, 2016
9:00 a.m.

Reported by:
Peter Petty
APPEARANCES

Board Members Present:

Felicia Marcus, Chair
Frances Spivy-Weber, Vice Chair
Dorene D'Adamo
Tam M. Doduc
Steven Moore

Staff Present:

Thomas Howard, Executive Director
Will Anderson, Water Resources Control Engineer
Les Grober, Deputy Director of Water Rights
Tina Leahy, Senior Staff Counsel
Erin Mahaney, Senior Staff Counsel
Daniel Worth, Senior Environmental Scientist
Yuri Won, Senior Staff Counsel
Richard Satkowski, Senior Water Resource Control Engineer
Katheryn Landau, Environmental Scientist

Also Present:

Bob Lloyd, Audio Visual Technician

Public Comment:

Lea Castleberry, Office of Contra Costa County Supervisor
Mary Plepho
Cathleen Galgiani, Senator, 5th Senate District
Heath Flora, Assemblyman, 12th Assembly District
Patrick Johnston, former Senator, Delta Stewardship Council
Karl Rodefer, Supervisor, Tuolumne County Board of Supervisors
Steve DeBrum, Mayor, City of Manteca
Randy Hanvelt, Supervisor, Tuolumne County Board of Supervisors
Teresa Kinney, Office of U.S. Congressman Jeff Denham
Cameron Burns, Office of Mayor Michael Tubbs, City of Stockton
Tom Patti, Supervisor, San Joaquin County Board of Supervisors
Christian Burkin, Office of Assemblywoman Susan Eggman
APPEARANCES (Cont.)

Public Comment: (Cont.)

Erica Rodriguez-Langley, Office of Assemblyman Jim Frazier
Debbie Webster, Central Valley Clean Water Association, CVCWA
Tom Grovhoung, Larry Walker & Associates
Tess Dunham, Somach Simmons & Dunn
Robert Granberg, City of Stockton, CVCWA
Steve Bayley, City of Tracy
Katherine Miller, Supervisor, San Joaquin County Board of Supervisors
Tori Verber Salazar, District Attorney, San Joaquin County
Chuck Winn, Supervisor, San Joaquin County Board of Supervisors
Chris Shutes, California Sportfishing Protection Alliance
Peter Drekmeyer, Tuolumne River Trust
Ryan Camero, California Student Sustainability Coalition
Jacklyn Lauchland Shaw, Lodi District Grape Growers Association
James Cox, California Striped Bass Association
John Buckley, Central Sierra Environmental Resource Center
Jeff Shields, Self
Meg Layhee, Self
Brad DeBoer, Self
Michael Frost, Self
Penelope Frost, Self
David Ragland, Self
Peter Rietkerk, South San Joaquin Irrigation District
Steve Knell, Oakdale Irrigation District
Jerry Neuberger, Delta Fly Fishers
Dr. Ronald Forbes, Delta Fly Fishers
Roy Hoggard, Self
Roger Kelly, Self
Dante John Vamellini, Central Delta Waste Agency
Kevin Kauffman, Self
Gary Darpinian, Self
Gary Barton, San Joaquin County Agricultural Advisory Board
Dave Kemper, Self
Jeanne Zolezzi, Stockton East Water District
Scot Moody, Stockton East Water District
Troylene Sayler, South San Joaquin Irrigation District
Cameron Morgan, Self
Karen Harwell, Exploring a Sense of Place
Public Comment: (Cont.)

Allison Boucher, Tuolumne River Conservancy
Ralph Roos, Self
David Hurley, USA Fishing.com
John Armanino, Self
John Mills, Calaveras County Water District
Linda Ormonde, Self
Kelly Topping, Self
Barbara Barrigan-Parrilla, Restore the Delta
Tim Stroshane, Restore the Delta
Bill Jennings, California Sportfishing Protection Alliance (CSPA)
Glenn Gebhardt, City of Lathrop
Chris Gilbert, Self
Gloria Purcell, Self
John Herrick, South Delta Water Agency
Michelle Leinfelder-Miles, UC Cooperative Extension, San Joaquin County
Kathy Bunton, Delta Kayak Adventures
Wendy Benavides
Wayne Reeves, Contra Costa Farm Bureau
Bob Holmes, Self
Cynthia Lau, Central Valley Asian-American Chamber of Commerce
David Streckr, San Joaquin Farm Bureau
Julianne Phillips, San Joaquin Farm Bureau
Mary Elizabeth, Self
David Phippen, South San Joaquin Irrigation District
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DECEMBER 16, 2016

CHAIR MARCUS: Thank you all for joining us under the Big Top. I'm not sure if that lends a festive air or a -- it's interesting and I'm sorry we're so far away. I know it allows all of you to see us, but I actually prefer something a little closer to everyone.

(Brief colloquy aside.)

Good morning. We're here to receive public comments concerning potential changes to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary and the supporting recirculated draft Substitute Environmental Document. Throughout the hearing, we'll refer to these documents as the Plan Amendment, the Plan, and the SED.

I'm Felicia Marcus, Chair of the State Water Resources Control Board. With me today are on my left Vice Chair Fran Spivey-Weber, to her left is Board Member Dorene D'Adamo. To my right, Board Member Tam Doduc, and to her right Board Member Steven Moore. We have other State Water Board staff present in the front and the back of the room to provide assistance as needed.

Forgive me for reading this, but we need to make sure that we say the same thing pretty much at each
of the hearings. As you know, I have a tendency to freelance.

I have a number of general announcements to make, some are procedural announcements and some will provide context to start us off before turning to the staff for a short overview, an abbreviated one.

General announcements, first please look around now and identify the exits closest to you. If you hear an alarm we'll evacuate the room immediately. Please take your valuables and your friends with you. We'll evacuate the room immediately, walk to the nearest exit, and follow facility staff direction to evacuate the building. If you need assistance, please let us know and someone will assist you.

Today's hearing date is being Webcast and recorded. When speaking, please use the microphone and begin by stating your name and affiliation. That really helps the court reporter. A court reporter is present today and will prepare a transcript of this entire proceeding. The transcript will be posted on the State Water Board's Bay-Delta Phase 1 Website as soon as possible. And if you'd like to receive the transcript sooner, please make arrangements with the court reporting service during one of the breaks, or after the hearing day.
As a reminder, today is day two of five days of hearing on the adequacy of the SED. Day one of the hearing was held in Sacramento on Tuesday, November 29th. Day three of the hearing will be held in Merced on Monday, December 19th. Day four of the hearing will be held in Modesto on Tuesday, December 20th. The hearing will conclude with day five of the hearing in Sacramento again on Tuesday, January 3rd, 2017.

Additionally, for planning purposes, please be aware that the hearing days could be long days since we want to hear everyone's comments. We'll take a short break in the morning and a short break in the afternoon or as needed by the court reporter. We're also going to take a lunch break, which may well be less than an hour, but will be at least 30 minutes to give you time to get food. Actually, I'd appreciate at the mid-morning break, if someone who's aware of how close the nearest food locations are, if they could let us know so that we can announce that, so folks who aren't from Stockton can know where to go. And then we can also gauge how long a lunch break we really need to help people be able to actually get nourishment.

We do expect to continue into the early evening or beyond if necessary.

Finally and most important, please take a
moment to turn off or mute your cell phones. Even if you
think it's already off or muted please take a moment to
double check.

I know everyone's eager to get started, but
first I need to provide some background information on
how the hearing will be conducted and information
regarding the Order of Proceeding. Please bear with me
through this opening statement. The statement's being
read at the beginning of each day of the hearing.

This hearing is being held in accordance with
the September 15th, 2016 Notice of Filing and
Recirculation, Notice of Opportunity for Public Comment,
and Notice of Public Hearing on Amendment to the Water
Quality Control Plan for the San Francisco Bay/
Sacramento-San Joaquin Delta Estuary and supporting draft
revised Substitute Environmental Document, and subsequent
revised notices issued on October 7th, 2016, October
18th, 2016 and December 9th, 2016.

This hearing fulfills requirements for receipt
of oral comments as described in the Board's regulations
and state and federal law.

The purpose of this hearing is to provide the
public an opportunity to comment on the Plan Amendment
and on the adequacy of the SED. The Board will not take
formal action on the Plan Amendment and SED at the close
of the hearing on January 3rd, 2017. Rather, Board action will occur at a later noticed Board hearing, during which time the Board may reopen the hearing to allow for comments on any proposed revisions to the Plan Amendment or as required by the Board CEQA regulations. I think that's pretty likely.

The final SED will be released in the summer of 2017 depending on the comments received. And please ensure that your comments today relate to the Plan Amendment and the adequacy of the SED.

Order of Proceeding, the September 15th, 2016 Notice required joint presenters who would like more than three minutes to present their comments to make their request by noon on October 14th, 2016, which was subsequently extended to noon on November 4th, 2016. Based on the requests received, staff prepared a Draft Order of Proceedings, which was sent it to the Bay-Delta Notice email distribution list on November 18th, 2016. Additionally, the Draft Order of Proceedings was posted on the Water Board's Bay-Delta website. A revised Draft Order of Proceedings, dated December 6, 2016, was posted on the Water Board's Bay-Delta website on December 14th, 2016. Accordingly, we will begin with any opening comments that my fellow Board members would like to make.
We will then hear a presentation from staff. Following the staff presentation, we will hear from elected officials, followed by public comment unless any of the elected officials need to leave before the staff does a 20-minute presentation, in which case they should let the staff know. And then we're happy to accommodate them, knowing that their schedule's very busy.

Rather than taking all of the panels though first, as we did during the hearings in 2013, we are alternating panels and a series of public commenters, to enable the individual commenters to begin earlier in the day. We do have about two hours of panel presentations and I just don't like it when the public has to wait until afternoon. So we will be doing the panels in the order suggested, but we will be taking 10 to 15 public commenters in between each panel.

There is no cross-examination.

Per the Hearing Notice, participants are limited to three minutes unless otherwise allowed by the Draft Order of Proceedings, which means I'm going to count the speaker cards and cut the time to two minutes or even one, if necessary, to enable more speakers to speak without going late into the evening, so folks can get home. So it actually is important to get your cards in, in the morning. I know some people will come in, in
the afternoon, because not everyone can be here during
the day. But it is important to get your speaker cards
in, so that we can be fair in terms of the amount of time
folks have.

We've found that really the point of the oral
comments, we listen very intently, believe me if you know
us it makes a difference in how we shape our eventual
regulations. We take it very seriously. The most useful
ing thing is to really hone in on your key points and the
things you really want us to pay attention to, as we look
at the staff proposal and we read your comments, and then
we will give direction to staff. So figure out how to
hit those high points on things we really should pay
attention to and then we do.

If you intend to speak, as I said, submit a
speaker card. You can find one in the back of the room,
actually out in the foyer. As I noted, as we allow, a
number of groups requested to speak as panels at each of
the hearings. They actually vary in number and approach.
We have in many cases shortened the time they requested
to enable us to hear from more of the general public
commenters, particularly in these later hearings, which
more people have signed up for.

For today, the joint participant groups that
requested to speak as a panel with additional time are
the Central Valley Clean Water Association, City of Stockton, City of Tracy and City of Manteca, 20 minutes; the California Support Fishing Protection Alliance and Tuolumne River Trust, 15 minutes -- also that's the morning. Oakdale Irrigation District, 30 minutes; South San Joaquin Irrigation District, 30 minutes; Stockton East Water District, 20 minutes; Restore the Delta, Café Coop and the California Support Fishing Protection Alliance, 20 minutes -- oh I see, different aspects; the South Delta Water Agency, 30 minutes.

I ask that one representative from each group also fill out a speaker card. If you think you'll need less time than was agreed upon, please note your new estimated time on the card, and know you will please the people sitting behind you immensely. Please be ready to present your comments when you are called.

There are several points about the hearing that I'd like to emphasize. First, please keep your comments limited to the purpose of this hearing, which is to comment on the Plan Amendment and the SED.

Second, we are required to respond to the oral comments we receive during this hearing, however staff will not be able to respond to oral comments today. Board staff will actually prepare written responses to comments on the Plan Amendment and all significant
environmental issues raised orally and in writing prior to the Board's taking final action in the next year.

Third, while I or other Board members may ask staff for clarification or information in the Plan Amendment and the SED, responses to your comments will not occur during this hearing. We have had and will continue to have opportunities to speak with people outside the hearing and that is extremely valuable to us, because conversations are intensely important and really help give a back and forth and comprehension. But in the interest of hearing what folks have come here to say, we can't have a conversation with each of you here, as much as we might like to. We must also ensure that our decision is based on the record of the proceeding.

Fourth, because we're required to respond to comments on the Plan Amendment and significant environmental issues raised, please make the essence of your comments clear to us, especially for those making longer presentations and in your written comments. We'd appreciate you making a summary of the points you have about the Plan Amendment and the adequacy of the SED at the beginning or the end of your presentation.

Finally, I realize that after all the presentations are heard, some of you might feel the need to respond to what others have said, understandably. We
can't provide people an opportunity for rebuttal of these comments in this hearing. But if you have additional comments after your turn to speak at the hearing, you may give us that comment in writing by the January 17th, 2017 new deadline, as stated in the Second Revised Notice.

A little bit of context, we are here today to hear input on an SED and staff proposal for updating the Board's Bay-Delta Plan. The staff proposal calls for updated flow requirements for the San Joaquin River and its major tributaries, the Lower San Joaquin, and the updated salinity requirements for the southern Delta.

The Bay-Delta ecosystem is in trouble and has been for some time now. The Lower San Joaquin River and its tributaries are a key part of the Bay-Delta System. South Delta salinity is also a vexing challenge, both for those in the south Delta and for those who rely on exports from the south Delta.

We're also in a separate process to deal with the rest of the system including the Sacramento River and the rest of the Deltas. The Bay-Delta Plan lays out water quality protections to ensure that various water uses including agriculture, municipal use, fisheries, hydropower, recreation and more are protected.

In establishing these objectives, the State Water Board must consider and balance all beneficial uses
of water, not just pick one and discard the others. So please help us do that.

We know that flow is a key factor in the survival of fish like salmon. But the flow objectives for the San Joaquin River have not been updated since 1995. And since that time, salmon and steelhead have declined. We also know that there are other important factors affecting the fishery such as degraded habitat, high water temperatures and predation.

Staff will provide a short overview of their proposal today. In order to provide more time to hear public comment, today's staff presentation is a shorter version of the staff presentation given on day one of the hearing on November 29th in Sacramento. The full staff presentation is available on the Water Board's Bay-Delta Phase 1 Website. At that hearing, the Board asked a lot of questions, because these hearings are the only times that we can speak together as a full Board, because of state open meetings laws. And staff has prepared answers to those questions.

I'm going to ask sort of family hold back a little bit on the conversation in this hearing until the end of the hearing, just so that we can hear again from public commenters who need to get back to their homes and families. If you have a key question that you want to
ask, or something that's posed by a speaker, don't hold back. But I think it's probably more prudent to not have the full conversation we might otherwise want to have and that we actually had a lot of on the 29th and we will need to have a lot more of in this process, just out of respect for folk's time.

I'll also note that staff have proposed a flow range of 30 to 50 percent of unimpaired flow with a 40 percent starting point. This is a proposal to share the rivers, whether times are wet or dry. They conceive it as a block of water that they hope groups will come together to shape and use in the most effective ways possible. There's been a lot of assertions about what it is staff is proposing that aren't exactly accurate, either through misunderstanding or us not explaining it well enough, or other things. And so they will explain that a little bit.

They've also proposed an implementation program that embraces adaptive management and will accommodate stakeholder settlements that can provide even greater benefits to the ecosystem than flow alone, with a tradeoff between those ecosystem benefits and actions and flow.

The proposed 30 to 50 percent range is less than the 60 percent recommended in the Board's 2010 Flow...
Criteria Report, but it still represents a significant increase over current conditions. Some have already argued that the proposed range is too low to improve conditions for fish adequately while others are adamant that it's far too high and that the impacts on our agricultural communities are far too great. Our challenge here is to navigate all of those strong feelings and try to find the best answer that we can.

Unfortunately, there actually is a lot of misinformation about the staff proposal out there whether about its provisions or its intent, that's created far more heat than light so far in these proceedings. I suppose that's inevitable, but I am saddened to see it, because these issues are hard enough to deal with based on the real facts and the real intentions, let alone those that are imagined or manufactured. I see and I hear the pain in the comments we've received already from both sides, much of it based on misunderstandings of what staff is actually proposing.

In the end, as I said though, our job is to establish objectives that provide reasonable protection of the fishery, and to balance that with the other uses really important to Californians, including agriculture and municipal use. And we want to provide an opportunity for people to come together to propose better ways to
meet these objectives by working together to restore habitat, manage the flows, deal with predation, and other things. When people do that well, we actually have a very good record of accepting those good alternatives. And I certainly have done that in all my state, federal and local jobs. And I know my Board is with me on that, so please help us do that.

Critiques absolutely are warranted and they can help, and we are listening. We got a lot of good ones at our November 29th hearing that we take very seriously, but what helps more is to suggest how we can actually improve on the proposal to help meet everyone's needs better and with an economy of water and pain.

Our first hearing in Sacramento was lively, informative and helpful. There was a lot of disagreements, but a lot of very useful suggestions. So thank you for your patience and your attentiveness and for joining us today.

Next, we'll move on to the short staff presentation from the Division of Water Rights staff and Les Grober, our Deputy Director for Water Rights, will lead staff's presentation.

But first let me see, is there any opening statements on the part of the Board? Would you, please, please?
MS. D'ADAMO: Well, good morning. First of all I'd like to welcome my fellow Board members to the San Joaquin Valley and welcome and thank all of you who have taken time to participate in this hearing.

We've heard many say that this process is going to be really hard and that's true. Staff has laid out conditions for the fish, and how the fish conditions have degraded, and given us their recommendations as to how to improve the conditions. But that of course comes at a cost, which they have attempted to analyze in this document.

We're here to get your perspective as to whether this Plan actually accomplishes that goal and to better understand how this Plan impacts our communities. And I say "our communities," because as many of you know I'm part of this community. I live in Turlock where my husband and I have raised our children and my husband farms on the west side. So I have seen in a direct and very personal way how the loss of surface supplies can affect farms, farm workers, ag-related businesses, jobs and communities.

But these rivers provide more than just water supplies for farms. As the Chair noted, they also provide habitat for fish and recreational opportunities for all of us. The question is not whether to protect
these uses, but how best to balance all of the uses and
that includes agriculture, drinking water supplies,
industrial, recreation, and fish and wildlife.

There are lots of tools in the toolbox that can
be used to improve conditions for salmon and flow is an
important tool, but flow is not the only tool. Much work
needs to be done on these rivers to restore habitat,
address invasive species, address invasive weeds, address
predation and contaminants.

Because of the significant impacts that this
proposal will have upon agricultural and drinking water
supplies, groundwater basins and the regional economy, I
would much rather see a Plan that instead of just
focusing on flow includes the use of all the tools in the
toolbox. A Plan that includes a comprehensive suite of
some additional flow and also the non-flow measures in
order to reduce the impact on water supplies and
communities.

Unfortunately, our attorneys are telling us
that we don't have the ability to force some of these
other non-flow measures. However, they're also telling
us -- and it's spelled out in the Plan -- that we have
the ability to consider a proposal from the local
communities that does just that, propose a way to utilize
all the tools in the toolbox. So I'd like to emphasize
this and ask for your help here today. Help us to better understand how this proposal impacts this region. Tell us what our staff got right and where they may have missed the mark. Give us your ideas as to how this proposal can be improved, how we can strike a better balance.

Many of you are involved in a local agency or organization whether an irrigation district, farm bureau, or a local environmental organization and that's been studying these rivers and know firsthand just how the rivers have been degraded. You also know where the predators hang out, where the habitat projects have made a difference, where they haven't made a difference. And you also know what's standing in the way of getting more habitat projects on the ground.

Don't just tell us what you don't like about the proposal, as the Chair has said, tell us about how it can be improved. And maybe just as important, tell us what you can do to help shape a better plan or to support others who are working to come up with a better local plan.

As the Governor said in a letter that he sent to our Board on September 19th, and I'm just quoting this from the Governor's letter, "Voluntary agreements in which water right holders improve stream flows and
restore habitat could offer a faster, less contentious, and more durable outcome." I couldn't agree more. We've seen in other areas of the state that healthy farms and healthy fisheries go hand in hand. And I truly believe with all the creativity and strong leadership in this reason, that this can be accomplished in the San Joaquin Valley as well.

Again thank you all for being here today. I look forward to listening and learning from you all today. And thank you for the opportunity to have some opening statements.

CHAIR MARCUS: Great. Thank you so much. That was wonderful, every day I thank my lucky stars that you're on this Board. Your insight and your approach and your attitude are awesome, so thank you very much.

I have some -- I'm trying to get the order -- we do have quite a few elected officials. What I don't know -- I know a little bit of the timing, but what I don't know is -- I have them in the order they've come in. I don't have them in any priority order, so forgive me in terms of format. We generally like to let the staff give their presentation first, so that everybody can be on the same page. But if there are any elected officials that need to leave and want to go first let me know. I know there are some people who need to leave by
11:00, which I think we will meet fine. But I'll count
on the staff to come up and tell me if there's an issue,
but we do appreciate folks listening to the opening
presentation.

Okay. Great, go ahead Les Grober.

MR. GROBER: Great, thank you.

My name is Les Grober. I'm the Deputy Director
for Water Rights. I'm joined here at this table on my
right is Yuri Won, Staff Counsel. And to my left Tom
Howard, Executive Director; Dan Worth, Senior
Environmental Scientist; and Will Anderson, Water
Resource Control Engineer. I have a brief presentation
as Chair Marcus -- so good morning, Chair Marcus, the
Board, public -- happy to be presenting this brief
presentation to you. As Chair Marcus had said, if you
want to see the fuller presentation it's available on our
website.

So the Project, the Project is the update of
the Water Quality Control Plan for the Sacramento and San
Joaquin River Delta, Bay-Delta Estuary. And it involves
the two elements: update of the San Joaquin River flows
for the reasonable protection of fish and wildlife and
southern Delta salinity for the reasonable protection of
agriculture, and the programs of implementation for those
two. And as you hear I might be, I'm emphasizing
"reasonable," because that's what this is all about. It's not absolute protection, but it's about the reasonable protection, and you'll see in this presentation why that's so terribly important.

So the project area that we're talking about today, for the San Joaquin River flows, this shows a map. On the east side there you see the major salmon-bearing tributaries: the Merced, the Tuolumne and the Stanislaus River. And then north of that, and to the west of Vernalis, you have the area of the southern Delta. That's the area where the southern Delta salinity objectives would apply.

So I want to cover four main points, which Chair Marcus has already covered, but I think it's important to hear it again and in somewhat different ways. Because this Plan that we're updating, what this is all about, the last major update was 21 years ago in 1995. And since that time there's been a lot of new information, there's been changing conditions, changing understanding of information. We've also seen species declining. We've had -- and because of that species decline that was even 10 years ago -- we identified that in the minor update, the 2006 update of the Water Quality Control Plan.

And during that time I'm sure all of you are
aware that it's been a lot in the news, it's a big issue, that the Endangered Species Act and constraints because of them have led to restrictions in water supplies; both in the Delta, but also in terms of operations on the Stanislaus River. So this is intended to get around well what are the conditions to provide more security, stability, knowing what everyone needs to do.

And then finally, it's part of the Administration's California Water Action Plan to implement the co-equal goals of providing a more reliable water supply and also protect and restore ecosystem, which gets at the core of what the Board does is the balancing.

So why are we focusing flow? And as Board Member D'Adamo was saying, we recognize the importance of non-flow measures, which is one of the points on this slide. But the reason for the emphasis on flow is because scientific studies have shown that flow is a major factor in the survival of fish like salmon. It has many direct benefits. Things like improving temperatures, things like providing floodplain, it also therefore affects the risk of disease, predation, and generally the resilience of the species.

But that being said, some of these things, some of the improvements can be achieved with non-flow
measures.

Two slides showing why this is important and why it's specifically important in the San Joaquin River. This chart shows the difference in returns of adult salmon between two time periods: the time before 1992, and after 1992. And as you can see on the right side, the Stanislaus, the Tuolumne and the Merced River, they have had the worst results and the biggest declines in salmon of all of the Central Valley tributaries.

And this next chart shows that correlation between flows and the flows that are experienced by juvenile salmon and the returns of adults two-and-a-half years later. So it's showing on the left side escapement, which is the fancy word for the returns of salmon. And on the right side, the tributary flows that occurred two-and-a-half-years earlier. And as you can see they coincide quite nicely. It just shows when you have big flows you have good returns of salmon.

And, I say this a number of times, but this is the most important slide, because what we're doing is terribly hard, because it's the balancing of what to do with this precious resource, water. When the Board did a pure scientific assessment in 2010 as part of the Delta Reform Act, we did a technical assessment that didn't consider the uses of water. And that assessment found
that if you wanted to protect fish, like salmon, and
protect beneficial uses, you'd have to maintain 60
percent of unimpaired flow in the river; 60 percent of
the total quantity of water in the February through June
period.

The problem is that current uses currently use
80 percent, sometimes even more. Sometimes during that
February through June period flows can be even less than
10 percent of that unimpaired flow. So you have that
tension there between the public interest uses that are
currently happening and the needs for salmon. So unlike
the 2010 report, which was purely a scientific
assessment, what we're doing now in this SED is we
present both the science -- the benefits of providing the
flow -- but also the costs of providing that flow to
agriculture and things like that.

So that's why the proposal is in the form of a
range less than 60 percent. It's a 30 to 50 percent
range with a starting point of 40 percent, which is a big
increase. And it's an adaptive range that allows for a
combination of non-flow measures, changing conditions,
and also encourages voluntary agreements; 60 percent is
what the science says, 30 to 50 percent is less than what
the science says and what fish interests would be
interested in. But, it's more than what ag interests and
other uses of water, so that's why this is so hard and
this is the tough decision that's going to be before the
Board.

And because it's all so hard, this has all been
crafted mindful of putting it together in a way that
encourages and can allow for settlements, which is the
last major point. This is intended to encourage
settlements, so we have an adaptive range, so perhaps we
can get the biggest bang for the buck at the lower end of
the range, the 30 percent of unimpaired flow. If things
like non-flow measures are brought to bear, habitat
restoration or direct control of things like predation
and things that also are affecting salmon's ability to
succeed. Settlements also provide those durable
solutions, so it's not just the regulation but it's
coming from the ground up. And from the ground up and
from this area, which has expertise, understandings of
what can be done.

So although the State Water Board is proposing
these flow objectives, and has this proposal, at the same
time the California Natural Resources Agency is leading
those settlement discussions, so those go hand in hand at
the same time we have the proposal for the regulation.
But the Resources Agency is leading the discussion about
what are those durable solutions that can be crafted, and
not just in the San Joaquin River, but also in the Sacramento River for a comprehensive solution.

So what is the proposal? The current flow objectives are now at just one location on the San Joaquin River, one compliance location of that map I showed earlier. The San Joaquin River at Vernalis has minimum monthly flows and includes a pulse flow period. And since it's only at Vernalis, there's only one responsible water rights holder -- the United States Bureau of Reclamation -- and pretty much all the water just comes from the Stanislaus River. It's less than optimal.

The proposed objective is applying to the three salmon bearing tributaries: the Merced, the Tuolumne, the Stanislaus River. And it has two parts. A narrative objective intended to describe that its intent is to keep fish in good condition, sufficient to support and maintain the natural production of viable native fish populations migrating through the Delta. It has also then a numeric component, that's that 30 to 50 percent range to apply for February through June. It's intended to provide some of the natural variability, but also a budget of water that can be shifted. That's why it has an adaptive implementation component with a starting point of 40 percent.
And just a reminder, unimpaired flow is basically the total quantity of water to be available if it weren't stored or used.

The adaptive implementation component allows for that shaping of water, using the budget of water within February through June. And it also allows some flow shifting to move some of that water to the fall to avoid temperature impacts. And the critical part, this envisions the formation of a group, the Stanislaus, Tuolumne and Merced, or STM, Working Group, which could very well be the implementing entity or be part of what falls out of voluntary agreements to determine what are the biological goals to get at that narrative success of improving fish conditions. And also we do planning, monitoring and reporting, so it's intended to be the full package of how do you implement this thing and do it the smartest with the smallest quantity of water that still achieves the goals.

Now, for the southern Delta salinity component. The current objectives at four locations -- one on the San Joaquin River, three interior Delta -- and they vary seasonally for the irrigation period April through August at a level of 0.7 and September through March at 1.0 millimhos per centimeter. So one is a riverine condition and three in the interior southern Delta.
What is proposed instead, and based on the science that again this kind of speaks to what is the reasonable protection, the science has shown that a year-round objective of 1.0 through all months and years would provide for that reasonable protection of all crops in the southern Delta. And because there's been issues of just measuring salinity or determining compliance with the standard at three point locations, it's also proposed that they be changed to three channel segments rather than specific locations.

And the program implementation would also require the Bureau of Reclamation to do what they have been doing, which is to meet the salinity objective of 0.7, or meet a salinity of 0.7 at Vernalis to provide assimilative capacity in the southern Delta. So basically this proposal wouldn't change the conditions in the southern Delta, but it would be matching rather the objectives that are required to reasonably protect all uses in the southern Delta.

Other requirements are development of an Operations Plan to continue to address any of the impacts of the State Water Project, Central Valley Project, so the Department of Water Resources and the Bureau of Reclamation are doing that. And also studies to characterize the dynamics and interaction of flow levels
and salinity conditions. It's worth noting that as a package these two together, that the increase of flows in that February through June period would improve water quality at a critical period in the southern Delta by providing high-quality water.

So what's the principal effect of the proposal? This chart shows that it would increase under the 30, 40, and 50 percent. This shows on the left side all year types and the other sets of nested bars show that each of those unimpaired flow requirements would increase flows above the current condition. And the grand summary statistic is that on average it would increase in-stream flows by 288,000 acre-feet for that February through June period, but varying by year type. That's a 26 percent increase.

It's not just about the water, but it's about what the water does. And one of the principal measures that we evaluate in this document are the improvements that would occur not just in general by matching the natural hydrology to which species adapted, but also improving temperatures and floodplain inundation.

A very quick snapshot of how that happens, this chart shows just one month and one year of May 1991, and it's showing a cross-section of the Tuolumne River from the dam on the right side at La Grange all the way to the
confluence of the San Joaquin River. And you can see for this one month and one year, temperatures are improved at the mouth by almost ten degrees. That's a big improvement and it means you have more of the time that you're meeting temperature criteria that are needed to protect various life stages of salmon.

A chart that just shows what can be achieved in terms of floodplain inundation. This is showing again just for the April through June period and just for critically dry years, dry years, below normal years. And it shows the very large increase in floodplain inundation that provides areas for fish to grow and succeed and then have greater resilience. So in below normal years you're going from practically nothing to 30,000 acre days. And with somewhat lesser improvements, but still significant improvements during some of the worst years and dry years and critical years.

But this improvement comes at a cost, which is again what this is all about. It's those tradeoffs between what you can achieve and what it costs. This shows the water supply impacts of the 40 percent unimpaired flow proposal within the entire Plan area. And for all year types it would result in an overall 14 percent reduction in water supply in the area. And showing it also by year type, most of that would occur in
dry and critically dry years.

And quickly here, just showing the same thing, because we've looked at it by each of the watersheds. This is the Stanislaus River, which might be our greatest interest here in terms of the districts and the areas that it would affect. And it shows the same pattern. And again, for the Tuolumne and for the Merced.

So the full wrap on the impacts is that implementing the 40 percent flow proposal could result in that 14 percent reduction in overall water supply of about 293,000 acre-feet per year on average, but bigger and drier years, smaller and wetter years. It would vary though however from 7 percent to 23 percent reduction within that 30 to 50 percent adaptive range. The analysis looks at the effects on groundwater pumping, because the assumption is based on observation of the recent record is that some of this water supply would be replaced by additional groundwater pumping. So based on 2009 rates of groundwater pumping groundwater would increase by about 105,000 acre-feet per year. That still leaves an unmet agricultural water demand, which is one of the principal effects, of 137,000-acre-feet per year based on that 2009 level of pumping.

The Board and staff is mindful of the issues surrounding groundwater in this area, many other areas,
and the Sustainable Groundwater Management Act. So we also looked at it, looking at different rates of groundwater pumping, though you could reduce the water supply effects by assuming higher rates of groundwater pumping. That would have greater impacts on groundwater. And all of that kind of information is discussed, that's all parts of the tradeoff and assessment that is in the staff report for this proposal.

The bottom line effect of this then, if you're reducing this water availability is that there would be a reduction in the economic output of $64 million per year, which is about a 2.5 percent reduction from the baseline economic output for the area. And again, varying by years depending on more in critically dry years and less in wetter years.

So all of this information stemming from those water supply effects has -- the principal effects are that as it affects groundwater resources, could result in increases of groundwater pumping and reduce recharge, lowering groundwater levels. It affects agriculture, changing cropping patterns, reducing the amount of irrigated acreage and thereby reducing ag revenue. And it can also affect drinking water supplies and the need to construct new wells or deepen existing wells, because of the effects on groundwater and could also have effect
on groundwater quality. And that is all summarized in
the various chapters of the document.

So the next step, some of it is the past steps. As has been mentioned, we had the one day of hearing back
in November. And we have three additional days of
hearing shown on the slide coming up, with the last day
back in Sacramento.

At this point the comments are due, the written
comments are due, on the SED by January 17th, 2017. And
we anticipate a final SED and a Plan release in May and
then for Board consideration later in the summer.

And this slide shows the venues for the
upcoming hearings as well as at the bottom that website.
That's where you can find expanded, the recordings of the
hearing from the 29th, and also technical workshops that
we've held. There's a lot of information there. If you
haven't had the opportunity to view it, you can go there
and see many hours of additional information as well as
find the PowerPoint presentations that will provide more
useful information.

And with that, I'll turn it over to Chair
Marcus.

CHAIR MARCUS: Thank you, Les. And thank you
for condensing what was a much longer PowerPoint. Those
are good choices, appreciate it.
Are there any questions or comments before we move ahead? All right.

We're now going to take comment from elected officials. And we've noted we have at least one in the audience who hasn't filled out a card, so if you can just have you or your staff fill out a blue card and give it to staff we'll be able to call on you in this segment.

And I'll mention in batches of three, just so folks can get prepared. And I'm taking the people first who had contacted us in advance. Yeah?

MS. SPIVY-WEBER: And they speak right there?

CHAIR MARCUS: And they speak right there, thank you for that.

And we just have a few of those folks who have to leave. First, we have Lea Castleberry, on behalf of Contra Costa County Supervisor Mary Piepho, followed by Senator Cathleen Galgiani followed by Assemblyman Heath Flora followed by former Senator Patrick Johnston, also a member of the Delta Stewardship Council.

MS. CASTLEBERRY: Good morning, Chair Marcus and members of the Board. My name is Lea Castleberry and these comments are on behalf of Contra Costa County Supervisor Mary Piepho.

A healthy, vibrant Sacramento-San Joaquin Delta Estuary is closely tied to the physical, societal and
economic health of those who live, work and recreate in the San Francisco Bay-Delta region and throughout much of the state. The eastern portion of Contra Costa County, my district, is located within the Delta. And the County's entire northern border is bounded by waterfront that flows from the Delta to the Bay. Thus, Contra Costa County lies at the center of the Bay-Delta region. And the future of this nationally significant resource substantially influences the future of the County.

Restoring the health of the Delta protects the Bay, which is linked to the long-term success of the County and the region. Increased flows are critical to restoring the health of the Bay-Delta Estuary. As part of the Sacramento-San Joaquin Delta, we understand better than many others the Delta is in serious decline and so we support restoration of flow into, through and from the Delta into San Francisco Bay to the higher levels that the best available science demonstrates is necessary to conserve salmon and other native fish and wildlife.

The Board has the opportunity to set water quality standards that could represent the most comprehensive and ambitious set of protections for the Bay-Delta Estuary we've seen. Adopting tough standards in Phase 1 is the best action that can be taken to protect and restore the Estuary and will set the stage
for the future WQCP phases and set a realistic baseline
for approval of future Delta and Central Valley water
supply projects.

The Supervisor encourages the Board to do the
right thing. What is the right thing? There is no basis
in science to think that 40 percent of unimpaired flow
will be enough to restore salmon or protect the
environment of the San Joaquin River system and the
Delta. And the Board's 40 percent unimpaired flow
proposal is actually less than 40 percent. The Board is
considering using far less than half of the river flows.
According to the scientific consensus reflected in
findings of the California Department of Fish and
Wildlife and the SWRCB's 2010 Delta Flow Criteria Report,
the best available science presented to the Board in
recent years indicates that 50 to 60 percent of
unimpaired flows are necessary to restore these rivers
and their salmon populations.

If the Board doesn't follow the best available
science for the San Joaquin system then what can we
expect when it tackles the need for Sacramento River
inflow, Delta export controls, and flows to the San
Francisco Bay in Phase 2? In some respects the Board's
revised proposal is even worse than its original proposal
from 2012. Flows can be decreased as low as 30 percent
in any given year and some of the water stored for use
and -- in use later in the year or subsequent years.

The Board needs to set a starting requirement
at 50 percent or more to reverse the decline of salmon
and ecosystem conditions. And then raise or lower the
requirement depending on how salmon and the ecosystem
respond over a multi-year period using clear and
enforceable metrics.

I thank you Board, Chair Marcus and Board
members, for my remarks today.

CHAIR MARCUS: Thank you for joining us today.

And also I have a question for staff. On the
three-minute timer I can see it, but it didn't go off.
Can they see a timer? Is there a timer that the speakers
can see?

MR. LLOYD: Well, Madam Chair, they see a
lighted system that's right here in front of them.

CHAIR MARCUS: Oh, red light, green light,
yellow light?

MR. LLOYD: Yeah, and there's a small beep at
the end of the thing. You may not have heard it up
there.

CHAIR MARCUS: Okay. Thank you, great. And
then whoever's handling the visual that we see, it would
be nice to have it turned on. I'm speaking to whoever
has the power of the timer, or if I should just ignore it
and try and look at the red light/green light.

MR. LLOYD: At the (indiscernible)

CHAIR MARCUS: Yeah, it's right there. It just
didn't move, that's all.

MR. LLOYD: Oh, we'll have that done.

CHAIR MARCUS: All right, I'm just concerned.

I just want to make sure, given there are so many people
here I don't -- sometimes I get engrossed and I don't
notice.

All right, next we have Senator Galgiani
followed by Assemblyman Flora followed by former Senator
Johnston.

There you are, I saw you.

SENATOR GALGIANI: Thank you, Madam Chairwoman
and Board members. I have serious reservations regarding
the Bay-Delta SED released in September. My first
concern was with the public comment process for a
proposal with such serious impacts to the area involved.
Although I appreciate the 60-day extension to the
original 60-day comment period, I don't believe it's
adequate for the affected parties to thoroughly review
and respond to a complex 4,000-page report compiled over
4 years, suggesting a significant reallocation of water
from the three rivers that will have dire impacts on the
Studies and estimates by local economists and water and ag agencies clearly suggest that the assumptions in the SED in regard to the impacts on the local economy, groundwater, drinking water, and ag production are greatly underestimated. Most experts indicate that the potential for increase in the salmon population may be very minimal and is very speculative.

The SED acknowledges that the region would have to make up the loss of surface water by increased pumping of groundwater. This directly contradicts the goals of the Sustainable Groundwater Management Act process by reducing irrigation water, which is the largest recharge factor in this area, which already has some significant overdraft issues.

The SED suggests no form of mitigation for these economic and groundwater impacts, but merely states that the impact will be significant but unavoidable. This is less than acceptable response to these three counties, which have not yet recovered from the economic downturn. They've been the most impacted areas in the country by the mortgage crisis and have been weathering a historic drought for years. I've proposed for years that California needs a comprehensive and consistent approach to water planning, taking into account all projects in
development and all proposed projects, large and small.

A Plan that does not take into account 165 years of alterations to the Delta and the rivers that feed it, as well as the introduction of invasive species and subsequent predation seems unlikely to succeed on its own without the expertise and assistance of our local water agencies. Even this Board recognized in 1995, that the health of the salmon rests on more than just increased flows allowing that actions on predation, hatcheries, ocean harvest and habitat are required.

A report released last year by four Delta lead scientists on the challenges and recommendations for managing the Delta stated, "If the problem were just about allocating fresh flows it might be solvable. Add in the complexity of moving water through a hydro-dynamically complex Delta it becomes complicated."

I respectfully request that the Board concentrate its efforts in this direction. This kind of cooperation and comprehensive program with all parties working together would be a much more productive way to move toward the Board goals. Thank you.

CHAIR MARCUS: Thank you very much. And thank you for joining us.

Assemblyman Flora who has the best name of any elected official. Senator Johnston followed by
Supervisor Karl Rodefer from Tuolumne County.

ASSEMBLYMAN FLORA: Good morning, Chair --

CHAIR MARCUS: Good morning.

ASSEMBLYMAN FLORA: -- and members of the Board, and I appreciate the kind words on the last name. I've heard a lot of things on the campaign and that wasn't one of them, so that's great to hear.

All right, well I'm here today and to express my opposition to the proposed flow requirements on the Board's Plan. The proposed Plan would have a devastating effect on our region's economic and local economy and it fails to balance the state water's policies and objectives. It is well known that in the 12th District, in my district, and the Central Valley, our economic success is heavily reliant on agriculture and in turn, water. The Don Pedro Reservoir itself, in the 12th District alone, has a $4.1 billion economic output, a $730 million wage income, and represents 18,900 jobs within the region.

Our District, and the state, has endured three years of a critical drought that has damaged the economic wellbeing of our counties and others that will be impacted by this proposal. San Joaquin County alone has suffered a half-a-billion dollars in losses in farmland production last year and Stanislaus County faces losses
on the same magnitude.

The estimates on the amount of farmland we've fallen reached 240,000 acres, the equivalent to 800 California farms. Furthermore, San Francisco's PUC General Manager, Harlan Kelly, Jr., estimates that the Bay Area can see a decrease in sales transactions between $37 and $49 billion and roughly 180,000 jobs could potentially be lost if this SED were to be approved.

The impacts of this Plan are far-reaching and potentially devastating for California and the Central Valley’s economy. This proposal only further strains the delicate and complicated relationship between California agriculture, our environmental interests, and our municipalities of our limited water supply. The proposal only focuses on instream flows and ignores the other possible approaches that benefit environmental species.

A balance, not a heavy-handed approach, is needed to fulfill the Board and California's water and goals. Simply reallocating thousands of acre-feet of water for environmental goals with little regard to the water users in the Central Valley is truly unacceptable.

So I implore and encourage the Board to continue to work with our local irrigation districts, our local elected officials, that we together can find a solution for this massive problem that we face in the State of California.
I greatly appreciate your time and I look forward to working with you. And my staff and myself are at your service whenever you need us. Thank you.

CHAIR MARCUS: Thank you very much. We'll take you up on that, thank you very much.

Senator Johnston followed by Supervisor Rodefer followed by Mayor Steve DeBrum, I think I read that right, get me if I'm -- I think so -- from Manteca.

MR. JOHNSTON: Good morning.

CHAIR MARCUS: Good morning.

MR. JOHNSTON: My name's Patrick Johnston. I'm a member of the Delta Stewardship Council and a resident of Stockton. Thanks for coming to Stockton and thanks for developing flow standards for the San Joaquin Watershed.

The 2009 Delta Reform Act, the basic law of the state, requires the Delta Stewardship Council to adopt a Delta Plan in order to guide achievement of the state's co-equal goals, which were referred to in the briefing, of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem achieved in a manner that protects and enhances the unique cultural, recreational, natural resource and agricultural values of the Delta as an evolving place.

That's the law.
The Delta Plan that we, the Stewardship Council, adopted in 2013 says in part, "Development, implementation and enforcement of new and updated flow objectives for the Delta and high-priority tributaries are key to the achievement of the co-equal goals." The Delta Plan names among others the Merced River, the Stanislaus River, the Tuolumne River and the Lower San Joaquin River.

The goal of your standard setting is to achieve a more natural functional flow. That does not mean reverting to the river's historical flow, but it does mean linking the biology of fish to flows, particularly between February and June. And those flows must be higher than they have been.

The best advice today will be from those here who can help you shape and sculpt protocols that balance the competing demands for water with the need to improve the fisheries. Advice that is less helpful includes those who claim more water is not necessary to save fish; or those who say more water is needed, but somebody else should give it up. It just isn't credible to say save the Delta, but don't reduce diversions in the San Joaquin Watershed.

Thank you very much.

CHAIR MARCUS: Thank you very much for joining
us and thank you for your years of leadership on these
issues, we really appreciate it.

Supervisor Rodefer, nice to see you.

SUPERVISOR RODEFER: Nice to see you.

CHAIR MARCUS: Mayor DeBrum, tell me if I got
that wrong, followed by Supervisor Randy Hanvelt, also
from Tuolumne County, great.

Hi.

SUPERVISOR RODEFER: Chair Marcus, it's good to
see you again. Thank you very much for the time. Thank
you for having this hearing.

I do represent Tuolumne County, 55,000 people,
but more to the point I represent the well over 10
million people that visit Tuolumne County every year,
from all over the State of California and all over the
world, 9.5 million go through the town of Oakdale alone
headed up 108-120 for our fair county. Eighty percent of
those people, by research, come for water recreation.
And I think that one of the big pieces that is missing --
and thank you Board Member D'Adamo for mentioning
recreation -- one of the big pieces that's missing is the
recreational economy piece in most of the analysis.

I would also say that in our county we don't
have the benefit of having a groundwater basin that we
can fall back on. So the water from the Stanislaus River
and the Tuolumne River are our pretty much sole source of
water in the County. And we do get water from both. In
my district alone there are two state parks and most
importantly, we have a CAL FIRE Air Attack Base and with
the increased frequency and intensity of forest fires
that is a really key public safety asset and we supply
the water for that asset. And they fight fires, not just
in our county but in neighboring counties, and the Valley
as well.

I think what I would ask is that -- and I was
just down in ACWA and had the benefit of listening to
gubernatorial candidate Antonio Villaraigosa speak. And
he said something very profound that I haven't heard very
much of and that is that we need to put the human and
human uses of water back into the ecological equation.
And I fully support that.

I think we need a balanced approach that
addresses all the multiple beneficial uses of water. And
I, quite frankly, don't see that in the Plan. I think
that flow for flow's sake, as we saw in the past two
years where we flush water out of Melones in particular
for the fish, and it was too warm and it had the reverse
effect that was desired, just doesn't make sense. I
think we need to look at all the other possible solutions
that will help our fish. We certainly need all of our
species, but I think that just flow is not the answer.

So I want to thank you again for the time. And
I don't envy you, your task.

CHAIR MARCUS: Thank you very much, always
really helpful.

Mayor DeBrum, and you can tell me how to
pronounce that -- my apologies to everybody, all day, if
I don't get your name right -- followed by Supervisor
Hanvelt followed by Teresa Kinney, on behalf of
Congressman Jeff Denham.

MAYOR DEBRUM: A job well done, Madam Chairman.

CHAIR MARCUS: Oh, thank goodness, one thing.

MAYOR DEBRUM: Very good. Chairman Marcus and
honorable members of the State Water Resource Control
Board, my name is Steve DeBrum, Mayor for the City of
Manteca.

The San Joaquin Valley is one of the richest
and most productive areas in the world. The primary
reason the Valley is so productive is its well-developed
water supply. When you mention water, it is a simple
five letter, two syllable word, which has vast meanings
including river water, groundwater, surface water,
potable water and stormwater, just to name a few. Yet it
covers more than 70 percent of the earth's surface. But
today I'm here to speak on the importance of its
existence and the citizens of Manteca and the surrounding communities.

Fully developing water resources has taken many years of combined effort of federal, state and local governments along with investment from the agricultural industry. In 1997, the City of Manteca started down a road to ensure there would adequate water supply for our community to grow and thrive. The Plan called for a developed balanced water supply utilizing sustainable groundwater and surface water.

In 2003, the city joined with South San Joaquin Irrigation District and the cities of Tracy, Escalon and Lathrop to construct the South San Joaquin Water Supply Project. The city alone invested over $43 million in the project. The city is relying on water from the project, which is to provide half of their current water supply and the project will also provide sufficient water to support the next 25 years of growth, which is estimated to exceed 125,000 residents. That is assuming the state does not take water to which historic senior rights exist.

If the state continues in their assault on local water supplies the city will lose a significant part of their baseline water supply placing undue hardships on not only our community, but those cities
which endure a collaborative partnership with SSJID. In 2014, the state passed the Sustainable Groundwater Management Act. The city supports the state efforts to protect our valuable water supply. Groundwater provides about half the city's water supply and in order of the city to be sustainable, we must utilize both safe surface water and groundwater. In our opinion, taking more under the guise of helping fish while increasing divergence from around the Delta will create a perpetual drought in the San Joaquin Valley.

The citizens of the San Joaquin Valley, County of Manteca, deserve to have their legally-obtained water supply and diverting water from the Central Valley to supply Southern California will have an irrevocable and negative impact on the region. We urge the state to reject this SED and work together with a more balanced approach that will protect and respect the rights of property owners, of the citizens, and the industry of San Joaquin Valley.

Thank you very much.

CHAIR MARCUS: Thank you very much.

Supervisor Hanvelt, nice to see you, followed by Teresa Kinney followed by Cameron Burns, on behalf of Mayor Michael Tubbs, City of Stockton.

Hi.
SUPERVISOR HANVELT: Good morning, Randy Hanvelt, Supervisor Tuolumne County, and thank you very much for this meeting today and the opportunity to speak. I come from Tuolumne County. We are the headwaters of both the Tuolumne and the Stanislaus.

And I would seek that you would look at a more balanced approach, if you will, and look at the economic and social impacts of what you're doing as well as the ecosystem impacts of the upper watershed. Supervisor Rodefer already mentioned some of the issues here. Our economy is largely based on ag, natural resources and tourism -- big impacts. And tourism, he gave you some numbers. But let me tell you a little about the water system. We are virtually, totally dependent on surface water. We don't have a groundwater basin. We have fractured rock and that's proven to be very unreliable, both quality and quantity.

We are currently under a state of emergency and have been for several years now, because our groundwater wells are failing. And we have over 300 families dependent on us providing water deliveries to them right now. And there's no hope in the near term of that recovery. We're seeing a few wells continue to fail in spite of the increased precipitation, but we're not seeing recovery. And that's a problem and that will
continue for some time. We make it up with surface
water. I mean, that's clearly an issue.

Recreation is a big part of our economy and as
Supervisor Rodefer said, most of the people come there
for water-based recreation. We are the playground for
the Central Valley, and I might add, the Bay Area,
because of all those people and a lot of people from the
world. Now, he mentioned nine-and-a-half million people
come up, five million people visited Yosemite this year,
a little more, but they don't come through Tuolumne
County. A portion of them do, but a small fraction. And
many of those people that come through Yosemite Valley
from the other sources, come back to Tuolumne County and
come here for recreation. So it's a big issue.

Our ag people need water as well, and it's an
important part of our economy. So I close that you look
at a balanced approach, again put the human factor back
in, and look at the upper watershed ecosystems and the
impacts. When you push on a balloon you know it gives
everywhere else. And when you draw off excessive amounts
it hurts the rest of the system. So we ask for a fair
and balanced approach.

Thank you very much, we will submit written
comments.

CHAIR MARCUS: Great, thank you very much.
Ms. Kinney followed by Mr. Burns followed by Tom Patti, Supervisor San Joaquin County.

MS. KINNEY: Good morning. I'm Teresa, staff for United States House of Representative Jeff Denham, who represents Stanislaus County and four cities in San Joaquin. Unfortunately, Mr. Denham was unable to attend today due to a previous commitment. On behalf, I will read the statement into record.

"Good morning members of the State Board, staff, and the public. On September 16th I, along with several of my colleagues in the House of Representatives, submitted a letter to the State Board expressing our concerns with the Draft Substitute Environmental Document for Phase 1 of the Bay-Delta Water Quality Control Plan.

"I'm happy the Board is holding the public hearing today in San Joaquin County and in Stanislaus and Merced counties. The overwhelming economic loss over the horizon with your proposed plan will devastate the areas you will be visiting over the next few days and I implore you to listen to those impacted. Read the data and research and find a reasonable balance for our economy and environment.

"Any plan needs to be scientifically justified with the ability to alter government mandates as more data and information is learned, understood and as
environmental conditions change and warrant. A one-size fits all approach, as is proposed in the Draft Plan, fails the people of this region. The Draft SED's data is woefully inadequate and has no correlation for the assumed environmental benefits. In short, the heavy hand of government threatens to destroy our way of life in the Valley and frankly is unacceptable.

"What is needed is a collaborative, driven approach by locals who understand the unique needs of each watershed and can react the fastest to changing conditions. Numerous times I have stated my position that any water releases ordered meet critical human needs first, and the benefits of additional water releases above current operating standards be justified with scientific and ecological benefits defined prior to any change.

"Instead of increasing unimpaired flow for no proven scientific benefit, why not address predation? Striped bass, a known non-native predator fish, needs to be an area focus before more water is released downstream. In fact, local, state and federal agency studies have shown upwards of 95 percent mortality on listed species. To ignore and take no action on this matter prior to implementing any flow regime changes demonstrates no balance and shows a complete bias by the
State Board.

"I ask you to request your sister agency at the California Fish and Wildlife Service to stop holding scientific research permits hostage and allow scientific studies to happen immediately, so research can occur.

I'm not a scientist, but it's baffling to me Cal Fish and Wildlife continues to deny research. Could it be a predator fish as serious impact, the initial studies have shown; are predators not a threat? I don't have the answers, but the politically motivated actions by Cal Fish and Wildlife continue to deny the basic science to do all we can to improve the balance between our rivers and economy.

"Lastly, the current draft proposal is unsustainable. It will destroy our economy and way of life. It needs to be placed on hold, reworked, and any new proposal must include scientific public input including making all scientific information and data available for public review prior to a final decision.

Thank you very much."

CHAIR MARCUS: Thank you very much.

Mr. Burns followed by Mr. Patti followed by Christian Burkin, on behalf of Assembly Member Susan Eggman.

MR. BURNS: Hello, my name is Cameron Burns.
I'm here on behalf of Michael Tubbs, Mayor Elect of Stockton. He regrets he could not be here in person to deliver the following statement.

"Good morning Chair Marcus and members of the State Water Resources Control Board. Thank you for giving my office the opportunity to make comments to the Board regarding the revised draft environmental documents for Phase 1 of the Bay-Delta Water Quality Plan Update.

"Stockton, California has experienced numerous economic challenges including the recent bankruptcy that has had a direct impact on our residents. Median incomes are 74 percent of the national average and a significant percentage of our population is part of the legally defined environmental justice community. Stockton, in fact, has the largest environmental justice community in California as percentage of the population.

"A weakening of the South Delta salinity standards will have a negative impact on agriculture, which is Stockton's primary economy. I understand that even small changes in salinity can have a negative impact on Delta crop production. We're not an economy that can presently tolerate reductions in our primary economy, which is again agriculture. Plus good water quality is essential to attracting new businesses and economic development that could lift a sizable portion of Stockton
residents out of poverty.

"In addition, the weakening of salinity standards would have a negative effect on our ability to use our recently completed Delta Water Supply Project. And would force us to use lower quality groundwater, reversing the many years of planning and investment in surface water supply that has been shown to improve overall Delta water quality.

"Water losses and degraded water quality will put additional economic stress on Stockton and hamper our recovery. Our city panel will be addressing how the proposed imposition of stricter salinity standards at wastewater treatment plants will make discharge from our municipal wastewater treatment facility more difficult and more expensive for our ratepayers. This could all lead to increased treatment costs that about one-third of our residents simply cannot afford.

"Last, you are seeking in this document for water sacrifices to be made by a combination of Delta interests and agricultural interests on the east side of San Joaquin County. This is a no-win answer for economic development of the Stockton municipal region. Why are we expected to make this sacrifice when the draft SED for the San Joaquin River is silent on water exports? If water exports were reduced to levels that are sustainable
for the Delta and San Joaquin River there would be
appropriate flows for all parties in Stockton and San
Joaquin County."

Thank you so much.

CHAIR MARCUS: Thank you.

Mr. Patti followed by Mr. Burkin.

SUPERVISOR PATTI: Good morning to all and
welcome to San Joaquin. I am Tom Patti, Supervisor Elect
in San Joaquin County District 3. My district covers the
interior of the Delta from the Stockton Deepwater Channel
west to our most precious farmlands. I represent some of
the most bountiful agricultural land in the world and
some of the poorest people in California, all within my
district.

I will state clearly as a matter of fact, the
weakening of south Delta salinity standards will have a
negative impact on agriculture, which is my district's
primary economy and 30 percent of our regional GDP.
Reductions in agricultural output resulting from salty
irrigation water will ripple through our already stressed
economy inflicting negative impacts on growers, farmers,
workers and our food supply.

For over 45 years I've grown up on the Delta.
Myself and many enjoy boating, fishing and recreation.
Our Delta is currently under stress with toxicity,
invasive weeds and increased salinity levels that contribute to the proliferation of toxic algal bloom that has occurred in recent years in the south Delta. In my 45 years of exposure and recreation on the Delta it is in peril. The Delta, the health of the Delta, is in complete demise.

Have you considered the public health impacts for those who swim, fish and boat, and recreate on the Delta, which as noted economically recreation alone is a $750 million annual boost to our economy? If our water is deemed unsafe who is going to pay for the revenues lost to our marinas, residents and other local businesses? The Delta has been deprived of the freshwater flows that it needs to serve San Joaquin County as a result of being over-pumped for 30 years, which by the way brings up a question -- why is the draft SED silent on water exports to the South San Joaquin Valley? Curious, and this is truly most curious to me, is that all planning discussion are about what is being taken away from the Delta. But there is zero discussion about how a plan will improve the Delta with a greater supply of clean water. Where are the new water reservoirs? Where is the Plan for growth and sustainability, not the current plan of complete decimation?

As you will hear today, we in this region are
not idle. We are active, engaged and determined not to be the sacrificial lamb of California. A true water fix would increase supply and flow into the Delta, not bypass our sustainable needs.

I do thank you for your time.

CHAIR MARCUS: Thank you very much for your time. And congratulations on your election.

SUPERVISOR PATTI: Thank you.

CHAIR MARCUS: Next, Mr. Burkin, on behalf of Assemblymember Eggman. Hi, there you are.

MR. BURKIN: Good morning Madam Chair, members of the Board. My name is Christian Burkin, I live in Stockton. I am the spokesman for Assemblymember Susan Talamantes Eggman, who represents the Delta communities of Stockton, Tracy, Mountain House, Thornton and much of unincorporated western San Joaquin County. Thank you for coming here to speak to, and to hear from, our residents. I'm going to read a brief statement from Assemblymember Eggman.

"As a representative of the Sacramento-San Joaquin Delta I take very seriously the quality and quantity of fresh water flowing through it. We in the Delta depend on its waters for our daily lives, as does our most productive economic sector, agriculture, and our natural environment and the species it sustains. Any
good faith effort to improve conditions in a way that balances those needs is welcome and deserves our support. This includes increasing the amount of fresh water flowing through our waterways, vital to sustaining fisheries and maintaining water quality for both residential and agricultural users. However, we know too well that there is not a better way to exploit the Delta, bypass its statutory and regulatory protections, and supersede our senior water rights than to do so under the guise of fixing it.

"It is unfortunate that such an enormously complicated plan to manage the Delta is released precisely at the time of year when local agencies and the public are least able to adequately respond. Even a state legislative office is hard pressed to read and evaluate a 4,000-page Substitute Environmental Document within the extended period. That people have already managed to mount substantive concerns about this Plan should be cause not only for concern, but for the Board to consider a more collaborative approach from now on.

"No plan to protect the Delta can succeed without taking into account actions taken well outside of the region, rising statewide demand for surface water exports, increasing acreage devoted to permanent crops in arid export-dependent regions, drought and climate change
for example. In other words, we need more fresh water
flowing through the Delta, but less being pumped from it.

"Likewise, it must consistent with the co-equal
goals under the Delta Reform Act, give proper weight to
the potential economic impacts. This is one of the
poorest regions of the state and Stockton is by some
measures the most economically distressed major city in
California. The potential consequences of a substantial
reduction in agricultural production both on the economy,
and on long-term food security, must be given appropriate
consideration. And, it must be said at this moment while
we deliberate over how exactly to save Delta fish,
Congress has passed and the President is considering
legislation that will undermine all of our efforts.
Legislation backed by exactly those interests who have
also supported other plans over the years to save the
Delta; legislation that a veto may only delay given the
stated intentions of this congressional majority in the
incoming Administration. Thank you."

CHAIR MARCUS: Thank you very much.

That concludes our elected officials to date.

I want to turn to the court reporter. Ordinarily I would
take our 10 or 15-minute break now. Our first panel
needs to be out by 11:00. Can you go 20 or 30 minutes?

That'd be great.
So we'll move to Panel One and then we'll take a break. And as a result we'll take a lunch on the late side, but staff has come up with a list of places that will show up on the screen -- I may add to it -- and we will move along. That was very helpful, thank you.

So if you don't mind setting the timer for 20 minutes and again, of course, any economy. It is helpful to have it focused, but any economy of time you can do on such a large panel is going to be important.

MR. SATKOWSKI: Excuse me, so somebody just came in, somebody on behalf of Assemblyman Jim Frazier just showed up. So let me know what you want to do.

CHAIR MARCUS: All right. No, I'll take it.

Hi, before you all start we have one more representative of an elected official. So if Erica Rodriguez-Langley would like to come up and speak on behalf of Assemblymember Frazier that would be good.

Hi.

MS. RODRIGUEZ-LANLGELEY: Good morning.

CHAIR MARCUS: Good morning.

MS. RODRIGUEZ-LANLGELEY: Hello, I'm Erica Rodriguez-Langley. I'm the Deputy District Director for State Assembly Member Jim Frazier. Assemblymember Frazier represents what is known in the California State Assembly as the Delta District. With 70 percent of the...
Delta in his district he represents the southern Sacramento communities and the legacy communities of Locke and Walnut Grove. He represents Solano County, including the Suisun Marsh, and eastern Contra Costa, including the communities of Antioch, Brentwood and Discovery Bay.

Today, I am reading into the record excerpts from his letter on November 1st written to Chair Marcus and the California Board regarding the Change Petition. And so --

MS. DODUC: (Indiscernible.)

MS. RODRIGUEZ-LANGLEY: -- thank you. And it says,

"Dear Ms. Marcus, I'm writing today to register my strong opposition to the Petition for Change in Water Rights as requested by the Department of Water Resources and the U.S. Bureau of Reclamation."

MS. DODUC: Wait, wait, wait.

CHAIR MARCUS: One second, if you're going to talk about WaterFix, you can't. So if you can just do -- that can only be -- because it's a Water Rights hearing it's a quasi-judicial proceeding, so if you can --

MS. RODRIGUEZ-LANGLEY: Certainly.

CHAIR MARCUS: Thank you for catching that.

MS. RODRIGUEZ-LANGLEY: I will --
CHAIR MARCUS: We can only hear that in a duly noticed proceeding on that. I apologize and it's made life very complicated.

MS. RODRIGUEZ-LANGLEY: Well, as we know this does relate. But we will --

CHAIR MARCUS: It's not, yeah it goes the other way.

MS. RODRIGUEZ-LANGLEY: -- be glad to move forward.

CHAIR MARCUS: Yeah.

MS. RODRIGUEZ-LANGLEY: So on behalf of Assemblymember Frazier as we continue, as he proudly represents the 11th Assembly District, nearly half a million residents who call the Delta home, the District is "...urban, rural, agricultural and industrial. And it includes people from all walks of life."

This proceeding is very critical to the people of his district are going to be gravely impacted by the changes being addressed today.

"The State Legislature and Governor Schwarzenegger explicitly stated (sic) the need to protect the Delta in 2009 when they passed the Delta Reform Act." And he believes that this change petition should be denied.

CHAIR MARCUS: Yeah, I'm sorry, it's hard.
MS. RODRIGUEZ-LANGLEY: As we proceed --

CHAIR MARCUS: You now know what our life is like in every coffee shop and bar we go into, but...

MS. RODRIGUEZ-LANGLEY: And as an advocate for the Delta and Assemblymember Frazier, and those he represents, he wants to share with you his deep concerns.

And to ask the Board to take into consideration the impact of your determination to the economy, to the environment, to the way of life of all the residents that reside within his district, to the water quality's impact, to our fish. And, as stated before, we're having changes being seen on the federal level and we know that we're asking you as the representatives for people of California to look at those you're hearing from today and to understand that you're decision will make a long-time impact on all of those.

And thank you for time today.

CHAIR MARCUS: Thank you very, very much. I'm sorry to have to draw such a fine line.

We have a couple of other folks, but they're willing to wait until after the panel. Oh, excuse me, so take it away panel.

(Colloquy re: presentation setup.)

MS. WEBSTER: Good morning, Chair Marcus and Board members. My name is Debbie Webster. I'm the
Executive Office of the Central Valley Clean Water Association. And we appreciate the time to come and talk with you. On our panel is Tom Grovhoug, with Larry Walker & Associates; Tess Dunham with Somach Simmons & Dunn; Robert Granberg, with the City of Stockton; Heather Grove, with the City of Manteca; Steve Bayley, with the City of Tracy; and Melissa Thorme, with Downey Brand.

We're here to talk about our concerns regarding as they relate to our members, specifically Wastewater Treatment Plan issues or POTWs. CVCWA members that are most directly -- by the impacts of the proposed salinity and flow objectives are the City of Stockton, the City of Tracy, the City of Manteca and Mountain House Community Service District.

We have several concerns, mostly that the SED assumes that the 1,000 micromhos per centimeter EC objective will be applied at the end-of-pipe. Those effluent limits would require the installation of a reverse osmosis or RO treatment plants at the POTWs. RO has significant impacts including increased energy consumption, greenhouse gas emissions, brine disposal challenges and significant socioeconomic impacts. The SED, in fact, concludes RO would have significant and unavoidable impacts. However, RO would not measurably improve the EC levels in south Delta.
Our request is that your staff would work with us to modify the SED to include an implementation plan and language for how these water quality objectives would be incorporated in NPDES permits for our POTWs.

And from here, I'm going to turn it over to Tom Grovhoug.

MR. GROVHOUG: Thank you, Debbie.

Chair Marcus and members of the Board, I will be giving the rest of the formal presentation. So don't worry about that we have everyone going to speak.

Let's see, I wanted to start just the rest of our presentation will really be information to provide support for some of the points that Debbie just made. And it's really going to cover four main areas. One is the impact that the POTWs in the south Delta are having on salinity. Second point is what the effluent quality is for those POTWs. Thirdly, some of the facts to elaborate on what Debbie said regarding the effectiveness of reverse osmosis and the impacts of reverse osmosis. And then fourth, we want to spend some time talking about our proposed solution.

Let me go back, so the first. It's commonly accepted based on -- and it's actually identified in the SED and in the technical appendix for the SED that the discharges from south Delta POTWs will have a very small
effect on salinity. And so this is one example of language excerpted from the SED itself, also from the appendix. Some work was done, and I'll talk about it a little bit in a minute, regarding some modeling that was done back in 2007 specifically looking at the impact to the City of Tracy and Mountain House on the impacts of their discharges on salinity. And the fact that those are limited impacts, so this again is an excerpt from the technical appendix.

And then finally, State Board staff did an analysis of loading, taking into account not only the POTW discharges, but also other sources. And the finding again in the appendix is that those loadings represent a small percentage of the salt load in the system.

I mention some modeling that was done. For quite some time there's been a concern over the impact of POTW discharges on the south Delta salinity. So in 2007, DWR using its DSM-2 model -- and through a collaborative that included the Central Valley Regional Water Quality Control Board, the cities of Tracy and Mountain House, also South Delta Water Agency and CalSPA -- worked together to coordinate a modeling effort.

And it looked at the effect of -- on this map you can see the City of Tracy discharge point as well as the Mountain House discharge points and Old River -- and
it looked at the three D-1641 compliance points in the San Joaquin Middle River and Old River. And it did an assessment of reasonable worst-case impacts.

Out of that there were determinations made regarding the percentage of effluent that goes to different places in the Delta. That information was used in -- you recently approved a Basin Plan Amendment for a Central Valley salinity variance. And this information shown on this chart shows if using the information from the DWR modeling -- and if the assumption was made that in this case Tracy was to install reverse osmosis to meet an effluent level of 1,000 EC, which is what's described in the SED currently -- this shows you the impacts with and without reverse osmosis at these 1641 compliance points. So it's a very, very small, negligible benefit of installing reverse osmosis to meet 1,000.

Same type of plot shown for Mountain House where there's basically no effect in San Joaquin or in the Middle River and essentially no effect in the Old River from installing reverse osmosis.

In the SED there's really three compliance actions, which are identified. One of those is for the cities to seek new water supply, surface water supplies, to basically minimize their use of groundwater as a component of their water supply portfolio. That actually
has been implemented by the communities in the south Delta. And I'll show you some information on that.

Also a second compliance action that's identified in the SED is for the communities to do source control, industrial source control, residential basically. And this is required in their existing NPDES permits to implement salinity management to do all they can to reduce the amount of salinity in their discharges. That has also been implemented.

And so I'm going to show you three charts of effluent quality. That first for the City of Tracy -- and this is for the period of over approximately the last ten years -- and what we're showing in this chart is the y axis is the effluent annual average EC value for the City of Tracy discharge. And on the bottom is time. And so over time you can see that, as I said the impact, what you're seeing here is the impact of bringing in a new water supply. And the significant effect that actually has had by bringing in less saline water to replace more saline groundwater. And then also you're seeing the combined effect of the salinity management source control that I described.

This chart also gives us a picture of what has happened through the drought where you see an uptick in effluent salinity due to water conservation. And also
some of the measures that were taken that force the City back on to groundwater usage.

A similar chart for the City of Manteca where they implemented a new surface water supply approximately ten years ago. You can see the drop that resulted from that. You can also see the uptick in effluent salinity that happened during the recent drought.

And then finally, for the City of Stockton who did the same type of thing, going more to surface water supply from groundwater. And you can see a dramatic effect in 2015 of an uptick in salinity that actually if an effluent limit of 1,000 had been established it would have taken the city from on an annual average basis from compliance to noncompliance. So drought effects are an important consideration in writing -- constructing the effluent limits for these communities.

So as I said there are basically three compliance actions that the SED refers to. And in essence the first two have already been implemented. The third --

Oh, let me mention also just the cost of the surface water supplies. And on this chart we show the amounts, significant expenditures by the City of Tracy, Manteca and Stockton for implementing those new surface water source supplies. And of course, for the rest of
what we're talking about here today those supplies will become less available in the future. So it's already been implemented, it's probably not likely it's going to continue to be able to be used as a tool.

And so as I say the third option that's identified as a compliance action in the SED is for the communities to install reverse osmosis. And as I showed in those prior charts, that's really not an effective solution. It doesn't really create a benefit. What it does do is it has some of the impacts that Debbie mentioned. Certainly, reverse osmosis, a high-pressure treatment system increases energy demand, greenhouse gas emissions, and is a high-cost proposition.

And through that salinity variance Basin Plan Amendment we actually have developed information, which we can provide to your staff, which will allow a closer examination of some of those costs and impacts. And again, high cost in impact and really not an appreciable benefit from implementing that approach.

So this is just an example of some of the information. What we assumed here is that just enough RO would be installed to meet an effluent limit of 1,000 EC. And so this shows you energy and greenhouse gas emissions. And then in terms of costs we're able to identify capital O&M and annual costs, which are clearly
significant. And would lead to the socioeconomic effects that Debbie mentioned in each of the communities.

So what CVCWA has asked is asking is for the Board to allow your staff to work with us to actually implement a different option. And that is to, we believe the flexibility exists within NPDES regulations, to actually not implement the proposed water quality objectives as stated in the SED. We believe that the effluent limits don't necessarily need to match the objective. There are various considerations and I won't go into detail here, but there are mixing zones, points of compliance, averaging period considerations. Also we believe that some consideration of drought, how the limits might be effected or implemented during drought.

And also by working with your staff I think it would really help CVCWA and the communities, help resolve some of the issues that came out of the litigation on this matter. And the offer is strong from this side of the table to do that.

So just in summary, the problem that we see is that the SED paints a picture of a preferred alternative, which would lead to significant and unavoidable impacts on local communities. And our assessment is that that would really not have a commensurate water quality benefit.
Our solution is that we believe we can work through this, through the plan of implementation that's required under the Water Code 13242, and come up with language both in the SED and in the Plan itself that will resolve this issue.

And with that we're done.

CHAIR MARCUS: All right. Are the rest of you there for moral support and to answer questions, or is there any color commentary you'd like to add?

All right, thank you. So the --

MS. D'ADAMO: I have, I think just a question, maybe a clarification.

CHAIR MARCUS: If you have a point, go ahead.

Sure.

MS. D'ADAMO: So on the charts the City of Tracy, Manteca and Stockton where you show what you call an uptick where you were forced back on to groundwater.

MR. GROVHOUG: Right.

MS. D'ADAMO: Would you be able to either now or in your written comments parse out the increase that's attributed to groundwater versus other factors?

Groundwater use versus other factors.

MR. GROVHOUG: We will sure take that on in our written comments.

MS. D'ADAMO: Thank you.
CHAIR MARCUS: Great. So you're talking about how to implement it, not that we should make the standard even higher, which is what I was -- I was looking at all of my friends from the Delta out there, who were going to throw daggers at you if you were going to. Because there is a strong series of arguments we heard a lot on the 29th, and I'm sure we'll hear today, that raising the limit is problematic for folks on the Delta.

So you just want to work with our staff on how it's measured and implemented, so that we don't cause undue costs --

MR. GROVHOUG: Exactly.

CHAIR MARCUS: -- without commensurate benefit?

MR. GROVHOUG: Yes.

CHAIR MARCUS: All right.

MR. GROVHOUG: We think we can live within the construct of the NPDES permit regulations and anti-degradation provisions and come up with a permit requirement that will work.

CHAIR MARCUS: All right.

MR. MOORE: So if I could ask a couple of questions?

CHAIR MARcus: Well, certainly.

MS. DUNHAM: I just want to add to that real quick, I just think it's really important -- and I think
just to make it very clear what we're asking is that it needs to be articulated within the Program of Implementation, so there isn't future uncertainty as to how the objective gets implemented, which is where we've run into problems in the past. And so we're looking for clear articulation with respect to when you take that objective and you apply it to a POTW how it's done, so we don't wind up onerous end-of-pipe effluent limits.

CHAIR MARCUS: Or so that you don't end up with disparities between different facilities --

MR. GROVHOUG: Exactly.

CHAIR MARCUS: -- I would presume. Okay.

Mr. Moore?

MR. MOORE: Yeah, good. Thanks for the presentation, a couple of kind of high-level questions. So the existing Bay-Delta Water Quality Control Plan, does it have a governing effect on existing NPDES permits and their limits that are derived?

MS. DUNHAM: So it did at one point, but due to litigation that occurred with the City of Tracy, and CVCWA was an intervenor, the court basically set aside the application of the south Delta objectives on the POTWs while the State Water Board went through this process of updating the objectives, and looked at the impact on the POTWs. So it's basically kind of been in
abeyance so to speak under the court's direction at this point and time.

MR. MOORE: Oh, thanks for that clarification. That's for the benefit of the audience members too. And so it's interesting as this is a unique place in the state, because usually the Regional Water Board would have the standard that is ultimately derived for the effluent limit. But does the Central Valley Regional Board's Basin Plan not have an objective that is translated to a salinity limit at this time?

MS. DUNHAM: Not for the Delta, the Regional Board has to rely on the Bay-Delta Plan for objectives for the south Delta.

MR. MOORE: Good, so that's the clarity and so that's the prelude history to this discussion. And yes, there are many ways that effluent limits can be derived and so there is flexibility. I think, I mean, staff if you can answer this, but my sense is that the SED -- you know, the job is to disclose potential outcomes, but not necessarily to dictate a specific path of implementation for the Central Valley Water Board's effluent limit derivation, i.e. is language that's in this proposed Appendix K compelling the Central Valley Water Board to require the water quality objective be equivalent to the effluent limit for these dischargers in this proposal at
MR. GROBER: This is a great discussion. And I very much would like to see any proposed language that you have. And working together with the Regional Board, because this is something that we've struggled with, but this provides some of the foundation defined in the compliance location as reaches rather than individual points, if that's one way to get around this. Though we'll hear some of the alternate view with regard to that from folks later, because it's one thing to talk about what the effects are over a large area, but then there's the concern what's the effect right next to a discharge?

CHAIR MARCUS: Right.

MR. GROBER: So these are some of the things that we are still very happy to hear the language, and to work with the Regional Board, because this is something we're trying to all fold together.

CHAIR MARCUS: Great, and you can pull everybody together.

MR. GROBER: Yep.

CHAIR MARCUS: That should be no problem.

MR. MOORE: Yeah, that's key. These are good discussion points, but I'm under the impression that at the Regional Board level this ultimately is worked out based on science, based on hydrodynamic assessments,
water chemistry work and the like.

MR. GROBER: And then I just have to kind of point out this is really the struggle in terms of when I said the reasonable number of why raising it to 1.0 -- which is the number that is providing that reasonable protection of all crops -- and it's trying to strike that balance recognizing this is one of the other tensions on the other side. So a little bit more to do, but thank you very much.

MR. MOORE: Sure.

CHAIR MARCUS: Sure.

MR. MOORE: And while we're talking about POTWs, obviously people know I'm the Sanitary Engineer on the Water Board, it's close to my heart and my discipline. I have to ask the question, where does recycled water development fit into this? What are the possibilities for enhancement of wastewater effluent as beneficially reused in your areas? And what can we look forward to there and does that solve some of the compliance conundrums?

MR. GRANBERG: Good morning, Robert Granberg, City of Stockton. I'd like to briefly describe how our Recycled Water Program works. We are a POTW discharger here, near the City of Stockton. We also have a drinking water intake about 10 or 11 miles downstream, or north,
on the San Joaquin River. And our water right is based on the amount that we discharge into the river. So we essentially have one-for-one recycling program that utilizes the San Joaquin River as our conveyance to our drinking water intake.

So we're unique in that we're regulated on discharge and on our intake, and so water quality in the San Joaquin River is of high importance to us. And that's how we recycle water.

CHAIR MARCUS: That's similar to the Las Vegas model, right? The one for one.

MR. GRANBERG: I believe so. I say one for one, because we can deliver that recycled water essentially to the tap and not just to landscape.

CHAIR MARCUS: Right.

MR. BAYLEY: And Steve Bayley, City of Tracy, we received recently a grant from the Department of Water Resources for $18 million to implement recycled water into Tracy. We hope to use it for our parks and our green space areas as well as serve it to ag in the vicinity of Tracy as well as industrial in the San Joaquin County. So we're hoping to implement recycled water in the next three years.

MR. MOORE: And I thank you very much. And each community has its own story and its own
circumstances and we respect that. But it's interesting because I've been involved in proceedings where recycled water en masse of pollutants that is reduced through diversion to recycling is credited in NPDES permits. So that's one example of where commitments to recycle water to reduce salinity inputs can be taken under consideration by the permitting authority.

CHAIR MARCUS: Well, thank you. Thank you for flagging that issue. That was perfect and we'll follow up on it.

MR. GRANBERG: Thank you.

CHAIR MARCUS: And now with the court reporter's indulgence, I have a couple more elected officials I'd like to take before we take a short break. Is Katherine Miller here yet -- okay, great -- on behalf of the Supervisor San Joaquin County followed by Tori Verber Salazar, the District Attorney San Joaquin County, followed by Supervisor Chuck Winn from San Joaquin County. And then we will take a break.

SUPERVISOR MILLER: Hi.

CHAIR MARCUS: Hi, there. Thank you for joining us.

SUPERVISOR MILLER: Thank you, good morning Chair Marcus, members of the Board, and interested parties. My name is Kathy Miller. And I'm a member of
the San Joaquin County Board of Supervisors. I'm here to
today to express the strong unanimous opposition of the
entire San Joaquin County Board of Supervisors to the SED
proposal.

First, as a public official I can appreciate
the difficulty associated with balancing interests. I
recognize that this is hard. However, properly weighing
the impacts of our decisions is a duty inherent in public
service. The SED fails to adequately analyze all impacts
and unfairly burdens the San Joaquin region rather than
focus on water exports that have caused the greatest harm
to fish species.

The SED proposes that at least 40 percent of
natural flow remain in the Stanislaus River for fish.
This water sustains and has sustained for over a century
our cities, industries and agriculture. The SED assumes
that the loss of surface water supplies from the
Stanislaus River will result in greater groundwater
demand. We have worked hard over the past several
decades to improve our groundwater basin and we have made
great progress.

As you are aware, sustainable groundwater
management is now mandated by SGMA. By greatly reducing
the supply of Stanislaus River water, the SED proposal
will not only undo decades of progress in recovering our
already stressed groundwater basin, but also put

groundwater sustainability hopelessly out of reach.

A less reliable water supply will weaken the
economy in San Joaquin County. This will limit our
ability to attract employers, create higher paying jobs
and promote investments in sustainable development.

Further, much of San Joaquin County is economically
disadvantaged. The SED will have the greatest impact on
farm workers, truck drivers, cannery workers and others
who can least afford it, thereby creating an
environmental justice nightmare for our region.

Agriculture is the leading sector in San
Joaquin County and was valued at over $3.2 billion in
2014. Lost agricultural production due to SED will
result in economic losses that will ripple throughout our
regional economy. Farming-related economic fallout
includes reduced property values, equipment sales and
employment.

The proposed salinity standard relaxation in
the SED will adversely affect the quality of prime
agricultural land, which is a finite and irreplaceable
resource. Those impacts will decimate the San Joaquin
region and limit future economic development.

In conclusion, the SED proposal fails to fully
evaluate its impacts and places an extremely unfair
burden on San Joaquin County and other eastside tributary counties. The current SED is inadequate and a decision based on the information provided would be unlawful and a disservice to the citizens of California that you serve.

For the record, San Joaquin County will be submitting detailed technical comments on the SED by the January 17th deadline. We ask that the Board fulfill their obligations by collaborating with local stakeholders and carefully reevaluating and revising the SED proposal. Thank you.

CHAIR MARCUS: Thank you very much for joining us.

DISTRICT ATTORNEY VERBER SALAZAR: Madam Chairman, members of the Board, thank you for the honor to be here today. I am Tori Verber Salazar, the District Attorney for San Joaquin County. And I'm responsible for enforcing the law, prosecuting and protecting the rights of the residents of San Joaquin County. A County that provides an enormous contribution to the Americas' food supply as well as areas beyond our borders. Our healthy and vibrant communities are places that provide opportunities, resources, an environment that children and adults need to maximize their life outcomes, including employment, education, housing and safety.
Based upon your proposal I have grave, grave concerns for the well being of San Joaquin County and its citizens based on the Board’s current intentions to export more water south of the Delta. Please allow me to address the relationship between public safety and water.

My concerns are immediate for the County. They are largely economic as those factors impact public safety greatly. It is undeniable that economic opportunity is tied directly to crime rate. San Joaquin County is and has been historically at risk, unfortunately.

There are members of our community who live in distressed communities where a combination of lack of job opportunities, crime, poverty, poor health, struggling schools, inadequate housing and disinvestment keeps many residents from reaching their full potential.

Researchers call these hot spots, which account for a disproportionate amount of crime and disorder in our community.

Research has shown that a driving force to sustainable success is job opportunities and a healthy environment, coupled with community, government, local region agencies and support services. Areas where we have been able to provide those services -- resources, excuse me -- have been seeing a slow and steady decline
in violence and criminal behavior. We have built hope in
San Joaquin County.

Crime rates continue to decline. Some few
areas we see arise and that too is unacceptable. But we
continue to fight every day through transparency,
evidence-based practice, and reconciliation for the past
wrongs. We work 24/7 collaboratively with our ag
community and our community-based organization to fill
jobs, housing to assist our homeless and to stop the
senseless violence.

The critical step in assisting and restoring
these impacted neighborhoods is driven by employment
opportunities. Your current proposal would adversely
affect one of our largest job creators and economic
tools, the ag community. The loss of these resources can
be estimated in staggering monetary numbers. But what it
means to me is different, because it means an increase in
crime, which means more children will be harmed, more
lives will be lost. And more violence will be required
for all of us here in San Joaquin County to live in.

Furthermore, by depleting resources and job
opportunities, you will further impact our high-risk
spots, while potentially creating new ones. This will
significantly impact the work and the hope we have worked
to build so. With an economy largely based on
agriculture, if you determine this basis you undermine our viability in this region. If so, you will bring about an increase in crime that statistically is undeniable. This is unacceptable. And for what? For taking a viable area, decimating it to the benefit of another area, is unprecedented. This should be avoided at all cost.

Here, we have one of the most fertile, the most productive, the most sustainable areas of agricultural production in the modern world. It's right here. We have rich and fertile soil that is adjacent to natural waterways, natural waterways that are conducive to international shipping lanes in an area that is located close to major population centers.

I'm here to bring awareness to this impact. If you transfer further water out of this area, you will impact the economic viability of San Joaquin County, which in turn ultimately impacts the crime rate and public safety.

The statement was made to look at the human impact of water. I see every day the human impact. Often it comes in the loss of life, property and harm. Water is life. Those three words could not read more true and just about at any level you choose to evaluate, here in San Joaquin County. With every speech I give I
say these words, because I believe them with all my heart.

And you can see the men and women out here. This is the best damn county in the State of California and we're here today to ask you reconsider your proposal, and understand the true impact you have upon our community. Thank you for your consideration.

CHAIR MARCUS: Thank you.

Supervisor Winn?

SUPERVISOR WINN: Thank you very much for the opportunity to speak before you. I also want to thank you for the opportunity to hear your presentation. This is the third time I've heard it. I've heard it at our County Water Advisory Board, I've heard it at the Board of Supervisors, and now here today. So thank you for certainly sharing that information.

I'll be very brief in my comments. First of all, I chair the Groundwater Basin Authority East San Joaquin, which handles the SGMA issue that you've mentioned. We have 21 agencies involved in 3 counties and also 6 of the 7 cities that are in San Joaquin County.

It's been a challenge, to say the least, but on the positive side, we're moving towards agency status. And I think we'll certainly meet all the deadlines that
are required.

CHAIR MARCUS: That's great.

SUPERVISOR WINN: On the other side of it, my district is over half the county and it's agriculture. And obviously, you've heard time and again about the impacts on agriculture. But I would also say that in that district and throughout the entire county, we talk in terms of flows, we talk in terms of agriculture, we talk in terms of the environment and certainly the fish.

I deal with people all the time. I have several disadvantaged communities, as District Attorney Verber Salazar talked about, we deal with that on a daily basis whether it be crime, homelessness, etcetera.

And one of my points is kind of a takeoff of all the discussions you've had so far, because San Joaquin County is kind of in the center. Because I deal for example -- on the Board of Supervisors I deal with all eight counties in the Valley. And we talk about SGMA. We talk about the issues in regards to water.

Also, we're part of the five-county Delta Counties Coalition, obviously which is diverse, as you know. Also, I deal with the mountain counties -- you heard Supervisor Hanvelt -- from Placer down to Tuolumne.

And when I talk about these three different regions obviously, there's times we think of them being
separate and different. They aren't. And the reason is that because you look at the mountain counties they provide the watershed, the water for our rivers. As it comes through the Delta, it goes to Southern California and other areas.

I've had conversation with Randy Record, the Chairman of Metropolitan. I've had conversations also with also Frank Mellon, East Bay MUD. I would offer you this. They are open to alternatives, because we've talked about the WaterFix and other things. I would only suggest that as a group collectively, throughout the state, we have an opportunity to really make a difference. And I think we can have one of the best water systems in the world. This, unfortunately in my opinion, is not the way to go. Underground storage, things that we're doing with East Bay MUD etcetera are certainly an opportunity. Certainly, what the Federal Government just passed is also beneficial.

So I would offer that we need to step back, look at all the opportunities that we have available and move forward. Thank you for the time.

CHAIR MARCUS: And thank you. Thank you for your words. That's certainly what we're hoping for and for an obviously this is just one piece of the puzzle. We are also going to be proposing on the Sacramento River
and the rest of the Delta and some of that. Everybody
will be all in by the time we're through.

With that, let's take a -- what time is it?

Let's take a 13-minute break or do you need more? Go
until 11:20, all right. We'll take a break until 11:20.

That gives folks time if they want to grab a snack or
something to tide them through. We probably will not
take a lunch break until 1:00 or 1:30.

(Off the record at 11:08 a.m.)

(On the record at 11:33 a.m.)

CHAIR MARCUS: Okay. We'll now move to the
second panel. It is a 15-minute panel, Chris Shutes and
Peter Drekmeier. So if you'll set the timer for 15
minutes and then we'll take a batch of public speaker
cards.

Thank you. It's time for a panel from the
California Sportfishing Protection Alliance on the
Tuolumne River Trust. Thank you for joining us this
morning.

(Colloquy re: audio setup.)

MR. SHUTES: Very good, Chris Shutes with the
California Sportfishing Protection Alliance. I have a
lot to say and not a lot of time to say it in, so I'm
going to run through this really quickly to let
Mr. Drekmeier speak. Many of the points on the
PowerPoint are things that I'm hoping that you all will review, but I'm not going to be able to read through them or talk through them all.

CHAIR MARCUS: Okay.

MR. SHUTES: This is the summary of my presentation and I'm just going to hop right to it. California in general, and the San Joaquin tributaries in particular, have an unsustainable agricultural business model. It is a boom-and-bust cycle built on over-allocation of water. Too much delivery in good years creates crisis after two-to-three dry years. This system remains semi-functional only because it diverts water needed for rivers, over-pumps groundwater or both.

Many water interests have argued in this proceeding that re-restoration of protective flows to rivers and the Sustainable Groundwater Management Act will be the cause of water shortage. On the contrary, these initiatives daylight a condition that was already there.

On the three major San Joaquin tributaries, average annual diversions are about half of the average annual runoff. This level of deliveries is not sustainable and creates permanent stress on the system. The SED accepts this system by pushing the impacts of flow increases to dry and critically dry years.
The Board needs to require water management when there is water to manage in the good years. The urban model passed by the Legislature in 2009, 20 percent reduction in urban water use by the year 2020, is a better model.

These are four of the biggest problems with the SED and we will discuss these more extensively in comments, in written comments, but for the sake of moving on to the key points today I'm going to skip over them.

Many aspects of the modeling in the SED are better than modeling was in 2013. But the SED uses modeling to avoid showing the impacts of how one might actually run the system. The SED uses the Water Supply Effects Model to show, with perfect foresight, that an adaptive management group could make annual adjustments to eliminate this or that impact, such as high-water temperatures in September or summer increases in salinity. A more realistic approach would be to use alternatives for each variable of concern, including rules and triggers. And either acknowledge the impacts or budget enough water to mitigate them.

When the 1988 Stipulation Agreement on the Stanislaus, and the 1966 Fourth Agreement on the Tuolumne were created, the public trust was not at the table. These agreements divide up amounts of water that don't account for what the rivers need. The Bay Area, and San
Francisco in particular, has done a good job of reducing
demands and water deliveries. Efficiencies in
agricultural use on the east side of the San Joaquin
Valley have not translated into reduced demand and
deliveries are down only in droughts.

The San Francisco Public Utilities Commission
and the Bay Area Water Supply and Conservation Agency
deserve credit for reducing demand, in large part through
conservation messaging. But their messaging on increased
flows in the Tuolumne River has consistently been in
opposition. This opposition doesn't line up with the
values of their customers. These agencies must diversify
their water portfolios, much as East Bay MUD has done,
including treatment plants for water diverted from the
Delta.

The SED assumes transfers from Merced -- excuse
me, from Modesto and Turlock irrigation districts, but
these entities do not appear to be willing sellers.
There is no reason not to look to other sources. The Bay
Area needs to invest in reliability and not just its own.
It needs to look not only at what it can do in the Bay
area, but also what it can do in the Valley to generally
increase water supply reliability.

This slide is a summary of some of the major
general recommendations for the SED. And I would point
out that export operations are definitely one of the
things you must consider. It's hard to say where you
consider it. I just reviewed the Scientific Basis Report
for Phase 2, but you need to consider some of these
options in the context of Phase 1. Otherwise many people
-- and we've heard this a lot today -- consider that
water released from the San Joaquin tributaries is simply
an unpaid water transfer.

And here is a summary for the Bay Area and its
water agencies. Particularly, San Francisco and the Bay
Area need to be proactive on drought planning and
management. And the Bay Area needs to make broad
investments in diversified water supply reliability.

Thanks very much.

CHAIR MARCUS: Thank you, interesting. Do we
have copies of your PowerPoint?

MR. SHUTES: You do.

CHAIR MARCUS: Good, okay. Oh, I probably have
it right here. Good.

MR. DREKMEIER: Good morning Chair Marcus and
Board members. My name is Peter Drekmeier and I'm the
Policy Director for the Tuolumne River Trust. And I
appreciate the opportunity to present some information on
potential socioeconomic impacts of the Bay-Delta Water
Quality Control Plan, on the San Francisco Public
Utilities Commission and their customers.

So I'm going to cover SFPUC water supply and demand, their socioeconomic study and SFPUC storage, carryover and replenishment. And I'm going to start with a couple quotes from the SED. "The average annual amount of water available to the SFPUC from the Tuolumne River is 750,000 acre-feet or 678 million gallons per day, after conversion. And the SFPUC's average annual diversion from the Tuolumne is 244,000 acre-feet, which converts to 218 million gallons per day." And it should be noted that on average 85 percent of SFPUC's water comes from the Tuolumne and 15 percent comes from Bay Area watersheds.

So this graph is from the SFPUC's EIR for their Water System Improvement Program and it showed that water demand was expected to continue to increase.

And going to talk a little bit about how much water is used, so in 2007 the demand projections for 2018 were 285 million gallons per day. There was a lot of opposition from the environmental community about diverting more water from the Tuolumne. And to quell that the SFPUC, to their credit, agreed to cap water sales at 265 MGD until 2018. And between 2010 and 2014 we were averaging about 225 million gallons per day. I say "we," because I live in the service territory. In
fiscal year 2014-'15 it was down to 195. And in '15-'16, 180 MGD, so it was 32 percent below the cap. Really
quite phenomenal.

So this graph shows SFPUC annual system
deliveries. Over the past ten years we've seen a
tremendous drop in water use due to conservation. And
water demand was 180 last year, 180 MGD as I mentioned,
so 32 percent below the 265 cap.

In 2014 the Bay Area Water Supply and
Conservation Agency, which is known as BAWSCA and
represents the SFPUC's 26 wholesale customers that use
two-thirds of the water delivered from the SFPUC, they
revised their demand projections and they're now 20
percent lower by 2040.

So now I'm going to talk a little bit about the
SFPUC's Socioeconomic Study. So this is a controversial
quote from the general managers of the SFPUC and BAWSCA
and it suggests that the Bay-Delta Plan could result in
the loss of up to 188,000 jobs and $49 billion in
decreased sales. Well, this is erroneous and apparently
contagious; you heard Mr. Flora refer to these figures
earlier. These figures were based on work done by an
economist named David Sunding. And we took a look at his
study in 2014, the most recent one, and we found a number
of flaws in the study.
So for example, it based rationing on demand versus supply. It included Bay Area water supplies as if they would be impacted by changes in flows on the Tuolumne. It failed to understand adequately how storage replenishment in normal and wet years could erase past deficits. And it failed to analyze the potential for water conservation. For example, over the past few years people have installed high-efficiency appliances, taken shorter showers, and reduced overwatering of lawns. And we were able to achieve great things with no economic impact.

So according to his 2014 study, the SFPUC service territory should have seen a loss of $6.5 billion in sales last year when water demand was more than 30 percent below average supply. And we should have seen the loss of almost 25,000 jobs. Now, the SFPUC in BAWSCA claim the figures that they have been citing are based on Sunding's -- not on his 2014 study -- but on previous work he did in 2009 that was later presented to the State Water Board in 2013, as you might recall. So this suggests his work became less accurate over time.

But if you compare his projections from 2009 with 2014 they're even more inflated. He didn't produce figures for 30 percent rationing in 2009, but his figure for sales losses at 20 percent rationing was 50 percent
higher than in 2014 and his figure for 40 percent rationing was more than double. The $49 billion at the bottom of this chart is what the SFPUC and BAWSCA are quoting. His 2014 study had $20.56 billion, but if you go to look at 30 percent it would have been $6.5 billion. Same for job losses, his figure from 2009 for 40 percent rationing was two-and-a-half times greater than the figure from his 2014 study. And again we didn't see any jobs lost last year. In fact, jobs were created. According to the California Employment Development Department San Francisco added more than 125,000 jobs between 2010 and 2015, and San Francisco makes up only a third of the SFPUC service territory. So this slide shows the actual number of jobs created between 2010 and 2015 in the four counties that receive some or all of their water from the SFPUC. So now I'm going to talk about SFPUC storage, carryover and replenishment, so total SFPUC storage capacity is almost one-and-a-half million acre-feet. And that's enough water to supply its 2.6 million customers for six years at full capacity.

The next series of graphs focus on water availability and capture. This one shows inflow into Don Pedro Reservoir over the past six years. For most of the year the Modesto and Turlock irrigation districts have
rights to the first 2,400 cfs of runoff. From mid-April to mid-June they are entitled to the first 4,000 cfs.

The SFPUC has rights to the additional runoff. You can see it here that after four dry years the SFPUC captured 651,000 acre-feet last year, which was a normal water year. That was enough to last two-and-a-half years. And the reservoirs and water bank have rebounded back to normal. The blue line there is reservoir storage and the red line is the water bank. The lowest SFPUC storage got during the drought was about 600,000 acre-feet. And that didn't include their Bay Area storage, which they keep pretty full, because with an earthquake we would depend on that.

Currently, SFPUC storage is above normal at 83 percent and we're still in the drought. And it's likely to fill completely this year. There are more than a million acre feet in the SFPUC's Tuolumne storage alone. Total system storage is currently at 1.2 million acre-feet. That's enough water to last five years.

The next series of graphs demonstrate how current reservoir operations can harm fish without necessarily benefiting water supply: 2002 was a below-average water year and very dry for fish, so the blue is unimpaired runoff and the red is actual flow; 2003 was again dry and fish in the ecosystem suffered, another dry
year in 2004. But then, 2005 was a very wet year and much of the runoff had to be released. Fish certainly would have benefited from this extra water in previous years. And 2006 was even wetter with most of the runoff having to be released. When we have a really good water year or even a couple of normal years, the system fills and any past deficit is erased.

Just to my conclusions here, the SFPUC's Socioeconomic Study is seriously flawed yet they continue to cite the figures as do other people. The SFPUC has enough storage to provide a buffer against extended dry years. And we can improve the ecosystem while maintaining a strong economy.

Thank you very much.

CHAIR MARCUS: Thank you very much, interesting.

Questions?

(No audible response.)

Thank you very much, interesting.

All right, I'm now going to take ten or eleven cards and then we'll move to our next panel. I've moved just a couple of people up of everyone, because they have to leave. If we only get a few, I can do that. If we get an avalanche, I cannot. But I think we will be able to give three minutes to everyone today, which is always
So first three: Ryan Camero, California Student Sustainability Coalition followed by Jacklyn Shaw, who will be very popular with us as a Zin grower from Lodi, followed by James Cox from the California Striped Bass Association.

MR. CAMERO: Okay, is this the timer here?

Perfect.


MR. CAMERO: Sweet, all right.

So hello all and nice to see you folks again.

My name is Ryan Camero. I am a Stockton citizen and arts activist and working with multiple nonprofits, but today I'm representing the California Student Sustainability Coalition as a Coordinator of the Solidarity Organizing Program. So we're a coalition of students across the UC, CSU and California Community College systems, as well as private universities, committed to sustainability on a social, economic and ecological level.

So earlier this year from November 7 through the 18th I represented the City of Stockton in California at the International Climate Negotiations put on by the United Nations in Marrakesh, Morocco. While the crisis of climate change looks many different ways, we know that...
it is the critical work of spaces like these in balancing water resources in drought-ravaged California. And knowing that that's our challenge to bear.

As you all are engaging in Phase 1 of updating the Water Quality Control Plan, it is crucial to address these community concerns at the root cause and realization that versatility and diversity of tactics are necessary in the face of climate change.

First off, let's start with the water quality standards. They are at significant risk if excessive water exports continue to happen. That is just the reality of the situation. The San Joaquin River must reach Chipps Island in order to keep the Estuary thriving. Salinity standards are also crucial in the south Delta and are important, not to be weakened facing the threat of saltwater intrusion.

In addition, you all as the State Water Board have a huge responsibility in understanding the impact of environmental justice communities by the decisions that are made here. The re-circulated draft of SED does not consider these constituencies, specifically in Chapters 5 and 9, addressing hydrology, water quality and groundwater.

So we know we do not live single-issue lives.

These points that I am making are a response to the deep
history of the destruction and exploitation of the San Joaquin River. And that story is a sobering, cautionary tale of how we need to hold the past of what has happened as we move toward the future. The many needs of water for our communities needs realistic solutions, such as economic investment and rainwater capture, fog harvesting technology, and the normalization of cisterns statewide to increase our collective supply to avoid the strain on our service water supplies, so that flows can be met where they're needed.

And I invite the Board to recognize that while I am here, many youth like me are inheriting these struggles and they need to be engaged further in helping to solve this together. And that we are present and we are watching. Thank you very much for your time.

CHAIR MARCUS: Thank you, good timing too.

Ms. Shaw followed by Mr. Cox followed by John Buckley from the Central Sierra Environmental Resource Center.

MS. SHAW: Thank you very --

CHAIR MARCUS: Hi.

MS. SHAW: -- much Chair Marcus.

CHAIR MARCUS: Oh yeah, and Ms. Shaw, just to remind you to be careful from the earlier ones. I don't know if you were here right at the beginning of day, we
can't talk about WaterFix.

MS. SHAW: Yes. I tried to cut out certain parts.

CHAIR MARCUS: Yeah, great. Thanks.

MS. SHAW: Thank you.

Well, thank you very much again, Chairman Marcus, Board members and other impacted parties of NorCal. My name is Jackie Lauchland Shaw, member of the Lodi District Grape Growers Association. Given the NorCal drought, please cease and desist in damaging NorCal rivers by adding concrete storage etcetera, avoiding concrete for groundwater.

In local health from HMO reports there is more dust in the Delta Breeze now and increased soil salinity. Two, we have financial losses for food crops to U.S.A. -- 50 percent from California and most of it Stanislaus and the San Joaquin County, I understand. And it impacts local jobs in related industry. Three, property for water rights, I'd heard 11 wells had gone dry in San Joaquin County two years ago and Chairman Marcus knew more facts about that than I did.

As I listen today I added some notes, so I'll be waiting for the bell. I was a teacher in five counties in California. We love the whole state and we can all figure out things for self-reliance.
There was a talk of impact increases, of increased salt on soil salinity. My father said five years before the drought that there was more salt in our soil just 12 miles -- in the Delta Loop twelve miles from. And our pest control advisor is very informative, and we meet with him every week or two, and said that NorCal drought causes more drought. So we need to be careful in the area if we're already increasing salt in the soil. We don't need a concrete jungle in NorCal for various reasons given.

I want to thank you very much for having these meetings and coming to us in support of Stockton, where we can increase Delta dredging for the flow and purify the water. Thank you very much.

CHAIR MARCUS: Thank you very much.

Mr. Cox followed by Mr. Buckley followed by Grant Thompson from the Central San Joaquin Water Conservation District.

Hello, Mr. Cox.

MR. COX: Thank you for the opportunity to express some views.

CHAIR MARCUS: Sure.

MR. COX: I am Captain James Cox. I am President of the California Striped Bass Association and I represent the interests of thousands of Delta fishermen
who are extremely concerned over the San Joaquin River flows and their effect on the Delta. I have fished, personally, the Delta for over 50 years, including 22 years as a professional fishing charter guide.

I have watched the health of the Delta decline through that time. Part of the decline is directly attributable to the massive reductions in the San Joaquin River flows. In light of the passing of the Federal Drought Bill, establishing a realistic San Joaquin River flow and enforcing it, has become critically important.

I had a whole list of things here to talk about, but a lot of the other speakers have already hit on these, so I'm going to kind of improvise a little bit here. One of the things that it has affected, the salinity buildup in the south Delta, is the lack of flows. In the history of the Delta before man tried to reroute water, the flow of the San Joaquin River would have been measurable clear to Chipps Island. Now, it hardly even makes it to Stockton. And it is, as the Army Corps of Engineers has said, the third most polluted river in the country. And so we have replaced good water that thrived, that helped fisheries and all sorts of various aspects as we've heard today, and we've replaced it with some of the most polluted water in the country.

If there was a freshwater flow, the south Delta
would be a haven for Striped Bass spawns like they were
for over a century. Your own panel showed I think the
most important graphic, which showed the success rate of
spawns. And all the spawns were successful in the
highest flows, during the years of the highest flows.
And that's not just salmon, that's striped bass, that's
white sturgeon, green sturgeon, steelhead, American shad.
All of the anadromous fisheries benefit from the high
flows. When we restrict that we restrict the fish. So
many people are trying to make this as a fish versus
people type situation.

CHAIR MARCUS: Or fish versus fish.

MR. COX: And the point that I think has been
made here today, shows that there are so many more
benefits to the flows than just fish. There's the
drinking water sources for all the counties that comprise
the Delta. Like the panel was discussing earlier, it
affects the discharge and the success of the discharge.
If we continue to reduce the flows, and in light of the
drought, we're going to have saltwater intrusion that
will then make its way into the aquifer and will ruin
groundwater for everybody's use. These points are
critical for our future.

And I would like to just make one comment to a
previous speaker, to the Representative from Congressman
Denham. California Striped Bass Association would like to say that we strongly object to the things that the Representative said. The point that Fish and Game does not -- or Fish and Wildlife now -- does not do studies. They haven't done studies that agree with Mr. Denham's point of view. They have done plenty of studies and the studies all show the same thing, that the highest impact on fisheries or on spawn survivals is water flow, not predation. Predation is the lowest impact. And Mr. Denham just wants to continue to study this until he gets the answer he wants, but his facts have been thrown out of court before as not being true science.

For all of --

CHAIR MARCUS: I would just suggest that you wrap, because you're overtimed and -- I know.

MR. COX: -- for all of Californians I would say that the decisions you make here are going to be critical. And I'd like to see all of Californians to have the opportunity to enjoy the fisheries that we have had for years. And it's going to be up to you to make sure that happens.

Thank you very much.

CHAIR MARCUS: Thank you very much.

Mr. Buckley followed by Mr. Thompson followed by Jeff Shields.
MR. BUCKLEY: Good morning. John Buckley, Director for the Central Sierra Environmental Resource Center. Over the last two decades, I've spent 200 days in FERC relicensing meetings for the Stanislaus and Tuolumne rivers. And in planning for the Upper Merced, our biologists and I have some of the most extensive knowledge about the watersheds, wildlife species and consumptive uses, of the three rivers.

Your Board is fully aware of -- you've already shared that the current water use demands are greater than what the Delta ecosystem and at-risk aquatic species can sustainably withstand -- and you're obviously doing your best to try and determine how to comply with the Clean Water Act and the Porter-Cologne Act mandates to take remedial action.

The reason that challenges have lingered to this point is that whenever there is a proposal by the state there is a huge outcry. And in this situation, as you're already aware, water interests have collectively realigned, newspapers have stirred up opposition with editorials and articles, and water districts have blanketed urban and rural areas with signs urging to fight against any reductions of their water.

As someone who lives in the mountains where the water comes from I could argue that Valley interests take
our water without regard for the consequences. Thousands of acres of dry land acreage in the Tuolumne, Stanislaus and Merced River basins have been converted to orchard or row crops even in the midst of the drought. And it is not likely that if you delay taking a strong action there will be less proponents for agricultural withdrawals of water in the future. The reality is, is the Water Board cannot allow the continuation of a status quo demands if you're to comply with legal mandates.

So our Center strongly supports the SED scientific assessment that 50 to 60 percent of unimpaired flows would best restore dwindling salmonid populations and meet water quality objectives in the Delta. That would truly be what would be best ecologically. But our Center recognizes there needs to be a politically realistic and centrist balance that reduces impacts to water users as well. So today, despite trying to be a strong voice for the environment I do recognize that you have to seek balanced middle ground. And that you will have to adjust, to some degree, to minimize the impacts to users.

I believe that the Alternative 3, 40 percent flow, even though it does not meet the ideal needs of salmon and water quality and Delta salinity and other values, that it does provide a good beginning point for
moving forward. I ask the Water Board to stand behind 
the science and the legal obligations that justify no 
less than the proposed alternative that you're putting 
forward. And non-flow measures can clearly contribute to 
river and Delta ecosystem improvements, but increased 
flows and cooler temperatures are truly pivotal to 
finding a balanced, sustainable solution.

Thank you and I appreciate the challenge you 
face in hearing all this testimony. Thank you.
CHAIR MARCUS: Thank you very much.
Mr. Thompson followed by Mr. Shields followed 
by Meg Layhee.
No Mr. Thompson, we'll put that at the back.
Mr. Shields followed by Ms. Layhee followed by Brad 
DeBoer.
Hello.
MR. SHIELDS: Hello Chair Marcus, members of 
the Board. My name is Jeff Shields. I put on my card 
that I represent the Stanislaus River.
CHAIR MARCUS: I did see that.
MR. SHIELDS: Yeah, well I actually do, because 
that's what I drink and I think I'm 80 percent, or 
whatever the statistic is. That's my source of drinking 
water. I recreate in that river. I live on the banks of 
the river in the City of Ripon, where I raise my family.
And I've been blessed with having some responsibilities for managing those assets. We were responsible for cleaning the water in the river, so 200,000 people could drink it. I know what's in that water. As well, we have dams in the upper watershed, and was instrumental in being involved in the management of the relationship with the Bureau of Reclamation on New Melones, so I have a little bit of history with the river. And I'm now retired, happily retired.

But I thought I should come today, because I have some concerns -- a specific piece of information -- and I gave a graph, I'm sorry I don't have it --

CHAIR MARCUS: Oh, this one?

MR. SHIELDS: -- that can be presented, but this is a dataset that goes back to 1895 on the river. And it shows the flow regimes every year. And there's a red line across the bottom that shows those years where there was not even 600,000 acre-feet of water. And what's telling here is the years shown from 1895 to 1975, an 80-year-old window, there were 7 times where there was not even 600,000 acre-feet of water. Now look at the 30 years or 40 years, 1975 to 2015, that happened 14 times. In the last 40 years, we've lost substantial capacity of the average annual runoff.

Now, the modeling in the SED has a set that I
believe goes to 1920. And what I would ask you is to seriously look at climate impacts in that watershed and the other watersheds under the SED, because you don't have the water that you think you have, that you're going to get from this reduction. You actually are looking at somewhere around 959,000 acre-feet, not 1.1 million acre-feet, because I believe you've got the wrong dataset.

It ignores the impacts on imports. It significantly understates the groundwater impacts. As I showed in this graph it ignores the climate impacts. And it ignores the impacts on the districts that can no longer operate the reservoirs that they paid for. No taxpayer dollars, no state, these are district paid for by the landowners. And they now have to be operated under a paradigm that deprives them or diminishes their capacity to earn revenues from power sales.

And what you've already done by this hearing, by releasing this document, is damage their credit-worthiness. Because when you sit in front of a credit rating agency and try to issue public debt the first thing they ask you is the underlying premise that you're relying on for repaying that debt. And it's our water rights and this is a taking out of that.

So thank you very much.

CHAIR MARCUS: No, thank you. I look forward
to talking with you more. Thank you for coming back.

Ms. Layhee followed by Mr. DeBoer followed by
Michael Frost.

MS. LAYHEE: Good afternoon, my name is Meg
Layhee. I'm an aquatic biologist and I work up in the
Upper Tuolumne and Stanislaus watersheds. I fully
recognize that there is a complex demand on fresh water
flowing from the Lower San Joaquin, Stanislaus, Tuolumne
and Merced rivers -- that the State Water Board must
consider all beneficial uses for these three rivers and
look for ways to balance all those interests. However,
the collective demands on these three rivers from
agriculture, industry, and public uses are not only
decreasing flows, but contributing to diminished
ecosystems and to the decline of the region's federally
listed salmonids.

As already shared, natural production of adult
fall-run Chinook salmon are in steeper decline in the
Stanislaus, Tuolumne and Merced rivers than in any other
tributary of Sacramento or San Joaquin River. Therefore,
it's apparent that fish and wildlife beneficial uses are
not being met. Therefore, I'm in support of the State
Water Board's Alternative 4 to have sufficient flows
during the important salmonid rearing and outmigration
period, February through June, at a range of 50 to 60
percent unimpaired flows. But I also support the State Water Board's proposed Alternative 3, with 40 percent as the starting point, if I am to consider all interests involved.

Increasing flows will inherently have positive impacts on water temperature, dissolved oxygen levels, fine sediment loads, and improve habitat and floodplain, wetland and riparian zones, among other positive impacts. These improvements in turn will lead to enhancement in adult Salmonid migration, spawning, egg incubation, juvenile growth and outmigration and so on.

In addition to increasing flows, I also emphasize the importance of implementing flows that better mimic the natural hydrographic conditions in terms of magnitude, timing and frequency of flows. I am also in support of the ten non-flow measures proposed in the draft SED. These non-flow measures may better improve fish and wildlife beneficial uses than increasing flow alone. I also support putting forth biological goals for the flow objectives as indicators of salmonid viability. And finally I support establishing base flow requirements for Vernalis, from February through June, to reasonably protect fish and wildlife beneficial uses, especially during the critically dry years.

Regardless of our own priorities or values, we
can all agree that fresh water is precious in California. Into the future we have a responsibility to practice water conservation at a commercial and private scale to safeguard California's fresh water for the benefit of all users, including salmon. Thank you.

CHAIR MARCUS: Thank you very much.

Mr. DeBoer followed by Mr. Frost followed by Penelope Frost.

MR. DEBOER: Good afternoon, my name is Brad DeBoer and I farm 57 acres in the Oakdale Irrigation District.

MR. PETTY: Please pull your microphone up.

CHAIR MARCUS: Yeah, you're tall, so you have to pull it up.

MR. DEBOER: Sorry about that.

I'm sorry many of my fellow farmers could not sustain the torture of sitting here, many left, I think. When it's a day like today and there's lots to be done it's hard to sit and listen to a meeting like this.

I've not been a farmer all my life, but I was able to purchase some property and become a farmer at the age of 50. I'm very appreciative of the fact that our forefathers had great foresight to establish water storage in the Sierra Nevada. And that was paid for, as many speakers have said, by private funds.
Food is an important thing to us. Sometimes I enjoy it a little too much. But it's something that is very important and it is something that has to take, I believe, priority over even some of these other issues like fish.

Now, one of the problems -- and I think you've heard the word over and over again -- one of the problems with this SED is the fact that there has been a lack of collaboration. This should have been formed using your experts as well as the experts from the many organizations that could help with giving us great insight. I'm not an expert on any of this stuff, but I do know that I have looked at figures and tables and all kinds of things, and one person says one thing and another says another. There has to be some kind of truth that could be obtained through collaboration instead of "us" versus "them."

I'm a fisherman, I love to fish. I don't want to see the fish population damaged, but I do believe that it's important that we sustain agriculture so that we can continue to eat. And so that we can continue to enjoy the life that we have. Thank you very much.

CHAIR MARCUS: Thank you very much. You just summed it all up really well.

Mr. Frost followed by Ms. Frost followed by
David Ragland and then we will move to the next panel.

MR. FROST: Thank you. My name is Michael Frost. I live in the San Francisco Bay area. And the Bay-Delta Estuary represents a multigenerational classroom for my family. My family and I are able to learn about wildlife, climate, currents, ecosystems, local fresh food, and the intersection between humanity and the natural world agriculture, all in a day's fishing.

We're currently experiencing an extinction event with the ecosystem. The last trawl for Delta smelt didn't turn up one smelt. Yeah, I would agree with the previous speaker that we should not pit farmer versus fisherman, I think that's a false choice. I think that there is plenty of room to work together, but if agriculture experienced a 99 or 100 percent decrease in production, you know we would have a serious problem. So the magnitude and the scale of this crisis for the ecosystem cannot be undersold.

The native fish are the canaries in the coalmine. Humanity does not exist separately and distinctly from the environment. If the Delta dies, we die. And this may not be in the next five days, the next five months, the next five years. In the next five decades absolutely, this will happen.
The freshwater exports from the Bay-Delta Estuary must be reduced. We need to maximize freshwater flows all the way to the ocean. That's the lifeblood of the entire system. How? How do we do this? Do we divide and conquer? Do we pit Delta farmers and eastern farmers versus fishermen while Westlands and Kern get a free pass? Exporting massive amounts of water to Westlands and Kern planting nut trees in a semi-arid desert, while they rake in billions of dollars in profits, while the ecosystem dies and we're here battling each other seems a little crazy to me.

Shared sacrifice brings us together. And I heard some other speakers hammer on regional self-sufficiency within the urban areas, makes perfect sense. No, we need to look at this not in pieces, but as a whole.

The monetary cost, environmental cost and opportunity cost of excessive freshwater exports from the Delta are currently being felt. If freshwater flows through the Delta are not increased we'll be looking at a cascading effect of negative consequences that will make Flint, Michigan look like a picnic. And what I'm talking about here is weakening of the salinity standards in the south Delta. Water quality standards must be protected to support agriculture, drinking water, municipal
discharge, fisheries and groundwater recharge.

Please, protect the people of the Delta and the Bay Area, protect fish, avoid incalculable monetary cost due to degraded water quality. Please, permanently reduce freshwater exports from the Delta.

CHAIR MARCUS: Thank you.

Hello, Ms. Frost. Okay, so it works. We can see you. Thank you for coming.

MS. FROST: My name is Penelope Frost. I love visiting the Bay-Delta Estuary to go fishing and see the wildlife. Birds, otters, turtles, salmon, sturgeon and striped bass are some of my favorites. A Bay-Delta that cannot support fish in wildlife cannot support clean drinking water, clean groundwater, clean irrigation water or provide safe, wild fish to eat.

Please, please, protect the fish, water flowing all the way to the ocean.

CHAIR MARCUS: Thank you for coming. Thank you very much, very well done.

And finally, but not our last presentation obviously, David Ragland.

MR. RAGLAND: Hi. Thanks very much to the Board for taking this on. And I really hope we can move forward with the SED and increase these flows. I'm sorry I had to follow Penelope.
CHAIR MARCUS: That's a tough act to follow.

MR. RAGLAND: But which is my mother's name and
she -- who taught me many of the things this Penelope
just said.

Again, my name is David Ragland. I'm from
Sonora, California. I grew up on rivers. I grew up in a
campground that wished it was a trailer park on the
Feather River. And salmon was what we ate. And I've had
the privilege of moving down here. My first jobs before
high school was tying flies. And I worked at a bait
shop. I had the privilege of working in Yosemite Park at
Glen Aulin on the Tuolumne.

And I visit these lower rivers very often,
below the diversion dams and what I see is that they're
not healthy. And you can see a little experiment being
run among the three rivers we keep talking about. And
that's because the Stanislaus is regulated in a way where
it currently keeps more water than either the Merced or
the Tuolumne. And you can look at the numbers from 2015
where the Stanislaus got some 13,000 salmon and the
Merced and Tuolumne did not get 1,000 combined between
them.

You can also go to the town of Knights Ferry
and see two thriving rafting companies, because the flows
are high enough to go enjoy the river. And I did it
repeatedly. And at the same time, the flows were not high enough to do the same thing during most of the summer months on those other two rivers.

In the river, the water benefits local people. As a poor kid living on the river I appreciate that deeply. Sometimes people cite the fact that because these fish are doing well somewhere in California that's good enough. Well, you tell that to the kid in the trailer park by the river or to the family who has nothing but four inner tubes and a car that barely runs.

We need to keep these resources where they were intended to be, in the rivers where they belong. For our benefit, for the benefit of salmon, steelhead, Delta smelt, lamprey, green sturgeon, white sturgeon, ospreys, otters, orcas, all of this. And for the benefit of people like my older brother, who had to quit salmon fishing, because there weren't enough to fish for back in the late '80s and had to go find another job in another town.

Thanks very much.

CHAIR MARCUS: Thank you very much.

Next, we're going to move to our next panel, which is Oakdale Irrigation District, Steve Knell, and South San Joaquin Irrigation District, Peter Rietkerk, who are going to present together, thank you very much,
to economize on time. Mr. Rietkerk you have Mr. Shields watching you, so it's a heavy burden there.

We'll set the timer for your combined -- separately you were going to be an hour, because we gave chunks of time to irrigation districts and you said you think you can get it done in 40?

MR. RIETKERK: (indiscernible)

CHAIR MARCUS: Okay. Make sure your mic's on, yeah it's hard to see. Okay, thank you very much. Folks appreciate it.

(Colloquy to set up audio.)

MR. RIETKERK: Chair Marcus, members of the Board I want to thank you for the opportunity to speak before you today. My name is Peter Rietkerk, I'm the General Manager of South San Joaquin Irrigation District.

MR. KNELL: And I'm Steve Knell, General Manager, Oakdale Irrigation District. And I have about 100 words in my vocabulary before I start coughing, so Peter will be carrying the load here today.

CHAIR MARCUS: We have just what you need.

MR. KNELL: I have a pocketful of them myself.

CHAIR MARCUS: And I have Robitussin too. We like had a mercy run.

MR. RIETKERK: Certainly going to --

CHAIR MARCUS: Just let us know and we'll toss
MR. RIETKERK: Colds are certainly going around this time of year.

CHAIR MARCUS: We'll figure out who the vector was someday. Right now we're all vectors, unfortunately.

MR. RIETKERK: Together, the two districts represent 107 years of history on the Stanislaus River. We have the oldest and largest senior water rights on the Stanislaus River. Back in the early 20th Century the districts built a series of diversion dams and reservoir storage in Old Melones. And we built the three reservoirs in the '50s we call our Tri-Dam Project, which includes Donnells, Beardsley and Tulloch Reservoirs. Tulloch is just downstream of New Melones.

We also worked out an agreement with the Bureau of Reclamation, which effectuated to build the construction of New Melones, which resolved the water rights, and our water rights, and delineated or described the usage of our water rights and the delivery of our water rights through New Melones Reservoir.

As you can see we have quite a history in the local region. And as a result of the water development and the diversion and delivery of surface water it's provided a significant benefit. And the history of many of the cities that are in and around our area, as well as
the agricultural region, has developed as a result of
that.

We're going to start off with some basic
Stanislaus River facts. We hear very frequently that the
Stanislaus River is over-allocated and it's true. And
here's some of the reasons behind that.

First off, our average annual runoff in the
Stanislaus is about 1.068 million acre-feet. If you look
at the annual releases to the river currently at -- this
is instream flow -- that's about 439,000 acre-feet. Our
diversions, OID and SSJID, are about 505,000 acre-feet.
And then you have CVP contractors out at New Melones and
the Bureau's contractors, Stockton East Water District
and Central San Joaquin Water Conservation District, that
divot on average about 107,000 acre-feet.

If you were to subtract the current basin's
annual runoff from its annual water demand using all
those numbers you would see that there would be only
about 17,000 acre-feet left, on average, every year for
other purposes. So as we're evaluating this Substitute
Environmental Document, the SED, certainly we are
wondering where the water is going to come from to meet
that, the needs of additional flow down the river.

Currently, we can categorize those flows into
three basic categories: first, our instream flow
requirements; second, the diversions to meet water user
demands, both agricultural users and domestic water
supplies; and then third, for the remainder or the
leftover, it goes in storage in New Melones.

There's little additional water to meet the
needs of an unimpaired flow regime, so in order for an
increase in unimpaired flow to occur in the Stanislaus it
would need to come from either agricultural demands or ag
and municipal demands or storage demands. And it's clear
that the intent of the SED is to bolster instream flow
requirements. So as a result, storage and agricultural,
municipal demands are clearly in play.

The intent of our presentation today is not to
focus primarily on the economic losses and not to focus
primarily on fishery benefits. Although I would have to
say I did agree with Chris Shutes from CSPA that there is
no scientific basis for the 40 percent unimpaired flow.
But what we are here to do is primarily focus on the
economic losses or no, primarily focus on the surface
water losses and the surface water impacts that we will
be experiencing. Because we understand that those
surface water impacts are a surrogate for not only the
lack of groundwater sustainability that we will
experience in the region, but also the economic losses
that the region will experience if this Plan is
implemented.

So as a preface to our presentation outline and the slides we'll be going through, the districts ran some models, much like the State Board did in the SED. But what we did was we modeled the 40 percent unimpaired flow project in front of the current backdrop of water rights, priorities and regulatory requirements in the state. We considered this, the endearing term is the naked 40 percent alternative, or the pure 40 percent alternative. If the project description is 40 percent then let's look at the actual effects of 40 percent on the river.

What we see in the SED are dressed-up assumptions to help minimize the impacts of a 40 percent flow regime in the Stanislaus. So we are going to compare this naked 40 or pure 40 percent alternative to the SED modeling that's in the document. And try to dispel some of the fact or fiction that we see in the SED.

First, we're going to focus on instream flow impacts. So for our modeling purposes we reconstructed the hydrologic record much like the document does, the SED document, the modeling that's done in the SED. And we assumed for all intents and purposes that New Melones was constructed in 1922; we all know that New Melones was constructed in the late '70s and put into service in the
early '80s. But in order for us to evaluate and understand what a 40 percent recommended alternative would look like in terms of water supply impacts, instream flow releases, and storage impacts we had to reconstruct the record and assume that the record would be same, moving forward. Just like you guys did in your analysis.

So this is current instream flow releases. And you can see there if average annual inflow in the Stanislaus River is a little over a million acre-feet, there's an existing significant current flow regime in the Stanislaus River. In fact, your document states that we are at about 40 percent currently. Although if we were at a truly 40 percent, per what is in the document, we wouldn't be seeing the additional losses we are projected to incur for via the SED.

I'm going to toggle with what the 40 percent unimpaired flow looks like. And again this is the pure 40 percent unimpaired flow option. And you can see here if I toggle back and forth it's very clear that there is additional flow going down the river as a result of the 40 percent. Even though the Stanislaus is currently at 40 percent, what's being projected is that additional flow will go down the river.

One thing to note, there's a number of colors
in here. Red, yellow and green are primarily fishery benefits. Blue is instream flow requirements. And then there's a light blue on the very top and that's spills. Under existing circumstances you would see during wet years after the reservoir fills, you would see spills. Under the projected recommended project there are very few, if any spills occurring in New Melones Reservoir and primarily because the additional instream flow vacates space to accommodate the wet years. But unfortunately, it doesn't have the benefit of storing that water over into future years for water supply benefits.

The difference between those two, the current and the pure 40 percent alternative, you see under the current scenario about 439,000 acre-feet flow down the river. Under a 40 percent scenario, a true 40 percent scenario, there would be about 511,000 acre-feet flowed down the river to meet instream flow requirements. Again as a true 40 percent, as modeled would suggest, what's actually in the SED as showing, is 622,000. So if you were to --

CHAIR MARCUS: Can you just go back for a second and help me understand what you mean by the true 40 percent, just so that as we follow up we are clear on what the distinction is?
MR. RIETKERK: Sure.

CHAIR MARCUS: You may be about to get to it.

MR. RIETKERK: I will get to that, more so when we get to storage.

CHAIR MARCUS: Okay, I just wanted to understand it.

MR. RIETKERK: Yes. Yeah, but what we're seeing here is basically that the SED is proposing to release more than a 40 percent unimpaired flow, especially as an average annual effluent to the reservoir. What's really being modeled here is over 622,000 from the Stanislaus River being allocated instream flow needs. And the fiction in that is that there is this sense, and you've heard it in the room today, that the San Joaquin River and the Stanislaus being a surrogate for other tributaries as well in the San Joaquin River minimally contribute to instream flow requirements or fishery needs.

Well, the fact is if you look at the entire basin and you look at flows at Vernalis, as a percentage of unimpaired flow Vernalis is already getting 40 percent. In fact, if you look at the record and what we're showing here, 1930 to 2008, over 78 years of record, approximately 48 percent of those -- or sorry, approximately out of those 78 years, the entire record,
the average is about 48 percent as a percentage of unimpaired flow. Not the 15 or 20 that we're hearing, entirely.

MS. D'ADAMO: It's hard to see this. And if I could get the PowerPoint on this --

MR. RIETKERK: Yes, we can do that.

MS. D'ADAMO: -- but what's the timeframe that you're looking at?


MS. D'ADAMO: In months?

MR. RIETKERK: Oh, this is --

MS. D'ADAMO: Is this average annual?

MR. RIETKERK: This is average annual, yes.

CHAIR MARCUS: Right. And so you're going to get to the distinction between an average that averages the wet years with the dry years?

MR. RIETKERK: We are looking at average annual here. And the project that you're proposing is also a 40 percent, February-through-June, but in all years on average.

CHAIR MARCUS: In all years, right. That's the difference.

MR. RIETKERK: Yes, and I'm looking -- this isn't all years, on average. This is an average one. And if you look there are some distinctions. In this
graph again this is annual, but if you look at some of
even the critically dry years for the entire basin, about
41 percent of flow is hitting Vernalis as a percentage of
unimpaired flow in the basin.

One of the things we see as a justification for
that is if you look at the document, the document is
squarely focusing on flows in February through June. And
what we think or what we believe is happening here is the
state is basically taking the rest of unimpaired flow
that's happening during the year, which can be a fairly
large volume at times. And it's failing to -- in
acknowledging that a number of those flows are already
being released, much of that flow is already being
released down the river and then saying, "Well, we don't
need to look at that, because that's already being met
and being used to meet Vernalis flows."

We want to look at the February through June
piece, because that's the flow that's most critical not
only for temperature benefits, but also for storage. And
frankly, that's the piece of time in which we are looking
at. And we utilize, as agricultural water providers and
municipal water providers, to provide water to our
constituents during the summer months. So this
unimpaired flow analysis, while February through June is
a piece of the puzzle we're not looking at the entire pie
as it relates to unimpaired flow.

MR. KNELL: Yeah, and we were going to make the point here that in February through June it's pretty much asserted in the document that this is needed for environmental flows to benefit fisheries. But from our studies on the river in June, June runoff represents almost 40 percent of the volume of water between February and June, but yet in June 1 to 2 percent of the salmon that have not -- are still only left in the river; 99 percent of them have already left.

And so the value and benefit of taking June water is, well it's a point of contention for us. We understand the State Board wants to have this bucket theory that we're going to move this bucket back. But we think it's that bucket theory that gets you -- what we talked to you earlier - about 622,000 acre-feet. It allows you to accumulate water that you normally wouldn't accumulate. And that's just a point that we have a disagreement on and believe needs to be further evaluated as to the true value of taking June flows for fisheries.

CHAIR MARCUS: Right.

MR. KNELL: That is a point.

CHAIR MARCUS: That is one of the issues that has been raised. Other biologists have talked about the need for genetic diversity and so you need a longer time
span. But it is one of the issues clearly that people have raised.

MR. KNELL: Yeah. We would say that the 1 percent left in June they need to be bio-diversified out, because they're not the smartest fish. Everybody else is gone.

CHAIR MARCUS: Well, we don't want to start getting into anthropomorphizing. You definitely don't want to get into an anthropomorphizing contest with me.

MR. RIETKERK: Well with that we'll move on to storage impacts then.

MR. MOORE: Before you do that, before you move on, just I wanted to reconcile a couple of things. And whenever I look at these data -- I've been doing this here now four-and-a-half years -- I'm always sensitive to the years you're looking at. So when you use your dataset, 1930 to 2008, and make that analysis and come up with that conclusion, I think a lot of those years we were meeting biological goals for salmon, for instance. And it might be more of a pertinent analysis -- and please, answer what you think about this -- but to actually choose a different timescale. Where, you know, you're looking more like since the State Water Project came along. Or maybe it's more relevant to look since 1980 when theories of impacts on flow diversions to
biological productivity have come to the forefront.

So I'm concerned it might be a little misleading to characterize this system going all the way back to 1930, but --

MR. RIETKERK: Well, in this case we're not trying to make the comparison to biological impacts as a result of unimpaired flow. We're looking squarely at the record, and records available to us, in trying to make the distinction between what's in the Plan versus what we're seeing on a local level and in the basin.

MR. MOORE: Yeah, and I see the relevance of that, because we do look at the hydrographic record, going back to try to predict the future. Although we all know that's problematic with climate change, but it's something we can use to try to do the statistics on flow. So we'll be clear on that. But in terms of sort of the record and the analysis and the relevance I think collectively we're looking at answering the question, why are the biological indicators sliding when all these other things were still in place all those years ago?

MR. KNELL: Just for clarification that table we presented -- and the writing is very small -- it comes from the Southern Delta Salinity Technical Report that was produced, so that's why. We didn't pick that period of time, that's an actual study supporting the fact that
48 percent is already in the river.

MR. MOORE: Good, no that helps answer that question. Thank you.

MR. RIETKERK: All right, so now we'll move on to storage impacts of the 40 percent. Under current storage regime if you look at the record -- again, our record is about 94 years that we run here, from 1922 to 2015, it's a slightly longer than what I believe is in the record for the SED -- you'll see that New Melones Reservoir fills approximately 5 times in 94 years.

That's in part because the reservoir is fairly large as compared to its watershed. It can hold more than twice the average annual inflow into the watershed. But still it does provide an opportunity for, frankly all three categories of water. And primarily environmental and water users, human water needs, to weather some of the droughts that we have experienced over the significant record. If New Melones was built in 1922 you would see that it would only go dry in three years under the current storage regime or under the current regime and under current flow regimes now.

If the SED's 40 percent unimpaired flow recommendation was put in place, and again not looking at any mitigating factors, we would see that storage would drop to 0 in approximately 13 years under the 40 percent.
And for us on the Stanislaus we always look at New Melones as an indicator of drought. Today we're sitting at about 40 percent of historical average for this time of year; it's still relatively low. And a reason for that is because we have significant demands, but we also have significant instream fishery needs that are being met during this time of year, keeping storage depressed as compared to some of the other reservoirs.

Additional flow down the river will just make that significantly worse. Again, most of the drought periods that we experienced if you toggle back you'd see that we would weather most of the significant droughts, at least from a storage standpoint. Especially those in the early '30s, '60s, even '76-'77, is survivable under our current operations. And we would go dry in '91, '92. And we would start getting yearly close to empty in 2015.

At 40 percent you'll see that all of the drought periods, all of them, just about every drought period we experienced in California and on the Stanislaus River, would be significant and would be extended as a result of flowing 40 percent down the river.

MR. KNELL: So the simple math of, obviously, in the previous slide where we started with, is there's only three places water goes. And if you're going to put more water down the river you're either going to impact
storage or you're going to impact deliveries. And what
our slides show here is that modeling New Melones forward
under this regime your droughts are going to be longer
and you're going to be deeper, which makes recovery time
more difficult. Which means that droughts just last
longer and it's just harder on us. And we're going to
get to the repetitiveness over time; what that's going to
mean for all of us.

MR. RIETKERK: Comparison between the current
and the 40 percent for storage, average annual storage
maintains at about 1.182 million acre-feet in New Melones
under the current storage. Under a true 40 percent,
unimpaired flow -- and that's not shifting blocks of
water and not maintaining a minimum storage carryover,
which we'll go to next -- you would see about 748,000
acre-feet.

In the modeling analysis for the SED, and this
is where we believe there is some fiction put into play,
there's two parts to the SED. There is the project
description, which is 40 percent, and then on what we see
as an adaptive implementation or a Program of
Implementation, that's a separate activity that is not
currently under Phase 1.

The language itself, you'll see that the State
Board analyzes a carryover storage and refill requirement
that doesn't exist in the proposed rule nor exists in any precedent for regulation or law. If you read further in the analysis -- and the language is a little small here, but I'll paraphrase, under additional stream-flow requirements changes in water availability require adjustment of parameters to assure feasibility for the 82-year simulation, so that reservoirs are not drained entirely in the worst droughts on record. In addition, carryover storage guidelines have been increased for New Melones Reservoir to minimize impacts on instream temperature that would be caused by lower reservoir levels and a limited coldwater pool. An implementation plan developed in a future proceeding would need to identify and evaluate supply storage and temperature conditions and appropriate operational objectives, to best protect beneficial uses and avoid adverse effects where feasible.

What we read this as, basically under the Program of Implementation with a 40 percent recommended project the state at the same time threw in modeling assumptions to minimize and avoid showing the impacts of a true 40 percent alternative. If we are called as public agencies to provide a CEQA analysis for any project that we put forth typically we provide that analysis. And we show all of the impacts of the project.
Then we turn around and show the mitigating effects to try to minimize those impacts.

What we're seeing here, and what was modeled, was a 40 percent flow with all the mitigation at the same time. In fact, I believe in prior proceedings the State Board staff has indicated that they have not actually modeled a 40 percent under the current regulatory flow regime. And we would like to argue that the -- we will argue if we have to that the implementation, the Program of Implementation, there is no legal precedent for it. So to put forth mitigating factors without having a legal precedent to do so and not showing the flaw that the actual impacts of a 40 percent recommended flow regime on the Stanislaus River, and likely on the other rivers as well, to me will not or not should not pass CEQA analysis.

In fact, this is what it looks like as a result of putting in carryover storage, a requirement in the Stanislaus River, as it relates to storage. So the blue bars is the 40 percent unimpaired flow analysis as we have done, and with the current backdrop of existing regulations and water rights priorities and environmental requirements. And then the red line is the State Water Resources Control Board's 40 percent with adaptive adjustments or adaptive implementation.
And basically, you see in the red line that from a storage perspective it looks great. Storage never drops below 700,000 acre-feet throughout the entire historical record. And it frankly masks, as a result it masks the actual impacts of the proposed project without implementation being studied separately after the project is studied by itself.

And frankly the storage, if it's maintained at 1.186 under adaptive adjustment, that is nearly identical to baseline conditions. So again as a mass balance the water has to come from somewhere. And frankly, it's coming from water users and in significant quantities during drought periods in order to maintain minimum carryover storage.

We think this truly masks the impact to storage and also masks related impacts. Recreation, fuller reservoirs, we don't have to deal with recreation impacts now. Hydropower, the reservoirs stay full we can still generate hydropower, so we don't need to analyze that. Greenhouse gas emissions and groundwater, you know, seepage as a result of reservoirs staying full.

And instream water temperatures. Frankly, there was no analysis done for a 40 percent project, recommended project, on water temperatures as if there was no adaptive adjustments made in the Plan. And we
think that's dubious and not transparent to local public for one, because it does not show the actual impacts that the 40 percent will provide absent any mitigating measures.

We're going to move on now to our water supply impacts. And we have our CVP contracting partners in the room and I'm not going to go into the numbers too much on this one. They can explain the losses that this Plan will exact on them. But CVP contractor changes in water delivery, as you could see this is their current deliveries over the historical record if they were receiving water in through the entire hydrologic record.

And then under a 40 percent scenario, this is what we look at. So if I toggle back and forth a few times you can see that the water supply reliability afforded to them under their current CVP contracts diminishes significantly.

CHAIR MARCUS: And which is -- what's red and what's yellow?

MR. RIETKERK: So red would be Stockton East Water District's available contract supplies. And yellow is Central San Joaquin Water Conservation District supplies.

MR. KNELL: This slide really depicts one of the issues we have with the document itself, because
everything is so much averages, averages, averages. But when you look at these gaps in the 40 percent unimpaired flow, seven years of no water is not something you can average away. For agriculture seven years without water is an impact that needs to be addressed for the very fact that it's occurring in those periods of time. And to average it out against those years in which you get water, I think is disingenuous in the presentation of the material. And the thought process that's used in this document is averages, averages, averages. And we'll get to this at the end and I don't to get too far, but --

MR. RIETKERK: He's using his 100 words.

MR. KNELL: Yes, I'm using my 100 words. Thank you.

CHAIR MARCUS: That's all right.

MR. KNELL: We've got 12 -- or we've got about 11 minutes.

MR. RIETKERK: Okay. So what we see the difference between those two again, current and then 40 percent, what we see is a drop from 107,000 acre-feet on average for deliveries versus 74,000 acre-feet.

But one thing to note, you can see in the last 10 years -- and I'm just picking on Stockton East a little bit, but if you see there the amount of water that they would be entitled to over the last 10 years. Under
an average condition it's 1 in 2, 50 percent reliability. Under the 40 percent it drops to 2 in 10 years, so you just went from 50 percent reliability to 20 percent reliability. And I'm sure they'll speak more on that later today.

Moving on to OID and SSJID's water use if we toggle between the current flow regime this is OID and SSJID's historical diversions over the record. If you look at 40 percent you can see that we see very significant and drastic cuts in water supply specifically during drought periods, namely in the '30s and then again '91,'92. And you can see again in the current drought we're in, as well. That would equate for us. You would see under our current situation we currently divert about 505,000 acre-feet, on average. And under a 40 percent you would see, on average, a reduction to about 480,000 acre-feet.

You know, a note on 505,000 acre-feet, the districts' water rights per our '88 Agreement are for a total of 600,000 acre-feet. The reason why the districts have reduced our diversions is in part because of state requirements to conserve, but also in part, because the districts' desire to modernize our systems and promote conservation where we can. So we've seen a significant reduction in our average historical annual diversions
over the years, because of those system investments.

Those investments have resulted in conserved water. And that conserved water has been made available, which is fully within the California Water Code for us to do so, made available to areas of need.

And at the same time we've been able frankly, as an example of good water stewardship within the state of California, we have the ability to release that water and time it such that it also meets environmental needs as well. The last few years have been great examples of that. And you've seen presentations that we've provided on that topic as well.

On average, if we have to reduce our diversions under the 40 percent, you would see over the last 10 years $100 million in capital investments from the two districts that we've reinvested in our system, lost. We wouldn't have the ability to do that.

So one of the questions, and I'm not trying to be controversial here, but it certainly makes you wonder if the end-game of water conservation is to allow others to take the water away from us. As opposed to having the ability to redistribute the water, be benevolent with it, and provide it to areas that need the water, as well. And we've been able to do that through -- frankly, we've been able to move water around not only within basin, but
also to other areas on the west side of the Central Valley, as well.

Secondarily, some of the impacts, just average impacts in the SED, from SSJID's perspective we have municipal water customers as Jeff alluded to, nearly 200,000 customers in Lathrop, Manteca and Tracy and Escalon. And that water treatment plant for us under a 40 percent scenario, would be a stranded asset. We currently have booked capital. This is net depreciation of $127 million for that plant.

Under a 40 percent scenario, we would suspect that approximately $63 million in assets in that plant would be stranded. And that's because the plant was built not only to meet existing needs -- and some of those cities currently use 50 percent of the water -- currently that plant meets 50 percent of the total drinking water needs of that city, of the cities that we partner with. But it also has built-in flexibility for future expansion in an economic manner.

And so by exacting a 40 percent unimpaired flow regime on us you are looking at stranding approximately $63 million. That's a significant number. And at the same time, you'll leave city residents not only with permanent drought conservation, you also leave them with increased bills, because the debt service is still being
covered on the bonds that were taken out for those projects.

MR. KNELL: If I could add a little more discussion, I'll take another 100 words.

MR. RIETKERK: Go ahead.

MR. KNELL: These two districts invest about $10 million a year in modernizing and rehabilitating our system.

CHAIR MARCUS: Right.

MR. KNELL: That $10 million is generated through water sales that we move across Valley that both benefit fisheries, because they're timed --

CHAIR MARCUS: Right.

MR. KNELL: -- correctly and they benefit the west side in an area that needs water. Taking this unimpaired flow water away from us will reduce our ability to do infrastructure improvements, do modernization. That $10 million in a locally roll-up, economic stimulus to the -- is really truly $30-40 million of lost economic stimulus in our communities.

And so I really question this $64 million value of impacts that the state has put on this document. Just us alone, we're in the $30 to $40 million of economic stimulus that will be lost in the region. And we're just but one river of three that will question the economics
that was presented in the report.

CHAIR MARCUS: Are you in this -- I don't want to belabor the point, I just want to understand the point, because that number is a pretty big part of the cost -- are you then assuming that you would cut back your municipal deliveries at the same percentage as everything else?

MR. RIETKERK: Yes.

CHAIR MARCUS: I mean it's not 40 percent from where you are, it's whatever the additional increment is. But are you assuming everybody treated equally, and that you don't prioritize your municipal deliveries?

MR. RIETKERK: We have an agreement with the cities for operating the water treatment plant. And the agreement is that any reductions in water supply to our agricultural customers are shared equally with our municipal customers. So these are water losses across the board with no distinction between ag and M and I.

CHAIR MARCUS: Okay.

MR. RIETKERK: And Steve mentioned that the point we're really trying to make is we think the averages are truly hiding the drought impacts and in part, because of the carryover storage requirements that are in the reservoir. If you look at the drought period that we just talked about before, can we have the water
right of 600,000 acre-feet annually? If we assume the
model use is correct, at 535,000 acre-feet annually under
a current flow regime and you look at the 40 percent,
what's being proposed with carryover storage, you'd see
our diversions drop significantly. But basically, that
40 percent would result in a 40 percent reduction from
the water that we've typically had available to us in
prior years.

CHAIR MARCUS: Again, I'm just trying to
understand. So you're assuming 40 percent off your water
right as opposed to 40 percent unimpaired flow left in
the stream? I mean, there are a lot of water rights on
it. I know you're the most senior, but --

MR. RIETKERK: We are also --

CHAIR MARCUS: -- you are the most senior,
which protects you more than others.

MR. RIETKERK: Correct. Under this scenario,
what we're showing is under the 40 percent and this does
include the carryover storage requirements. Our water
rights would be reduced from modeled use, assuming that
we were also reducing our diversions during drought
periods to some extent for conservation purposes. Under
our modeled use we would see a 40 percent reduction.
It's even higher if you look at reduction under the
600,000 acre-foot total. So we are looking at these
aren't reductions, these are actual usage.

So assuming a modeled use of 535 we would see a
-- and then the 40 percent recommended project -- we
would see the availability of approximately 325,000 acre-
feet of water for our region.

You can compare between 600 and 535, but
basically what is in the modeling is at 325,000 acre-feet
is available. Not just from my district, but to be
shared jointly between the two districts.

MR. KNELL: I think the emphasis we're trying to
make here, and your document portrays this, I mean about
60 percent of the time if I remember the graphic
correctly at least for our district life would be
relatively unimpacted. But for that 40 percent of the
time life's hell. In an agricultural area where you have
to grow crops and you have no water that 40 percent is
very difficult for us.

MR. RIETKERK: You know, I like to make the
analogy that if the average adult human breathes 20 times
in a minute, and over a two-minute period they were to
breathe 40 times over the first minute and 0 the second
minute, then on average it would still be 20 times a
minute. And really, that's very analogous to what we
think is happening here under a 40 percent.

I'm actually going to pass that slide, but I'm
going to go on to the drought impact summary. Well, it's very similar to what we would be experiencing here under drought impacts. On the average it shows that yes, SSJID and OID and the Stanislaus River are currently at a 40 percent unimpaired flow regime on the Stanislaus. But on average, our reductions would be minimal. But during the most critical times, during the drought periods, they would be drastic and dire and devastating for us. And you're basically asking the water user community, the agricultural customers and domestic customers, to hold their breath for five-to-ten years at a time and hope that on the back end of it we'll be able to come out okay.

And so when you're looking at the averages just keep in mind that the drought impacts are truly what drive the sustainability and viability of our community.

MR. KNELL: And one of the things in addition to that, I think -- and we've been an advocate for this planning document -- at some point you need to have dry year off-ramps for communities. Mother Nature is always going to deliver us a hydrologic event that we can't outlive to. At those points in time when we get there the State Board needs to consider off-ramps from all this regulation to allow us to survive. And we think that needs to be in the document.
CHAIR MARCUS: Yeah, my understanding is there is something in the document that's controversial with others, as similar to the TUCPs we did during the unprecedented drought we went through and we undoubtedly will go through again.

MR. KNELL: Mm-hmm.

MR. RIETKERK: I think we've beat this one to death here, but the reductions are significant during drought.

CHAIR MARCUS: Well, we'll look at this and read your comments too, which will have more in detail, I know.

MR. RIETKERK: And again either way you should get between the two districts, if we are at 162,500 acre-feet during drought periods, that's critical. And that's not survivable, especially if droughts are extended and deepened with a 40 percent flow. And it doesn't just occur during that drought period we just studied, 1924 through 1935, it occurs in every drought period. So we'd be looking 1960 through 1964, '76 and '77, '87 through '94, 2002 through 2005, and again in the current drought period in 2012 and 2016 as well.

CHAIR MARCUS: Right. The challenge is the same thing happens to the fish, so that's the challenge in the balance.
MR. RIETKERK: I hate to be a little ironic and I'm not going to really go into it because it isn't in the topic of our fishery deal, but the Stanislaus has actually seen a record run of salmon this year. And the last two years have basically doubled in population, at least in salmon run, without additional flow. So we think there's other factors at play other than flow. And our current science that we're seeing on the river would suggest that there are other stressors out there and other things that are being done through hatchery management and otherwise that are seeking great results, as well.

So in conclusion, again we think that there's some significant issues with the analysis of the SED document. Especially on the unfounded modeling assumptions, the carryover storage requirements, we think the methodology appears to mask and avoid disclosure of the true impacts of the project. Again, averages and percentages don't make for the true story, as we tried to explain.

And if this Plan is implemented the true impact will be that when the next regulation -- when this adopted and implemented -- all the water users on the Stanislaus River will be devastated when the next drought hits. And we will sustain a bit with groundwater pumping
until SGMA hits and we'll be devastated, as well.

And my very final, final in closing argument, is the Board has a choice here basically to achieve a sustainable and achievable balance on water flows in the system. This is a water quality process and you are required to go through balancing. Although this isn't an ESA process one of the beneficiaries of water use is the environment and so you are considering that. And your job again is not specifically to save salmon. Technically again that's the responsibility of other agencies, but you do have a responsibility to consider that.

And finally, there's plenty of evidence in the record to show that the impacts to our local region far outweigh the few potential benefits that are shown in the Plan for fisheries. And really, what we're seeing is a heavy-handed approach to potentially make that work out against our needs of water.

What we are suggesting, and we have suggested, and will continue to suggest, there are other measures and other opportunities out there. Non-flow measures and other things we can be doing, some of the examples that we have provided over the last few years, to be able to provide a solution that's sustainable for our region not only for groundwater and for regional economics and for
surface water viability. But also measurable and
successful for local habitat and local fishery needs, as
well.

MR. KNEll: Thank you.

MR. RIETKERK: Thank you.

CHAIR MARCUS: No, thank you very much.

Any questions at the moment? Go ahead.

MR. MOORE: Well, thank you. I appreciate the
work you did to put the presentation together and the
modeling. And I've got a lot of experience doing water
quality modeling myself. And it's important to test the
models; these are planning tools.

And I hear your points about a disclosure of
impact. I've also got two years experience doing CEQA
documents professionally. So the spirit of CEQA and your
point about disclosing potential impacts on the
timescale, I hear those things.

One thing I'd like to give you the opportunity
to do now as you've looked, you've drilled down on water
supply and water quantity impacts, as we have this
discussion and dialogue between our staff and you and the
different tools, the work we're doing. What can you say
about water demand management in the irrigation
districts? Because there is in your assumption, in your
model assumption, you are assuming that those deliveries
need to be made for agricultural productivity and economy.

And we've learned in the last 20 years that the relationship between volume of water applied and economic output has changed through water efficiency measures. And could you describe water efficiency measures you're doing and planning to do? And, how that might affect your water demand that you'd predict outward, because all you've given me here is water supply.

MR. KNELL: I think specifically for Oakdale we are a region that -- or an irrigation district -- that is still 50 percent non-permanent crops and 50 percent permanent crops. There's a huge evolution in California only because really the regulations and the difficulty it is to become farming, farmers are moving to higher-valued crops in order to make ends meet, pay their bills, and engage in the life that they chose to do. So you are moving to higher efficiency systems.

I think gradually our community is. We have 2 to 3,000 acres a year we are losing of that non-permanent ground going to permanent crops and firming up water supply, firming up water demand and actually freeing up water.

That non-permanent crop, we have a huge pasture component. And I'll tell you pasture people like being
pasture people. And they like raising cattle, they like
that culture or life, but there is an awakening amongst
them that this may not be a business environment that
they can compete in and be successful anymore. And so
they're converting over. But when you change over a
pasture, which might use five, five-and-a-half acre-feet
per year to a permanent crop like almonds and is using
like three-and-half feet per year, there is a
conservation component that changes your demand within
the District.

And what it used to take us -- when I came to
the District in 2002, we were fully using 260,000 acre-
feet in order to make water demand diversions. Last year
we didn't have any allocations, it was an average year.
Our water use was 190, so that's your demand change.

And I think as we go forward and there's more
innovation, there's more efficiency, I don't know a crop
that doesn't go back in that doesn't have better
efficiency, land-leveling, all those types of things that
we should be doing in agriculture. But when those crops
rotate out those practices are being implemented. You
see demand going down in our region. And I think that's
going to be of benefit both for the transfer
opportunities, making water available both locally too,
because we have a SGMA component.
CHAIR MARCUS: Mm-hmm.

MR. KNELL: You know, we have to get more efficient to address SGMA. We're going to have to be putting more of our surface water in the ground, but we've got to make sure that surface water is there in a quantity that we can use.

MR. MOORE: And that's a great discussion. And I think from the State Water Board's standpoint all those aspects you mention we're very aware of and supportive of. But then also where does the surface water instream flow component come in? And as we go back and forth and talk about potential voluntary agreements and that sort of thing, I would encourage you to own those outcomes as you have. You all are stewards of the river and have insight there.

But when you describe that when the water is made available due to efficiencies it's not just for groundwater management. It's for sustainable, healthy rivers in your area, as well. Thank you.

MR. KNELL: Thanks, I could say that we invest a million dollars a year in science on our river, each and every year. We are firm stewards of our river. We believe that science speaks louder than words. And local science should have a little louder voice at the state office, as opposed to other research they are using.
Thank you.

MS. D'ADAMO: So I have a question about June. You talked about 1 to 2 percent of the benefits. And I know at the workshop, at the staff workshop, that issue was discussed as well. So could you comment on the source of your information on 1 to 2 percent?

MR. KNELL: We ran a rotary screw trap on the river, so we have a long -- in fact, we have the -- on the Stanislaus is the longest operating rotary screw trap in California. We have a long, long history of out-migrating fish in tracking that. And it's those readings that we get in June that are showing that there's very few fish out-migrating at that time. And our fish biologists believe there's very few out-migrating fish waiting to migrate out that late.

MS. D'ADAMO: Could you provide in your comments some detailed information about the source and the numbers? Even down to, if you have it, by day? What are you seeing? At what point are there no fish in the system? I don't know if you are able to collect and provide that information, but I think it would be helpful.

I know that staff provided some information and I think that their numbers were a little higher, but it may have been in different year types. I think it was
just maybe some selected years, so it would be helpful to
have a maybe more complete information from you on that.

MR. KNELL: Very good. We can do that.

CHAIR MARCUS: Great. Thank you very much.

And feel better.

MR. KNELL: Thank you.

MR. RIETKERK: Thank you.

CHAIR MARCUS: All right. Looking to the court
reporter, with your indulgence, I'm going to take ten.

All right, everybody? No, no, all right that's funny.

All right, so you can queue up.

First, we have Jerry Neuberger for the Delta
Fly Fishers followed by Dr. Ronald Forbes also from the
Delta Fly Fishers followed by Roy Hoggard or Hoggant?

MR. HOGGARD: Hoggard.

CHAIR MARCUS: Thank you, Hoggard. I got it
right the first time. I should have just shut up.

Mr. Neuberger?

MR. NEUBERGER: Thank you. I'm Jerry

Neuberger, I'm President of the Delta Fly Fishers. We've
been in existence for about 40 years and we have about
100 members on an annual basis.

I'd like to speak to you, not about the
fisheries of the Delta so much, but more about the people
of the Delta that support, that depend on those
fisheries. I've been fishing in the Sacramento-San Joaquin area ever since the 1960s. And I remember when I was a little kid we'd cross the Rio Vista Bridge in the fall and see as many as 200 boats in the river, all fishing for stripers during the StriperFest. And now if you cross the river during that same time, that same event, there are maybe 25 or 30.

When I drive through the Delta I see closed stores that were once bait shops, I see closed stores that were once local, little grocery stores. I see, when I'm out on the water in my boat, there's no longer any restaurants to go to that are on-the-water restaurants. Those are closed. When I look at the marinas I see lots of boats that are covered with debris and for all purposes abandoned. There's open slips. And all of those people relied one time on the fisheries of the Delta.

There's no doubt that our fisheries in decline. The salmon population is 5 percent of what it used to be. Striped bass are even worse, they're about 4 percent of what they used to be. California fishing licenses have declined by about 55 percent. All of those people supported the businesses that I spoke about.

So the people, when these stores closed, when the bait shops closed, when the restaurants closed, and
when the little grocery stores closed in the small communities, they didn't get subsidies from the state to run their businesses. They didn't have crop insurance to sustain them in the tough years. They just closed and went on their way. They didn't have water districts to advocate for them, they didn't have banks of attorneys to appear for them. They were little mom-and-pop businesses that just went out of business and some of them lost their fortunes. Some of them have very little to exist on as far as in their senior years.

Restoring the flows on the Delta will do much to restore the fisheries and it will do a lot to restore the economy of the Delta, as well. Thank you very much.

CHAIR MARCUS: Thank you very much. It helps to paint the complex picture that we're dealing with.

Next, Dr. Forbes followed by Mr. Hoggard followed by Roger Kelly from the Northern California Sea Ray Boat Club.

DR. FORBES: Good afternoon Madam Chair and Board Members.

(Colloquy re: audio setup.)

DR. FORBES: How is that, is that better? Is that better?

CHAIR MARCUS: Yes, it's much better.

DR. FORBES: Thank you very much.
Good afternoon Madame Chair and Board Members.

I'm Ron Forbes and I'm the Conservation Chair for the Delta Fly Fishers. For over 50 years we have watched ongoing diversions of water decimate the Delta and decimate our fisheries to the point where several species now face extinction. However, during the last 5 years of this severe drought we have watched water continually being diverted from the Delta to South Valley corporate farms. And during that time these farms have not only done well, they have continued to grow -- the number of acres that have been planted -- and they have enjoyed record financial gains.

However, at the same time with these ongoing water diversions the Delta is near the point of collapse. Some of the issues caused by these ongoing diversions are potential extinctions for our fisheries, continuing intrusion of salt destroying the Delta farms, potential loss of the Delta's ecosystem, potential loss of safe drinking water standards for the 4 million people who live in and adjacent to the Delta, and the toxicity of the Delta's waterways caused by this Board's granting waivers to farmers to use herbicides and pesticides, so that these farmers no longer have to comply to California's Clean Water Act.

Six years ago this Board reported that to
protect the Delta a rate flow of 60 percent of unimpeded fresh water was needed to maintain the Delta from the months of February to June. And just three years ago, the California Department of Fish and Wildlife reached the same conclusions.

We would hope that in making your decisions that this Board comply with the doctrine of public trust and state law and recognize that the potential catastrophic issues facing the Delta. We ask this Board to support the ongoing freshwater flows released from the San Joaquin, Stanislaus and Tuolumne rivers. And in upgrading the Bay-Delta Quality Water Plan make your decisions based on the best science available.

I appreciate your time. Thank you very much.

CHAIR MARCUS: Thank you very much. Thank you.

Mr. Hoggard followed by Mr. Kelly followed by Dante John Nomellini from the Central Delta Water Agency.

MR. HOGGARD: Good evening, my name is Roy Hoggard. I'm a resident of the county here. I grew up on the edge of the Calaveras and I've seen a lot of changes over the years. I hope I use the right terminology to keep everybody happy. Elected and appointed officials swear an oath to protect us in foreign governments, encroachments on our properties and our health, our welfare. We're hoping and expecting and
demanding that we are protected. Thank you.

The conveyance system that's being planned will take ten years to build.

CHAIR MARCUS: Well, if you're talking about the Delta tunnels we cannot hear you in this hearing on that.

MR. HOGGARD: All right, I will go on to another subject.

CHAIR MARCUS: Yes, sorry.

MR. HOGGARD: Okay. We have saltwater coming in to our rivers, because we don't have enough water going out. We also have saltwater coming in to our aquifers, where the aquifers pour into the ocean. There's not enough water to push back there either.

The Army Corps of Engineers -- a very bright group, I've worked with them as an architect years ago -- we have 18 rivers that have blocks to fish being able to get up to the spawning grounds. You would think that after all these years we could improve these dams, weirs and blockages. The Baroda Weir, it's right here, it feeds our town. I've been asking for over 20 years get rid of the flume. Put in a proper fish ladder that fish can use. We're watching the spawning grounds being silted over and poisoned over. It's just unbelievable.

Recently, there was a claim that we had no
drought and that we were up here protecting a worthless
three-inch fish and our water would be gotten to the
southern counties. It seems as though God made a mistake
in making that fish.

I would like to thank the citizens of Standing
Rock for protecting their neighborhood. And I would like
to thank Restore the Delta with Barbara and Bill Jennings
for keeping us informed on the dangers of what we face in
the future.

We all know that the misfortunes in Syria
started from a drought, where those peasants, farmers
could not grow anything, moved into town. And they have
that chaos going now. What we face in the future is a
collapse of our system of no jobs, no farming; all of our
industries will die. We will drag the rest of the
country down with us. And just remember, we are going to
be the "sans-culottes" of the future. They are the ones
who chopped off Louis XVI's head.

Thank you.

CHAIR MARCUS: Thank you.

Mr. Kelly followed by Mr. Nomellini followed by
Tammy Alcantor from the City of Escalon.

MR. KELLY: Thank you for allowing us to voice
our opinions.

CHAIR MARCUS: I appreciate it, it helps.
MR. KELLY: My name is Roger Kelly. I'm a lifelong resident of Stockton. I currently reside adjacent to Calaveras River. And right now, I really oppose the flows. The Delta is in peril. I cut about half of my stuff out, because most of the people have said what I feel. But we've got Egeria, we've got Water Hyacinth, we've got toxic algae that I fear is only going to get worse if we have less flows going through the Delta.

There's been several dogs that have died, because they go out and swim in it, they come out, they clean themselves. Well, what happens when we start watering our crops with this? If we reduce the flows we're going to have more problems. And the salinity is going to be an issue.

I look out my backyard and I can see seals and sea lions all the way up; I live next to I-5. I found a large body of a salmon that a seal had gotten a couple of weeks ago. You can't blame them, they're coming this way because the Bay is also in such an unhealthy array that they have to come this way for food. You go by the port you can hear all of them underneath the docks. We can't afford for any more flows to be taken away from the Delta.

As somebody stated, all of the businesses that have left, we had at one time over 100 boats in our club, so a couple hundred people; we're down to 60. A lot of
it revolves around some of our favorite destinations to
go out and boat and recreate. We can't go there anymore,
because a lot of it being the Egeria, the Water Hyacinth.
I just -- I hope you can see my side and some of the
people who have brought the fact that this is one of the
most beautiful estuaries and the economic value that it
holds. Please don't destroy it.

CHAIR MARCUS: Thank you.

MR. NOMELLINI: Members of the Board, thank you
for coming to Stockton.

CHAIR MARCUS: Thank you, it's good to see you.

MR. NOMELLINI: I'm Dante John Nomellini, I'm
the Manager and Co-Counsel for the Central Delta Water
Agency. My perspective is a little different here in
that I focus in on the water rights that we have in the
system. And in my view this is an attempt to put burdens
from the State Project and the Federal Project on to the
local watersheds and senior water right holders, which I
view is an improper action and a violation of the law.

We hear a lot about doing things, suffering,
spreading the pain in this and that. But basically, we
have senior water rights in these tributaries that need
to be respected. And the water projects themselves have
junior water rights. And the shortage that we're all
fighting over is due to the fact that the projects were
supposed to be limited to surplus water and they've failed to do the development that was planned.

But now when we go and look I see what you're doing. You're going to degrade water quality, which I think is a terrible thing for you to do -- the salinity or for agriculture you're going backwards on that.

You've got strong policies. This state is expected to lead the United States and the world and you guys are going to go backwards. And I see that as simply some pressure from the exporters coming on you, because we all know that in order to get the leaching fractions you have to have the proper soil conditions. So it's obvious to me what it is.

Now, when we go to the watersheds and we start taking this water out, if it's not surplus water it's going to add to the burden of trying to bring our groundwater in the balance. And a lot of these things that are talked about is conservation: short the water flow into the underground, short the replenishment. So what we need to do is look at whether or not this is sustainable.

In my opinion, if you're not dealing with surplus flows to meet the fisheries it's short-lived, so any investment that we make -- and you know, I know what the background deal is -- you go ahead and pay these
irrigation districts money like they did with that San Joaquin River Agreement before they get the money. It actually shorts the water flow during the rest of the year, because the fish flows are February through June. We have to sustain the rivers for the balance of the year.

So what they do is they don't release the water for power production later, or whatever it is. What we need to do -- and of course you're aware of the federal legislation where they're talking about a one-for-one diversion at the export pumps to the flow in the San Joaquin River that is supplemented by these efforts that we're talking about.

So we have to look at projects that actually develop yield in the basin, in the watersheds. Part of that yield can be used for fish, part can be used for further development. To me, that's where we have to go. Otherwise we're just going to fall farther and farther behind. Thank you.

CHAIR MARCUS: Thank you. Next, Kevin Kauffman followed by Gary Darpinian followed by Gary Barton.

MR. KAUFFMAN: Thank you for giving me this time. Honorable members of the Board, my name is Kevin Kauffman and I'm a civil engineer residing here in Stockton and practicing as a Water Resources Consultant.
I advise clients that use water from the San Joaquin River, the Lower San Joaquin River here in Stockton and its tributaries: the Mokelumne, the Calaveras, Stanislaus, Tuolumne and Merced rivers further up the Valley.

Over 17 years ago, one of your predecessors on the Board here, a soft-spoken, brilliant civil engineer by the name of John Brown provided me counsel on the role of the State Board and its lack of a comprehensive statewide plan. It has taken me a long time to understand what Mr. Brown was trying to teach me, but I think I now get it. And you still don't have a plan. The proposed actions defended by the SED are simply a stopgap by your Board to address the latest crisis that you face.

Per your documents, you intend to 1) take surface water that you think you need for ESA reasons, but actually it appears that it's to be an attempt to fulfill your commitments to both the state and Central Valley projects. And 2) you adapt your commitments, these commitments, over time probably taking more water. And then finally you amend the water rights according to these first two steps. The impacts of these actions should be considered unacceptable to you as they do to most of the people in this room. I believe the term ass-
backwards describes your proposed actions. I implore you
as a State Board to please hit this pause button and
consider reversing the order of your proposed actions.

    As Mr. Brown suggested so politely, you need to
first assemble a statewide comprehensive water plan.
Then amend your water rights that you have issued, to
date. And then finally divvy up any remaining water in
accordance with such a comprehensive plan.

    And I see my time is up, so thank you very much
for providing me this time. Thank you.

CHAIR MARCUS: Thank you.

Mr. Darpinian followed by Mr. Barton followed
by Dave Kemper. And those are our final three for this
session at the moment.

MR. DARPINIAN: Thank you Chair Marcus and
Board members for giving me the opportunity to speak. I
want to bring it down to a little more ground level,
maybe, for the discussion today.

I'm a member of a family that's been farming in
this area since the 1930s and we span four generations.
And we grow permanent crops, tree crops: peaches,
algmonds, walnuts. And I farm in two irrigation
districts: South San Joaquin, about 300 acres in the
South San Joaquin Irrigation District; and 700 acres in
the Modesto Irrigation District.
Normally I don't talk about our farming operation in public, right? But these are extraordinary circumstances and the reason I want to do it is to talk about the impacts, the real-world impacts and the thought processes of a grower and the people who work for him.

For us, when I look at the SED proposal in the short term, we have to make some choices, okay? And I want to be very clear about this. You know, an uncertain water supply for a grower like me with permanent crops is like having no water supply, okay? We don't have -- we have trees that have a lifespan of 20 or 30 years and we need to sustain them through drought and in good water times.

So in the short term if this proposal goes through we're going to be faced with, "How do we deal with drought?" And I can tell you in 2015 we had to pull out 20 acres of producing orchards in order to shift water between our crops, so we could keep the other trees alive, okay. And that was minor and we got through it. And we will have to do that, it looks to me like with these more severe drought periods from the regulation, that we're going to have to do a lot more of that. And it could be devastating to our business. We're looking at the possibility of having a fallow maybe as much as 30, 40, 50 percent of our ground. So what's the impact
Then, in the longer term we have to look at what are we going to do. We have uncertain water supply, so we have really the choice of drilling wells. We're a completely dependent -- my operation is almost completely dependent on surface water and that's by choice. It's a philosophy my family has. We don't want to pump groundwater. We don't think it's a sustainable way to go. It's become more popular and because of the drought it's become definitely the way to go, I guess. But in terms of long-term sustainability we don't think it's the way to go.

So what does that mean? Well, I want to talk about the impacts on our employees. Okay, we are a longtime farming family. We employ roughly 16 full-time people and we have for years. People have worked for us for 10, 20, 30 years, okay? Almost like family, have second-generation employees and these are the people that I'm worried about. These are the people who are going be impacted. The thought of having to lay off six or eight of those people, because we just aren't going to have enough water to farm our ground, that sickens me. These are the people who can least afford it, these are the people who are going to be most impacted in our community by this proposal.
Please consider non-flow measures as much as possible. Thank you.

CHAIR MARCUS: Thank you.

Mr. Barton followed by Mr. Kemper.

MR. BARTON: Good afternoon, my name is Gary Barton. I'm the Chair of the San Joaquin County Agricultural Advisory Board, part of a family that has farmed along the Stanislaus River for 104 years. The fifth generation of our family is now part of our operation. We hope he is not the last.

These are the times that try men's souls. Today the Central Valley of California is indisputably the most powerful agricultural engine in the world. Our region has done more with the gifts of nature and the resources available to us than any other place on the globe. Over 150 years of sweat, toil and blood have created this economic marvel and millions around the world benefit from it. But make no mistake, this proposal by this Board will destroy that economic marvel.

Folks in agriculture struggle under the weight of the most regulated state economy in our country. But there is one resource, without which we cannot grow and produce the abundance of food that we do. That is, of course, water. Yet citizens of the Valley are expected to accept a set of regulations that will devastate our
economy, annihilate over 100 years of established water
rights, ravage constitutionally established property
rights and relegate our businesses and communities to a
slow, painful death of 1,000 cuts.

And for this outcome, the people of this area,
along the Stanislaus River Watershed, will receive 220
fish. By some logic that is entirely lost on me and
thousands of other Valley residents, this Board has
concluded that these 220 fish are what is best for our
area and for the citizens that live and work here. The
Board has concluded that the work and sacrifice of
generations is relegated to history's trash heap.
Because, apparently, these fish are far more important
than the legacy of sacrifice and dedication that has
created these amazing blessings, and of much greater
value than the lives devoted to building and caring for
our families in our communities. And that, I believe, is
the very definition of tyranny.

The growers and the landowners and the
communities in this area, we must prevail and we will
prevail. Our property, our livelihoods, our very way of
life is at stake. We will not forfeit our liberty and we
will not forfeit our water.

CHAIR MARCUS: Thank you.

All right, next Mr. Kemper.
MR. KEMPER: Going to get a little bit of a repeated theme here, I'm Dave Kemper and I'm a farmer in the Manteca area. And I'm going to speak in a little more generic terms than the last two people, because the American farmer to me is a hero. And no one talks about it.

CHAIR MARCUS: We've been talking about it, just so you know.

MR. KEMPER: Yeah, anyway it's fed the world many times over. You can read a lot about it. Milton Friedman and his book, "Freedom to Choose", uses the model the American farmer feeding the starving people and it saved millions of lives in Russia by producing food for our for-profit deal. And one of the reasons I say that it's in generic terms is as we go broke, us farmers have to be efficient. We go out of business. But we do an efficient job and as a general nature it's something that needs to be praised.

In the Valley here, I've understood that it's almost quadrupled production in my lifetime with less resources, crappier soil due to urbanization, less water. Don't make any dust. And a burden of paperwork that's unbelievable.

The Valley here is unique in that there are nine different kinds of soil in the world that are
considered prime farmland. Eight of them appear in this valley and none of them will grow anything without water. The Mediterranean climate we enjoy also is unique to California's Valley. There's a few other places that it occurs, but they're not really useful. Mexico can do some, but some of the previously named sites -- Lebanon, Syria, Benghazi -- they all enjoy a Mediterranean climate. There are like 90 different crops that are grown in this valley. You want to depend on others for that? I don't think so.

I don't think it needs to be farmers versus fish either. But I think the environmental community needs to take a good look at it too, because Mr. Grober mentioned it earlier, 1992 is when things changed. That was the year we got a million-and-a-half acre-feet from agriculture to put into the fishing. And your track record, as an environmental community of using that water to promote species, is poor.

One final note, I have a chart here of salinity in the Delta and I'll tell you a little bit about it. All of the spikes are before 1940. Some of them are five times higher and the reason for that is you didn't have reservoirs. There was no State Water Project. There was no Central Valley Project. And you're artificially creating this Delta model out of stored water. It won't
occur without it, so be careful about trying to mimic
nature when we've already turned nature upside down.

And final point, I found this information in
your book. And it's last year's California's drought
thing put together by you guys, so you can find it in
there. Thank you.

CHAIR MARCUS: Thank you, sir.

All right, thank you. That took a little
longer than I estimated. I'm sorry for anybody's blood
sugar levels. We will now take a -- is a half hour okay?
Like is that all right if you put back up the list of
places? There's also a Starbucks a few blocks away, my
personal favorite.

MS. D'ADAMO: I just have a suggestion. Maybe
if you could mention who'd be first on deck?

CHAIR MARCUS: First on deck will be Stockton
East. And then we'll take another 10 people.

(Off the record at 1:42 p.m.)

(On the record at 2:17 p.m.)

CHAIR MARCUS: It is 2:17 and we are
reconvening with the Stockton East Water District Panel
with Scot Moody and Jeanne Zolezzi.

Thank you so much for being patient with us
alternating with the public comment. That is our
practice now and I just think it's --
MS. ZOLEZZI: It's a good way to do it.

CHAIR MARCUS: Thank you. I'm glad you agree.

Terrific, so we know that Tam will catch up on anything.

And I think we should just get started if you don't mind.

MS. ZOLEZZI: No problem, thank you.

Jeanne Zolezzi from Stockton East Water District. And I'm going to skip on some of my slides, because I'm trying to reduce this to fit in the time.

But Stockton East Water District is very concerned that the State Board is going to be pursuing another staff-driven plan. Our concern with the Plan is that it's driven by staff with input from only other governmental agencies, the SED is compiled by models without peer review, the conclusions reached without input from the public or the regulated community as to conditions on the ground. And it's a plan designed to achieve one state goal, which is Bay-Delta water quality, without regard for its impact on another equally important state goal, groundwater sustainability.

And what I want to focus on today is the Plan's emphasis on flows. And we've heard a lot about this today, but it's true. It focuses exclusively on flows. And we have seen the mantra of "more flow equals more fish" again and again, since the early 1990s. And it just has not resulted in more fish in the San Joaquin
Basin. It appears that no one wants to look at the real
evidence provided by research on the ground.

And it was mentioned earlier, Stockton East
participates with Oakdale and South San Joaquin to fund
fishery research and monitoring on the Stanislaus River.
And these three agencies have completed more research and
monitoring than any governmental agency. And in fact,
more than all governmental agencies combined on that
watershed. So I would hope that your staff would pay
attention to the information that we have on the San
Joaquin River tributaries.

And the scientific evidence is contrary to the
assumption being made in the SED. The slide before you
shows Chinook abundance trends in all three of the
tributaries. And the data shows that the abundance for
the tributaries pretty much mirror one another, all three
of them. And this is unique, because there are three
very different water release regimes on the three
tributaries, with some releasing minimal amounts of
water, and others like the Stanislaus River reaching over
50 percent of unimpaired flow being released over the
past 20 years. But it doesn't really change the Chinook
abundance in those rivers.

Similarly, your staff showed a slide earlier
about how terrible conditions are on the San Joaquin
River. This is not related to flow. If it were related to flow, you would see the Merced River being in terrible conditions and the Stanislaus River being in the best conditions. The Stanislaus River has released more water than your staff is saying should be released and it still is in this predicament.

This provide strong evidence that it's not stream flows or pulse flows that drive Chinook abundance. And focusing entirely on flow in the SED ignores the other important issues that are critical for fishery recovery and abundance, habitat capacity, predation and hatchery practices.

Now habitat capacity is pretty simple and straightforward. The Stanislaus River currently has enough habitat to support about 2,500 female salmon. The Stanislaus River now has more than 11,000 adult returning salmon. So it's essential to ask why we would increase flow on the Stanislaus River to create more fish, when we don't have sufficient habitat capacity for the fish that we have now.

We could, of course, do habitat restoration and we stand ready to do that. But it doesn't make sense to do habitat restoration until we solve the predation problem. We've heard a lot about that today, but contrary to earlier statements, predation is the biggest
problem on the tributaries in the San Joaquin River. And we are not the only ones saying this.

We have the data to prove it, but NMFS, in its 2009 Draft Recovery Plan, found it to be one of the most important stressors. A 2014 study by DWR found predation plays a large role. This Board has identified non-native species as one of the water quality impairments in the Bay-Delta. Even the 2010 Flow Report, that you're relying on, has significant passages saying that even with 60 percent flow, you cannot look at flow alone. There are other stressors, including predation.

So the fact is that even if we have fish in the Stanislaus River, in the entire San Joaquin River Basin, the research that we have demonstrates up to 98 percent of salmon and steelhead are lost to predation before they even leave the tributaries. This is not the San Joaquin River and this is not the Delta. This is the Stanislaus River, the Tuolumne River and the Merced lose 98 percent of the fish before they make it down the trib. It's not even mentioning the San Joaquin River, which has 300 bass per kilometer in the main stem. It's not talking about the 1.5 million bass that live in the Delta or Clifton Court Forebay, which has up to a 100 percent predation loss.

So until predation is addressed, these native
populations will not be increased in the river. And the recent hatchery practices and the recent data we have in the Stanislaus really illustrates this. As I mentioned, the Stanislaus River has already met its doubling goal. The doubling goal on the Stanislaus River is 22,000 fish. In 2015, the Stanislaus River saw nearly 15,000 fish. And when you account for the ocean harvest, we've more than met the doubling goal. We have over 30,000 fish.

The funny thing is though, these are not what I would call natural fish from the Stanislaus River. These are all hatchery fish, which as mentioned we have the Weir. We see every fish that goes up and down the river and we can tell if they're tagged or not. The statistics show that we have hatchery fish on the Stanislaus River. And in 2015 and 2016, that huge abundance of the fish happened for one simple reason. In 2013, California Fish and Wildlife increased hatchery production on the Merced River to 1.5 million fish.

And these fish, even though they're spawned and reared in the tributary, they are not released into the river to go out into the ocean. They are trucked around the tributary, the San Joaquin River, and the Bay-Delta, and released in the Bay. So they are escorted past the predators and we don't lose 98 percent to 100 percent of them. So they only have to face the ocean harvest of 60
percent, so 40 percent of these hatchery fish are returning to the tributaries to spawn.

Under Fish and Wildlife regulations, they are now natural fish. So the Stanislaus is meeting its doubling goal, but it's because those hatchery fish, which are saved from predation, are able to come back because they made it out. We could do the same thing if we were able to take care of the fish, so that they have enough habitat and they are not eaten by predators on the way out.

Very important because you do have non-flow options, I would recommend to your attorneys to go back and answer that question again. If you can look at water right licenses and permits that you have out and show me one of them that doesn't have a non-flow requirement as a condition in it, I would be surprised. We will put in our written comments the options that you do have for non-flow. And again an SED focusing strictly on flow is unreasonable use of water, because it will not accomplish the goal.

And before I take Scot's time, I just wanted to mention one more thing about the Stanislaus. The Stanislaus is very unique as you can probably tell from the comment's I've made. And we believe that it is being disproportionately burdened in the proposed SED for
several reasons. First is the Stanislaus has already achieved the doubling goal, which is what you've been looking for since 1995. In fact, we've exceeded it in 2015.

The Stanislaus already exceeds 40 percent unimpaired flow. And we can also submit to you the printouts that establish this. From 1995 through 2016, the Stanislaus River has released an average of 53.9 percent of the unimpaired flow of the river for in-stream purposes. And to make sure -- You know we say a lot about averages don't tell the story. But just so you know, that average is not really skewing the result. Over that 22-year period releases were less than 40 percent of unimpaired flow only five times. And three of those times they were still over 30 percent. So the Stanislaus River has only released below 30 percent unimpaired flow in two years over the past 22 years.

MS. D'ADAMO: I have a question then. How would you be impacted by the proposal if you're already meeting it?

MS. ZOLEZZI: Because your -- now how should I say this politely -- your staff is telling you that they are releasing the 40 percent February through June and mimicking the natural flow. What they're doing is taking 40 percent of the inflow during that period and then
using it in different periods of the year.

We are releasing significant amounts of water on a year-round basis under the biological opinion that is currently in place. So we have flows after the February through June period, so you will be taking 40 percent during February through June, when we may be releasing less than 40 percent. And we would still have to release from June through January, significant amounts of water for the fishery.

So ours is a year-round requirement. What your staff is doing is piling on top of that biological opinion, an additional flow requirement of about 100,000 acre-feet of water. Because they are taking the biological opinion flows or the 40 percent flow, and taking whichever is higher from the river. So we will be at greatly above the 54 percent unimpaired flow.

And finally just in conclusion, I want to mention we've heard a lot about settlement. And there have been a lot of settlement offers submitted.

CHAIR MARCUS: But not to us, formally.

MS. ZOLEZZI: To your staff and to the settlement process that your Board was a part of on the San Joaquin River system, submitted settlements in writing, which were rejected, because they did not include 30 to 50 percent flow. So these settlements
you're talking about are really that you want the flow that your staff is asking for plus something else on top of it. So you really need, before you keep telling your audiences that we are looking for settlements and we are willing to compromise, you need to really talk to your staff about what's out there.

The Stanislaus River has a settlement proposal that's been out for quite a while that's been rejected, because it didn't submit sufficient flows to meet the 30 to 50 percent.

So sorry, Scot.

MR. MOODY: No problem, she speaks better than I do anyway.

As you may or may not know, Stockton East Water District has a contract with the United States Bureau of Reclamation for 75,000 acre-feet of supplemental water supply from the Stanislaus River, the New Melones Project. We use this water to replace groundwater use from the critically overdrafted Eastern San Joaquin Groundwater Basin.

We believe that the SED is over-reaching. The proposed Water Quality Control Plan would require an additional 293,000 acre-feet of water to be released annually between February and June to increase flow on the Stanislaus, Merced and the Tuolumne rivers. The
adverse impacts on Stockton East and the Eastern San 
Joaquin Groundwater Basin for this Plan would be 
devastating.

The impacts are not fully evaluated, the SED 

purports to show that the impacts of water users is from 
the Quality Control Plan implementation. But these 
modeled results are neither reliable or realistic. It 
minimizes impacts in two different ways.

One, it collectively calculates reductions and 
shortages by the tributary and two by averaging 
reductions in all the year types. The result of this is 
that the SED concludes that the long-term reduction in 
surface water supplies for the proposal is a mere 14 
percent. I would suggest that if we were only talking 
about 14 percent you wouldn't have heard the outcry that 
you've heard to this point and that you will hear in the 

near future. That simply is just not the case here.

While the SED shows the overall 14 percent 
reduction in supply, it also states that reductions will 
take place in accordance with water right priorities. 
This means that people like the Stockton East Water 
District, with junior water rights will bear the brunt of 
the these reductions, while others will suffer little to 
no impact. It does not show the ramifications of that 
anywhere within the graphs or the summaries of the water
supply affects within the SED. The SED assumes that we're all the same. I assure you that we are not all the same.

What does this mean to Stockton use? In all but the wettest of years, Stockton East Water District will receive zero water allocation from New Melones Reservoir, and will strand a $56 million project that we have just now begun paying the bonds on.

Groundwater substitution, one of the insulting aspects of the Plan is that the suggestion by staff that the impact to the water users will be minimal, because reduction in available surface water will be replaced with groundwater pumping. Now the SED does acknowledge that there's already a 45,000 acre-feet annual deficit in current groundwater supplies. The SED estimates that the proposal could result in an average annual increase in groundwater pumping of an additional 105,000 acre-feet. If Stockton East is pumping zero water these averages that are spoken of will no longer apply, because we will have no other choice.

While noting that the groundwater pumping in most of the areas is already unsustainable, the SED fails to evaluate the impact of SGMA on this increased and continued unsustainable use of groundwater. Reductions in pumping that will be imposed by SGMA are not even
considered in the SED.

The SED also suggests that Stockton East could utilize the Calaveras River as a municipal water supply. That's an unrealistic suggestion when the Calaveras River is already fully subscribed. What the SED fails to mention is -- the Calaveras River is listed in Phase 2 of the SED. In Phase 2 of the SED your existing plans will kill that river and the wonderful fishery that resides in that river. Yet Stockton East will receive zero water from it. So we are literally talking about the existence, future existence, of Stockton East water districts and our customers.

The SED asserts that municipal water supplies will not be affected; this is simply not true. Stockton East has historically provided as much as 50,000 acre-feet of our Stanislaus River water supply to the City of Stockton for municipal purposes. As indicated above, the implementation of the Plan as proposed, would have a dramatic adverse impact on the Stockton East municipal users, completely eliminating their supply in most years.

We believe that the SED's scientific basis is flawed. Stockton East has contributed significant funds, since 1993 joining with Oakdale Irrigation District and South San Joaquin Irrigation District to fund work by FISHBIO on the Stanislaus River. As a result FISHBIO now
FISHBIO's conclusions undercut the mantra of the regulators in your staff that more flow equals more fish. There is no scientific data supporting this theory. In fact the actual data gathered by experts on the river undermines this assumption.

The timeline that is being proposed appears to be unreasonable. You began the process of updating the 2006 Bay-Delta Plan in 2009. In 2012, you released a draft SED Water Quality Plan and received comments on that Plan in 2013. Now three years later, without additional public input or discussion, you released the 2016 re-circulated draft --

CHAIR MARCUS: You know what, I just want to interrupt you there.

MR. MOODY: Okay.

CHAIR MARCUS: Because that's one of those talking points that's been going around as if folks have been working on it for four years. Folks took in the comments, we were interrupted by the worst drought in modern history, all the same people were all in working on that. And then we didn't just respond to comments, we
released a new draft. So it's not that people have been
working for four years. We were all interrupted by three
years and now we're getting back to it.

I just want to be clear on that one.

MR. MOODY: Understood, additionally we were
interrupted by a severe drought as well.

CHAIR MARCUS: Even more so. Even more so, we
saw some of you quite frequently.

MR. MOODY: Yes, agreed.

CHAIR MARCUS: But that is one of the talking
points out there that's not exactly fair.

MR. MOODY: Moving on, we're concerned about
the lack of balancing. The Board has stated that it's
updating the Bay-Delta Plan in order to better address
the balancing of instream and consumptive human uses.
The Board has said it is hard and it requires balancing.
It has repeatedly noted that the State Water Board's 2010
Flow Criteria Report sought to dedicate 60 percent of the
flows for the benefit of the fish. What is completely
disingenuous about this is that it's often thrown out the
number -- the number of 60 percent is often thrown out
and the -- thrown out number is 60 percent of the entire
San Joaquin River Watershed, pardon me.

The State Board is ignoring nearly 40 percent
of the watershed by not including the San Joaquin River
main stem and the ancillary tributaries. Instead we're focusing on the three tributaries in the main stream. How is that balancing?

Impact to agriculture, the SED reaches the conclusion that the Plan will have no adverse impact on municipal uses. As described above this is simply not true. However it does illustrate that the Plan imposes disproportionate impacts on agriculture in the Plan area. Agriculture has borne the brunt of continued and obtrusive state regulations for several years now, including the ever-expanding Irrigated Lands Program, the curtailments imposed in 2015, and now the proposed updated Bay-Delta Plan.

Settlements, during the 2012 to 2015, Stockton East participated in a multi-year settlement process with federal and state fishery agencies, all of the tributaries' water users, and a host of the environmental organizations that culminated in a detailed settlement proposal on the river. The proposal was rejected. The State Board's fact sheet reveals that while settlement can include voluntary actions, they must also include the 30 to 50 percent range. We have issue with, as Jeanne has said.

In an attempt to stay within the timeframe, I'm pretty much done anyway. And so I'll end it there.
Thank you.

MS. D'ADAMO: I have a question and Mr. Moody, you may not be the best person to answer this, but one of the things that think or I had hoped would come out today -- maybe there's somebody here from the City -- I know the City was on the panel earlier on the wastewater treatment issues. But this whole issue of how the portfolio for the City has changed through time.

MR. MOODY: Yes.

MS. D'ADAMO: And as I understand it, one of the main reasons that the City sought the CVP, or a portion of what Stockton East receives from the CVP, was to address the issue of saltwater intrusion. And the overdraft that had been going on for decades in the City of Stockton. So rather than me rambling on, could you shed some light on this issue and how surface supplies have helped to halt the saltwater intrusion?

MS. ZOLEZZI: Yes, as you mentioned as far back as 1976 the City actually contracted with Stockton East Water District for water from the Calaveras River. It's a very limited supply, because the Calaveras River is very small, so they're entitled to 20,000 acre-feet from the Calaveras River. And over time that has really not stopped, but has reduced the saltwater intrusion and has improved the critically overdrafted basin.
The real improvement we made was with the New Melones water. They've been receiving up to 50,000 acre-feet a year when we have an allocation of New Melones water, which has really tremendously improved the critically overdrafted basin and ceased the saltwater intrusion.

If the New Melones water is interrupted, which it appears to be under the model from the SED, they will not have that supply. So they will be back down to 20,000 acre-feet from the Calaveras, provided the Calaveras still has that amount once we get done with Phase 2.

MS. D'ADAMO: Thank you for your time.

MR. MOODY: Thank you.

CHAIR MARCUS: Thank you very much.

All right, we'll take another 10 of the public.

Thank you, I do appreciate how many people have been listening to everyone else.

First, we have Cameron Morgan from San Francisco State followed by Karen Harwell from an educational program called Exploring a Sense of Place -- that sounds interesting -- followed by Troylene Sayler from South San Joaquin and residence of the San Joaquin and Stanislaus counties to submit a binder.

Do we have Cameron Morgan?
UNIDENTIFIED SPEAKER: They're not back from lunch.

CHAIR MARCUS: All right. I'll hold it aside.
I thought they had to leave, but we haven't hit the timeframe yet.
Karen Harwell? We didn't make it.
Okay Troylene Sayler followed by Allison Boucher followed by Ralph Roos. Oh, and let's see what time is it.

MS. SAYLER: Good afternoon, I appreciate this opportunity to talk to you.

CHAIR MARCUS: Thank you.

MS. SAYLER: I work as the Public Relations Manager for the South San Joaquin Irrigation District.
And through my work I get to have a lot of contact with the public.

You may have seen a campaign that we have been running from a public education standpoint called SavetheStan.org. And what we have here is a binder that we'd like to present to you of over 500 letters that have been written via that website supporting our position that the SED is misguided. I would like to take an opportunity to read two of the letters, since I have a couple minutes.

I'll start with a short one just in case I run
out of time. And it says:

"Dear Water Board members, I'm strongly opposed to an increase in unimpaired flows on the Stanislaus River. This valley's financial stability strongly relies on this very water the State Water Resources Control Board is trying to take. This move affects farming operations, property values, unemployment rates, consumer food costs, just to name a few. The costs and the benefit are completely out of proportion. There is no scientific evidence backing up the state's plan and the state admits this.

"The habitat improvement has been proven effective by SSJID and OID. And this is an alternative that makes sense. The municipal water supply will have to be cut back severely and the cities will be forced to pump, which the SGMA is limiting. This not a common sense move on the state's part. We will continue to fight for the water rights that this area so heavily depends upon. Respectfully, Brian Vreeling of Ripon."

MS. SAYLER: So I'll move on as long as I still have time.

"Water Board members, San Joaquin County and the many other areas that will be affected by your Plan to increase river flows are dependent on agriculture as their primary industry. Not only is agriculture a source
of livelihood and a priceless part of our culture, it also provides thousands of jobs and billions of dollars to the Central Valley and California economy.

"I believe that the significant, but unavoidable consequences are far too significant to ignore and are definitely avoidable. This is especially true when one recognizes the ramifications this proposal would have on the residents of not only the Central Valley, but California as a whole."

MS. SAYLER: I'm going to skip down and say:

"Furthermore, the argument that surface water resources can simply be replaced by groundwater is not only unfeasible, but also environmentally irresponsible. And lastly while understandable that many would like to improve salmon populations, this is not the way to do it. I ask that you contemplate this and prove us wrong with your decision. Show us that we aren't just a place Sacramento politicians cross on I-5 or 80 to cater to their voters in Los Angeles and the Bay Area.

"Show us that we in the Valley have a government that represents the interests of all Californians and will protect our livelihood and way of life. As an FFA member I fear that there will be no future for the future farmers of the Central Valley if this proposal is implemented. Respectfully, Matthew Lima
CHAIR MARCUS: Thank you.

MS. SAYLER: Who would you like me to present this binder to? Thank you very much.

CHAIR MARCUS: Take your pick over at that table.

All right. Cameron Morgan followed by Karen Harwell followed by Allison Boucher.

MR. MORGAN: Good afternoon Chair Marcus and Board members, I appreciate this opportunity.

So as a current environmental advocate and scholar at San Francisco State University, I've become deeply concerned and passionate about the Bay-Delta Water Quality Control Plan. I'm an individual who knows the Bay-Delta Water Quality Control Plan can provide outdoor recreational opportunities for everyone to enjoy things such as fishing, hiking, swimming, biking. Additionally I think this Plan makes great efforts to restore the Bay-Delta to its former state and preserve its ecological integrity for now and future generations. I would like all Board members to strongly consider the importance of the Phase 1 Bay-Delta Plan, as this will be the platform for all subsequent benefits the Plan provides to the Bay-Delta.

With its current percentage of unimpaired flow,
the Bay-Delta streams are currently unable to provide the
debate for the adequate water flow needed to sustain the population of
salmon that it was once able to. Not only are the salmon
the keystone species for 100 different species, but they
also provide livelihoods for those working in the fish
industry. Though there used to be an abundance of salmon
in these streams, the numbers have steadily declined due
to water diversions, which has increased both temperature
and stream salinity. The critical habitat issues have
put fishing jobs on the brink and decreased salmon-
dependent species in the surrounding area. Low flows of
the rivers, temperatures, impacts and amount of species
have also decreased the aesthetic and recreational values
the Bay-Delta offers.

Overall, it is concerning to see the current
Substitute Environmental Document is inadequate to meet
the State's doubling goal for anadromous fish. I
encourage you to require unimpaired flow higher than 40
percent. I'd like to encourage you all to consider the
benefts of this special opportunity in front of you.
There is a chance to revamp the ecosystem intricacies of
these streams to make them healthy and suitable once
again, especially for future generations.

On behalf of San Francisco State Environmental
Studies students I'd like to thank you for your time.
CHAIR MARCUS: Thank you very much for coming.
Karen Harwell followed by Allison Boucher
followed by Ralph Roos. Hello.

MS. HARWELL: Chair Marcus and Water Board members, I'd like to express my gratitude for your efforts to revive the San Francisco Bay-Delta and the rivers that provide it with essential freshwater inflow.

We believe at least 50 percent of unimpaired flow on the Lower San Joaquin River and its three major tributaries: the Tuolumne, Stanislaus and Merced rivers, will be necessary to improve water quality and conditions for the watershed, the fish, and wildlife. The updated Bay-Delta Water Quality Control Plan will likely be our last chance to restore populations of salmon, steelhead and other aquatic organisms.

Please do everything in your power to help bring our amazing estuary back to life. This leads me to think about Aldo Leopold at the end of his life. And he said, "We aren't an inherently destructive species. It's just that we have migrated all over the planet. And when we've gotten to the new places, we don't really have a sense of place for that and so we just end up using it. And then that leads to our not knowing the nature of the place."

But he said it had been his lifetime experience
that as people got to know the nature of the place where
they live, the bioregion, the watershed, they started to
care for it. And so as I'm listening to the speakers
today, I'm thinking what a shame that this has become an
either or proposition like pitting ourselves, polarizing
against things. It's really all one. And there's got to
be some way we can learn to work together.

Like in Petrolia they have a Restoration
Council that's made up of ranchers and environmentalists,
and because all over the demise of the salmon. And then
so they're all working together, because they all care
about the ecosystem.

So thank you for holding this and letting us
all come and speak. But let's all try and get in the
mood of saying well it's not either or. Let's do both in
thinking and come up with new creative solutions.

CHAIR MARCUS: Great. Thank you. There are a
lot of good examples where people have done that and
we're hoping for more. Thank you. Thanks for invoking
Aldo Leopold.

Allison Boucher, hello, followed by Mr. Roos
followed by David Hurley from the usafishing.com. Hi.

MS. BOUCHER: Good afternoon. My name is
Allison --

CHAIR MARCUS: Whoops, get it closer to your
mouth. (Re: the mic.)

MS. BOUCHER: Closer? Is that better?

CHAIR MARCUS: Yeah.

MS. BOUCHER: Okay. My name's Allison Boucher.

I represent the Tuolumne River Conservancy.

CHAIR MARCUS: Oh Boucher, sorry.

MS. BOUCHER: It's okay.

CHAIR MARCUS: Sorry, I really got that one totally wrong.

MS. BOUCHER: It's like Gran Marnier.

CHAIR MARCUS: Or Steven Colbert.

MS. BOUCHER: There you go, right.

So I represent the Tuolumne River Conservancy.

We've been working on the lower Tuolumne for 23 years.

We started with the license review in 1993 for the New Don Pedro Dam license. And starting than and continuing today, we're advocating for the health of the river and we're focusing on trout. So before I get to the trout, I do want to present a little information that I just happened to be reading the other day and it's in support of the SED's efforts.

It is the Limiting Factor Analyses and Recommended Studies for Fall Run Chinook Salmon and Rainbow Trout in the Tuolumne River, February 2007,

So the summary of Limiting Factor Analyses has four that are particularly interesting. They say in this document, "Adult salmon recruitment is highly correlated with the number of smolts that migrate from the Tuolumne River. And the production of smolts in the Tuolumne River is highly correlated with the magnitude and duration of the winter and spring flows in the Tuolumne."

So that's on point. The second one is, "Flow management and restoration should focus on enhancing the quality and quantity of habitat for juveniles rearing in the Tuolumne River." Make note that's not spawning habitat, that's juvenile rearing habitat they're focusing on. "And for out-migrating smolts as the primary means of achieving adult salmon production targets. As salmon smolts migrate through the Tuolumne River and the south Delta, primarily from April 1 through mid-June, their survival is highly dependent on spring flow."

And the last point is, "Winter flows in February and March may be important factors that affect the number of salmon fry that survive."

So all that's right on point with the 40 percent and the flows that are being talked about in the
SED. On page 73, of the same document, they have a fancy graph. And it says, "Average natural flow volume is 1,765 total acre-feet. Average annual release volume is 707 total acre-feet." That's 40 percent.

So it must be how we're using our 40 percent that's the problem. And I'd like you to think about when you see settlements coming to you to be proposed, think about trout. Thank you.

CHAIR MARCUS: Thank you.

MS. D'ADAMO: One second. Yeah, it's good to see you again.

MS. BOUNCHER: Hi.

MS. D'ADAMO: So before you leave, Allison and I worked together on the Tuolumne issues many years ago, and I just want to acknowledge that. And also ask you to just briefly talk about some of the habitat projects that you've worked on, on the Tuolumne, and the uncompleted list of habitat projects that are on the Tuolumne.

MS. BOUCHER: We do. We have a couple of really good successes. Our first project was about 2,000 linear feet on the lower Tuolumne. We took some of the gravel that was left from the dredgers and we sorted, cleaned it, put in the river for ripples and sped up the river and made it have a little more trout-like appearance. And we were told by the local fishermen --
actually we weren't told, the local fishermen told our biologists, that we had the best fishing on 52 miles of river. So it was trout fishing they're talking about, because we don't fish for salmon on our river.

But the sad news is with the way the water's being managed we didn't a single trout for anyone to catch. And we're only nine miles down from LaGrange Dam. So we'd like you to look at issues of when the water's used. It's usually used for economic purposes and we understand that. But perhaps we need a trade-off between electrical generation, not farming, but electrical generation and the river.

And yes, we have more projects.

MS. D'ADAMO: If you could include them in your written comments that'd be great.

MS. BOUCHER: Okay. Yeah, I'd love to do that.

CHAIR MARCUS: Just the idea of envisioning the possible is really, I think, helpful in this.

MS. BOUCHER: I should give credit to U.S. Fish and Wildlife. They funded us through the CALFED process and enabled us to buy this property. And I should credit San Francisco who gave us $500,000 in 1995 to do this work. And we've leveraged it to $5 million and we've permanently protected over 500 acres, so we feel like we made use of their money. So but yes, we're still moving
CHAIR MARCUS: Thank you very much.

Mr. Roos followed by Mr. Hurley, followed by John Armanino.

MR. ROOS: Seems like a lot of this activity with this SED is a result of a lack of leadership at the state and federal level to address our infrastructure for the last 40 years. And it's coming back to haunt us and people are looking for new places to get water and/or take it from the ones that have the water or re-divvy it up or whatever. But I'm Ralph Roos, I'm a farmer in the Ripon area. I'm also on the Board of South San Joaquin Irrigation District and I get water from the Stanislaus River.

Some of this stuff you've already heard, but I understand that the local irrigation districts have spent over $1 million for the past 15 years on fish studies. And it's tax payer monies for the biology on the river that we need to be able to justify our conclusions of what we're doing there.

Our fish biologists have told us that the river can only handle 5,200 fish. Jeanne said a little over 2,000 females, but there's male fish going up there too, so that's about 5,200 fish. And we've had almost up to 14,000 up there this year. And that's a problem because
we've got 8,000 fish that are laying eggs and stirring up
the nests of the fish that already been there, so they're
ruined.

So and now you want to run the river water to
the ocean, 50 percent of it, so we can have more fish for
several months, February through June. Our biologist
tells us that 95 percent of our fish are out of the river
by the middle of March. So we're running three-and-a-
half months of water down the river for 5 percent of the
fish. So this doesn't make a lot of sense.

It doesn't take a rocket scientist to see that
the real motive is to take our water and not seriously
save the salmon. If you want be serious about saving the
salmon, we have to deal with the predator situation.
Jeanne mentioned that we're losing 95 to 98 percent of
our fish that are going back out to the river.

And our forefathers have gone and spent a lot
of money, put their ranches in hock to build dams for our
water rights and dams and reservoirs. And this is build
without any federal or state money. This came out of the
local people's pocket and now you're asking us to share
our water in our particular area of the state to take
care of a statewide problem.

So in conclusion I'd like to say that there's
little scientific truth that more fish are going to give
you more -- or more water are going to give you more
fish in the Stanislaus River. Thank you for listening.

CHAIR MARCUS: Thank you, sir.

One of the things I just want to mention and I
don't want to get into an argument, but there is a
provision in State Law that's been there for a very long
time that when you build a dam you have to keep fish in
good condition below the dam. And people forget that
part when they're talking about it. It was part of the
deal in getting to build the dam, but I know it's more
complicated than that.

Mr. Hurley, thank you, followed by Mr. Armanino
followed by John Mills on behalf of the Calaveras County
Water District.

MR. HURLEY: Good afternoon, Chairman Marcus,
members of the Water Board. I find it very ironic that
this meeting is held in Stockton Civic Auditorium,
because within 200 yards of this building a viable
commercial fishing industry existed in the City of
Stockton.

I was pleased to hear that some farms have
existed for over 104 years and that industry has
continued. Unfortunately, these opportunities weren't
available to me. You see my grandfather, my great
grandfather, was a commercial fisherman in Stockton.
They came here in 1917 to open the Peeble Solakian
Brothers' Fish Market (phonetic) that existed at 2931
Channel Street, which is a stone's throw away from here.

As an educator in Stockton's public schools for
more than one half of my life I've always taught that
science is based on indisputable laws and history is
subject to interpretation. This isn't the case in
California water. History tells the truth and science is
subject to interpretation.

I had the opportunity to sit with my
grandfather many times in the '60s and '70s when he would
tell me of the fact that their salmon boat would be so
loaded with fish on the way to Pittsburg that they would
take water over the top. They did many trips like this.
I heard many stories of their days on the water.
Unfortunately, that industry is gone and it was gone in
1958 corresponding with the building of the Friant Dam on
the San Joaquin River. And the flows to the San Joaquin
being reduced to a trickle.

Our constant removal of fresh water from the
San Joaquin River has led us to where we are today.
What's my point? To allow more water to be dedicated for
purposes other than habitat restoration will only be a
continuation of the type of thought that has led us to
this position today. Any decision supporting the status
quo of water diversions will only lead us further and
further into the morass and keep kicking the problem --
we say kicking it down the road -- we're kicking it down
the river.

California water is a complicated puzzle of
which SED addresses only a tiny part. The largest piece
of the puzzle is about the massive increase in water
exports out of the south Delta that coincidently started
in the year around 2000.

It was mentioned earlier we need to use all the
tools in our toolbox. I find this a very interesting
metaphor as my father was a carpenter, but it seems like
the only tool that's been used in the last 100 years is
the largest hammer that existed inside that box.
Continuing with the same type of thinking that's got us
into this problem will not solve the problem. It's
undeniable that corporate agriculture has thrived, and I
say corporate agriculture, despite four years of drought
while winter-run salmon, fall-run salmon, Coho salmon,
longfin smelt and Delta smelt populations have plummeted,
some close to the point of no return.

Whatever is decided, we have to think about not
just the short-term benefits, but the long-term
consequences of the decisions that we make. Thank you.

CHAIR MARCUS: Thank you very much.
Mr. Armanino followed by Mr. Mills followed by Linda Ormonde.

MR. ARMANINO: My name is John Armanino, Jr. and this is the story of our farm on the Delta.

On December 7th, 1941, John Armanino, Sr. on his wedding day is ordered to report immediately to his military post. My father returned from Europe in 1945 and began farming leased land. He purchased the property on Robert's Island in 1950. This property has riparian water rights. In the 1950s the Friant Dam begins to curb freshwater releases into the San Joaquin River. That started the decline of the Delta. Also the pumping plant near Tracy has led to a greater decline in water quality to Delta farmers and ecology of the Delta. I joined my father working the farm, purchased the property from him. My grandson, Raymond, 19 years old, is now farming the Delta property.

Our senior water rights are being taken from us. The State of California plans to take the water we need for our crops to send it south to farms that have junior water rights. The State of California is going to destroy the Delta, the environment, and farming in the Delta. This is wrong and unacceptable. The State of California needed to start building dams and reservoirs 40 years ago instead of kicking the can down the road.
We need more water, not just the continued
taking of water from the north to send to the south and
not send their polluted drain water back down to the
Delta in the San Joaquin Bay. I can only hope my
grandson Raymond can continue to farm this property with
the clear water we are entitled to.

And you being from a farming family down south,
I'm going to ask you a questions. How many acres of non-
permitted crops are watered with the water that's taken
from the Tracy Pumps into San Luis Reservoir to irrigate
permanent crops that -- not are allowed in the contract
with that water that's delivered there? And then they
turn around and sell thousands of acre-feet to other
people that they don't use themselves, at exorbitant
prices. That is completely wrong and I don't understand
if you understand what I'm talking about.

CHAIR MARCUS: Well, I'm having a -- generally
maybe, but if you have some concerns about that I would
encourage you to submit your comments in writing.

MR. ARMANINO: But I mean, are the rest of the
Board aware of how much unused water some of these
districts get that they sell for exorbitant prices to
other farmers? And that is wrong. Thank you.

CHAIR MARCUS: Mr. Mills followed by Ms.
Ormonde, followed by Margie Fries.
MR. MILLS: Chairman, members of the Board, other Board members, glad to see you all. Steve, I see you're bundling up for winter.

My name's John Mills. I'm here on behalf of Calaveras County Water District. CCWD is what we call the District. It is a county water district that has all of its service area in Calaveras County. There's about 650,000 acres in the service area. We hold significant water rights including among other of our water rights, we have a unique pre-1914 right. It was issued during the Franklin Pierce Administration dating from 1853, which is the oldest water right on the Stanislaus River. We also hold --

CHAIR MARCUS: I'm liking the way you put your water rights in terms of who was President of the United States at that time.

MR. MILLS: And that's our question.

CHAIR MARCUS: You see a little frame.

MR. MILLS: The CCWD also holds significant Post '14 rights. They're both consumptive permitted rights for both storage and direct diversion as well as re-diversion rights. And some of those are located, interestingly inside the planning area of Lake Tulloch. That's a re-diversion right for us to take water out of Lake Tulloch and the water's originally released from
upstream, that's Spicer Reservoir. We re-divert it and then supply western Calaveras County.

That was not analyzed in the SED and so that's one of those municipal supplies we'd really like you to look at. There is no alternate supply there. The District requests that all of its water rights be considered in the full analysis of consumptive rights on the Stanislaus River. I don't think we can deal with this piece meal, in other words from the rim dam down, and then go an apply water rights priorities upstream.

You have to deal with it in one package.

CHAIR MARCUS: Are you talking about in a Phase 3 implementation or before we can set the objectives?

MR. MILLS: I think it's going to be difficult to play King Solomon with the watershed and divide it in half. I think you're going to have to take the whole watershed on at a time.

CCWD also overlies critically over-drafted Eastern San Joaquin Groundwater Subbasin and has a long history of pro-active management of groundwater. We've done our groundwater management plans in the past. And under SGMA, which passed in 2014, CCWD is in the process now of forming a groundwater sustainability agency in conjunction with other local water agencies. And we continue to responsibly manage the resource.
Given its significant surface water rights and resources and its responsibilities under SGMA, CCWD intends to put its resources to use in the basin for the benefit of the region and assist in bringing that groundwater basin out of overdraft and back into sustainability through redirecting some of those water rights in the groundwater recharge. The District requests that its role in that effort be recognized by the Board.

In summary, the Board is looking to implement your requirements of Phase 1 under the Bay-Delta Plan. And we want you to know that CCWD stands ready to be a willing partner and to assist in meeting the Board in any of its objectives. And we also want to improve the regional conditions in the basin.

If there are any settlement discussions going on, we certainly want to be included in those as well. And we have talked to the Brown Administration about that. And this goes back to my point of we need to do the watershed in one piece, not in segments. Thank you.

CHAIR MARCUS: Thank you very much.

Ms. Ormonde followed by Ms. Fries followed by Kelly Topping.

Ms. Ormonde? Okay. We lost that person, we'll have to file it in case she's still here.
MS. ORMONE: Yeah, good afternoon. My name is Linda Ormonde.

CHAIR MARCUS: Oh good.

MS. ORMONE: I come from a farming family in the Delta and with senior water rights. And as Dan Vamellini and John Armanino said previously, we have been -- our water has been degraded in quality. And it is from the diversions of the pumps, which has also affected the salinity of the water, the water quality. And when we apply that water to our ground, our salinity level of the soil comes up, and it makes it harder to grown the crops that we like to grow.

Historically in the Delta you could grown just about anything. There has been a feast and famine, I think in the Delta, and 20 years almost to this week we were in a -- I would say dire straits -- because we were going to be flooded. And in a place that I leased on the Steward Track (phonetic) we did get flooded. That is now a housing development. It was under water. The house I lived in was under eight feet of water.

So California's always been a feast and famine of water. There's been no storage developed. New storage developed. I mean they transfer water around like they're playing cards. We need to have more storage. You can't develop water out of the ground,
because that water that goes into the ground comes from the water that comes out of the sky. So we need to develop the storage to get the water to run down the river, to go through the Delta, into the Bay, so that we have a health Delta and Bay. And then you have the storage so that you can play cards with the water.

We don't have that type of water. We don't have that amount of water, the amount of what that's been promised. Whether it be riparian rights, permit rights, sell the water, put it in the ground down south, whatever they do with the storage districts that they have down there for the groundwater it doesn't matter. You can't make more water. It comes out of the sky. It goes down the river, but it get's diverted.

But if you save the water in the times of feast you should have something for the famine. And that's what we're having a problem with. Thank you.

CHAIR MARCUS: Thank you. Yeah, we're going to have to get better than that. That's for sure.

Ms. Fries followed by Kelly Topping.

All right, let's move on to our panel. The next panel is a joint presentation by Restore the Delta, Café Coop and the California Sport Fishing Protection Alliance scheduled for 20 minutes.

CHAIR MARCUS: Co-op? I know, I keep saying
coop, why do I do that?

MR. MOORE: (Indiscernible)

CHAIR MARCUS: Oh no, that's because it was the coop in college. That's all right, they called it the coop, sorry about that. I'm having a college flashbacks, who knew?

MS. LANDAU: We do have one of the speakers you called.

CHAIR MARCUS: Oh, okay. Terrific, sorry.

MS. TOPPING: Hi, my name is Kelly Topping.

CHAIR MARCUS: Oh terrific, great.

MS. TOPPING: I'm a mother of a veteran son who fought in the front line combat to protect our American voter rights. And even though most of you are appointed by Jerry Brown there is a concern amongst the veterans, and now a coalition of two million of them in regards to this water dilemma.

Unfortunately, my story is much different than what you've heard. It's not about the fish and it's not about the farmers. Although that's very important, and I've learned a lot in this process through a very serious illness that I contracted in the water, in saving my son's life. That water from the lack of flow from the rivers has increased the brackish water. I have done numerous researches, this has put a mortality on my life.
The brackish water increase and the lack of flow in the Delta, although my son survived with only chronic skin rashes, respiratory issues, and debilitating headaches, I might not be so lucky from my mortality rate from the NTM caused by the bacteria from the blue-green algae and the brackish water. I suffer from debilitating side effects and endless rounds of medication.

The lack of the water flows will increase this likelihood for 11,000 miles of waterfront and no matter how many signs I can put up or how many people I can tell of the risk of this happening to them and their children and your children and your grandchildren. And although you might not be on the Board when this goes through, how are we going to stop people and children from going in the water and being at this risk? It has happened in many lakes already, due to lack of river flows.

But it is risking real people's lives and I'm finding that there's a lot more people than just me that have suffered from severe neurological damage. And yesterday, I found out that I will never hear in one of my ears again. So it's not just about the fish and the environment, it's about human life.

I have grown up in the Bay Area and have been here my entire life. And this is where I've come to live, to play. I bought a boat for my son to change his
way of life, after being a disabled veteran in a
wheelchair. And when he comes to this water, he
accidentally falls in and it has now permanently changed
his, but worse my life forever, and I'm not the only one.
This can happen to anyone.

How are you going to spend the -- how are you
going to put up the signs and notify people that the
water will be at risk? All just for palm wonderful, for
wonderful pistachios? They're more important? How can
that be? What about our children? We can't put signs up
on every single levy, every 10 feet.

It's more than just the fish. I beg you to
consider that. I don't think it's been clearly brought
to the attention and there is much research available for
it.

CHAIR MARCUS: No, thank you. We have been
looking at that and have a whole team pulled together.
And it will be -- it's more covered by the Phase 2
standards that we're coming with, but thank you for
highlighting that issue. It is a really big one, a
really big one.

MS. TOPPING: I live in Discovery Bay now and
I've noticed for the last two years, since I can never go
in the water again, is that the flow has never been the
same. On our dock it continuously has been lower,
especially at night. And we used to see it go up and
down and now it doesn't anymore. And the water quality
has gotten worse and worse and worse.

And as I see the neighbors bring their children
to swim in the water I go over there and I run and stop
to tell them, "Please, pull your baby out of the water."
I can't do that to everyone, it's impossible. What is
the Board going to do to make sure that people don't get
sick from this bill being passed?

My son fought for these rights for us to vote.
And Jerry Brown spent $10 million to mislead the public
on Proposition 53 saying that our vote didn't count. And
everyone knows that's true. And we hope that you will
uphold the better standard. Thank you.

CHAIR MARCUS: Thank you.

Next Restore the Delta, Café Coop and CSPA.

MS. BARRIGAN-PARRILLA: Actually I'm going to
cover Café Coop's testimony. It's folded into mine and
Esperanza Vielma had to leave.

CHAIR MARCUS: Okay, sorry about that. I know
you can do it very well, though.

MR. STROSHANE: Good afternoon, Chair Marcus
and members of the State Water Board. My name is Tim
Stroshane. I serve Restore the Delta as its Policy
Analyst. In my remarks I will summarize concerns Restore
the Delta expects to bring to our review of the Phase 1
draft re-circulated Substitute Environmental Document.
These include legal and operational concerns we have as
well as potential impacts to Delta economics
sustainability, including particularly agriculture in the
south Delta.

We are also concerned about public health
effects of harmful algal blooms and the effect that
increased salinity in the south Delta may have in this
area.

Our review of your documents on Phase 1 is not
yet complete. But we are concerned that the State Water
Board has no adequately justified the need to relax south
Delta salinity objectives. In principal, water quality
objectives under the federal Clean Water Act are to
protect the most sensitive uses along the water body.

The south Delta salinity objectives are
intended to protect south Delta agricultural beneficial
uses. We have yet to see a systematic evaluation of why
relaxing these objectives continues to adequately protect
agriculture. In our comment letter we anticipate
reviewing this concern further.

Operationally, the treatment of exports from
south Delta state and federal pumping plants is unstated
as far as we have found. It appears to us that the way
you have structured this process, separating out the
Phase 1 elements from the Phase 2, contributes to this
concern. It gives the distinct impression that the
increased San Joaquin River flows of presumably better
water quality would, after they have passed Vernalis, be
exported at the south Delta pumping plants.

If we have this impression, you should expect
that this occurs to export customers as well.

CHAIR MARCUS: You know, one of the things, and
not to get into a big discussion here, is that it is
important to understand the misimpressions that may be
out there. I think we've tried to explain, at least in
the number of years I've been dealing with it, that it
all comes together in Phase 2 and 3, but that they're a
distinct focus.

MR. STROSHANE: We're aware of that.

CHAIR MARCUS: But I appreciate you flagging
that challenge.

MR. STROSHANE: I have a couple of other
remarks that may help you understand kind of where I'm
coming from on that.

CHAIR MARCUS: Yeah. And also I'm just a
little nervous about the WaterFix comments, so just tread
lightly there just because we can only do it in a --

MR. STROSHANE: Oh, not to worry about that,
it's a comment in passing.

CHAIR MARCUS: Okay.

MR. STROSHANE: Another way to think about this is that these increased San Joaquin flows would have better, fresher quality and would be more attractive to the state and federal water project operators to export.

On one hand, there is no requirement in Phase 1 that water passing Vernalis should be allowed to pass on through the Delta to Chipps Island. On the other hand, there appears no restriction that the existing state and federal pumps must let any or all of that Vernalis water pass by to support Delta outflow.

Related to that if San Joaquin water quality is improved -- and this is the in-passing remark -- is improved by increasing that river's instream flow requirements, as far as we can tell the Phase 1 document does not analyze whether that water might be more attractive to export than building a large tunnels project that would bring presently fresher Sacramento River water to the pumps.

The processes you've created contributes to such questions. When you pull something apart, as you have the upper San Joaquin from the rest of the watershed and as you have the San Joaquin from the Sacramento, as they both enter the Delta you have to figure out how to
put it back together again. We think that these are some
of the questions your approach to this process has
generated and we don't yet see the document before us
answering them.

My next topic is the sustainability of Delta
agriculture. This was studied as part of the Delta
Protection Commission's Economic Sustainability Plan in
2011. This map from the Economic Sustainability Plan
shows the great extent of prime farmland in the Delta.
Part of the definition of prime farmland is the
uninterrupted access to safe and fresh water supply. The
scope of the Commission's study took direct account of
the State Water Board's Phase 1 proposal at that time to
relax the south Delta salinity objectives in the Bay-
Delta Plan to deliberately increase average salinity
conditions throughout south Delta channels. We will look
to see whether you have adequately analyzed the
agricultural water quality issue in the south Delta.

This map shows that much of the south Delta is
currently planted in high revenue per acre crops. Farmer
and former state senator, Michael Machado, has referred
to the south Delta as the garden of the Delta, because of
the varied mix of truck and deciduous crops grown there.
That garden is the foundation for linkages between farm
production and the rest of the regional economy.
These linkages include on-farm workers cultivating and harvesting crops, workers as varied as machinists repairing and making agricultural implements, equipment and vehicles, seasonally-hired food processing workers in plants throughout the Delta region, and truck drivers hauling raw crops and finished products to market. And there are many other occupations and industries linked to agriculture in the Delta.

The Plan's Multinomial Logit Model, which I won't go into here, predicted large shifts from high-value truck, deciduous and vineyard crops, to lower-value grain and pasture crops, should salinity levels rise in the Delta. Those shifts in this table are shown in red.

Finally, Restore the Delta also expects to review the Phase 1 documents for analyses of the potential effect of relaxing south Delta's salinity objectives on public health risks from harmful algal blooms. In recent years, south Delta channels have seen growth and spread of toxic cyanobacterial blooms. We are aware this is also true of a variety of other lakes around Northern and Southern California.

HABs are known to grow subject to a number of physical and ecological factors including temperature, flow, salinity and water residence time. These are each factors that are affected by both proposals in the Phase
documents, by which I refer to proposed flow changes and relaxation of south Delta salinity objectives.

Harmful algal blooms, as the Board knows, are potentially serious. The toxins unleashed from blooms can cause among things skin rashes, digestive pain, diarrhea and vomiting, fever, headache, kidney and liver damage and as someone mentioned earlier in the day, that they can kill dogs. After the harmful algal bloom season this past summer in Discovery Bay and other parts of the Delta, the Delta Protection Commission heard from experts in September 2016 about the issue.

A public health official from Contra Costa County, provided the Commission with information about risks of cyanotoxin exposure, trigger levels, and the public notice threshold levels that are currently applied and are illustrated in this particular slide. Cautions, then warnings, then danger signs when and where toxin concentrations reach their highest trigger levels.

The public health issue of harmful algal blooms insects with our previously stated concerns about the compartmentalization of Phase 1 with other water quality and export conveyance actions now considered by the State Water Board. HABs are primarily distributed in the Central and south Delta, as Department of Fish and Wildlife biologist Peggy Lehman told the Delta Protection
Commission this past September. We expect to review the
Phase 1 re-circulated draft SED to see how this issue is
treated, and will further provide comments in our letter
to the Board in January, next year.

Thank you for the opportunity to comment at
this time.

CHAIR MARCUS: We'll look forward to that
letter.

MR. BARRIGAN-PARRILLA: Good afternoon, Barbara
Barrigan-Parrilla with Restore the Delta. Restore the
Delta represents about 40,000 members from the Delta and
throughout the state. What I'm going to talk about today
really centers on just one segment of our membership and
that's the environmental justice community. I want to
thank you Chair Marcus and Board members for the public
hearing today.

My remarks and those of Tim Stroshane's will
give you a sense of the scope of our comments that we
will be presenting in our document back to you. But
these are not our final comments today. Our remarks
indicate the scope of what we plan to look for in your
proposals to change San Joaquin River flows and south
Delta salinity objectives.

Generally, I will discuss environmental justice
and economic distress concerns we face in San Joaquin
County, the largest county represented in a legal delta.

I will discuss environmental justice policies in relationships to the public interested, environmental justice communities' beneficial uses of water, and yet to be recognized beneficial uses of water as they pertain to subsistence fishing, economic distress on Delta environmental justice communities and prospects and threats to Stockton's economic growth.

We urge the State Water Board to recognize, engage in, and incorporate environmental justice issues, the public interest, and the human right to water as policy concerns that they are on the Board's conduct of its Phase 1 Bay-Delta Plan update.

The Phase 1 re-circulated draft SED fails to consider environmental justice communities in Chapters 5 and 9, hydrology, water quality and groundwater, in terms of drinking water and domestic use. In addition, economic impacts on employment for members of the Delta environmental justice communities need to be analyzed as part of reduced revenues from increased salinity impacts on agriculture.

This slide lists some of the relevant policies in these areas that make up such a framework from both federal and state law in policies. Given this framework, Restore the Delta's environmental justice argument is
that the relaxation of Phase 1 of south Delta salinity objectives must be shown by the Board to avoid or at least mitigate disproportionate impacts to environmental justice communities in the south Delta area, including those communities in Stockton, Lathrop, Manteca and Tracy. There are significant environmental justice populations in those communities.

CHAIR MARCUS: That's fine. Can I just ask you to edit and resubmit the slide, because it's a slide from your WaterFix presentation. You can make the same point you just made without that, but just it shouldn't be too hard.

MS. BARRIGAN-PARRILLA: Okay.

No environmental justice analysis was conducted on the Phase 1 draft SED proposals in 2013. And in our review to date, we have come across no environmental justice references, let alone any analysis that indicates the Board paid attention to these issues in Phase 1 re-circulated draft SED for its water quality planning.

Addressing impacts on human health for environmental justice communities must be substantive and not mere window dressing.

The Board needs to address environmental justice because this part of the Delta is made up of significant environmental justice communities that
contain populations of color and Latino ethnicity that are two and three times the national average. San Joaquin County comprises about 40 percent of the legal Delta's geography. Stockton and other adjacent cities have significant nonwhite populations and Stockton is about 50 percent nonwhite. Its largest nonwhite populations are Latino, Asian and African-American.

The Board needs to address environmental justice, because our rates of poverty are some of the highest in California and the nation. In fact, we've recently learned in the Distressed Community Index, that our percentage of people who live in economic distress are significantly higher -- it's a significantly higher number than say Fresno, Bakersfield or Los Angeles.

Nearly one-third of the families in San Joaquin County and Stockton with children under five are living in poverty. These residents can't afford higher water treatment costs for our municipal water systems, or job losses resulting from reduction in agricultural output. In Stockton, poverty-stricken families, adults and children are at disproportionate risk of bearing impacts due to higher salinity conditions if the salinity objectives are relaxed in the south Delta channels.

The Board needs to address environmental justice, because our non-English speaking residents, some
of the most impacted residents, are not even aware that this process is happening. In San Joaquin County a significant portion of our residents face isolating language barriers to stop them from learning about the potential impacts resulting from relaxing Delta salinity objectives. And those are impacts on their jobs, where they play in the Delta, and particularly where they catch fish for their diets.

Relaxing south Delta salinity objectives could affect water quality of domestic drinking water wells fed through groundwater recharge. There may be impacts on the City of Stockton operations impacting drinking water treatment and discharge, particularly with cost.

And reduced flows can lead to increased contaminants in fish. We have done recent computations that estimate the number of subsistence fishers in the Delta to be between 20,000 and 40,000 fishers per year. And that's a conservative estimate.

MR. MOORE: Excuse me, I have to ask the question, because I'm familiar with the issues going back a couple of decades on subsistence fishing and that sort of thing. Can you help me make the linkage between going from 700 EC to 1,000 EC, for April to August, and how that affects the fish that people ingest and their health?
MS. BARRIGAN-PARRILLA: Part of it is salinity. Part of it is increased contamination that happens when you have changes in water quality and water quality is degraded. That accumulates in the fish and those are the fish that are caught by people that are consumed. Okay?

As Mr. Stroshane has described the south Delta salinity objectives are to protect agricultural beneficial uses in the south Delta. And if farmers are forced by poor water quality to switch to lower-value grain and field crops, those farmers may reduce their demand for labor, which in turn could put environmental justice community members out of work, further reducing their incomes.

The Board needs to address environmental justice issues in the Bay-Delta, Plan because Stockton is considered the sixth most economically distressed large city in the United States. That comes from the Distressed Community Index created by the Economic Innovation Group. The Board needs to address environmental justice issues, because Stockton's economic distress already includes quantified factors such as low incomes, food deserts, and poor health outcomes resulting from these and other factors. The economic and health distress of our communities will be compounded should local water quality be salinized for the sake of
exporting fresh water from our homes in the Bay-Delta Estuary.

In recent years Stockton has begun to recover from disinvestment experienced by our municipal bankruptcy and much of its loss of its manufacturing base. Stockton and San Joaquin County however, remains agricultural and is dependent on water quality for economic improvement to take place. Protection of irrigation water quality in the south Delta is crucial to improvement in crop values that help drive economic recovery for this region.

We'll be examining the State Water Board's documents carefully to see whether this protection is continued or not. Our environmental justice community's futures depend on it. Thank you for the opportunity to comment.

CHAIR MARCUS: Thank you.

Mr. Jennings, your colleagues have left you a minute-and-a-half, but we asked a couple of questions, so what do you need?

MR. JENNINGS: Well, I mean you know I could have --

CHAIR MARCUS: I can't give you ten.

MR. JENNINGS: Well, first off, Chair Marcus and Board members, good afternoon.
CHAIR MARCUS: Good afternoon.

MR. JENNINGS: First off I'm going to direct myself to Board Member Moore's question on fish.

CHAIR MARCUS: Well, before you do that though, I'm going to -- I'm trying to figure out should I give you two more minutes?

MR. JENNINGS: I had thought I had six minutes.

That's what I prepared for.

CHAIR MARCUS: All right. Can you do it in five?

MR. JENNINGS: I'll try.

CHAIR MARCUS: Try and do it just because there's a lot of people.

MR. JENNINGS: I'll try. As long as you don't cut my response to Mr. Moore.

CHAIR MARCUS: But mostly it's Mr. Herrick at the end of the line who we're like worrying about. Like what, yeah are you chopped liver? No, I'm sorry.

MR. MOORE: No. Well, let's maintain his time, because I've got another question for Ms. Barrigan-Parrilla.

CHAIR MARCUS: All right.

MR. MOORE: So you've identified the environmental justice issue and we don't dispute those demographic facts and the community concerns. But what I
didn't hear in your presentation was any analysis or at least preliminary because you say you're going to submit comments, which we strongly encourage. But you didn't touch the issue of the proposed flow changes, the flow objectives. And would that benefit or harm in your mind on --

MR. JENNINGS: Well, that's what I was going to talk about.

MR. MOORE: -- harmful algal growths, you didn't make the link and it's of great interest to me in that the record shows that going back at least this year. I'm a member of the Cyano Network.

MS. BARRIGAN-PARRILLA: In part it's going to depend on how you put all the pieces from the phases together. I mean that is one of our concerns. Very likely 40 percent won't be enough if there isn't enough flow coming into the estuary from the Phase 2 side, the Sacramento River side.

And 40 percent of what, in a declining watershed, that's the second question. Increased salinity is also a contributing factor to the production of toxic algal blooms, so that's where the public health threats tie in. And it --

MR. MOORE: Yeah, and that's right, but also how about the existing setting? You know, we heard
testimony just before you about actual public health impacts under the existing scenario. And you heard earlier today some detailed information about the comparison of existing scenario to the staff proposal. 

MS. BARRIGAN-PARRILLA: We do not have enough water moving through the Delta and the south Delta now. We're not 100 percent convinced that the SED, as presented, is going to improve that situation. In fact, we don't believe that 40 percent is enough flow. We do believe there has to be more flow for public interest, for fisheries, and to provide better quality. But in particular today we wanted to talk more about the salinity issue, because somebody also has to be advocating for that water quality standard in the south Delta. And you heard from other people, so we figured well we'll take that part.

CHAIR MARCUS: Now, Mr. Jennings, try for five.

MR. JENNINGS: Board Member Moore --

CHAIR MARCUS: Try for five and then I won't cut you off.

MR. JENNINGS: -- responding to your concern on subsistence fishing and that relates to numbers of fish and does salinity affect fish. Yes.

In fact when Chair Marcus was EPA Regional Administrator and EPA did their 95 Water Quality Control
Plan it was somewhat stricter and provided for striped bass spawning standards for salinity, because it had been established that the salinity in the San Joaquin River were harmful for that, so there are connections. I mean a lot of the zooplankton, the mysids for example, are salt sensitive, other plankton populations and some fish.

And the problem is, is that that was never looked at in anywhere in this SED, is the effect on riparian and aquatic vegetation, on the zooplankton rungs of the food chain, and upon certain fish species. It's just not in there. And so I just wanted to mention that and I'll go ahead with what I had -- and we'll get through as much as possible. I'll rush.

CHAIR MARCUS: Great.

MR. JENNINGS: I mean we drafted extensive comments on the initial draft and we'll be providing comprehensive comments on the final. Our kind of summary is that the SED attempts to fit facts and biological necessity to a predetermined conclusion rather than letting facts and the biological necessity drive the solution. And so I'd like to briefly discuss what we consider five fatal flaws in that approach.

First, the bifurcation of the upper San Joaquin River and its 28 percent of unimpaired flow, unreasonably transfers the total burden of providing fish flows,
dilution of west side waste, and contribution to Delta
outflow to the tributaries. We could find no defensible
discussion, rationale, technical or legal justification
in the SED for this approach. It violates basic fairness
and due process.

Second, we could find no meaningful,
defensible, technical or legal justification for
selecting a target range of 40 percent and a range of 30
to 50 is adequate for the public trust, protects the
public trust resources. The 2010 Flow Report found that
60 percent flow was minimally necessary to protect public
trust resources, DFG’s quantifiable biological objectives
and flow echo that. But there was little discussion on
the methodology employed to select the preferred
alternative nor we could find enforceable, quantitative
and qualitative performance measures to ensure progress.

Moreover, there is a demonstrated lack of
measureable performance measures, milestones and funding
mechanisms to ensure success of the proposed Adaptive
Management Program. Adaptive management seems limited to
as frankly business as usual. I mean the Board’s
Executive Director and the STM Working Group, gathering
together and deciding what to do. The quarter-century
track record of adaptive management in this estuary has
been woeful. And I'll skip my part that you know how I
feel about adaptive management.

Third, Phase 1 includes the balancing of public trust resources. But there is no analysis on the methodology employed in the balancing. While economic costs to agriculture and selected imminent water users are quantified, the economic benefits of healthy waterways including ecosystem services, commercial and sport fisheries, recreation, public health, as well as the contingent value of a healthy river and estuary, are not.

The SED fails to identify, discuss, or use the numerous state and federal guidelines and guidebooks on economic analyses that are routinely used by the Army Corp, the Bureau, USEPA, DWR in evaluating benefits and costs pertaining to public trust resources. And I know when Chair Marcus was Regional Director and they did the 95, they looked at both sides of the ledger and EPA has two fine guidebooks out on how to quantify societal values in ecosystem.

We note that the public trust balancing at Mona Lake found that the value of restoring the lake was between 56 and 132 times the value of the water lost by Los Angeles. I mean the failure to quantify both sides of the economic benefit cost ledger is an egregious admission that renders the economic analysis useless as a
balancing document.

Fourth, the SED proposes to increase the irrigation season, season salinity limit in the south Delta by 43 percent based upon a six-year-old report that used 30-year old laboratory data on salt tolerance of bean varieties that are no longer used in the Delta and that ignored the different life stages -- of effects on different life stages, improperly employed data from subsurface drains in developing the leaching fractions, and rejected the more conservative model and results of that study.

The SED ignores Dr. Hoffman's explicit recommendations on needed additional studies. More recent research has been established that Dr. Hoffman leaching fractions are wrong. Consequently, the conclusions of the report are also wrong.

And there is still as I said before, there is still no analysis in the SED of salinity impacts to riparian and aquatic vegetation, fish, and to plankton populations that have been identified as salt sensitive.

Fifth, state and federal law has mandated a doubling of anadromous fisheries for more than two decades. The narrative standard in the Water Quality Control Plan has been ignored since it was established in 1995. Failure to include measurable performance measures
with milestones ensures that the narrative standard remains unenforceable and meaningless.

So in closing the failure to incorporate rigorous analysis and enforceable performance measures renders the SED and the Plan inadequate and unenforceable. And these flows go beyond the deference normally granted to public agencies. And if not corrected, we're likely to be going through this same process in a couple of years just as the Stewardship Council is redoing the Delta Plan. Thank you.

CHAIR MARCUS: Thank you. I'm sorry to make you go so fast. Thank you for raising all those points. I mean --

MR. JENNINGS: Yeah, but believe me you'll get more than you want in the written comments.

CHAIR MARCUS: Sure, I appreciate it.

MS. DODUC: And so since you mentioned my favorite two words --

CHAIR MARCUS: What?

MS. DODUC: -- performance measures.

CHAIR MARCUS: Oh that's right. You were just getting into a dream state --

MS. DODUC: Yes, exactly.

CHAIR MARCUS: -- of happiness.

MS. DODUC: Will your written comment letters
include some proposed performance measures and
milestones?

MR. JENNINGS: Pardon?

MS. DODUC: Will your written letter include
some proposed performance measures and milestones?

MR. JENNINGS: Funny that you should mention
that, in fact I was -- when I went home and was watching
it on the Web and from this morning to now, I was talking
with Gary Bobker and Jon Rosenfield on performance
measures.

MS. DODUC: And these would be biological
performance measures?

MR. JENNINGS: Well, and other performance
measures, let give you an example of a problem I have
here.

I want you to know, you know, in the fall mid-
water trawl this year we found no Delta smelt, I mean
through three months. But strangely this Monday, this
first of the spring Kodiak trawls found 212 at Edmonton.
And so the Smelt Working Group immediately issued a
recommendation to go to no more negative than minus 5,000
in Old River. And DWR's response was to increase Delta
exports from 5 to 10,000 CFS. Now that's the history of
adaptive management in the Delta.

I will quote -- we're going to be quoting to
you time and time and time again when the technical
recommendations of the working groups have been ignored
by the managers now you can't call that adaptive
management. Okay.

MS. DODUC: Thanks.

CHAIR MARCUS: All right, thank you very much.

I think court reporter break need. You're okay? Then
let's keep going.

I have 10 more speaker cards, but I'd like to
take Mr. Herrick before too long, so I'm torn. And
there's another one coming, yeah. I'm going to just
split the baby up and then do five. Sorry, thank you.
That's a terrible metaphor, sorry.

All right, I'll have Glen Gebhardt followed by
Chris Gilbert followed by Gloria Purcell -- oh, thank you
for writing your comments too, that's always helpful --
followed by Gordon Armstrong followed by Ernest Tuft.

MR. GEBHARDT: Well thank you and good
afternoon.

CHAIR MARCUS: Good afternoon.

MR. GEBHARDT: My name's Glen Gebhardt. I'm
the City Engineer for the City of Lathrop. And I'm to
talk about the impact of the SED on municipal water
supply and on the existing community in Lathrop.

Most people in this room recognize that the
California Environmental Quality Act is an arduous, exhaustive process. However, that CEQA process does have an end and upon final approval, projects can move forward to construction. About 14 years ago, armed with a final EIR, the Cities of Lathrop, Manteca, Escalon and Tracy funded, and SSGID constructed, a surface water treatment plant and 40 miles of pipeline, at a cost of about 140 million. My question is at what point in that process can an agency rely on water from a project that does have final environmental clearance?

The Lathrop citizens are making payments on Lathrop's $44 million share of that facility. We're trying to understand how that water can be taken away without also taking away the debt that's already been incurred to deliver the water. Water payments are being made to bond holders and the collateral for that debt are the homes and business. The Unimpaired Flow Program really would force existing homeowners to pay, in addition to that existing water debt, to find another water source. And it's recommended that that be groundwater. Our issue is the groundwater basin in clearly limited in yield and that's exactly why Lathrop partnered to go into a surface water source to begin with.

We're trying to understand the benefit. I'm
being told that the state is estimating that this whole project could end up producing an extra 1,000 fish returning to the Stanislaus, Tuolumne, and Merced rivers. And I'm also hearing numbers about those extra fish costing between $40 and $400,000 a piece, depending on which computational method is used. So we've just got a real concern that the existing communities versus the hopeful benefits to fish are being completely -- that proportion has just been misunderstood and we'd like you to reconsider the approach.

CHAIR MARCUS: Thank you. That is one of the issues we have to clarify and staff is not recommending it based on 1,000 fish. I guarantee it.

Chris Gilbert? Hi.

MR. GILBERT: Hi, I'm from the Bay Area. I live in Berkeley. I'm a businessman there. I've been volunteering with the Sierra Club Water Committee and have gotten involved in this issue lately. I'm here -- well first of all I'm a third-generation Californian and I grew up in the Mojave Desert. So I know about water, or the lack thereof. I grew up fishing and hiking and camping in the Sierras, etcetera.

I'm here partly because of Chairwoman Felicia Marcus's recent op-ed inviting the Bay Area to help "bridge divides between companies, farm and fish, and
find creative ways to help all three survive. So I'm on board to do that. I am disappointed that there aren't hearings in the Bay area given that we get a lot of our water from these three rivers, especially.

And the sentiment would be quite different if it were in the Bay Area. Contrary to the General Manager of the SFPU's opinion that it will be a disaster if water is cut there, Peter Drekmeier of the Tuolumne River Trust has shown that the assumptions that they've -- or the staff has based their analysis -- on are faulty. So I believe that the residents of the San Francisco and the Bay Area will be behind increasing water flows. And personally, I would like to see them up to 60 percent since that seems to be the overwhelming science behind it until I hear otherwise.

Fish is often the bête noire right, of the farmers, but in fact the commercial fishing industry has suffered for decades and many jobs have been lost there. So I want to make sure that's kept in mind. Just from sitting here today, I noticed a lot of ironies about the water debate.

What does this mean? It flashes once is what, 30 seconds or?

CHAIR MARCUS: No, no. It just means we're starting the minutes countdown.
MR. GILBERT: Okay.

Just some of the ironies I've heard today and elsewhere that agriculture makes progress on water conservation yet expands into new marginal lands with new irrigation needs. For example, orchards in southwestern San Joaquin Valley and around 120 on Knight's Ferry, water-intensive crops are grown when certain towns have completely run out of water. Permanent crops with 20-year life spans are being planted during a drought, making it impossible to fallow fields. Irrigation districts present dire projections based on the threat of decreased supply without mentioning how much progress they've made in lowering demand. Those are just some of the ironies I've found.

Finally, even if we stopped all fresh water from flowing to the Bay, I think as the population of California grows to 50 million in the next couple of decades we would be here anyway. And it's not fish, it's people. And we've got to decide whether agriculture can maintain its 80 percent use of water supplies or if we have to cut some back and give it to cities. That's my take. Thank you.

CHAIR MARCUS: Thank you. Gloria Purcell?

MS. PURCELL: Sorry, arthritis. Hi and thank you for having the hearing, Chairwoman Marcus and Board,
I appreciate it. I'm Gloria Purcell. I live in Belmont, in the Bay Area. I'm an SFPUC customer and long concerned with the environment. I don't envy you this process. It's a huge project. I knew something about it before I came here, but not a whole lot, and it's just been amazing, the detail and the dozens of factors and the incredible, probably thousands of details you have to consider. And that's only with one part of this whole river system and all the consequences thereof.

So I appreciate your difficulty and I don't really have any great facts to add to this. But I would like to say that we were asked to, as customers, to cut our water usage in the drought, the worst of the drought in recent years. And the overall reduction among municipal customers was about 33 percent in the mid-peninsula water district, which is about 30 percent throughout the SFPCU area there.

And I thought we did pretty well and then I found out from my water district that actually my family has cut in half, so we're doing better than the average, which is nice. The odd thing is that it wasn't really that difficult. We bucket a few buckets of water from our unused bath water just because you run it while you're warming up the tub right, or the shower. And that we haven't made any great efforts to save other water. I
do turn off the tap. I mean it's nothing. It's just changing little habits. And recently I bought a couple of pickle barrels that I hope to be using in the future, but I haven't even started yet, for irrigation in our regular suburban garden, so that the thing doesn't die, because we hate to have it die.

But what I really wanted to say was that it really can be done. And I challenge agriculture to do more to conserve the water they've got. And we can do more. I can do more, even though I've already done a lot. And I would like to say too that I haven't heard much mention today, although there's heaven knows mention of incredible other things, but I haven't heard much mention of industrial. And of course I live in --

CHAIR MARCUS: You just need to wrap up, that's all.

MS. PURCELL: -- yeah, Silicon Valley where the computer industry runs through a lot of water. I'd just like to say that the earth changes. Life is change. Nothing is solid. People talk about water rights. Legally, that we may have water rights, but the earth doesn't give water rights. If you think that way, God doesn't give water rights. We have only the right to try to survive, using our wits, our determination and hopefully our cooperation. And I sincerely hope that
that will be part of this process. Thank you.

CHAIR MARCUS: Thank you very much for joining us.

Mr. Armstrong? Mr. Tuft? All right, Mr. Herrick?

(Colloquy re: audio and mic operation.)

MR. HERRICK: Thank you Board Chair, Board members, John Herrick on behalf of the south Delta and Central Delta water agencies. We appreciate the opportunity to give a presentation although every time we have a limit it's always difficult to cover enough areas. We'll try to keep it more concise. We will, of course, present more detailed comments by the, I think, it's the January 17th deadline.

CHAIR MARCUS: Correct.

MR. HERRICK: I'm going to start out with my PowerPoint presentation and go through that. And then halfway through that, I'll turn it over to Michelle Leinfelder-Miles and she has a PowerPoint. And then we'll jump back to mine again, so it's --

CHAIR MARCUS: You're not going to go through all these pages in a half hour, are you?

MR. HERRICK: I might. Watch how wonderful I can present this.

MS. LEINFELDER-MILES: I mean, I can do it, but
MR. HERRICK: Just watch this. (Laughter.) Is there a button that I push for the -- is that it? Okay, thank you very much. I can almost see one of the screens. I better read.

We're here because the SED proposes a number of changes. I won't go too far into this. The 0.7/1.0 is being proposed to change to a 1.0 standard and that depends on the time of the year, of course. But this is supposed to be implemented by maintaining current conditions. And so the implementation of the change is still having 0.7 at Vernalis, so that nothing changes downstream. And then of course the proposal also says that instead of measuring it -- I'll ignore it for now -- it's three locations in the south Delta we're going to measure stretches of river and then give you the averaged information.

So south Delta's position is the proposed changes have no factual background and are not supported by the science. And I think I can very clearly show you that, which may come as a surprise to you. But more importantly, the proposal to measure average ECs in the channels, and not at discrete locations, is a method by which we will ensure that there's never a violation. And I'll get on to that later, because when you average an
area that has good water quality with areas that might have bad water quality, you never see the bad water quality and thus you don't know if you have a problem. So this is just a list of things I'm going to go through, so the first is a background and history. I apologize for rushing through this, but I think it is important to cover the background. And of course it all goes back to the CVP's building of Friant Dam and if affects the water coming down the River. The water from Friant is delivered to other places and then there is a decrease therefore in the San Joaquin River flows. And I don't think anybody disputes that although there is a dispute about how much. And the CVP had a number of affects on the south Delta, of course, less water, more salt and lower water levels in the Delta, and changed flows.

But real quickly, you've heard this before, south Delta and what the Bureau was called for one year, the Water and Power Resources Service with the federal government, did a report in 1980 to go over all these things and to see what those effects were, and how to quantify them. And so the Board has been presented this for the last 20 year, at least that I know of. But on this chart you can see in the bottom left I've circled a -- made a box and then in the middle right, kind of. But
the decrease in flows in the rivers are significant. And you can see that in the average of all years, it's 345,000 acre-feet decrease from April through September. That's a huge amount. Of course in drier times it's different than that, but gives you a framework.

Now this is one of the charts in that 1980 report also. And it shows that over time the salinity in the river got worse. Now this is TDS on the left, not EC, so you've got to do the conversion. But as you can see, through the '50s the maximum TDS is always below the current standard. So I don't want people to think that we're better off now. We're certainly worse off now, virtually all the time. Of course, you have a flood time flow, that's a different thing.

Now this is the more recent data from the Regional Board and again, I've circled it. But what this tells you is the amount of salt coming in the south Delta. And you can see the numbers and it's mind boggling. The mean average is 922,000 tons of salt coming down the river. Now you'll hear things from other people over different processes that say well there are a lot of issues. The problem is these hundreds of thousands of tons of salt coming down the river, hundreds of thousands every year. Why is that an issue? Because the San Joaquin River water doesn't take that salt out to
the Bay or ocean.

When you have tidal inflows of a certain amount, and a San Joaquin River inflow of a lower amount, plus local consumptive use or evaporation, whatever that is, the San Joaquin River water then doesn't leave the area. That means you have hundreds of thousands of tons of salt not leaving the area. The only place it goes is applied to the land and either becoming drainage or groundwater or exported through the export pumps. The salt stays in our area.

Now the background of the regulations is even more important. They developed the current standard, the numbers 0.7 and 1.0 EC a long time ago. They were working on the '70s and '80s, and of course, the 1995 Water Quality Control Plan adopted those numbers finally.

Now this is the page from the 1995 Plan, where it has the standards. And the only reasons it's important is that you can see for the Old River near Middle River and the Old River at Tracy Road there's a footnote 5. Footnote 5 says we should implement those two by December 31st, 1997. The text of the document says the same thing.

Well, the Water Quality Control Plan, as you know, is quasi-legislative, so we go into the water rights portion and then we come up with D-1641. D-1641,
there's the same chart, same water quality standards, except footnote 5 now says something completely
different. Mind you we're well past the December 31st, 1997 deadline for implementing these, but footnote 5 now
says well, the 0.7 standard will revert to 1.0 if somebody builds barriers or does something else.
Now that wasn't a topic. There wasn't the
evidence. There wasn't any discussion. There wasn't any
analysis of reverting the standard to something else once it was adopted. D-1641 was supposed to implement the
standard. And that footnote allows it to be unimplemented.
So of course lawsuits occurred, right?
Everybody sued on D-1641, big mess, we got through it.
For our purposes south Delta, the court said, as we argued, the water right portion of this process can't change the standard. You have to change it through a quasi-legislative process, the Water Quality Planning process. So the court said, "Go back. You either have to implement it or you have change it. You can't change it in your implementation."
Now, your predecessors took that to say the court ordered us to change the water quality standard in the south Delta," which of course if absolutely false.
The court said you have to do it in the right way if you
want to do it. Mind you, as I said there had been no
information, no testimony, no cross-examination of
anybody or any party that said, "You that standard's too
protective. It needs to be relaxed." There's none of
that and yet the State Board then embarks upon a process
to change the standard.

Now there were people that submitted stuff
along the way that said, "We have a new model that shows
you don't need salt protection in the south Delta." Of
course that's an overstatement, but a model means nothing
if it's wrong, right? And we had some people say, "Well,
you don't grow a lot of beans anymore, so you don't need
to protect beans, so why should you have that standard?"
That's the sum total of the evidence.

So what happens along the way? We have a Cease
and Desist Order hearing against the Bureau and DWR,
right? I don't know if you remember that. And instead
of implementing or enforcing the standard the Board
ordered the DWR and the Bureau to obviate future threats
of violations. Now, I challenge anybody to put that into
basic English and tell me what it means.

Obviate future threats, it doesn't say, "Meet
the standard." It says, "obviate future threats." So
then we another CDO process, because the obviation didn't
occur in time. And so we have a second CDO by the Board,
which says, "Obviate the threat of non-compliance." Same thing, same mish-mash, wishy-washy, non-specific, non-enforcement of the standard. But this time you put a deadline in. And the absolute deadline was January 1st, 2013, which by my extremely educated mind means that it's already past. I was able to calculate that this passed 2013.

So the standard was adopted, delayed implementation, never enforced, and kicked down the road constantly, based on the notion that well it should be changed with no evidence that it should be changed. Now we've presented local farmers' statements. I've reference WaterFix testimony, which I'll remove and resubmit it without that on it. I'm not trying to --

And without wasting your time, we had Chip Salmon who testified to the ongoing impacts, adverse impacts to grapes, beans and walnuts, he showed that. Rudy Mussi is here, who outlined his adverse impacts and the extra work he has to do to grow his almonds and grapes. And we have Mr. Richard Marchini, who confirms that he has walnuts right next to Chip's almonds, the same thing, they see the salt damage virtually every year. He's been impacted by it adversely. I've submitted Jack Alverez's statement, who says his crop yields are not the same between the area irrigated by
poor south Delta water and the area irrigated by better
San Joaquin River water upstream. And lastly we had Mark
Bacchetti who's submitted a statement also talking about
the potential damages, and his data showing over a 10-
year period the salt in the soil is building up.

Now, neither the SED or the Hoffman Report
includes any investigation about whether or not the
gentlemen sitting over here or their compatriots actually
are experiencing problems, because it assumes it's
already too protective or protective. It's not
protective right now especially since it's not being
enforced. We don't know what 0.7 does to farmers in the
south Delta, because we don't get to 0.7 in the south
Delta.

Now this is anecdotal, but I'll submit it in
our testimony. I've measured, with the water master
standing next to me, 2.1 EC at an intake. Now, if
somebody thinks that we have 0.7 water in the south Delta
throughout they're misinformed. We have horrible water
quality in summertime especially and some times and other
times. Anyway, the SED doesn't look to see are people
having crop loss now?

We have calculations by Dr. Hoffman. Now why
is Dr. Hoffman wrong? Because I say so, that's not
right. (Laughter.) Dr. Hoffman was hired by you guys or
your predecessors to investigate the salt tolerance of
crops in the south Delta, so he had two reports. There
was a draft and a final one we commented on it.

Now I tried to boil this down, so it's easy to
understand, not because the Board can't understand it but
just because it's a simple thing. If you're in the
laboratory and you build a box that's made of glass and
you fill it with sand, and you put a plant in it, and you
apply water you know the salinity of the water. And you
measure the water that comes out the bottom and you know
the salinity of that. And you say ah, salt either passed
through the soil or it didn't, so you can determine
what's collecting. Or you could dry out the soil and see
what salt's left. That makes sense. That's perfectly
logical. That doesn't work in south Delta lands, because
we can't put a 20,000 acre box under the land and take
all the water that only comes through the soil.

Dr. Hoffman assumed the water quality put in.
Of course you can't do that, right? If you say, "Well,
they're using 0.7 water," which is what he did and I'll
get to that, what if they're using 1.5? You have to know
what they put on in order to determine whether the salt's
leaching or not.

And so here we go. Here's one of Dr. Hoffman's
charts. There are others, which I'll address in my final
comments. And this one you can see, I know I'm being fast, but in the caption there for Table 3.10 of his report assuming EC of applied water 0.7. Now again, this isn't the only thing in his report, but I'm just showing that he assumes one of the inputs.

Now the rest of the chart shows you the other inputs, which is the salt out. Now this is tile drainage information from an area in the south Delta. And this shows you where those tile drains are. Now, it's not a very good map, but you can kind of see that most of the south Delta ag is north of all these dots. All these dots are in the City of Tracy area and then just west of it, mostly in the west side irrigation. But it's tile drainage information. It's not bottom and end of the field what passed through the soil profile.

So here's the problem. The tile drains in that area are collecting shallow groundwater of poor quality. So there's a lot of salt in it. So if you assume the input of salt, which is incorrect, and then your output of salt is vastly overstated what does your calculation of leaching mean? It means nothing.

Now, I'm not trying to be mean to Dr. Hoffman. He used the available information, but not his brain. You can't calculate leaching.

CHAIR MARCUS: You realize I now want to meet
Dr. Hoffman, like big time.

MR. HERRICK: I'm sure he wants to meet me again.

CHAIR MARCUS: He is --

MR. HERRICK: You can't calculate the leaching fraction with the wrong input and the wrong output. That -- how do you describe that? That's called logic. And you can have models. You can have calculations. You can have a computer. But the results can't violate logic, because logic means one follows from the other. And so Dr. Hoffman is simply wrong. Now he adjusted his report. He added a different leaching fraction to it. It doesn't matter what you do when your calculation is wrong.

Now let me pose the question what on earth would you do if you can't calculate from that? Maybe you'd conduct a study. And by the way Dr. Hoffman recommended, "Yeah, we need studies, because I'm just calculating this."

So when the first Substitute Environmental Document came out for this process, and it had these objectives, we had the genius idea to hire Michelle Leinfelder-Miles. And then she keeps getting upset, because I take credit for hiring her when she had grant money too, do this and that was most of the thing. So I'd like to turn this over to Michelle, so she can give
you her analysis of the actual facts, as we know them.

And I would like to say the only facts. There aren't any other studies that do the proper analysis of leaching fractions in the south Delta. There aren't any others, so I'll turn it over to Michelle and she can be more polite than I am.

MS. LEINFELDER-MILES: While the power point's getting loaded I'll introduce myself. Oh, it's on, maybe I'm just not close enough. Is that better?

CHAIR MARCUS: It's great.

MS. LEINFELDER-MILES: My name's Michelle Leinfelder-Miles. I'm a Farm Advisor with UC Cooperative Extension. I'm based here in San Joaquin County, but I serve the greater Delta region, five counties: San Joaquin, Sacramento, Yolo, Solano and Contra Costa.

And my role as a Farm Advisor is to do research and outreach to the local community. And that research should be relevant and in cooperation with the local community and as a Farm Advisor, that would be with the agricultural community. So when there was interest to do a study on the leaching fractions being achieved in the south Delta, then it was an exciting project to get involved with and to work with the local community, local growers on this project.

So just in general, I'll go through a few
introductory slides on salinity. And then I'll go into
the research results of the project. So in general, why
is salinity an important consideration in Delta
agriculture or in agriculture in general? We've heard a
lot about it already this morning. Salt problems occur
in approximately one-third of all irrigated land, so we
know that there are issues in other parts of the world.
We have similar issues. Maybe we just have other ways of
dealing with some of those political issues that surround
them. But certainly the salt issues are here and we have
to deal with those on the ground.

So in general, parent material or rock,
weathered to form salts. We call those soils mineral
soils. They're weathered from rock and sometimes those
rocks will weather to ions that form salts. Also in
agricultural systems some soil amendments that we add can
add salts to the soil. Additionally, irrigation water
will carry salts that get added to the soil. And then
finally a shallow saline groundwater can influence the
salinity condition of the soil.

Now in the Delta, we have a few particularities
that reflect that, but also add a little bit more to it.
So in the Delta we have mineral soils, but we also have
organic soils. And those are soils that are formed from
decomposed plant material. The mineral soils that we
have tend to be clay soils. And the organic soils are
like clay soils in the sense that they're low
permeability soils. It's difficult to pass water to pass
through those soils.

Along the lines of the irrigation water, so
certainly irrigation water is carrying salts in the soil
through the Delta and the Delta is at the end of the
pipeline before the Bay. Another thing to consider is
that in the Delta, we are — most growers are exclusively
using surface water for their irrigation. They don't
have groundwater to supplement. And then finally, as the
groundwater is shallow we are also dealing with soils
that are below sea level, so it just kind of adds to the
hydrology or difficulty in hydrology in the Delta.

So the effects of salinity on plant growth, I'm
going to go over three general principals. The first is
osmotic stress. This is the most common way that plants
are stressed by salt conditions. And if you just think
generally about a plant root growing in the soil, if that
soil has high salinity then the plant has to translocate
solute into their roots in order to maintain a gradient
from the soil to the root, of water. Otherwise, the
plant becomes salt stressed. Now the thing about osmotic
stress is that most of the time it's exhibited as generic
stunting and so we may not recognize it as being a
salinity stress.

The second stress from salinity would be specific ion toxicity. So these are sodium, chloride and boron, primarily. These stresses in the picture, there you'll see a walnut tree with this browning along the leaf edges. These are dead plant cells and these cells are not able to photosynthesize and therefore those leaves are not as productive in providing for the plant. So again we see reduced productivity from those plants.

And then finally plants are indirectly affected by degraded soil conditions. So in this case, you'll see some white crusting on the corner of that field. That white crusting, the salt in the soil result in poor infiltration, anaerobic conditions for the plant roots and therefore the plants aren't growing productively.

So leaching is the primary management strategy for salinity. And leaching must be practiced when soil salinity has the potential to impact yield. Leaching occurs when water's applied in excess of soil moisture depletion, by crop evapotranspiration, or the evaporation of water from the soil, and the transpiration of water from the plants.

Leaching may occur during the rainy season or whenever an irrigation season event occurs. However in my data I'm going to show that there has not been any
leaching in the soils where I did my studies, between the
spring and the fall. So we're not getting any sort of
leaching during the irrigation season.

I'll be talking about the leaching fractions, so to define the leaching fraction, this is the amount of
total applied water that passes below the root zone. In
agricultural systems we think about a 15 percent leaching
fraction as being a general rule of thumb. And this 15
percent leaching fraction, that is assumed in the crop
salinity tolerances that we use in the academic world to
assess whether a condition is going to impact crop yield.

So the purpose of my study was to gain an
understanding for the leaching fractions that are being
achieved in the south Delta. I used alfalfa as my model
crop, because it's a perennial crop that grows over four
years, sometimes more. And why that's important is
because there are certain agronomic practices we have to
consider when you've got a perennial crop and we're not
rotating. So on a year-to-year basis we can't do certain
management practices at the end of the season that they
may be able to do after say a tomato crop that's been
harvested and rotated out.

This slide is my introduction to the project
and to the results that are coming forward. We selected,
in cooperation with south Delta, seven sites that were
located throughout the south Delta, again in cooperation with the growers. I have not identified those sites on a map for the purpose of the privacy of the cooperators, recognizing that's what their wishes were. But I have identified the water source where those fields were getting their water from. And so if you were to place those on a map, I think you would see that those sites are located throughout the south Delta.

I've also named in this slide the different soil series. There's three different soil series named that were of interest to us. And those three soil series represent about a third of the irrigated land in the south Delta. So I would say that the results that we have from this study are pretty representative of the agricultural lands in the south Delta.

So this slide gets to the leaching fractions right away. And then the next few slides will show the salinity of the soil profiles in a graphical sense. So first off, you notice that there's a column for the ECe. This is the soil salinity, the saturated paste extract. This is how we test the soil. We go out to the field. We bring back the soil to the laboratory and then we test it for the electrical conductivity.

And I will say now I'll be representing EC as deciSiemens per meter. This is a unit that's equivalent
to the millimhos per centimeter that's been named previously in the hearing. So the ECE is listed in the column there. This is the ECE of the soil at the base of the root zone. This is the layer of soil where the salinity is the highest and this is where we calculate the leaching fraction from.

But then the next column over names the ECw, this is the salinity of the irrigation water. I collected the irrigation water from each field, each time the soil was being irrigated. So this is a seasonal average of maybe six, seven, eight irrigations depending on how many times the grower was irrigating over the season. Results in 2013 are on the left side of the table and 2014 on the right.

You'll notice that there are three sites where the irrigation water salinity average, over the season, was higher than the 0.7 salinity objective. We used that number, we used both of those numbers in our leaching fraction calculation, and we find that the leaching fraction that we achieved in these soils was pretty low at most of the sites. At only two of those sites did we have a leaching fraction that exceeded that 15 percent rule of thumb that I referenced earlier. Most of these sites had leaching fractions well below that.

So now, I'm getting into the graphics on I'm
going to talk specifically about four of those sites. Just for the sake of time I won't go into all seven, but I'm pulling out four that I think tell interesting stories. So the first one is Site 1, this is a silty clay loam soil. Again, to remind you from the previous slide, the ECw over the course of the irrigation seasons, in both seasons, was 0.54.

So the crop salinity tolerances that are set up for alfalfa would be a 1.3 EC for the irrigation water. So we've met that. We're not reaching the threshold where we would expect to see crop yield declines for the water. However, the threshold for soil in the peer-reviewed literature is 2.0. And you'll notice in this slide, the top foot of soil, or the top 30 centimeters, we're at that 2.0 deciSiemens per meter. And as we get lower into the soil profile we get even higher than that, so that our average soil profile salinity is much higher than 2.0.

Using our crop salinity tolerances we would expect to see yield declines. For every one deciSiemen per meter increase in salinity, we would expect to see an 8 percent yield decline for each increase above that threshold. So in this case, we're much above the threshold of 2.0.

Our soil salinity is increasing from spring to
fall. Spring is indicated in the green lines and the
fall in the orange lines. So we see that those orange
lines are to the right of the green lines, we are not
able to get leaching over the course of the season. And
the other thing I would like to point out is that there
are some points that are on their own that are not
connected by lines. Those represent the groundwater
depth and the salinity of the groundwater. And at this
particular site I think an interesting point is that the
spring groundwater is at that depth where you see the
highest salinity. So this would tell me that the
groundwater depth is impairing the leaching of salts
below that depth.

These two graphics are kind of squished
together, but I did that for a reason, because these two
fields represent some of the highest salinity that I saw
over the course of the study and the lowest salinity.
Both are the same soil type, a silty clay loam. The
electrical conductivity of the water at the Site Number
2, the graph on the top, was a little bit higher, 0.7 to
0.8 over the course of the two seasons, 2013 and 2014.
And the bottom slide, we had slightly better water
quality, 0.4 to 0.57.

So what would be my explanation for such a
drastic difference in electrical conduct to soil
salinity? My explanation for this is that while we do have better water quality in Site Number 3 it is probably more of an observational part -- observation I made by visiting that field. I think we were getting higher leaching in this field, which was represented by the leaching fraction Site Number 3.

We're getting higher leaching in this field because the grower's applying more water. That water is sitting on the field and again my observation is that that field was a very poor stand. The weeds were coming up through that field more than the alfalfa plants. The yields were declining and the grower pulled out the field, ripped it up, and planted a new crop at the end of 2014, which there aren't results for the spring of 2015 for this particular field.

That's an observational thing, but the growers who grow alfalfa would tell you that you can't have weeds growing up through your alfalfa crop. It lowers your hay quality and it can be a danger to the animals.

This particular site was interesting to me. It had some of the highest salinity applied to it yet not the highest salinity in the soil. This is a different soil type however, it's a fine sandy loam. It's got better water infiltration, because of the different soil texture and I think we were able to leach the salts much
better indicated by the higher leaching fraction.

I'll go through the yield results very quickly. We did see -- these are not yields that I collected from the growers. These were me going out and using my own procedures of a quadratic yield analysis, cutting a square of alfalfa at various places in the field. We do see yield declines from 2013 to 2014.

In a report that I've written up on this project I wrote that I could not correlate salinity and yield. The reason that I said that is because this was not a controlled replicated experiment. In a controlled replicated experiment where you've controlled for other sources of variability, it's much easier to set up a correlation between the factor that you are interested in, your treatment, and something else, say yield, because you've controlled for other sources of variability in your experiment.

This was a survey project where I wasn't controlling anything. I was interested in the quality of the water and the quality of the soil as it relates to salinity. So I could not make that generalization, that correlation between yield and salt. It doesn't mean that it's not there. It just means statistically I can't tease it out.

So to conclude, and I apologize for going over,
salinity is a problem in the Delta, because of some of these inherent conditions. And some of these inherent conditions cannot be managed by the growers. The growers are dealing with unique growing conditions and using best management practices they have constraints that limit their ability to leach salts. And so if salinity changes, if salinity objectives get more lax, then they're going to be dealing with salinity beyond what they're already dealing with under the current objectives. Thank you.

CHAIR MARCUS: Thank you.

MR. HERRICK: If I may, if we can go back to my PowerPoint, and I'll try to wrap up real fast if it's okay with the Chair?

CHAIR MARCUS: All right. And I see that we have statements from Mr. Marchini, but also Chip Salmon, who some of us met earlier, and Mark Bacchetti.

MR. HERRICK: I'll certainly resubmit everything. You can toss those, so there's no reference to WaterFix, it's just the testimony.

CHAIR MARCUS: Are these the ones from the WaterFix hearing?

MR. HERRICK: For Mr. Mussi and for Mr. Salmon they are.

CHAIR MARCUS: All right. Okay.
MR. HERRICK: So they'll both just resubmit.

CHAIR MARCUS: Okay.

MR. HERRICK: So again, if I beg your indulgence?

CHAIR MARCUS: You'll wrap up and I think I'm following. I hate to say it, I think I'm following your point, so if you don't sum it up in a certain way I may try, just to be sure we get what.

MR. HERRICK: No problem, the last issue that I'll cover before I do the solutions, which I know you like, is this averaging of ECs in the channels. The SED proposes that instead of measuring at Vernalis, Brandt Bridge on the San Joaquin, Middle River and Old River and Old River at Tracy Boulevard Bridge that we now examine reaches of channels, not just locations.

So the first one's Vernalis to Brandt Bridge and I have a map coming up. Then we have the Middle River from Old River to Victoria Canal. And Old River/Grant Line from the head of Old River to West Canal.

Now the problem is if you're trying to find out where or if you have problems in the south Delta, or if you can enforce a standard in the south Delta and you don't examine locations, but you examine averages over reaches, you will never see the higher numbers. That's
just by definition if you're going to average. You will
make sure that you never see the high numbers, and so you
don't know that there's a problem.

   Now this isn't some sort of random mistake,
because the areas that are defined are -- and I've got
the world's best pointer here -- I'm pointing to the
chart or the map that can be seen by the Board members.
Vernalis to Brandt Bridge includes a large stretch of the
good water quality from the Stanislaus River used to
dilute. So if you average 0.5 or 0.6 or even 0.7,
because that's what they're maintaining, then if you
reach 1.0 or 1.2 somewhere down by Brandt Bridge you will
never see that number. You'll see that the average says
we're okay even though half of the area might be above
the standard.

   Similarly, if you measure a reach from Middle
River, down Middle River to Victoria Canal, Victoria
Canal is export quality water that crossed out Delta
flow. And so that water might be 0.4 or 0.3 EC. And if
you average that with some water that up at the head near
of Middle River and that's -- I'll just make up a number
-- if that's 1.1, you'll never see that there is any
violation anywhere in that standard.

   Same thing with the final reach, which is the
head of Old River down through Old River over to the
export pumps. Now the export pumps are holding export pump water. So if you've got a bad spot in the middle, which is our worst spot right here at the bottom here at the lowest point of Old River, that doesn't show up when you do the averages. It's gone. And so if your method of measuring compliance of a standard is to never see the maximum amount of salt in any particular channel, you will never see a violation.

Now, I'll remind the Board that the 2006 Update of the Water Quality Control Plan says in black and white that these standards apply throughout the channels. And so whether or not a measurement point is in good reflection of what's going on all over, it's supposed to be applied throughout the channels. Now we may not be able to do that, right? I mean, some things may be impossible. But when you start averaging these numbers, you insure that you will never see a violation.

And that's a problem with the compliance program and a monitoring program if it's constituted so you'll never have a problem. And that's what this is constituted to do. There's no other explanation, because it doesn't recommend additional monitoring compliance points to find where are the bad parts. It doesn't say we should change the compliance locations to different places that are better reflective of what's going on. It
says let's average good water and bad water quality all over the south Delta.

So what are the solutions? Everybody hates John Herrick and the south Delta, because we're the people who don't do anything and we oppose everything and we're bad, evil people. Whether that's true or not, there are solutions. And you've been told for 15 years there's nothing can be done in south Delta. Wrong, right?

Now, I've been saying to other people without the hammer, you're not going to get anything done. So if you say, "I don't know what to do," nothing will get done. But if you have a hammer then the Department of Water Resources, the Bureau will mystically find ways to discuss things with south Delta and try new programs. So what can we do?

Well, of course the permanent barriers are always something. The permanent barriers aren't in because some -- excuse my expression -- some idiots at the fishery agencies don't understand the flows of the Delta. Now that's a long explanation that I won't go into --

CHAIR MARCUS: That doesn't really help sell the point.

MR. HERRICK: It doesn't. It doesn't, but it's
true, because we argue with these people. That they say
the barrier results in fish being killed, they don't want
to do that. A fish that goes upstream of a barrier
lives. A fish that stays downstream of the barrier gets
killed by the export pumps. That's the hydraulics of the
area. Now again, I was being snotty there and I
shouldn't be, but --

CHAIR MARCUS: It just detracts from your valid
points.

MR. HERRICK: I understand, but I am what I am,
sorry. (Laughter.) Anyway, the barriers are just a
political decision that somebody said, "Okay. Well,
we'll cooperate on doing something else, but we don't
want you to put barriers in, because we don't know how
they affect things." That's wrong. We can still do
that.

Now timed inflows, there are actually people
upstream that have approached me and said, "You know we
may be able to isolate a bunch of water that could be
released for your benefit." That's a good thing. Now we
have to investigate how to do that, but if you have a
chunk of water or chunks of water that you can release at
certain times you might coordinate things and flush out a
portion. It doesn't cure the area permanently, but you
might flush something out and better things.
And similarly you could coordinate barrier operations. And we might be even willing to have a barrier opened up or culverts opened up so that people can't irrigate for a couple of days if that flushes the channel out. We might be able to do that. That's a coordination thing that I might be able to do. Now I don't want the farmers to shoot me for proposing that.

The other thing is pumps. We could do a test to see, let's see if you do add 250 CFS extra water flowing in one direction, let's see what happens. Instead, we have a report by DWR that says, "If we add 1,000 CFS flow into Old River it won't meet the standards all the time." That's of course wrong. The tidal flow up the river is about 800 or a 1,000 CFS. If you doubled that it's either going to flood the land or it's going to move the salt somewhere else, right? Those are the only two possibilities. So we need to conduct that test and you could order some tests like that.

Now, of course there's always a combination of things where you do this and do that. DWR has a study where the guy recommended, "Let's do one operable barrier. We could make it cheap, but we could do things." We can do things to address this. It's a simple problem.

Net flows, if you have a channel that has net
flows through it you can have some sort of maintenance of water quality. If you have a channel that doesn't have a net flow, like I showed you at the very beginning, you cannot maintain salt. We can do this. But we've had almost 20 years of a lack of effort to address it. That's not your lack of effort, but the projects had no incentive to try to figure this out. If it cost $10 billion, we can't do it. But that doesn't mean we can't try to figure out what'll work.

And with that, I apologize for going over my time, as I normally do. I thank you.

CHAIR MARCUS: No. Thank you. I let you, because I wanted to hear what you had to say.

MR. HERRICK: Thank you very much for your time and consideration. Everybody I talked to today all said the same thing, whether they disagree or not with you guys, nobody wants your job. I'm sorry to say that, so thank you very much.

CHAIR MARCUS: No, thank you very much. Thank you and nice to see you. Again, I'm sorry I'm going to move on to the other players. We'll have plenty to talk about with the staff in follow up.

Next speakers. Are you still okay?

COURT REPORTER: Always.

CHAIR MARCUS: You're my hero. I will promise
not to do this to you constantly, but you'll just have to stay and --

COURT REPORTER: I’m doing well.

CHAIR MARCUS: Uh-oh. I've got more, but wait, there's more. I'm going to count them in a second. We have one, two, three, four, five, six. Six, if anybody who wasn't here before is now here, let me just see. I'm going to ask if people have returned: Margie Fries? Kathy Bunton? Gordon Armstrong?

MS. BUNTON: I'm here.

CHAIR MARCUS: Kathy Bunton, okay I'll put you back in. Ernest Tuft? Mary Elizabeth?

All right, we have seven.

MS. DODUC: There's someone.

CHAIR MARCUS: Mary Elizabeth. Okay, we have eight. All right.

MS. BUNTON: Hello. Thank you for allowing me to comment today. I'm Kathy Bunton. I'm a San Francisco Bay-Delta resident, small business owner and avid angler. I own and operate Delta Kayak Adventures and I make my living on the Delta guiding tours and renting kayaks and paddle boards to the public. I've resided in Antioch for nearly 19 years where my business is based, but I lead tours throughout the Delta region.

I've witnessed the degradation of water quality
and it has directly impacted my business with the increased presence of invasive weeds such as Water Hyacinth and toxic algal blooms have had negative effects. This past year I had two large groups cancel their tour due to a blue-green algae bloom in parts of the Delta. Even though my tour would not be paddling anywhere near the bloom, I lost a huge chunk of business due to the perception that the Delta is toxic.

The Delta needs increased fresh water flows and a reduction of water exports to keep the ecosystem and water quality healthy. The salinity standards should not be reduced. The past couple of years I've encountered hundreds of jelly fish in the San Joaquin River in front of Antioch and within Sherman Lake waterfowl management area as recently as November of this year. And increased presence of seals and sea lions.

Reducing salinity standards would further degrade water quality and affect the water my family and I drink. My hope is that you'll consider the people who depend on the Delta for drinking water and the businesses who depend on the Delta for tourism and increase flows by allowing more fresh water to reach the Delta. Thank you.

CHAIR MARCUS: Thank you very much.

Wendy Benavides from Manteca followed by Wayne Reeves from Contra Costa County Farm Bureau followed by
Bob Holmes.

CHAIR MARCUS: Sorry, thank you very much.

MS. BENAVIDES: Good afternoon, Wendy Benavides. I'm a long-term resident of Manteca, California. I'm a fourth generation Californian and I've also been a long-term realtor in San Joaquin, Stanislaus County. I'm here in support of -- actually opposed to your wanting to take our water. I'm opposed to that.

I strongly support SSJID's position. And I want to state that I've been following what they do for decades now. They've been great stewards of our water. Not only do they manage producing electricity, they provide water to our communities. I've gone to the treatment plan when they opened it up, the water treatment plant. I was impressed. They didn't have to do that. I mean, they keep doing things that they really don't have to do. And they have managed to balance in very difficult times, not only getting the water to our farmers, the water to our cities, recharging the groundwater.

I was impressed when they took it upon themselves and they've spent millions of dollars on the science for fish. And I'm big on science. And they've also gone to great expense to install in some of the ag areas, pressurized delivery of the water, so that the
almond trees could get just the right amount of water they needed, which is great because it saves a lot of water. Of course there's a downside to that because without the flood irrigation then our aquifers don't get recharged. So you can't have it all. And they're making it work.

And as a long-time realtor many of you probably already know that the Central Valley acts as affordable housing for the Bay Area. The housing is very expensive. I grew up there, but I've lived out there for nearly 40 years, and our population is exploding. And not only have SSJID along with the City of Manteca or course -- we still depend on wells for some of our water -- we still manage to save water. We have still saved water and we've added thousands of people to our community.

And I'm also a big person on law and water rights. And we have strong water rights. And I think that really needs to be protected. And we're under assault from special interest groups from Sacramento to San Francisco and to the south. And SSJID has held their head high and has performed excellent. I mean, I'm so proud of them. I get all choked up, but it's about water. But anyhow, that's what I wanted to say.

I'm a simple resident, a business person. I'm trying to stay informed. And you should look to them to
consult with them. They have spent so much time and
energy to do the right thing and with the science.

CHAIR MARCUS: Thank you. You should wrap it,
thank you very much.

MS. BENAVIDES: Thank you.

CHAIR MARCUS: Hopefully somebody from there
was here to hear you too. I'm sure they're listening
somewhere if they're not here anymore.

Mr. Reeves followed by Mr. Homes followed by
Cynthia Lau from the Central Valley Asian American
Chamber.

MR. REEVES: Good afternoon and thank you for
allowing me to speak.

CHAIR MARCUS: Thank you, of course.

MR. REEVES: My name is Wayne Reeves. I'm the
President the Contra Costa County Farm Bureau and I
noticed this afternoon when we took a lunch break, all of
you were eating lunch. You had something. You had bread
or you had meat or you had lettuce or tomatoes and stuff
on your sandwiches. That's all based on agriculture.

Agriculture's a very important part in California and it
always will be. The more water you take away the less
agriculture we have.

Contra Costa County is losing a lot of its ag
land, because we don't have enough water and the proper
water to grow the fruits and vegetables that we need.

The best corn in the United States comes from Contra Costa County, the sweet corn, everybody has it worldwide. But we need the water. Agriculture's not a bad guy. Agriculture is doing everything they can to conserve water, putting in drip irrigation systems. But everybody's says we're using 80 percent. That's not the case. We don't use 80 percent of the water. And the water we use produces food, so we all have nutrition.

We have nutrition, so we have great families and a great future. Thank you very much.

CHAIR MARCUS: Thank you very much.

Mr. Holmes followed by Ms. Lau followed by David Strecker from the San Joaquin Farm Bureau.

MR. HOLMES: Good afternoon.

CHAIR MARCUS: Good afternoon.

MR. HOLMES: It has definitely been a long day. After here sitting here all day --

CHAIR MARCUS: An interesting day, though.

MR. HOLMES: -- I've almost decided not to read my comments, but I'm going to read them anyway. My name is Bob Holmes, a lifelong resident and farmer in the Escalon area of San Joaquin County. College educated and to keep the record straight, a current member of the Board of the South San Joaquin Irrigation District. My
comments here today are my own.

To be a successful farmer you must be able to learn and identify and manage to the best of your abilities every variable that might affect the performance of your crop be it livestock, field crops, vegetable crops, trees or vines. Focusing on just one item or area will surely lead to failure. I might have the best soils for crop production, but without proper crop cultivation, fertilization, pest management and water, all in the proper amounts and at the correct time, your crops will fail.

My 40-plus years of being a successful farmer tell me that management of the salmon population will be no different. So if your SED Plan is truly about rebuilding fish populations then controlling a single element of their environment, meaning water flow, will certainly lead to failure. If you truly want to manage the fish populations then develop a comprehensive plan includes all elements that can be managed to achieve the desired results.

I would also like to take this time -- I would also like you to stop and study and learn the uniqueness of our region. The three-county region served by the Stanislaus, Tuolumne and Merced rivers is the home to some of the richest soils in the world, which in my mind
should also be protected for future generations. These soils combined with an arid climate and high quality water supply, surface and ground, are the building blocks of sustainable irrigated agriculture.

The discovery of gold in California in 1848, and the ensuing gold rush, brought a huge influx people into California. When the gold rush ran out the people turned to farming and ranching to sustain themselves. Since that time California has seen continual development of its resources to sustain its population. Irrigated agriculture has been the base that has made this possible to the point where we now have more than 38 million people to house and feed in this great state.

Preservation of irrigated agriculture will be a key to the sustainability of our great state not only for the benefit of my family, but yours too. My hope is to instill in you some appreciation for what we have, how we've gotten there. And that we have the science, technology and practical ability to manage our resources to the best and highest use for the benefit of all Californians. Thank you.

CHAIR MARCUS: Thank you, sir.

Ms. Lau followed by Mr. Strecker followed by Julianne Phillips from the San Joaquin Farm Bureau also.

Hi.
MS. LAU: Hi. Good afternoon Chair Marcos and members of the Board, I thank you for this opportunity to speak. I first started learning about the water situation here just a couple of years ago just out of curiosity, because I really didn't know anything about water. And right now I'm just like overwhelmed with information. And we definitely have a crisis in our ecosystem here.

And I think I started taking an interest in the water, because I first learned about the water issue being involved in a local Asian-based social service agency. We had received an enormous grant to educate people about the mercury level in the water. And I just got grossed out because I thought, "Oh my gosh. I grew up eating fish from the Delta." And I thought, "Oh my gosh, I have mercury poisoning."

And then I got involved in gardening and urban farming in this area. And before I planted anything I would check to see what was viable to plant in our local soil. What was feasible to grow when and where? And then so I started thinking like, "Wow. I checked to see what is viable for me to grow in my backyard. So I didn't understand like why were we exporting water to grow a water-intensive crop in a sandy arid area?"

So I think that's one thing that I really would
like to Board to look at is the amount of export that we have from the Delta river. I mean, we really need to have some kind of permanent reduction in exports in order to maintain the quality of our Delta estuary system.

You know, we've heard so many expert testimony about the salinity levels and how it could affect the south Delta. And basically my mind is just like overwhelmed by the information that I've learned today.

But you know just from a very grass root level I think salinity is salt. Why would you want to increase the salt in your soil? It just doesn't make sense.

So from my perspective and the perspective of my community one thing I'd like to do is bring more awareness, more education, and more engagement from my community, because we are not aware. I mean I think with more advocacy and outreach we will become more aware.

And I just ask the Board to look at some of these environmental justice issues. We are most susceptible to toxins and hazardous wastes. Thank you.

CHAIR MARCUS: Thank you very much. Thank you for joining the water party.

MS. LAU: It's a very complex party.

CHAIR MARCUS: It is, a makes your head explode party.

Mr. Strecker, thank you, followed by
Ms. Phillips followed by Mary Elizabeth.

MR. STRECKER: Madam Chair, entire Board, we thank you for giving us this opportunity for all of us to speak today. My name is David Strecker. I'm the second Vice President of San Joaquin Farm Bureau and I'm also a fifth-generation farmer in the south Delta and my family has been there within three centuries, so we've been here a long time.

CHAIR MARCUS: Cool.

MR. STRECKER: Groundwater impacts need to be discussed. Before the drought great strides were made implementing conjunctive use projects as well as technological advancements in water delivery systems in the Eastern San Joaquin Basin. With the loss of surface water deliveries, groundwater will continue to be overdrafted, despite the implementation of the Sustainable Groundwater Management Act looming. This not only impacted ag, it jeopardizes safe water deliveries to the communities like Escalon, Ripen, Manteca, Tracy, that currently rely on groundwater to supplement their water supplies. Phase 2 will do the same to our north communities.

Economic impact. Billions. According to our most recent General Plan Update, ag in San Joaquin County alone contributes $6.6 billion in local economic output.
And those numbers were from 2007. Despite recent
droughts and even some loss in commodity prices, overall
in the last 10 years, ag has increased in economics.

The dollars lost in ag will impact the entire community. The District Attorney's Office covered it.

With opportunity, when it is lost, industry is decimated.

A way of life is gone. The only thing that fills in is crime. That will not only be in the rural communities in San Joaquin County, but the smaller cities and Stockton as well. Stockton is good on crime.

Water quality degradation in the south Delta.

One of the things we find most troubling about the SED is that you're asking to take such huge amounts of water from the community and send it down river and there are no real water quality benefits downstream. Instead, we see a set in stone permanent relaxation of the temporary changes that have been too common throughout the drought. Current water quality standards need to be improved and more importantly enforced throughout the entire irrigation season to protect the water quality, the crops and the soil within the Delta. If we're going to talk about fish, we need to talk about predation. No matter the amount of water you send down, no matter what the temperature of the water. When you're eaten alive, it doesn't matter.
Dredging, dredging can help with the overall
temperature in the Delta to help fish. Another major
impact is the non-native invasive plant life. The Egeria
densa and the Hyacinth are a problem. The evaporation
transpiration loss is bad for everything. It doesn't
help fish. It doesn't help farmers. It doesn't help the
communities. It doesn't water to export. It needs to be
fixed.

In conclusion, nobody is more invested in the
health of the fisheries literally and figuratively than
the irrigation districts. Why not allow them to continue
to work on habitats, spawning beds and other measures
that have been shown to be effective. In ag, we have a
simple saying about anything we apply to our crops.
Right time, right place, right amount. Throwing
unnecessary water at the fish is not a guaranteed benefit
to them and at the same time will devastate local
communities and accelerate the degradation of water
quality in the south Delta.

Us farmers are proud. We built these
communities in San Joaquin County. We provide the safest
food in the world. We can provide the most food of
anyone in the world. Please allow us to continue to do
that.

We will be submitting an extensive amount of
CHAIR MARCUS: Thank you very much.

Ms. Phillips followed by Ms. Elizabeth or Mary Elizabeth followed by David Phippen, who's a member of the South San Joaquin Irrigation District.

MS. PHILLIPS: Hello. Good afternoon. I hate to be repetitive, but I figure you guys traveled all the way here and we've all spent all day here, so let's make it worth the while. I'd first like to thank you for taking the time to travel and holding these hearings in the communities that you are directly impacting.

There are some things that I heard today that I hadn't heard in previous hearings that I think really needed to be responded to. The fist was this morning, opening up the meeting in the prepared comments, Chair you stated that you wanted to clear up some misunderstandings. You feel like the communities are opposed to this, because there are some misunderstandings, but I hate to disagree with you. We are opposed to this because we very much understand the very real impacts that this is going to have.

CHAIR MARCUS: No, I'm sorry. I tried to specifically say there's plenty to argue about. My point was just that there are a lot of red herrings out there where folks are worrying about the wrong things, rather
than focusing on the things to argue with us. So people are setting up a straw man of what we want that isn't what we're asking for, and it's kind of wasting people's time as opposed to focusing on the hard work of figuring out what to do.

MR. MOORE: Yeah, that's right.

CHAIR MARCUS: Just to be clear. There's plenty to argue about.

MR. MOORE: As an example, your colleague who just said the issue at the right time, the right place, you know. And that's at the very heart of the proposal before you. So that's an example of a misunderstanding.

And we can work through these and communicate and better understand each other's perspective. But I just give you an example.

MS. PHILLIPS: Absolutely. And I would say that our community, we understand that very well. And the people who are most nimble and most able to react to impacts to the fisheries are the districts that actually are in the river every single day. They have -- you heard them, Steve and Peter both said today, they invest a million dollars every year in science and research on their river. There is nobody who is more invested, literally and figuratively in the health of the watershed than the very districts who react to the impacts to the
the economic impact. And that is something that really, I think it's been overlooked.

I've been raised in the Valley my entire life. I went to Fresno and I know the little community of East Porterville very well. And I know that you have folks down there who are showering in parking lots right now. And that's not acceptable. And we're not going to accept that here. And taking away a huge amount of our surface water is going to move those impacts further north. California's one of the strongest economies in the world. We are a global economy. We are proud of it. We are not going to live like a third world country.

The other thing that has been significantly underestimated is the impacts to our groundwater. We are a critically overdrafted high-priority basin. Before the drought hit, we were actually -- we consider ourselves an equilibrium, so all right -- we have tapered off what we were losing. And we are making progress in the right direction. And that was due to the hard work of the districts, of the growers who have implemented a lot of demand-side management for their crops.

And then the drought hit and things changed.
And we don't have the ability to implement the conjunctive use projects that we used to have. And we're continuing to work on that through grants and through additional conservation measures. Taking away such a significant source of the surface water that's critical to implementing those conjunctive use projects eliminates that opportunity permanently. That will create attrition and further contraction of the agricultural industry in San Joaquin County.

We were fortunate that we had one of the best crop reports that we've ever seen two years ago. And we thought okay. So we're going to make it through this drought all right. And then we saw a $0.4 billion drop-off this past year. That's significant. Six of our top ten crops saw significant losses. That can't be sustained and continue to sustain the economy.

And I will thank you for your graciousness for me going over time. I will wrap up with that. And as David said, we will be providing written comments as well.

CHAIR MARCUS: Great and thank you for staying with us, we appreciate it.

Mary Elizabeth?

MS. ELIZABETH: Hi. My name is Mary Elizabeth and I'm a fourth generation Stocktonian and I'm here
representing my family. I urge that you reduce exports and maintain the existing salinity standards in the south Delta for all existing beneficial uses. I ask that you consider environmental justice in our Central Valley so that fish are safe to eat from the Delta.

I think that standards should actually adjusted so that water quality can be restored and not just maintained. Permanent monitoring locations allow for better water quality assessments. Averaging should not be allowed. It's done frequently in the wastewater world. But we're not dealing with wastewater here. Mass balances of salt should be measured and monitored.

And finally, touch too on several of the last speakers, a more accurate assessment of sustainable surface water exports is needed, so that we can have a sustainable groundwater resource. Thank you.

CHAIR MARCUS: Thank you. Dave, I'm reading it Phippen, but you'll have to tell me if I'm getting it right. Thank you for returning, sir.

MR. PHIPPEN: And thank you for spending such a long period of time here today.

CHAIR MARCUS: No, it's helpful.

MR. PHIPPEN: It is Phippen, and thank you for -- that was better than a guess, so thank you very much for allowing us an opportunity to visit with you here
today about our concerns of the Plan.

I represent the third generation of farming families that have been here approximately 100 years now and we farm in the South San Joaquin Irrigation District. You probably already know, but I'll reiterate that most of us, because of the high cost of farming in California have gravitated toward permanent crops and what we call specialty crops. In the case of our family, we are vertically integrated and completely grow only almonds.

Along with the third generation that I represent, we have a couple members of the fourth generation now for succession of our family farm. And I've got some grandsons and granddaughters that are anxious to be the fifth generation. What causes me to come here today and share time with you this morning is that I don't see an opportunity. I see a glimmering of hope for that to happen with this Plan.

I know you've spent a great deal of time and effort working on the science and looking for opportunities to solve some of the problems that we have with water in our basins. It seems to me from my perspective that we're being asked to make a disproportionate amount -- or share a disproportionate amount -- of pain in the counties of San Joaquin, Stanislaus and Merced. It seems to me, I know you asked
that we not look for others to share, but I'm think we could take a little bit of water from a lot of places instead of a lot of water from these three tributaries.

The other thing I would ask you to consider, you mentioned -- I was here for your opening comments this morning -- and I appreciated that you said that there was a toolbox and that there were tons and tons of tools in that toolbox. I think we've looked a little too much at the flow toolbox. I think to me, I'm a farmer, I'm not educated in what you're educated in I'm sure, but the biggest thing I look at is there are some predators in the Delta that are eating those salmon. And I certainly think the very first tool we ought to take out of that toolbox is to consider, or maybe even possibly eliminate, those predators that weren't native to the Delta in the first place. I don't think that's been considered yet or it's happening. So that's the first one I think.

The other thing I would look for, and you've heard it just a while ago, we have spent a great deal of time and resource and capital studying the rivers through our irrigation districts. We have a great deal of science to share with you as well as the science that you share with us. I would ask that we change the path that we're looking at. I would ask that we sit down together
collaboratively, share that science and look for other opportunities before we devastate an industry that in the case of my family, we have spent generations investing in.

There are a great deal of banks and commercial entities that have bought bonds for the huge amount of capital that took for us to build the basin that we have. They were all based on a guaranteed water right that we thought was impenetrable. And yet now, suddenly we learn that maybe that's not so. I just ask that you look for other options besides this unimpaired flow.

The unimpaired flow will provide water for us in most cases, but how do you maintain these crops like tree crops on years when there's drought? I know you talked about using groundwater, but you've probably heard plenty of testimony already today how that option is diminishing from our opportunities.

Again, thank you for the opportunity to share time with you.

CHAIR MARCUS: Thank you, and thank you for returning.

MR. PHIPPEN: You're welcome.

CHAIR MARCUS: That concludes our commenting for the day. I want to thank everybody for spending the time.
I have a couple of -- there may be questions from the staff or from the Board. I have a couple of kind of a housekeeping question I'm going to get to. I prioritized being able to get through the speakers today, because people had come from a long period of time. I just wanted to note though -- Les may have talked to you, they actually did prepare some responses to the things we asked about at the last hearing.

My preference, just so that there can be some answers back out to the public -- and I'm not exactly sure how to handle that -- we could have had him do a longer opening that might have answered some of the questions that people would raise. But people raised different questions here today. We can have them do that at a subsequent hearing. We could do it in a workshop. We could post something. And I'm just curious as to what people would like to have. I'm not sure having Les do it right now is the most productive use of time, but I do appreciate being responsive to the questions that came up on some of the issues that came up in the first hearing. And I have my own list that I'll try and narrow down.

I'm just looking at --

MS. SPIVY-WEBER: My recommendation, and others can jump in, is that when we meet back again in Sacramento after the first of the year, we will have gone
to all three Delta or San Joaquin communities, and we
will also have what we heard at the first meeting. And
it would be a good time to perhaps embellish on your
intro with some answers to some of these issues that have
come up. That's my recommendation.

MS. D'ADAMO: So I was going to suggest the
same thing with maybe a caveat. And that is I noticed --
well, first of all I went to one of the workshops and
followed the others -- so I think that information, some
of it's already out there, but I appreciate that, Les,
you put it in the PowerPoint. But I understand the
PowerPoint is not yet online, but that it will be. So I
think that folks are going to have a chance to chew on
those additional slides and it'll be really helpful. The
slides are not consistent with what I've heard from some
of the irrigation districts, so hopefully they can get in
touch with you in the interim.

But I agree, January 3rd it'd be a great chance
to have a discussion. And I imagine that -- I mean I
don't know how it's going to be handled, because the
irrigation districts all have panels. So maybe they'll
be bringing up their thoughts next week on those slides.
Or perhaps that they'd want to have a separate meeting.

CHAIR MARCUS: Yeah, we could end up hearing
about --
MS. D'ADAMO: But thank you for putting that together. I think that it gives people a chance to better understand how you're viewing those issues that we flagged.

CHAIR MARCUS: All right, but we'll be flagging more issues. This meeting will flag -- I have a whole host of them I don't need to go through here -- but we are amassing all kinds of issues. And we just have to figure out how do we, how do we deal with them in order to continue the conversation with folks. And take in all that we've heard. Actually we've heard some different things here today that were very helpful to me that I'll want to follow up with. I'm sure my colleagues will as well. So let's maybe -- that's a good idea. Let's --

MR. GROBER: If I may than so --

CHAIR MARCUS: You have a suggestion?

MR. GROBER: Yeah. The information we put together, because the workshops were about showing our work and answering questions, so these were some of the key questions that had come up. So we can take the information that we have prepared, add a few words, and as has been suggested post on our Web. Because it's really all about getting on the same page with understanding information, so people can make the best possible comments on the full package.
CHAIR MARCUS: All right.

MR. GROBER: So we'll do that next week, because I think standing alone it might be difficult, but we'll add some words to this and we'll have it posted by about the middle of next week.

CHAIR MARCUS: All right, and that'll us to give you additional things to deal with and actually have a chance to look at it. That would be helpful.

MS. SPIVY-WEBER: I have one other, we had the very first panel, which dealt with the POTWs in the San Joaquin Valley. It sounded to me like there were some easy things to work -- or easy-ish, I guess nothing's easy -- things to work on with them. And if you can take care of that early that would be great.

MR. GROBER: Yes. As you say, nothing is easy, but we certainly want to talk to them to see what ideas they might have for how we can improve.

CHAIR MARCUS: Okay. I just have a number of issues I'll follow up with you on. Folks raised some interesting questions. I'm going to want to go dive back into the justification and the document and what more we need or how we might change it. It was a very helpful conversation to hear.

Hopefully people found it helpful to hear all the different views from all sides where people feel very
strongly. We actually just have a challenging resource
issue to figure out how to deal with. And dealing with
it through folks coming together and coming up with
solutions that include flow and non-flow alternatives.
On the one hand, to say it has nothing to do with flow I
think is wrong. To say it has everything to do with flow
is wrong, although flow influences all those other
things. And we need to figure out how to create the
right balance and right conditions. So that'll be an
ongoing conversation that we need to have and keep
constructing.

MS. D'ADAMO: I have just one comment.
CHAIR MARCUS: Please.
MS. D'ADAMO: So I really appreciate -- of
course, the audience has dwindled, understandably so --
but really appreciate all the comments today and think
that we got a good flavor for what's going on in San
Joaquin County.

CHAIR MARCUS: It was helpful.
MS. D'ADAMO: Very. It's interesting because
when I used to work for Congress it was not a happy thing
when the Congressional District got remapped, so that we
ended up with San Joaquin County. Because when you get
water issues in San Joaquin County that means you have
every single water issue that exists.
CHAIR MARCUS: Oh, yeah that's right.

MS. D'ADAMO: All in your Congressional District. It's easier when you're representing just the east side or the west side, so we got a good flavor of that that.

One thing that I was surprised it didn't come out today, and that is just to flag it for everyone, is that there's another district. It's a water conservation district, Central San Joaquin Water Conservation District, that does receive a piece of that contract water from the Bureau.

CHAIR MARCUS: Yeah. It got mentioned, but there weren't --

MS. D'ADAMO: Yes. So the important thing about that district in particular is that this is a groundwater district. And it only really was formed so as to encourage farmers to utilize surface water supplies. And we see that throughout. All of the irrigation districts have these conjunctive use programs where they're really encouraging growers to use surface supplies, even though they have groundwater supplies, so that they can hold off on groundwater and just use it during periods of drought.

But San Joaquin in particular, and I think that Stockton East did a good job on this, but San Joaquin
County, in particular, has that very unique issue with
groundwater and that's the saltwater intrusion.

CHAIR MARCUS: Absolutely.

MS. D'ADAMO: Yeah. And so I know that I've
seen charts that show how groundwater quality because of
these various district programs has really improved. And
so I was a little disappointed that we didn't hear from
them. Maybe they'll show up at one of the other
hearings, but I did want to flag that it's not just
Stockton East. And I've been kind of gathering my own
information on how many growers, how much land we're
talking about. It is quite a large region.

CHAIR MARCUS: All right. Well, there's more
that could be said or discussed, but I really just want
to thank you all for your participation today, including
folks that are listening over the Web.

The hearing will reconvene at 9:00 a.m. on
Monday, December 19th in Merced at the Merced Theater.
Additional information, including times and locations, is
available in the Third Revised Notice.

I want to thank staff for their attention as
well. And thank you to the court reporter and the
video/audio crack team for helping us today, it went very
smoothly and we appreciate it greatly.

Drive home safely all, thank you for your time.
(Whereupon, at 5:26 p.m., the hearing was adjourned, to be continued on Monday, December 19, 2016, at 9:00 a.m.)

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REPORTER’S CERTIFICATE

I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were reported by me, a certified electronic court reporter and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 16th day of December, 2016.

[Signature]

PETER PETTY
CER**D-493
Notary Public
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I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were transcribed by me, a certified transcriber and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 24th day of January, 2017.

Myra Severtson
Certified Transcriber
AAERT No. CET**D-852