	Table 4-1. Responses to Comments			
Ltr#	Cmt#	Comment	Response	
750	1	I'm a Senior Advisor to San Francisco Mayor Ed Lee, and today representing Mayor Lee and the City and County of San Francisco. The City and County of San Francisco owns and operates the Hetch Hetchy Regional Water System, which provides a reliable, high quality water supply to 2.6 million people in the Bay Area. Eighty-five percent of our system's water comes from the Tuolumne River and it is a critical pillar supporting the economic vitality of the Bay Area and the State of California. Over the last decade, San Francisco and our regional customers have been making	Please see Master Response 1.1, General Comments, for responses to comments that either make a general comment regarding the plan amendments or do not raise significant environmental issues. Master Response 1.1 also includes a discussion of voluntary agreements.	
		significant investments to improve the reliability of this system. We are now completing a \$4.8 billion program that will improve our ability to deliver water after a major earthquake. And that also includes new water recycling and groundwater facilities. We deeply care about the Bay-Delta ecosystem as the defining characteristic of our region. And believe that another defining characteristic is our regional water system and how our San Francisco and regional partners efficiently use water from that system.		
		We appreciate the Board granting a 60-day extension to allow for further discussions. And believe that a voluntary settlement is the best path to achieve the balanced solution required that will both improve the environment and provide sufficient water for our region and other important interests.		
750	2	River and such. We divert about 14 percent of the unimpaired flow. And when you consider the Tuolumne River is about 1.8 million acre-feet, that's a pretty low number. The second thing is when you look at the entire Delta we're 0.7 percent of the unimpaired flow in the Delta. That's all the rivers, everything. And we serve about 7 percent of the state's population and businesses in our service area. So when you look at the impact to us, it's not proportional to the amount of water that we actually divert. And we want to make sure you understand that, because it really hurts us in a lot of ways. You heard from other people testifying, our wholesale customers, Nicole Sandkulla, the Bay Area Council, you know, our water use is really low. Right now the average water use in our service area, including San Francisco, is 54. When you look at just San Francisco it's 41. And you've got to remember that number is 41, because we'll talk about that a little bit later about the impact to our customers during dry periods. It's not during the high wet periods, it's during the dry periods when everybody is suffering across the state.	Please see Master Response 1.2, Water Quality Control Planning Process, regarding the authorities of the State Water Board, including under the public trust doctrine, and the Bay-Delta Plan implementation and water rights. Please see Master Response 2.1, Amendments to the Water Quality Control Plan, regarding a description of the plan amendments and the tributary watersheds to which they are applicable. Please see Master Response 8.5, Assessment of Potential Effects on the San Francisco Bay Area Regional Water System, regarding the State Water Board's evaluation of potential reductions in water supply and associated economic considerations and other impacts within the SFPUC Regional Water System (RWS) service area with implementation of the plan amendments. The master response identifies the main points of disagreement or differing assumptions between the SED and the comments. As described in Master Response 8.5, the SED identified reasonably foreseeable actions that could be taken by affected entities to comply with the plan amendments and in response to reduced surface water supplies. These actions did not include the severe mandatory rationing described by SFPUC because it was not reasonably foreseeable that a water supplier would impose drastic mandatory water rationing on its customers without first attempting other actions to replace any reductions in water supplies with alternative sources of water, such as through water transfers. The State Water Board acknowledges the commenters' water conservation efforts and ongoing commitment to demand management of its water supply. To review responses to comments submitted by other entities within the comment period on the 2016 Recirculated Draft SED, please refer to the index of commenters in Volume 3 to locate the letter number(s) of interest.	
750	3	One of the things that you talked about today is the adaptive management and the adaptive implementation of the flow measures. And I think this is really, really important, because one of the things that we don't see in the document that we need to kind of consider—and we saw this in the recent letter from the State Board Chair to the Governor—is creating a framework for accepting voluntary agreements. I think this is the way to go and it would exceed the proposed fish and wildlife objectives that you have proposed.	Please see Master Response 1.1, General Comments, for responses to comments that either make a general comment regarding the plan amendments or do not raise significant environmental issues. Also, see Master Response 1.1 for a discussion regarding voluntary agreements.	
750	4	You're actually working on the Sacramento River. And we need to understand how the Sacramento River impacts the San Joaquin River, because it is an ecosystem. And you can't consider these things in isolation. And how they kind of fit together in the end with everything else that happens, is important. When I go back to saying 0.7 percent of the	Please see response to comment 750-2. Please see Master Response 2.1, Amendments to the Water Quality Control Plan, for a description of the LSJR flow objectives and the unimpaired flow requirement. Please also see Master Response 2.1 regarding the emergency provision. Please see Master Response 2.2., Adaptive Implementation, regarding how adaptive implementation is incorporated into the plan amendments and	

Table 4-1. Responses to Comments			es to Comments
Ltr#	Cmt#	Comment	Response
		unimpaired flow into the Deltaplease remember you have a State Water Project, a Central Valley Project that actually takes more water out of the Delta than our 0.7 percent. But we're [being asked] to pay a huge price for that. So what is the impact on our system? We have long-standing agreements with the Modesto and Turlock Irrigation Districts. And that's what really kind of drivesthese are contractual agreements. We go back over 100 years on the river, and many of them are here today, and making sure that I say everything correctly. But in a drought or if we had to give up water, we would have to give up 52 percent of the water, based upon the agreement we have with the Modesto and Turlock irrigation districts. That's what really hurts us in a dry year. If this unimpaired flow is just a straight objective, a standard that has to be met, even in a critically dry year it hurts really hard in the Bay Area. Imagine you only have 20 [gallons] in a dry period, so every resident has 20 gallons of water per day to use. Four five-gallon buckets, just think of it that way, and how are you going to use them? And that's in multiple dry years whether it's at 223 million gallons a day, which we're delivering now, or 265 million gallons a day. We're looking at it every which way of how to do this and the uncertainty that we have is basically, we do not know if we can actually build projects to make up the difference or have water come from someplace else to make up the difference. We have a contractual obligation with our customers. San Jose and Santa Clara are not permanent customers with us. They're interruptible. Would you like to tell the Mayor of San Jose that we have to interrupt his water supply, because we no longer have a reliable source of water to serve them? I don't think so.	
750	5	You heard from East Palo Alto today. East Palo Alto has hit their contractual limit. They're trying to work something out with other communities, such as Palo Alto, but the uncertainty of the reliability of the water system going into the future right now has pushed everybody away from the negotiating table. So it has a lot of impacts on housing and jobs in our service area. What is our response to your proposal? Well, we need to take action for the fish. But we disagree with your staff's proposal, plain and simple. Our comments will focus on our potential water supply impacts, our doubts about the benefits for the fish and wildlife, and if there's a better way we can do this, we're going to propose it. And based on the information that we've done with the irrigation districts, we heard staff kind of say something about those today. I don't agree with those, but that's okay.	Volume 3 to locate the letter number(s) of interest. Please refer to Master Response 1.1, General
750	6	[SFPUC will] continue to develop our comments with our partners on the San Joaquin River, with the Modesto and Turlock irrigation districts, with the San Joaquin Tributaries Authority. And we are actively exploring voluntary agreements and we will continue to explore voluntary agreements because that's the better way to go. In the end we think that is going to be painful and costly to come to an agreement with all these parties. It's not going to be easy, but it'll be durable. It'll be lasting. And it'll get for the environment something sooner rather than later if we have to go into some sort of protracted litigation. So we're hopeful and we are willing to work with you, your staffs and all those other parties, to see if we can come up with a solution that we can all agree to across the board.	Recirculated SED. The commenter also indicates that SFPUC is exploring voluntary agreements, and that they are amenable to working with the State Water Board and the aforementioned parties. This comment does not make a general comment regarding the plan amendments or raise significant environmental issues. Please see Master Response 1.1., General Comments, for information regarding voluntary agreements.

		Table 4-1. Response	es to Comments
Ltr#	Cmt#	Comment	Response
750	7	MS. D'ADAMO: I have a question. The question that I have for you has to do with your economic analysis. So I will just be very up front that there have been questions about the analysis that the City had submitted in the last round. And I know that you're updating it. And so just want to give you an opportunity here to maybe shed some light on the analysis that you already submitted, and any changes in methodology or approach that you'll be using in the most current SED that's before us. MS. LEVIN: Sure. I'm Ellen Levin. I'm the Deputy Manager for Water at the San Francisco Public Utilities Commission. The analysis that was submitted in 2013, that supported our comments on the SED for 2012, was actually an analysis that was done to support a Federal Energy Regulatory Commission administrative law judge proceeding in 2009. We didn't have a lot of time to produce comments on the 2012 SED and so our socioeconomist used the bases of that analysis to look at what would happen if we had a 50 percent reduction in supplies on the San Francisco PUC's regional water system. And that is what was presented. We have since updated that analysis and we are using the same economist, David Sunding from UC Berkeley. He will be producing a revised analysis. He will be using the same models, but using updated economic information for the Bay Area, including updated demand projections as well as income projections for the Bay Area that will result in a different socioeconomic effect, but using the similar methodology. VICE CHAIR SPIVY-WEBER: When will this be available? MS. LEVIN: It'll be submitted with our comments in March.	
750	8	MR. MOORE: I was confused on the numbers a little bit, so when you're saying 0.7 percent of MR. CARLIN: Unimpaired flow to the Delta. MR. MOORE:unimpaired flow to the Delta, is that CCSF diversion or is that MR. CARLIN: 1,000 acre feet. MR. MOORE:is that all of the diversions from the Tuolumne River? MR. CARLIN: No, that's just San Francisco's diversions. So that's in 1,000 acre-feet. It's similar to what East Bay Municipal Utility District diverts as well. MR. MOORE: Right, yeah. A similar size service area. MR. CARLIN: Uh-huh.	The comment provides a reiteration of testimony information regarding CCSF diversions. Please see Master Response 1.1, General Comments, for responses to comments that either make a general comment regarding the plan amendments or do not raise significant environmental issues.
751	1	John Herrick for the South Delta Water Agency. At the Stockton hearing meeting we put on evidence for you, so I won't go through that except to say that that makes the salinity part of this easy, we think. And that is that the SED's recommendations for salinity changes is based upon a report that uses information that can't be used to calculate leaching fractions. And instead we've presented evidence of harm by local farmers and a report that indicates that salt does and is building up in the soils. So at this point, in my view, it looks like there's no scientific evidence to support a change in the standard. There's evidence to suggest that there's damage that's being done under the current situation. So I'll leave it at that. The last thing I'll say is Mark Holderman's left, but apparently I have to sit down with DWR again and	Please see Appendix E, Salt Tolerance of Crops in the Southern Sacramento-San Joaquin Delta, and Master Response 3.3, Southern Delta Water Quality, regarding the justification for amending the salinity objective Appendix E used the current state of knowledge on crop salt tolerance along with available input information such as leaching fraction, crops, and water quality from the Delta. Please see Chapter 11, Agricultural Resources, Section 11.4.2, Methods and Approach, and Impacts AG-1 through AG-4 for the analysis of potential impacts of salinity on crops in the southern Delta. Please see Master Response 3.3 for more information on leaching fractions.

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Ltr#	Cmt#	Comment	Response	
		discuss causes and effects.		
752	1	So two things that I haven't ever heard you mention at these hearings, that one is the fact that the carcasses from fish decaying or being predated upon and the you know, what comes out of the animal, becomes a lot of fertility in all of the Valley actually. But it begins usually where the salmonids spawn and die. The other thing is that I appreciate your attention to scientific detail. Oh gosh, but when you're trying to get counts of native fish I would suggest that you use your influence to make every single hatchery fish marked.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
		MR. MOORE: Thank you. And we did actually discuss that issue on November 29th. There was if you want to look at the video, there's some good testimony about the contributions of salmon carcasses to soil.		
753	1	[ATT1:] "High flows draw some steelhead into American River", by Dan Bacher 1/3/2017	This attachment was included with the comment letter. The attachment does not make a general comment regarding the plan amendments or raise a significant environmental issue.	
		http://fishsniffer.com/index.php/2016/12/30/nimbus-releases-into-american-river-go-up-to-35000-cfs/	regulating the plantaments of false a significant city formental issue.	
753	2	[ATT2:] The Delta-Tulare Water Plan: a cost-effective, environmentally superior alternative to the Twin Tunnels, 1.1 million acre feet of NEW WATER for California annually [FOOTNOTE1: On average, based on 43 years of flow data. Less water would be available in dry years, but significantly more water could be captured in wet years.], no damage to Delta farms or fisheries	This attachment was included with the comment letter. The attachment does not make a general comment regarding the plan amendments or raise a significant environmental issue.	
754	1	The Delta is in need of help in a couple of ways. There is an intrusion of salt that is happening in the Delta that is affecting the agricultural community and the surrounding communities, as well as the wildlife around and in the Delta is declining. The staff proposal recommends 30 to 50 percent of unimpaired flow with a starting point of 40 percent in the critically dry years. The Water Board staff should know that the SED is in need of revision in salmon population and economic impact alone.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
754	2	I would like to stress that I feel the public is not yet well aware enough to appropriately discuss this topic. I would like to give the public some things to think about on top of the predation and restoration on the river.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
754	3	With the chance of 40 percent less water, our agriculture in the Central Valley is in trouble. David Sedlak said it best when suggesting four new water tops to our state: Storm water harvesting, water reuse, water conservation and seawater desalination. The public has not yet had an appropriate amount of time to prove out all aspects to say that this Plan will work.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
		There is just not enough water in California currently to say that we can let go of 40 percent of unimpaired flow. Flow is necessary for the health of the river. We just need to bring all the puzzle pieces together for a better life here in California. Currently as we stand, one will win, one will lose, and it's all bad.		
755	1	In my household we use 17 gallons a day of water in the winter and 20 gallons a day in the summer. So the suggestion for the SFPUC that their residents would somehow be stressed on 20 gallons a day, I just want to say there's no stress in my house, so it can be done easily: rainwater reuse, gray water reuse. So here we're on this planet for 4.4 billion years, there's been a water cycle that has functioned unbelievably well, right? Same water, same planet,	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	

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		4.4 billion years, until the last 200 years when humans decided that out of the 8.7 million estimated species on this planet, we should take the water for us alone.		
755	2	For salmon, which someone here called a cute fish, is a keystone species. And that's a species that other species depend upon. And if they are taken out of the system, the system falls into collapse. So what we're talking about here are not just cute fish or sportsmen or recreational only, but we're talking about the health of the planet in a long-term fashion.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
756	1	I wanted to quote from the resolution in support of improving the Bay-Delta ecosystem that the Santa Clara County Board of Supervisors submitted. Their following principles be applied: A healthy Bay-Delta Estuary, recognize the protection and restoration of a healthy, sustainable Bay-Delta Estuary. It includes improvements in habitat, water quality flows and water supply to support fisheries, wildlife and a resilient ecosystem. Habitat restoration, provide for the restoration of native habitat to protect endangered fish, wildlife and plant species and to improve the ecological functions of the Bay-Delta Estuary as a whole.	The comment reiterates the Santa Clara County Board of Supervisors principles for the Bay-Delta ecosystem. Please see Master Response 1.1, General Comments, for responses to comments that either make a general comment regarding the plan amendments or do not raise significant environmental issues.	
757	1	[Santa Clara County Water] District supports the ultimate goal of improving the Bay-Delta ecosystem and water is clearly an important component of that restoration. However, given the stakes involved we urge you to take a more reasoned and balanced approach to addressing ecosystem needs.	Please see Master Response 1.1, General Comments, regarding the State Water Board Authorities, Public Trust and Consideration of Beneficial Uses, regarding ecosystem needs.	
757	2	Santa Clara County relies on water from the Delta Watershed for 55 percent of its water supply on average; 40 percent is conveyed through the Delta by the State and Federal water projects. And, 15 percent or 60,000 acre feet per year comes from San Francisco's regional water system. Any reductions in San Francisco's supplies will put significant additional pressure on Santa Clara supplies. Your staff's analysis shows impacts as high as 45 percent reduction in supplies to San Francisco's regional system during a repeat of the '87 to '92 drought. This level of reduction will have a significant impact in Santa Clara County. Your staff's analysis asserts that there will not be a supply impact, because San Francisco will be able to secure transfer supplies to make up the difference. Based on limited success despite a considerable commitment of resources during the recent drought, San Francisco and Santa Clara will be hard pressed to find the volume of transfer supplies that your staff envisions. In dry years demand exceeds available transfer supplies and sellers face political and environmental pressure to abstain from transferring water outside of their region. In years when transfer supplies were more plentiful, conveyance capacity across the Delta can be limited. In 2016, there was no conveyance capacity for transfers. Conveyance losses were also high, as much as 35 percent of purchased water can be lost in transit. The Santa Clara Valley Water District has long been committed to sustained reliable water supplies as well as environmental stewardship. We will continue to encourage the State Board to develop solutions that will meet both of these objectives.	Please see Master Response 8.5, Assessment of Potential Effects on the San Francisco Bay Area Regional Water System, regarding the State Water Board's evaluation of potential reductions in water supply and associated economic considerations and other impacts within the SFPUC Regional Water System (RWS) service area with implementation of the plan amendments. The master response identifies the main points of disagreement or differing assumptions between the SED and the comments. As described in Master Response 8.5, the SED identified reasonably foreseeable actions that could be taken by affected entities to comply with the plan amendments and in response to reduced surface water supplies. These actions did not include the severe mandatory rationing described by SFPUC because it was not reasonably foreseeable that a water supplier would impose drastic mandatory water rationing on its customers without first attempting other actions to replace any reductions in water supplies with alternative sources of water, such as through water transfers. To the extent that this comment raises similar issues or the same issues raised by SFPUC, please refer to letter 1166 to review responses to that letter.	
758	1	So based on my field experience during the '70s and '80s, and statistical analyses of salmon production and fresh water flows on the San Joaquin, I found a good positive correlation back then between freshwater flows down the tributaries from February through June and returns of adult salmon two-and-a-half years later. The reasons were that higher spring	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	

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Ltr#	Cmt#	Comment	Response	
		flows increased freshwater habitat for salmon juveniles, prevented lethal high water temperatures from forming in the lower tributaries and main stem, improved the safe passage of juvenile salmon down the tributaries through the Delta and into San Francisco Bay, and increased planktonic food production for salmon in the fresh water-salt water mixing zone of the estuary.		
		Besides salmon, freshwater flows also are highly beneficial to other estuarine species that depend on the estuary for food and reproduction. Examples are Dungeness crab, lowery (phonetic) white and green sturgeon, steelhead, California halibut, sharks and rays,		
		and forage species, such as redfin shad, Pacific herring and various species of smelt and shrimp. Many fish- eating birds such as kingfishers, herons, grebes, terns, pelicans, sea gulls and mergansers feed on the these forage fish. Adult fish are also important for mammals that depend on them, such as river otters and sea lions.		
		It is critically important that this food web and nursery area be protected and improved with increased freshwater flow, as estuaries are one of the most productive ecological systems in the world. So without significant improvements to instream flows, the implementation of non-flow measures, while beneficial, will not meet the salmon objectives alone as required by law, or protect fish and wildlife beneficial uses.		
		So best available science demonstrates that current flows are insufficient to protect public trust resources and uses within the Basin or the Bay-Delta.		
759	1	I don't want to be an opponent of anybody, the fish people or the farmers. But we're operating on two different sets of truth here, because the truth I hear is that this water is going to replace water from the Sacramento River that goes down to the twin tunnels and gets shipped down south. The truth to the fish people is that this water is for the fish, so we're operating on two different sets of truth. So it's really hard for us to negotiate or compromise or settle.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
759	2	I'm not sure which I know who I believe, because I witnessed down in Modesto kind of how disingenuous the Board treated Modesto Irrigation District by making them speak at the end of that meeting when they were the host. And they didn't get to speak before a packed crowd, standing room only. So, you know, there's not much time like I said. And I don't want to be the opponent of the fish people, but somebody has forced us to be. So now we're at this standstill.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
759	3	So I guess my only question since I have so little time, faced with the survival of the fish or the survival of your family, your friends in your communities, what would you fight for more and what lengths are you willing to go to? If you answer that question truthfully you will have a better understanding of our mindset. There's no fish in this world that is worth my family, my friends, or my community.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
760	1	Though Merced County faces undesirable results in five of the six sustainability indicators identified by DWR, such as subsidence, which you heard about from the Merced County presentation at the December 19th hearing; and the lowering of groundwater levels, which our County Superintendent of Schools talked about; we are still committed to managing our high priority critically overdrafted Merced Subbasin in a sustainable manor, as required by SGMA. This proposal threatens our path to sustainability by restricting the most significant instrument we have for addressing our groundwater issues and that's surface water	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	

		Table 4-1. Response	es to Comments
Ltr#	Cmt#	Comment	Response
		recharge.	
760	2	It's imperative that before the Water Board makes such a far-reaching policy decision on the SED that you have all of the information about the impacts that taking 40 percent of unimpaired flows will have, especially under SGMA, which will be in effect in the very near future. Without knowing the effects that this proposal will have on groundwater and the economic impacts with SGMA in place, you cannot truly make an informed and balanced decision.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
760	3	Merced, Stanislaus, San Joaquin counties have partnered together on an independent economic analysis of the SED, which looks at both pre- and post-SGMA economic impacts. And we will be sharing the study with you and encourage you to examine the findings, which demonstrate that the economic analysis in the SED severely underestimates the potential regional impacts. And it clearly shows the potential effects both with and without SGMA implementation.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
760	4	I hope you take into account the hundreds of comments you've heard over the past several weeks highlighting the concerns and threats that this proposal poses to our communities. And the many studies, reports, and analyses by our counties and irrigation districts on the SED.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
761	1	I'm from the Contra Costa Water District [CCWD]. [ATT:1] Our number one concern is Delta water quality throughout the Delta, but specifically at our intakes. [ATT:1 ATT:1] And despite what the SED concludes we still remain concerned that there could be water quality degradation in the Delta absent standards violations. And we feel the SED is inadequate, because it did not evaluate the full range of potential Delta water quality changes and Delta operations. And finally CCWD requests that water quality management plans be required for all operational and adaptive management plans that are being developed as part of the Water Quality Control Plan.	Please see Master Response 3.3, Southern Delta Water Quality, for responses to comments on southern Delta water quality and a water quality management plan.
761	2	So a little bit of background about Contra Costa Water District, why we care about Delta water quality. We have four intakes, I hope you can see them. They are the green dots on the map here. [ATT:1 ATT:2] The westernmost intake is on the western edge of the Delta. That's our Mallard Slough Intake, followed by Rock Slough, moving inward, and we have our Old River Intake and our Middle River Intake. And the purple area shows our service area. We serve just over 500,000 customers. And the red line is your plan area. And you can see that our Middle River intake is right on the plan area and yet an analysis of water quality at our intake was not included in the SED, and so we have concerns about that.	Please see Master Response 3.3, Southern Delta Water Quality, for responses to comments on southern Delta water quality.
761	3	All of [CCWD's] operations in our facilities are based on Delta water quality and when we talk about Delta water quality we're mostly talking about salinity. [ATT:1 ATT:3] We have our Los Vaqueros Reservoir that we built originally in the '90s. We expanded it from 108,000 acre feet to 160,000 acre feet in 2012. And we are currently evaluating further expansion of it with the regional partners, many of whom you've heard from today, including San Francisco, BASCWA, Santa Clara and others, to improve water supply reliability in the area. And so this is a graphic of why and how water quality in the Delta affects Contra Costa Water District's operations and so this is a graphic. The dark line represents salinity throughout the water year at our intakes. It's just a representative salinity, so you start with October over there on the left and then September. And the greenand the dotted line I	

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Ltr#	Cmt#	Comment	Response	
		should sayis this water quality threshold.		
761	4	[CCWD] operates our Los Vaqueros Reservoir to provide a consistent year-round water quality. So the Delta goes from salty to fresh depending on the freshwater flows and we use this off-stream reservoir to pump water into the reservoir when the Delta is fresh, and release it when it is salty. And so when the salinity is below that threshold, we're able to directly divert to our customers or divert to storage for release later when water quality in the Delta is above that line.	The comment provides information on CCWD's operations at Los Vaqueros Reservoir as it relates to salinity as well as concerns about increases in Delta salinity at CCWD intakes. Please see Master Response 3.3, Southern Delta Water Quality, for information regarding changes in Delta salinity associated with the plan amendments.	
		And so as water quality salinity in the Delta, you move the salinity above that line, that has a lot of impacts in terms of limiting our opportunities to fill our reservoir and further requiring more releases to be made to maintain that water quality. And so I just want to also just draw your attention to there are quite a few months where right now it's below the line, by the threshold, by just a tiny bit. So even small increases in Delta salinity at our intakes can have a pretty large effect on our operations and the cost of our operations.		
761	5	Despite what the SED concluded, that the water quality in the Delta is going to improve, as a result of all the changes made, we [CCWD] have some concerns. Specifically, that some of the key assumptions in the modeling cannot be implemented as they've been modeled. And so the block of water concept requires perfect foresight, so the 40 percent unimpaired. So the way the modeling works is it's able to look forward for the entire water year and determine if there is enough water in the system and decide, "Oh, I need to shift flows," or things like that. And the model is able to make those decisions with perfect foresight and we all know that that won't really be able to happen.	modeling of Adaptive Implementation. Please refer to Master Response 2.2, Adaptive Implementation, for response to comments regarding the application of adaptive implementation.	
761	6	And so the operations that have been modeledbut really what we've heard about this carryover storage and the flow shifting is that these sort of act like de facto mitigation requirements. So they are in there to offset impacts. And so what we [CCWD] would recommend is that you actually display the range of potential impacts, and then discuss the possible changes in operations that could be employed, and potentially a range of operations, to offset those impacts rather than describing them as adaptive management that isn't required as part of the Plan.	Please refer to Master Response 2.1, Amendments to the Water Quality Control Plan, Master Response 2.2, Adaptive Implementation, Master Response 1.1, General Comments, and SED Appendix K, Revised Water Quality Control Plan, for responses to comments and additional information regarding carryover storage, mitigation, and the adequacy of the CEQA analysis. Master Response 2.2 provides additional description and examples of how adaptive management may proceed and the bounds under which it may do so. Master Response 3.2, Surface Water Analyses and Modeling, contains additional information about carryover storage, flow shifting, and hydrologic operations in the WSE model.	
761	7	This graphic over here is from your modeling. This is from the WSE model and this shows the change in Vernalis salinity with and without flow shifting. [ATT:1 ATT:4] And so the blue line represents what your conclusions in the SED are based on that, you know, in outside of the February through June window salinities will continue to decrease, because there will be flow shifting available into those months. However, because they're not required and the implementation in their model is based on perfect foresight, we have reason to believe they won't actually be implemented as they've been modeled. And so you can see with outflow shifting salinity at Vernalis will actually increase in several of those months.	Please refer to Master Response 3.2, Surface Water Analyses and Modeling, for responses to comments regarding foresight in modeling and modeling of the Adaptive Implementation. Please refer to Master Response 2.2, Adaptive Implementation, for response to comments regarding the application and adequacy of adaptive implementation. Please see Master Response 3.3, Southern Delta Water Quality, for responses to comments on southern Delta water quality and flow-EC relationship at Vernalis.	
761	8	We [CCWD] also believe that the SED is inadequate, because the baseline does not reflect existing conditions. [ATT:1 ATT:5] I recognize that it reflects conditions potentially at the time of the NOP, but those are no longer current conditions. But really importantly it did not evaluate the potential water quality impacts outside ofthe project area. And it really didn't evaluate degradation in water quality beyond compliance with those objectives. And as many people have discussed here, it did not evaluate changes in Delta operations. And not just ours, but the CVP-SWP projects as well. And so all of those combined have a big impact,	Please see Master Response 2.5, Baseline and No Project, for additional detail regarding the baseline and No Project Alternative and the conditions that should be represented in the baseline analysis. Please see Master Response 3.3, Southern Delta Water Quality, for a discussion of the protection of Delta water quality. In addition, please see Master Response 1.2, Water Quality Control Planning Process, regarding the separation of Phases I and II in the planning process.	

	Table 4-1. Responses to Comments			
Ltr#	Cmt#	Comment	Response	
		can affect Delta water quality throughout it. And we believe that deferring the evaluation of those changes in Delta conditions until Phase 2 is not sufficient. So even though I recognize you'll be evaluating the changes to the Plan in phases, the evaluation of the potential impacts need to be considered in the full area, I think for each phase.		
761	9	[CCWD] came with solutions as well, not just a list of complaints. In order to rectify some of the inadequacies of the SED we request that the baseline be updated to reflect current conditions, that a full range of potential water operations are analyzed. [ATT:1 ATT:6] I know that we've talked a little bit about the with and without the carryover storage, but also with and without flow shifting. That you include an analysis of changes in Delta water quality and operations. And on this point I would like to offer to the staff, we have developed a CalSim model that is integrated—can be integrated with your WSE model—so that we have spent a lot of time, so we can make that available. And we will make it available in our comment letter that we'll submit in March. But in terms of being able to facilitate that information, making it into the next version of the SED, we'd be happy to work with your staff to provide that technical assistance in those modeling products. And so with those additional analyses, we hope to see a broader range of potential impacts and describing of its impacts. And, you know, any impacts need to be mitigated rather than balanced away by adaptive management.	Please see Master Response 1.1, General Comments, for general information regarding the Recirculated SED and mitigation measures. Please see Master Response 2.5, Baseline and No Project, for information regarding the baseline and CEQA requirements. Please see Master Response 3.2, Surface Water Analyses and Modeling, for a discussion on the reasonableness of the SED modeling assumptions.	
761	10	[CCWD] would like to request that water quality management be a key component of all of the other management activities that are being considered. I know you've heard a lot about fish and other beneficial uses, but sometimes it seem as though the water quality in the Bay-Delta is not receiving as much attention in terms of the development of those management actions when they're being developed. And so we want to ensure that as those plans are being developed, specifically the STMs of that Adaptive Management Plan and the Comprehensive Operations Plan proposed for the State and Federal water projects, also include water quality management plans. And we would like to participate in the development and review of that particular portion of those plans.	Please see Master Response 3.3, Southern Delta Water Quality, for responses to comments on southern Delta water quality and a water quality management plan.	
761	11	MR. MOORE: On the water quality management plan, see, that's what basin plans are, you know? And that's kind of what this Water Quality Control Plan is supposed to be. And so I think on that point are you thinking of other examples around the state that you would point to as a model for a water quality management plan that you're looking for or is this something kind of novel? MS. MARTIN: Well, I think that this is the best way we could come up within your adaptive management framework. And so being able to ensure that changes in water quality are properly modeled and evaluated when the other objectives of your Plan are being developed. So absentso we could suggest that we have these hard and fast water quality objectives that need to be met. And you do have those. You have the narrative and the numeric objectives.	Please see response to comment 761-10 regarding southern Delta water quality and a water quality management plan.	
761	12	There still can be degradation in the absence of violation of those standards, right? And so what we would like to ensure is that we work with those folks just to know ahead of time potentially what the management of the operations will be. And how they will affect Delta water quality, so that we will be able to provide input. And most of the time I think that they reallythey won't necessarily be in conflict. You know, you can see that the flow shifting is provided for temperature management. And so that decrease in salinity in the modeling and	Please see Master Response 3.3, Southern Delta Water Quality, regarding protection of southern Delta water quality, a water quality management plan, inclusion of adaptive implementation (e.g., flow shifting) in the analysis of potential impacts, and the effect of the ratio of Sacramento River water to San Joaquin River water on southern Delta water quality. In addition, please see Chapter 5, Surface Hydrology and Water Quality, and Chapter 23, Antidegradation Analysis, for further discussion of southern Delta water quality.	

		Table 4-1. Response	es to Comments
Ltr#	Cmt#	Comment	Response
		so I don't think that it's necessarily conflict. I think that Delta hydrodynamics and salinity are quite complex.	
		And so actually we showed that we have water quality intakes throughout the Delta. Sometimes an increase in Vernalis flows can be a decrease in water quality, because San Joaquin is a lot saltier than the Sacramento River. So depending on the mix of waters, where you're getting them from, we would expect to see even a degradation under certain conditions with increased flows at Vernalis, depending on the cross channel operation, and the exports.	
		And so we just wanted tothis was our way of trying to ensure that even if there aren't violations of standards that water quality is still a consideration and the improvement and the maintenance of water quality in the Delta is a priority.	
761	13	[ATT1: Contra Costa Water District. Comments on Phase 1 SED. January 3, 2017]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.
761	14	[ATT:1 ATT:1: Overarching Concerns]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.
761	15	[ATT:1 ATT:2: CCWD Background]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.
761	16	[ATT:1 ATT:3: CCWD Operations Based on Salinity]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.
761	17	[ATT:1 ATT:4: Phase 1 has Potential to Degrade Delta Water Quality]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.
761	18	[ATT:1 ATT:5: SED is Inadequate]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.
761	19	[ATT:1 ATT:6: CCWD Request]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.
761	20	[ATT:1 ATT:7: CCWD Request]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.
762	1	I'm employed at Johnson Farms in Denair. Johnson Farms is a family-owned and operated almond farm and huller-sheller that's been operating, or farming, in our local community for well over 100 years. We are extremely concerned with the revised SED and its proposed unimpaired flow and carryover requirements. As you know, California produces 50 percent of the U.S. fruits, nuts and vegetables, much of which are grown from the Central Valley. Your Board's proposal will not only severely impact our local region and its communities, it will have far reaching impacts on families across the country. In the U.S. less than 10 percent of a family's income is spent on food, compared to some developing countries where 75 percent of a family's income is used for food. This Plan, as proposed, will shift food production to other regions of the world, greatly reducing job opportunities in our area, collapse our communities, and increase food prices throughout the U.S.	

		Table 4-1. Response	es to Comments
Ltr#	Cmt#	Comment	Response
		Currently, we employ 18 full-time team members and during harvest we employ 40 more additional people, many of whom return year after year. We provide financial support to scholarship funds and youth organizations targeting disadvantaged children. We are stewards of the land and we believe in a strong, viable and balanced ecosystem. We are incredibly resourceful and are continuously innovating new ways to conserve our resources. However, if the SED is implemented as currently proposed we estimate a minimum of 750 acres of our land will have to be fallowed as a direct result of groundwater depletion. We will be forced to lay off long-time employees, who we consider family. And future generations of the Johnson family will not be able to continue its heritage of farming and supporting its community as it has done for so many years. And finally we urge the Board and its staff to abandon the proposed SED and begin meaningful dialogue with the mindset of reaching balanced solutions to preserve the vital resources our communities are so dependent upon.	
762	2	The SED doesn't account for the damaging effects it will have on groundwater quality and sustainability. If implemented, the SED be the direct cause of groundwater reduction in our communities.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
763	1	Del Monte is very concerned about both the Phase 1 and Phase 2 projects for the Bay-Delta Plan. Del Monte has packed fruits and vegetables in California for 125 years. And our continued operations for another 125 years depends on reliable sources of both surface and groundwater. Del Monte operates a tomato processing facility in Hanford and a fruit packing facility in Modesto. Our two California factories are business critical and employ 3,500 employees during the summer packing season months. The facilities are responsible for approximately 14,000 contracted acres of local farmland and approximately 550,000 raw tons of fruits and tomatoes annually.	Please see Master Response 1.1, General Comments, for responses to comments that do not raise significant environmental issues or make a general comment regarding the plan amendments.
763	2	Del Monte fully concurs with the underlying purpose and goals for the new flow objectives, and applauds the Water Board's efforts to formulate a very complex adaptive management approach for maintaining and improving salmon and steelhead populations in the Lower San Joaquin River and its tributaries.	Please see Master Response 1.1, General Comments, for responses to comments that either make a general comment regarding the plan amendments, such as a statement of support, or do not raise significant environmental issues.
763	3	Del Monte is very concerned that the Lower San Joaquin River Alternative 3 may be too aggressive. In particular, we are very concerned that this level of protection may not measurably improve fish populations over the less aggressive Alternative 2. And would be much too impactful in negative way on the region's fragile farm economy, and already strained groundwater resources.	Please see Master Response 1.1, General Comments, for responses to comments regarding the general opposition or general support of the plan amendments and consideration of beneficial uses. For additional information regarding the consideration of beneficial uses, please see Master Response 1.2, Water Quality Control Planning Process. Please see Master Response 2.1, Amendments to the Water Quality Control Plan, for a description of the plan amendments. Please see Master Response 3.1, Fish Protection, for the scientific basis of the plan amendments as it relates to fish. Please see Master Response 3.4, Groundwater and the Sustainable Groundwater Management Act, regarding groundwater resources. Please see Master Responses 8.0, Economic Analyses Framework and Assessment Tools, and 8.2, Regional Agricultural Economic Effects, regarding regional agricultural economics.
763	4	Del Monte projects that implementation of Alternative 3 will measurably impact its ability to continue to source, harvest locally grown tomatoes and fruits, shorten its seasonal factory packing days causing job losses, and increase fixed production costs at both of our California plants.	Please see Master Response 8.2, Regional Agricultural Economic Effects, for discussion of the potential economic effects on food processors.

Table 4-1. Responses to Comments			es to Comments
Ltr#	Cmt#	Comment	Response
		Del Monte projects that 53,000 growers, 2,200 acres and 73,000 raw tons of fruits and tomatoes, with a current value of \$18 million historically grown within the basin will be in jeopardy if Alternative 3 were fully and aggressively implemented by the Water Board, as stipulated in the SED.	
763	5	We [Del Monte Foods] do urge you to go back and look at Alternative 2. We think there could be some tweaking with Alternative 2 that will cause less of an impact on our local economy and our business directly. We think there are some opportunities to look at there.	Please see Master Response 1.1, General Comments, for responses to comments that either make a general comment regarding the plan amendments or do not raise significant environmental issues.
764	1	I was pleased to hear that the Board recognizes that predation is a problem, but the solution suggested to increase flow to somehow move predatory fish out of the way to become less of a threat to the native species sounds to me rather fishy. The irrigation districts have suggested reducing the number and size of predatory non-native fish by increasing sport fishing pressure the suggestion so far has been ignored by all of the other stakeholders. We feel that this is disingenuous. This is an issue that makes us wonder if the other stakeholders are acting in good faith.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
764	2	South San Joaquin Irrigation District and Oakdale Irrigation District share water rights. These water rights allow these two irrigation districts to divert water that is the result of snowmelt from a specific geographical area in the Sierras. MID and TID have similar water rights. These are senior, adjudicated, and pre-1914 water rights. Are there problems in the Delta? Certainly, we could spend all day speculating how they came about. But let's not forget that there have been many changes. There have been many changes in the state's water system that affect the Delta, that came after SSJID, OID, MID and TID started diverting. We feel the Board is trying to put the whole problem on our backs. I cannot predict how the water rights issue will play out. But I will predict, with 100 percent certainty, that those of us with senior, adjudicated, pre-1914 water rights will go to the mat to protect what we have.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
765	1	The Merced River flow, an average of 1,000,000 acre-feet per year. MID diverts 550,000 acre-feet of which 300,000 is sold to its growers for use on 100,000 acres; 250,000 is consumed by people with riparian rights, system distribution seepage, and evaporative loss; 450,000 acre-feet continue down the river to the Delta for fish and wildlife and other uses thereof. The water is first accumulated in our watershed, then contained in our Lake McClure behind Exchequer Dam, then distributed in coordination with government officials with rules and regulations thereof. Our containment and river rights are pre-1914 in accordance with the law of the land. You are presently on average receiving nearly half of the Merced River flow and when you want it, plus the bottom 115,000 acre feet of McClure belongs to you and we deliver 15-second feet to the Merced Wildlife Refuge.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
765	2	MID constructed and paid for Exchequer Dam containment. If Exchequer Dam were constructed today, the cost would be one and a quarter billion dollars. Merced Irrigation, I mean, MID irrigating 100,000 acres also influences with underground recharge, another 400,000 acres totaling one-half million acres with a crop value of three-quarters of a billion dollars and with a land, equipment and capital improvement value of \$10 billion. We have built these improvements, infrastructure and inputs for over 100 years. We have had a cattle ranch for 80 years, which is also a private fish and wildlife preserve with no fishing or hunting allowed. The large creek within depends on small amounts of MID flow change over flows. During the drought, this creek dried intermittently and we lost fish. If	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.

	Table 4-1. Responses to Comments		
Ltr#	Cmt#	Comment	Response
		increased Merced River flows were required we are concerned that would occur more often.	
765	3	Merced River has the least reliable and the lowest yielding watershed of all major rivers north. We also deliver the highest concentration of salt, 700 parts per million, after entering the San Joaquin. Merced River flow requirements have been maximized and balanced considering all aspects of this project, but we are interested and want to do our part to enhance the life of the fish with the MID, Merced River SAFE Plan.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
766	1	We appreciate the hearing process you've held as well as the recent 60-day extension that you granted on the written comment period. We want to underscore all of the comments you've received regarding the need for a more open, transparent, collaborative approach to developing this Water Quality Control Plan. The Water Quality Control Plan must be developed in a manner that's consistent with the direction outlined in the California Water Action Plan and established state policies, including the Delta Reform Act, the Sustainable Groundwater Management Act, and the Human Right to Water Act.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
766	2	The current unimpaired flows approach will not help the state achieve its policy objectives and will actually undermine established state policies by increasing groundwater overdraft, making investments in storage projects irrelevant, and negatively impacting disadvantaged communities, as you've heard about a lot.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
766	3	The current proposal will have a devastating impact on California's economy and the disadvantaged communities that comprise 40 percent of the area affected by this Plan. This is an unacceptable outcome for a Water Quality Control Planning process, the objective of which is to balance out all established beneficial uses of water. Considering these negative outcomes, the best available science must support the unimpaired flows approach as the only approach that will achieve desired ecological outcomes.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
766	4	The 2012 Delta Independent Science Board peer review of this approach states that flow is but one of many stressors affecting fish and wildlife. And the choice of flow criterion metrics needs to serve the broader needs of ecosystems as well as individual species. Given the altered hydrodynamics of the Bay-Delta ecosystem, simply adding water to the system will not achieve desired ecological outcomes. Flows must be applied in a manner that's functional to available physical habitat and timed appropriately for aquatic species life cycles. The Coop identifies the need for an integrative multi-pronged approach to determining ecological flow needs. ACWA's member agencies have demonstrated their interest in such an approach and have the technical ability to help inform the process if they're included.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
766	5	ACWA encourages the State Water Board to continue to work with the Natural Resources Agency on negotiating voluntary settlements and to engage stakeholders in an open, transparent, collaborative process that incorporates the best available science as this process moves forward.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
767	1	I'm the Executive Director of Dairy Institute of California. Dairy Institute is a statewide trade association representing the manufacturers of milk, cheese, cultured dairy products and frozen dairy products. We are absolutely supportive of the work of this Board, the staff, and allied experts to sustain and improve water quality and the ecosystem. I'm here to testify in support of a balanced approach, one which benefits the Tuolumne River, related	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.

		Table 4-1. Response	es to Comments
Ltr#	Cmt#	Comment	Response
		water systems, and all that depend on them.	
767	2	Members of the Dairy Institute of California rely on dairy farms to supply milk to Central Valley dairy processing plants that then go on to serve a global market. Dairy farms and processing plants are the source of thousands of year-round well-paying jobs in Central Valley communities, most of which would suffer significantly higher unemployment and loss of tax and business revenue if these operations were forced to leave. Looking to the future, as our farms and plants modernize, employees with these year-round jobs also gain employment education and training. These opportunities drive their futures and the well-being of them and their families. They also foster the innovation vital to our affiliated industries and that innovation keeps our farms and processing plants in operation.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
767	3	The Dairy Institute of California urges the Board to implement science-based options such as non-flow measures that would help the salmon population and increase the health and operation of the river.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
767	4	The Dairy Institute of California would urge the Board to consider carefully the impact of unimpaired flows on the state's and regions' critical need for groundwater management and recharge.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
768	1	Sport fishing is a destination and it's stimulates the economy. It allows commercial fishermen like my boyfriend to diversify what his boat does beyond commercial crabbing and support his two kids. People travel from all over to come out sport fishing. They stay in hotel rooms, they purchase food, and they buy their fishing licenses. And it supports the entire infrastructure from the Berkeley Marina to the fuel dock to the bait dock. In short, if sport fishing were no longer viable it would be an irreplaceable loss to the community and the state. The fishermen all know, because they've lived it, that the salmon population has dramatically decreased to the point of scarcity. It used to be that in the ocean, outside the Golden Gate the salmon would be where the feed were. And now it's spotty. As a result, the fleet watch each other closely and if one boat lands a fish they all race to get to that same spot just like kids fighting over the last cookie.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
768	2	The State Water Resource Control Board has this once in a generation opportunity to restore the salmon fishery, so that more avid fishermen can catch a fish or two, which is the limit. In my opinion, it's not a question of fish versus farm. It's about stewardship and inclusion. Access for everybody to have the opportunity to catch a fish is not too much to ask. I am in support of increased flow at the maximum levels in the Phase I proposal, because that is the minimum flow necessary to restore the salmon population. You have that power and it's the right thing to do	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
768	3	I would say that this issue is not about fish versus food, because food and fish, well, fish are food. I would say this very simply. It is about stewardship. It is about a bigger picture that we need to consider and that we need to keep at the forefront of our minds.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
768	4	I am a manufacturer's representative for rod and tackle companies. And it's a \$2 billion a year industry that has been depleted, not just because of drought, but because of many reasons. Some would call it mismanagement, some would call a lack of foresight, some would call errors of our past. The opportunity we have is now. And I don't envy you. I do not	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.

	Table 4-1. Responses to Comments			
Ltr#	Cmt#	Comment	Response	
		envy you.		
768	5	You have to choose with the facts and science and you're getting it's almost like the bad kid in the choir that ends up in front of the microphone. You hear all the sour notes of everybody's agenda, screaming at you every day. So what I would say is you need to parse out the facts. Do what's best, because it's not anecdotal that I look at my Steelhead Report Card and see, because it's January 1st, or 3rd now and you have to turn in your Steelhead Report Card every year and I'm a steelheader. It's known as the fish of a thousand casts. I looked at my report card this year and there was the most zeroes I've seen. Zeroes representing days where there was no catch. And that squarely rests on some of the decisions that are in this proposal.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
768	6	I would suggest to look past some of the lazy fact finding, is what I'm going to call it. You can find out how many people caught fish. Guides like me have to report that to Fish and Game every time we go out. You can find out harvest records, which could give you an idea of percentages as well. There's information out there.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
768	7	I would suggest that not only you look at increasing the flows, but look at a holistic plan to restore the ecosystem. And to provide all people a livelihood, because this is how I pay my mortgage. And I've got four kids.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
768	8	I'm the Conservation Chairperson for the Golden West Fly Fishers for the last 16 years, and a former Conservation Chair for the California Federation of Fly Fishers. I am here today to support the proposal by the State Water Board to increase the flows on these rivers. This is our last, best chance to attempt to restore the severely degraded tributaries of the San Joaquin.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
768	9	I can understand both the science and the complex economics of water. Climate change, population growth, and the switch to permanent crops have placed increased demands on water resources. The Tuolumne, Merced and Stanislaus rivers have always been my favorite rivers. My now adult son's first fishing trip was on the Tuolumne. Some of the salmon I caught with my father began their life in the spawning gravels of these three rivers. It is not only family farms that have a connection to these rivers. My family has a multigeneration connection too. Fishing and healthy abundant salmon are part of my family's life and history. I fear a future without salmon to share with my grandchildren.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
768	10	I have fished the lower sections of the San Joaquin tributaries for 25 years. I have been witness to the diminished quality of the aquatic resources and seen habitat degraded over many seasons and many water year types. This rapid decline of these once great trout, steelhead and salmon fisheries has occurred in all three tributaries.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
768	11	The numbers of people seeking recreation in natural areas is increasing annually, as is the economic importance of these visitors. The citizens of California, the same people who sacrifice their water during periods of drought deserve a chance to recreate on healthy, environmentally functioning rivers.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
768	12	Rebalancing the beneficial uses of these rivers is overdue. Do Californians deserve to live in a place that is so degraded that salmon are just a memory? No. They don't. Let's not trade our chance for healthy, functioning river systems and the vibrant ecosystems that they support for a salty snack that is mostly exported.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	

	Table 4-1. Responses to Comments		
Ltr#	Cmt#	Comment	Response
768	13	I urge the State Water Board to stand firm on the proposal to increase the flows of the San Joaquin tributaries, to support the restoration of the Bay-Delta system, which is so vital to so many species of wildlife and not only fish.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
768	14	I'm certainly not the only angler that would appreciate having more salmon and steelhead in the Central Valley where so many of us live. I help run a fishing forum with over 37,000 members. So there are many, many anglers who are interested in getting more water for our fish. We all buy licenses, tackle, gear bait, fuel. I have three boats myself. Angling not only provides significant economic benefits, but also a quality recreational experience for individuals and families in our state. If there were increased salmon and steelhead in the San Joaquin Basin, it could provide additional angler opportunity and many of us would love to take advantage of that opportunity. The San Joaquin Basin used to have an epic run of a type of salmon called Spring Chinook. From time immemorial, these fish would come up river during the spring. And over the summer in cold, clear pools high up stream, prior to spawning in the fall. Not anymore. Due to water withdrawals and dams those fish were wiped out. What's left in the basin are fall-run Chinook and steelhead. And their numbers are holding on by a thread. By providing higher flows, we can finally hope to improve our salmonid runs. Many anglers believe it's very simple to help fix the dire fish situation. More water equals more fish.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
768	15	I want to add that recreational and commercial anglers stand by family farmers. But when we see vast oceans of corporate farms producing bumper crops during droughts, towns without any water meters and lush urban landscaping using imported water, many feel this is an unjust situation. So I'll close by saying fish need to have much more increased consideration about our water allocation choices going forward. Perhaps we can look at the Trinity River Record of Decision as a model compromise for all users of the resource	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
769	1	While I appreciate that you're getting outcries from all communities, and I feel for all those communities, I urge you to, as human beings, to think of the big picture here. Our ecosystems and long-term sustainability is our highest objective here for the health and well-being of everyone. So I urge you to choose the maximum flow for the San Joaquin River and we clearly need to set a new standard for what our water carrying capacity can be. And I have faith that with the creativity that we have available to us in California, that we can work together to come up with creative solutions. So I think the human needs and the economic needs will be a challenge. And I'd like you to be awake to what's at stake, the potential extinction of more species and at some point if pushed further, possible ecological collapse. An intact ecosystem that sustains the entire delicate web of life and its long-term sustainability should be the highest objective.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
770	1	I love the ocean. I love fishing and I love salmon. I'm sorry, I can't convey more in just two minutes. What has been done isn't enough. And it's been poorly done. You have an opportunity to do something else. I'm not saying it's the right thing or done perfectly, but it needs to be done differently. People's lives I hope you listen to a lot of people who have put a lot of time and effort and expertise and have spent their lives creating some kind of alternative plan.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
771	1	Salmonids are not justthis is not just about fish. It's about the fact that salmonids are the indicator of a healthy ecosystem. It doesn't take much for fish like salmon to succeed. And the fact that salmon are either declining or locally extinct is evidence of just how degraded	During development of the plan amendments, the State Water Board reviews and considers all the effects of the LSJR flow objectives through a broad evaluation into all public trust and public interest concerns including, but not limited to, aquatic resources, economics, reservoir storage, power production, and

		Table 4-1. Response	es to Comments
Ltr#	Cmt#	Comment	Response
		this ecosystem is and how beneficial uses are not being protected. And that is your job.	groundwater. Please refer to Master Response 1.1, General Comments, regarding the consideration of beneficial uses. The State Water Board acknowledges that reduced flows and degraded habitat have negatively affected the LSJR, and the fish and wildlife species dependent on it. Please refer to Appendix C, Technical Report on the Scientific Basis for Alternative San Joaquin River Flow and Southern Delta Salinity Objectives; and Chapter 7, Aquatic Biological Resources, Section 7.2.2, Reservoirs, Tributaries, and LSJR, for additional information. Please also refer to Master Response 3.1, Fish Protection, regarding the adequacy of the plan amendments for providing fish protection.
771	2	There's overwhelming scientific evidence that major increases in flow are the effective action to take. It's a red herring to talk about flow versus non-flow, because as you have heard time and time again the science is that flows areit takes flows whether you do habitat or predation measures or not. In fact, it takes flows to make those be successful. It's also a red herring to talk about unimpaired flows. That's a method for providing flow conditions, which happens to be a good one. But the real issues is what's the level of flow you're going to provide? If you want to base it on the best evidence we have about what makes salmon return, positive recruitment at 5,000 CFS and doubling at 10,000 CFS, go ahead and do that instead. The water supply impacts will probably be bigger, but you'll achieve the end goal.	Please see Master Response 1.1, General Comments, for responses to comments that either make a general comment regarding the plan amendments or do not raise significant environmental issues. Please see Master Response 2.1, Amendment to the Water Quality Control Plan, for a description of the plan amendments. Please see Master Response 5.2, Incorporation of Non-Flow Measures, regarding the recognition of the complementary nature of non-flow measures to flow requirements to protect fish species.
771	3	The water supply impacts are important to talk about. I think it's also important to note that, as many speakers have talked about, in many cases they're exaggerated. In many cases they can be mitigated. And with all due respect to the fine people in the Central Valley, in the agricultural industry, I think that some of those concerns are misplaced, that they're surrogates for the many other issues that the agricultural industry has to deal with, whether it's trade policies or world markets. But water is actually not the thing that is going to make or break that economy.	Please see Master Response 1.2, Water Quality Control Planning Process, for information on the consideration of beneficial uses. Please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, regarding water supply reliability and agriculture, and Master Response 8.2, Regional Agricultural Effects, regarding regional agricultural economic effects of reduced water supply reliability. This comment does not make a general comment about the plan amendments or raise significant environmental issues. No further response is required.
771	4	I went through the last round of the major update of the Bay-Delta Plan in the late '80s and '90s. It took nine years for a Board that changed radically, because the members didn't last long enough. It took nine years for the State of California to adopt water quality standards. I never thought that I would go through another period where I thought it's going to take that long. You're not going to have a rabbit pulled out the hat by anybody else. It's up to you. You've taken a long time. It's time to move to a decision expeditiously and one that will protect the beneficial uses.	Please refer to Master Response 1.2, Water Quality Control Planning Process regarding the regulations governing the process and the consideration of beneficial uses.
772	1	I want to thank you for holding this hearing and all of the December hearings and for continuing to take in stakeholder inputs. And thank you also for extending the written comment period to March 17th, as Chair Marcus recently stated, in order to create "positive opportunities" for engagement and negotiation, which we could not agree with her more and we believe is crucial going forward.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
772	2	The Agricultural Council of California organization would like to express concern over the impact of the proposal on dairy farmers in a region that is a great contributor to California's vital dairy industry. Our Council represents over 75 percent of milk produced in California. And if, as the Appendix G of the SED states, the proposal would limit, "the economic feasibility of growing feed crops," this would be very challenging news for the dairy industry, which is already struggling as was previously stated by another speaker. The industry is already in a very strict regulatory environment. And this would be incredibly challenging,	

	Table 4-1. Responses to Comments		
Ltr#	Cmt#	Comment	Response
		increase costs and as mentioned before could potentially cause dairy folks to leave. And, frankly, no other state or nation can match the regulatory compliance efforts of California's dairy community. So we know we do it best here, so we would like to keep it here. It is also important to note that our state's almond industry is deeply connected to dairy, through the hulling and shelling market. So any disruption in the dairy community also impacts almonds and that community and all of those jobs.	
772	3	I appreciate very much the conversation pertaining to SGMA. And I know the Board is keenly aware that there are many questions regarding the impact of SGMA and we encourage those continued conversations and we support that request for further documentation and reports from your sister agencies in order to seek further information that can be incorporated into the analysis going forward.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
772	4	We also support, and respectfully ask the Board to work with local water leaders and officials, on non-flow alternatives and support their comments to that effect.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
772	5	The Agricultural Council of California urges the Board to continue to engage those of us on the stakeholder side going forward.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
773	1	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 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 on that?	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
773	2	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.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
773	3	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	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.

Table 4-1. Responses to Comments			es to Comments
Ltr#	Cmt#	Comment	Response
		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.	
774	1	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.	Please refer to Master Response 1.1, General Comments for responses to comments that either raise a general comment on the plan amendments or do not raise a significant environmental issue.
774	2	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.	Please see Master Response 1.1, General Comments, for responses to comments that make a general comment regarding the plan amendments. Please refer to the section acknowledging the concerns of community members. Please see Master Response 1.2, Water Quality Control Planning Process, for information regarding the consideration and balancing of beneficial uses. Please see Master Response 3.1, Fish Protection, for a description of the SalSim model and the results.
775	1	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. 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.	

		Table 4-1. Response	s to Comments
Ltr#	Cmt#	Comment	Response
775	2	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.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
775	3	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.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
776	1	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.	Please refer to Master Response 1.1 General Comments for information regarding the public outreach process. Please refer to Master Response 3.2, Surface Water Analyses and Modeling, for information on reasonableness of the assumptions in the model. See Appendix F1, Hydrologic and Water Quality Modeling for a detailed description of the model and the various inputs that are used by multiple agencies.
776	2	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 [ATT5] 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.	Please see Master Response 1.1, General Responses for responses to comments that do not raise significant environmental issues associated with the analysis contained within the SED or request a modification to the plan amendments. Please also see Master Response 3.1, Protection of Fish and Wildlife, for a description of the Plan Amendments for protecting fish and further information about the unimpaired flow approach.
776	3	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.	The commenter does not make it clear what metric they are using to compare the condition of the Merced River and the Stanislaus River. We presume the commenter is comparing the number of adult fall-run Chinook salmon that return to the Merced River and Stanislaus River, which are roughly equivalent on average over the last few decades. We caution against only looking at this metric for a number of reasons. First, it is important to understand the origin of adult salmon returning to each river, because most of the adult salmon that migrate to the Merced River to spawn are from other rivers (see Kormos et al. 2012 as an example). Second, it is important to recognize that the Merced River has a hatchery and the Stanislaus River does not. Finally, it is important to consider the number of juvenile salmon that emigrate from each river

Table 4-1. Responses to Comments		
Cmt#	Comment	Response
		towards the ocean. In the Stanislaus River estimated number of juvenile Chinook salmon passing the Caswell rotary screw trap is typically hundreds of thousands or millions (Pyper and Justice 2006). In the Merced River estimated number of juvenile Chinook salmon passing the Hatfield rotary screw trap can be in the hundreds or thousands (see Montgomery et al. 2009). This appears to indicate the Merced River acts as a population sink by attracting salmon from other rivers to spawn, but then the resulting offspring are not successful because of adverse conditions in the Merced River. The purpose of the plan amendments is to improve the success of juvenile salmonids and other native fish during the spring time period. Results presented in the plan amendments indicate that there is tremendous potential to improve conditions during this time period which is critically important to native fish including the offspring of adult salmon and steelhead that spawn in the Merced River. Please see Master Response 3.1, Fish Protection, for more information on the benefits of the plan amendments.
4	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 mil	The State Water Board recognizes the importance of implementing non-flow measures, such as habitat restoration, for fishery recovery. Detailed descriptions of such non-flow measures, including predatory fish control actions are provided in Chapter 16, Evaluation of Other Indirect and Additional Actions, Section 16.3, Lower San Joaquin River Alternatives – Non-Flow Measures. The scientific basis and relevant research for flow objectives to protect fish and wildlife are documented in Appendix C, Technical Report on the Scientific Basis for Alternative San Joaquin River Flow and Southern Delta Salinity Objective. For responses to comments regarding the need for improved flow in protecting fish and wildlife, and for a discussion regarding the consideration of fish predation in the SED, please see Master Response 3.1, Fish Protection. For further discussion regarding the incorporation of non-flow measures in the plan amendments, please see Master Response 5.2, Incorporation of Non-Flow Measures.
5	The Stanislaus River has already met its doubling goal. The doubling goal on the Stanislaus	Please see Master Response 1.1, General Responses for responses to comments that do not raise significant environmental issues associated with the analysis contained within the SED or request a modification to the
	4	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 mil

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Ltr#	Cmt#	Comment	Response
		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.	plan amendments. Please also see Master Response 3.1, Protection of Fish and Wildlife, for more information about the role of hatcheries.
		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.	
776	6	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.	Please see Master Response 1.1, General Comments, for responses to comments regarding non-flow actions and the authority of the State Water Resources Control Board.
776	7	MS. ZOLEZZI: The Stanislaus is very unique as you can probably tell from the comments 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 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.	Please see Master Response 1.1, General Comments, regarding the State Water Board's authorities and the plan amendments' relationship with other plans and programs. Please also see Master Response 1.1 regarding voluntary agreements. Please see Master Response 3.2, Surface Water Analyses and Modeling, regarding the reasonableness of the modeling assumptions.

Table 4-1. Responses to Commer			s to Comments
Ltr#	Cmt#	Comment	Response
		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.	
776	8	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.	The commenter described a contractual arrangement with the United States Bureau of Reclamation and the use of surface water, but did not raise any significant environmental issues related to the analysis of impacts discussed in the SED. Please see Master Response 1.1, General Comments, for responses to comments that do not raise significant environmental issues or make a general comment regarding the plan amendments.
776	9	We [Stockton East Water District] believe that the SED is overreaching. 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 nor 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.	Please see Master Response 1.1, General Comments, regarding the programmatic nature of the analysis in the SED, and the general methods and modeling used in the SED. Please see Master Response 3.2, Surface Water Analyses and Modeling, regarding the Water Supply Effects (WSE) as an appropriate tool to evaluate water supply effects for the programmatic analyses contained in the SED. Please see Chapter 13, Service Providers, for a qualitative discussion of potential effects on service providers under Impacts SP-1, SP-2a and SP-2b. In Chapter 13 (Impact SP-1) the potential impacts due to surface water reductions are considered within the general context of water supply agreements and contracts. Please see Master Response 3.6, Service Providers, for clarifying information regarding service providers and potential effects. Master Response 1.2, Water Quality Control Planning Process, regarding a description of the current water quality control planning process effort and implementation through water right proceedings.
776	10	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	Please refer to Master Response 8.4, Non-Agricultural Economic Considerations, regarding water supply uncertainty and effects of the plan amendments on water supply infrastructure and planning, including

	Table 4-1. Responses to Comments		
Ltr#	Cmt#	Comment	Response
		begun paying the bonds on.	stranded capital costs.
776	11	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 and plan amendments do not require or encourage groundwater substitution as a response to reductions in surface water. The SED reflects the historical local response to increase groundwater pumping when surface water availability is reduced. The existing groundwater overdraft conditions are legacy issues caused by unsustainable agricultural expansion; SGMA was passed by the legislature in 2014 to address overdraft issues. SGMA was not modeled in the SED, because groundwater models were not required; however, SGMA was incorporated in the groundwater analysis, and the cumulative impact of SGMA on agricultural resources was discussed in Chapter 17, Cumulative Impacts, Growth-Inducing Effects, and Irreversible Commitment of Resources, Section 17.2.2, Cumulative Impact Analysis. The State Water Board acknowledges that it will be challenging, but implementation of the plan amendments does not conflict with SGMA compliance; together they allow for true integrated planning of scarce water resources that does not trade impacts between surface and groundwater. It will be up to local entities to determine the precise actions that would be taken in response to the implementation of the plan amendments, with or without the future condition of SGMA. For further discussion on these issues and why groundwater models were not used in the SED, please see Master Response 3.4, Groundwater Resources and the Sustainable Groundwater Management Act.
776	12	The SED 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 isthe 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. 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.	entities; it can receive up to 40 thousand acre-feet per year (TAF/y) from New Hogan Reservoir, with an additional 27 TAF/y of New Hogan Reservoir water that is not used by Calaveras County Water District (Northeastern San Joaquin County Groundwater Banking Authority 2004). Please see Master Response 1.2, Water Quality Control Planning Process, for a discussion of the water quality control planning process, including the State Water Board's protection of beneficial uses in the Bay-
776	13	We [Stockton East Water District] 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 has the most extensive monitoring and research of fisheries on the Stanislaus River, more than any other of the fishery regulatory agencies making recommendations for this particular SED. 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.	Please see Master Response 3.1, Protection of Fish and Wildlife, for information about the use of best available science, the description of the Plan Amendments for protecting fish, and the unimpaired flow approach.
776	14	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	Please refer to Master Response 1.1 General Comments for information regarding the public outreach process.

	Table 4-1. Responses to Comments		
Ltr#	Cmt#	Comment	Response
		public input or discussion, you released the 2016 re-circulated draft.	
776	15	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 the thrown out number is 60 percent of the entire San Joaquin River Watershed. 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?	Amendments to the Water Quality Control Plan, regarding the geographic boundaries of the plan amendments and modifications to the plan amendments.
776	16	Impact to agriculture, the SED reaches the conclusion that the Plan will have no adverse impact on municipal uses. 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.	As indicated in Chapter 13, Service Providers, there would be substantial reductions in surface water supply under LSJR Alternative 2 with implementation of adaptive implementation method 1 (for the Merced and Tuolumne Rivers), and under LSJR Alternatives 3 and 4. There would also be reductions in groundwater supplies in the Extended Merced Subbasin (LSJR Alternatives 2, [with adaptive implementation method 1[, 3, and 4), as well as in the Modesto and Turlock groundwater subbasins (LSJR Alternatives 3 and 4), and in the San Joaquin and Extended Merced subbasins (LSJR Alternative 4). These reductions, as discussed in Chapter 13, would potentially affect municipal uses. As discussed in Master Response 3.4, Groundwater and the Sustainable Groundwater Management Act, Chapter 9, Groundwater Resources, and in Master Response 3.6, Service Providers, groundwater levels in the San Joaquin Valley groundwater basins have generally declined as a result of extensive groundwater pumping to sustain and expand agriculture. Please refer to Master Response 3.4 regarding historical groundwater use in the San Joaquin Valley and overpumping, primarily to sustain agriculture. Please see Master Response 1.2, Water Quality Control Planning Process, for information on the consideration of beneficial uses. Please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, regarding water supply reliability and agriculture, and Master Response 8.2, Regional Agricultural Effects, regarding regional agricultural economic effects of reduced water supply reliability.
776	17	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 [this].	Please see Master Response 1.1, General Comments, for regarding voluntary agreements and collaboration with other agencies. Voluntary agreements can be submitted to the Board for consideration at any time. Additionally, the SED Executive Summary, ES 3.1 Lower San Joaquin River Flow and Southern Delta Salinity Proposals, and Appendix K, Voluntary Agreements, address the minimum standard the agreements must meet for Board consideration including "measures that meet or exceed the proposed objectives and protect fish and wildlife uses".
776	18	MS. D'ADAMO: 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?	As identified in Chapter 9, Groundwater Resources, and Chapter 13, Service Providers, SEWD receives water from both the Stanislaus and Calaveras Rivers. SEWD has a number of surface water supply contracts with various entities; it can receive up to 40 thousand acre-feet per year (TAF/y) from New Hogan Reservoir, with an additional 27 TAF/y of New Hogan Reservoir water that is not used by Calaveras County Water District (Northeastern San Joaquin County Groundwater Banking Authority 2004).
		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	Please see Master Response 1.2, Water Quality Control Planning Process, for a discussion of the water quality control planning process, including the State Water Board's protection of beneficial uses in the Bay-Delta and tributary watersheds through independent proceedings.

	Table 4-1. Responses to Comments			
Ltr#	Cmt#	Comment	Response	
		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.		
776	19	[ATT1: Estimated Effect on Average Annual Surface Water Diversion]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
776	20	[ATT2: Map of dams in San Joaquin Basin]	The commenter is providing this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
776	21	[ATT3: Lower San Joaquin River (LSJR) Basin]	This attachment was included with the comment letter. The attachment does not make a general comment regarding the plan amendments or raise a significant environmental issue.	
776	22	[ATT4: Table 2-9. Draft Technical Report on the Scientific Basis for Alternative San Joaquin River Flow and Southern Delta Salinity Objectives.]	The commenter is providing this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
776	23	[ATT5: Chinook Abundance Trend at Basin Scale]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
776	24	[ATT6: Difference in Adult Fall-run Chinook Salmon Natural Production]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
776	25	[ATT7: Delta Fishery Dominated by Non-native Species]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
776	26	[ATT8: Centrarchid Abundance Continues to Increase]	This attachment was included with the comment letter. The attachment does not make a general comment regarding the plan amendments or raise a significant environmental issue.	
777	1	[ATT1: Letter WQCP1.0054]	The commenter provided this attachment for reference purposes in support of their comments. This letter was processed as Letter 54, responses to these comments can be found in that letter. No additional response is required.	
777	2	[ATT2: Letter WCQP1.0371.]	The commenter provided this attachment for reference purposes in support of their comments. This letter was processed as Letter 71, responses to these comments can be found in that letter. No additional response is required.	
778	1	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.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
778	2	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.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
778	3	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-	Please see Master Response 1.1, General Comments for responses to comments that either make a general	

	Table 4-1. Responses to Comments		
Ltr#	Cmt#	Comment	Response
		Delta.	comment on the plan amendments or do not raise significant environmental issues.
778	4	With its current percentage of unimpaired flow, the Bay-Delta streams are currently unable to provide 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.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
778	5	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 benefits 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.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
779	1	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 see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
779	2	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.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
		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.	
780	1	It is the Limiting Factor Analyses and Recommended Studies for Fall Run Chinook Salmon and Rainbow Trout in the Tuolumne River, February 2007, prepared by the Anadromous Fish Restoration Program, U.S.Fish and Wildlife Service, Sacramento Office of National Marine Fishery Service and the Fresno Office of California Fish and Wildlife.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
		So the summary of Limiting Factor Analyses has four that are particularly interesting. They say in this document, "Adult salon recruitment is highly correlated with the number of	

	Table 4-1. Responses to Comments		
Ltr#	Cmt#	Comment	Response
		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.	
780	2	MS. D'ADAMO: 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.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
		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.	
		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	
781	1	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.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
781	2	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	Please see Master Response 1.1, General Comments for responses to comments that either make a general

	Table 4-1. Responses to Comments			
Ltr#	Cmt#	Comment	Response	
		the biology on the river that we need to be able to justify our conclusions of what we're doing there.	comment on the plan amendments or do not raise significant environmental issues.	
		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.		
		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.		
781	3	It doesn't take a rocket scientist to see that the real motive is to take our water and not seriously save the salmon.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
781	4	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.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
782	1	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.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
		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.		
782	2	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.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
		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		

	Table 4-1. Responses to Comments		
Ltr#	Cmt#	Comment	Response
		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.	
783	1	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.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
783	2	And you being from a farming family down south, I'm going to ask you a question. 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. 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.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
784	1	has all of its service area in Calaveras County. There's about 650,000 acres in the service	Please see Master Response 1.1, General Comments, for responses to comments regarding water rights, program-level document, and program-level analysis. Please see Master Response 1.2, Water Quality Control Planning Process, for responses to comments regarding the phased approach to the planning process, the distinction between the program of implementation and implementation of objectives in the Bay-Delta Plan through water rights proceedings, and general information regarding the water rights and the program of implementation in the Bay-Delta Plan.

		Table 4-1. Response	es to Comments
Ltr#	Cmt#	Comment	Response
		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 piecemeal, 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? 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.	
784	2	CCWD [Calaveras County Water District] 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.	Please see Master Response 3.4, Groundwater and the Sustainable Groundwater Management Act, for a discussion regarding SGMA and local SGMA compliance.
784	3	The Board is looking to implement your requirements of Phase 1 under the Bay-Delta Plan. And we want you to know that CCWD [Calaveras County Water District] 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.	
785	1	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 grow 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 Stewart Tract 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.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
785	2	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	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.

Table 4-1. Responses to Comments			es to Comments
Ltr#	Cmt#	Comment	Response
		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 gets 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.	
786	1	I want to express my appreciation for expanding the scope of the comment period on the Substitute Environmental Document to include hearings in, not just Merced but Stanislaus and San Joaquin counties, as well. The two hearings, which have already taken place in Sacramento and Stockton, were incredibly enlightening and have made clear to me, and I hope to you, that the proposal before you today is fundamentally incomplete and should not be considered a candidate for adoption. At the prior hearings you heard from stakeholders on entirely different sides of this debate raise the same point: Any plan that focuses only on taking more water and ignores operational improvements, habitat restoration and predator management will fail to achieve your stated goals. Many comments are focused on the need to come up with creative solutions. And, in fact, the Chair and Board Members themselves have made comments during the prior hearings in agreement that creative solutions are needed.	Please see Master Response 1.1, General Comments, for responses to comments that either make a general comment regarding the plan amendments or do not raise significant environmental issues.
786	2	Despite a decade of work on this proposal and what appears to be unanimous agreement from the public, the Plan in print today is silent on non-flow measures and offers nothing in the way of creative solutions. There also appears to be some confusion on behalf of the Board whether or not you have the legal authority to consider non-flow options in your proposal. Again, after ten years of work, I would have hoped you had asked this question a long time ago.	Please see Master Response 1.1, General Comments, for responses to comments regarding non-flow actions and the authority of the State Water Resources Control Board.
786	3	You need to understand something about how this community perceives the Water Board at this time. You are the Grim Reaper. Water is life in this region, and you'd appear to have no other purpose than to take that life away. So you can understand our outrage when you announced a plan to double the amount of water you will take from our community and create, in the words of your own staff, a permanent regulatory drought. It is just beyond belief to me that you believe state law allows you to actually create a drought.	Please see Master Response 1.1, General Comments, for responses to comments that make a general comment regarding the plan amendments. Please refer to the section acknowledging the concerns of community members.
786	4	When we got a chance to read your report we learned that the authors have zero confidence in the models they used to determine benefits to fish, and cannot tell us how many fish taking this amount of water will produce. However, I also noticed, buried in a graph, a predicted increase of just 1,104 salmon. The report essentially ignores the existence of the Sustainable Groundwater Management Act to sidestep addressing the true impacts to groundwater and drinking water, and finishes by lowballing the negative economic consequences of taking this water from our region by hundreds of millions of dollars.	Please see Master Response 3.1, Protection of Fish and Wildlife, for information regarding SalSIM. Please see Master Response 3.4, Sustainable Groundwater Management Act and Groundwater, for information regarding SGMA. Please see Volume 1, Chapter 9, Groundwater Resources, and Chapter 17, Cumulative Impact Analysis, for SGMA considerations in the environmental impact analyses. Please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, for information regarding local agricultural economic effects. Please see Master Response 1.1, for information regarding voluntary agreements.
		Riddled with omissions and errors as it is, the proposal in print fails to answer even the most basic questions. It is no wonder we keep hearing about your preference for voluntary	

		Table 4-1. Response	es to Comments
Ltr#	Cmt#	Comment	Response
		settlements. If you truly prefer settlements, as the Governor has instructed, let me offer you a little advice. Acknowledge the inadequacy of this current proposal and do not move forward with it.	
786	5	These public hearings have taught us a lot. And I think there's no shame, in light of this new information, in going back to the drawing board. Take an active role in settlement negotiations instead of kicking the can over to the Department of Fish and Wildlife to do it for you. You are proposing this plan, so you need to look us in the eye at the negotiating table, listen to, acknowledge, and actually incorporate into your plan the comments and issues raised by this community, even when the answers are tough. Do not refuse to address the hard questions, like when you dodge answering how you will stop our schools from ending up on Porta Potties and bottled water when reduced surface water deliveries are available.	Please see Master Response 1.1, General Comments, for information regarding voluntary agreements. Additionally, Master Response 3.6, Service Providers, address comments regarding water for health and safety.
786	6	And finally, let's stop speaking about the fishing industry and environmentalism as if they are interchangeable terms. Fisherman are out to make a living, same as any dairyman or farmer. They all deserve your attention and respect. I'm confident that if you follow this advice you will find partners that are ready and willing to hammer out a settlement agreement, rather than ending up in court for years.	Please see Master Response 1.1, General Comments, for responses to comments that either make a general comment regarding the plan amendments or do not raise significant environmental issues. Refer to the Voluntary Agreement section for more information on voluntary agreements.
787	1	I've been a Merced County educator for 24 years. I am a fourth generation farmer in this County. My grandfather came to Hilmar and started a dairy in 1905. You've heard a lot of frustration in the room today, and I guess that's what I would like to express to you. The economic impact on our County, on our students, on our schools, after we've come out of this great recession, which has taken all the last six to eight years to recover from.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
787	2	I'm thankful for the process our State put in place on the education side. The LCAP process, and local control, community input, that builds trust. That's what we need in this room, today. And it's up to you, as leaders. Because as leaders, our decisions matter. And the process that you create, whether or not you reach out to our local Legislators, whether or not you reach out to our irrigation district leaders to come up with a proposal that will work for everybody, I really implore you to do that.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
788	1	I think your zero fish is reasonable at this point in time. And hear me out. We've been in this part of the valley farming for, you know, my family's been here 75 years. But it was all done on the preface that, you know, our water rights that have been coming down through history were going to be there. So, if that's going to be changed, this is something that needs to be taken into account as a true cost of this equation. You know, there's a way to do something. And the way to do that, if you're going to take this water away, you know, we need to be compensated for it. It needs to be you know, they'll find these family farms, where there's no kids or whatever, and that they are done farming. Buy their land, take their water that way. Don't just come in and, you know, pull this 40 percent out with everybody that it's just going to be a slow death to all the rest of us. You know, there's a right way and a wrong way. You know, they've done this up in the Chico area, with the National Wildlife Refuge system,	
		where they've bought a lot of ground along the river, you know, and made it work. You know, the Sierra Club and these guys have put money in. That's fine, if that's what you want	

	Table 4-1. Responses to Comments		
Ltr#	Cmt#	Comment	Response
		to do. But, you know, all of these farming families, you know, we've lived on our land, put blood, sweat and tears into it. And it's one of those things that it's unfair what you're talking about doing. You know, do the right thing. Get in there, you know, let's you know, instead of just giving people a slow death, give them a way out if that's what you guys if you guys feel the salmon are that important, you know, that's what we need to do.	
788	2	The other thing I'd like to challenge you to do is, you know, we hear these arguments back and forth about the scientific facts of whether the salmon's going to make a comeback or whether it's not. You know, let's see some real numbers. I challenge you guys to, you know, buy waters from the farmers for six, eight, ten years, run that 100,000 acre-feet, or whatever it is, down this rivers and let's see some real numbers on what the numbers of fish actually do. You know, I have ground that allows every year, and it's something that, you know, I'm sure there's a lot of guys out there would give you the water to prove it. You know, this smoke and mirrors, where it's 1,100 fish, it's 1,200, 2,000, doubling, whatever, you know, they're all modeling. We don't have any true numbers. You know, let's see something long-term before we decide to change our whole way of life and, you know, the investment that we've all put in here. You know, private industry would never do anything like that without doing, you know, some kind of research on something like that, that is a true test or experiment, you know.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
789	1	I'm embarrassed as an elected leader of the water quality in my own city. We have to send out these pamphlets two or three times a year saying we're not meeting the water quality right now. The biggest fear I have is allowing this plan to turn my city into Flint. I can't let this happen. My people first, not fish, people. If you pass this Plan the way it is you'll become the worst domestic terrorist our city has ever seen. One of my colleagues earlier told you that people in Merced are reasonable, people in Merced are humble. They are humble. They are very reasonable. I appreciate the words of the statesmen who came before you. I'm showing you the face of an unreasonable man. I am angry. I am not happy. If this comes through, we will unleash the dogs of war upon you. We are going to fight to the end on this. I will show up at your offices, at your homes. We will be there protesting you all the way through. This is not acceptable. We will not become Flint. We will not let our water be destroyed. You told us earlier that you do listen, and I pray you do because I don't want to be your devil, as you are mine right now.	Please see Master Response 1.2, Water Quality Control Planning Process, for information regarding State Water Board consideration of beneficial uses including public health and safety. Additional information regarding water quality, beneficial uses, and disadvantaged communities is provided in Master Response 2.1, Amendments to the Water Quality Control Plan, Master Response 2.7, Disadvantaged Communities, and Master Response 3.6, Service Providers.
790	1	Good afternoon. My name is Allison Jeffery. And like a lot of the people here, I wear many hats. That's not actually uncommon in small towns, like ours. And I have come from a family where my father was ditch tender in both Stanislaus and Merced County, for several years, and my grandfather is a rancher. But today, I'm actually here on behalf of the Community Health Centers within our area. I do	

Cmt#		
	Comment	Response
	work for a local Community Health Center, which sees about 18,000 patients a year. Sixty percent of our patient base is agriculturally- based. People who report, through self-reporting, that they work in the agricultural field. Removing Valley water does not only affect the farm economy, but also the health economy of our area. Those families rely on work availability within the field system in order to go back to local businesses and spend money. By changing the economy, by changing the water flow, you will see the same effects that we had during the drought. Families relying on an increased amount of Medi-Cal, food subsidy programs, drought relief boxes, and other programs to allow them to sustain life.	
2	Our Health Clinic is in a small town that is supported, mostly, through local businesses. All of which are primarily agricultural based. Those local businesses also support our schools, our nonprofit organizations, our community organizations, and each other. Their hard work ethic and sense of community responsibility often reflects itself in the town around us. We are here, today, to urge you to not only look at water rights and water needs for salmon, but also to look at the health risks and public health needs that could come across, not only from bad drinking water, but also from a reduction in economy and available jobs in an area where the economy and available jobs are already limited.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
1	The social sustainability of the Central Valley is jeopardized by your proposal. Water and people are innately tied. Wherever water flows, people grow. And in the Central Valley, we had the other sentiment that wherever water flows, food grows, as well. I'm sure the Vice Chair, your experience with the Mono Lake Project can further cement that relationship between water and the success of people.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
2	In our organization, we raise the next generation of farmers and ranchers. Through high school curriculum, hands-on experiences, and student-led projects, we're able to cultivate the next generation. From Tule Lake, on the Oregon border, to Los Angeles, all the way down to Calexico, bordering with Mexico, each and every day high school students are able to experience with their eyes, and their hands, agro science, mechanics, soil science, hydrology, you name it. The aspects of agriculture they're taught in FFA, and in high schools across the nation are limitless. Many of you have engineering backgrounds, and I believe even two of you on the Board. Agriculture seeks to do the same thing, use today's tools, the best science and technology to solve problems that are facing the modern world. Agriculture tries to do the same. And our problem is feeding the world. When I was young, I had an intrigue with how jewelry got manufactured. I remembered, distinctly, going to a manufacturing facility where jewelry was being taken, and from raw goods, with a little bit of labor and energy, they were able to transform it into a beautiful, decorative chain. That same intrigue that I had about the jewelry industry exists about agriculture, not only	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
	1	percent of our patient base is agriculturally- based. People who report, through self-reporting, that they work in the agricultural field. Removing Valley water does not only affect the farm economy, but also the health economy of our area. Those families rely on work availability within the field system in order to go back to local businesses and spend money. By changing the economy, by changing the water flow, you will see the same effects that we had during the drought. Families relying on an increased amount of Medi-Cal, food subsidy programs, drought relief boxes, and other programs to allow them to sustain life. 2 Our Health Clinic is in a small town that is supported, mostly, through local businesses. All of which are primarily agricultural based. Those local businesses also support our schools, our nonprofit organizations, our community organizations, and each other. Their hard work ethic and sense of community responsibility often reflects itself in the town around us. We are here, today, to urge you to not only look at water rights and water needs for salmon, but also to look at the health risks and public health needs that could come across, not only from bad drinking water, but also from a reduction in economy and available jobs in an area where the economy and available jobs are already limited. 1 The social sustainability of the Central Valley is jeopardized by your proposal. Water and people are innately tied. Wherever water flows, people grow. And in the Central Valley, we had the other sentiment that wherever water flows, food grows, as well. I'm sure the Vice Chair, your experience with the Mono Lake Project can further cement that relationship between water and the success of people. In our organization, we raise the next generation of farmers and ranchers. Through high school curriculum, hands-on experiences, and student-led projects, we're able to cultivate the next generation. From Tule Lake, on the Oregon border, to Los Angeles, all the way down to Calexico, bordering with Mexico,

		Table 4-1. Response	es to Comments
Ltr#	Cmt#	Comment	Response
		agriculture industry surrounds our community. Please, don't let agriculture become the next novelty in our economy. Please consider the social sustainability of the valley. The individuals that we raise here, through the Future Farmers of America, we want them to have the ability to come back, return the great talent to where it was grown, and be able to return that excellent skill and passion to the same area which created it.	
791	3	The critical importanceplease consider the social sustainability of the valley, and the critical importance of the water in our valley to its future, so my generation can have the opportunity to step up, protect the environment, and feed the world.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
792	1	I want to thank you for being here in Merced. That has been one of our criticisms, that you haven't reached out to the communities in person that are going to be affected.	Please see Master Response 1.1, General Comments, acknowledging the concerns of elected representatives and other community members, and a discussion regarding the public outreach process.
792	2	I spoke on this very issue three years ago. And here we are today, fighting the same fight. Your proposal to dedicate 40 percent unimpaired flow to fish and wildlife will devastate the district that I represent.	Please see Master Response 1.1, General Comments, acknowledging the concerns of elected representatives and other community members.
792	3	A little bit about our area. I think it's a great area. I've been here my entire life. We have some real challenges. One of them, we have almost double the state average with unemployment. And if you look at poverty, we are almost26 percent of us are living in the poverty level. The recession and drought have stressed our economy and our residents, but thankfully, agriculture has been a bright spot. Now this proposal stands to devastate an already troubled region. The significant damage to the region's economy would dry up, by some estimates, over 200,000 acres of farmland, causing an overall economic loss of \$1.6 billion and something in excess of 6,500 jobs, and that is just the unimpaired flows. That is not the carryover water, which I would argue is even more devastating to our area.	Please see Master Response 1.1, General Comments, for responses to comments that either make a general comment regarding the plan amendments or do not raise significant environmental issues and for general information regarding the economic effects and economic analyses disclosed in the Recirculated SED (primarily Chapter 20, Economic Analyses). Please also see Master Response 1.1 acknowledging the concerns of elected representatives and community members. Please refer to Master Response 8.0, Economic Analyses Framework and Assessment Tools, Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, Master Response 8.2, Regional Agricultural Economic Effects, and Master Response 8.4, Non-Agricultural Economic Considerations, for additional discussion of economic effects related to the plan amendments. To review responses to comments submitted by other entities within the comment period on the 2016 Recirculated Draft SED, please refer to the index of commenters in Volume 3 to locate the letter number(s) of interest. Please see Master Response 2.1, Amendments to the Water Quality Control Plan, and Master Response 3.2, Surface Water Analyses and Modeling, regarding carryover storage as described in the plan amendments and how carryover storage relates to how the effects of the plan amendments were modeled.
792	4	This proposal would adversely impact hydropower production by taking water from reservoirs during the spring, which would leave less water available in the summer, when it's critically needed to irrigate crops and take pressure off the state's power grid.	Please see Master Response 3.2, Surface Water Analyses and Modeling, for a discussion of hydropower effects. Please also see Master Response 8.4, Non-Agricultural Economic Considerations, for a discussion of economic considerations as they relate to hydropower. Please see Master Response 3.5, Agricultural Resources, and Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, for information regarding agricultural resource impacts and economic considerations related to agriculture.
792	5	While the Board makes reference to the Sustainable Groundwater Management Act, it cannot truly consider how it will limit the use of groundwater by consumers to cover the gap in lack of surface water available proposed in the SED. Groundwater pumping would increase over 25 percent, further decimating our aquifers. I'm hopeful that the recently-passed federal water legislation will increase storage, but that will not solve all of our problems, and certainly not in the near future.	The SED and plan amendments do not require or encourage groundwater substitution as a response to reductions in surface water. The SED reflects the historical local response to increase groundwater pumping when surface water availability is reduced. The State Water Board acknowledges that it will be challenging, but implementation of the plan amendments does not conflict with SGMA; together they allow for integrated planning of scarce water resources that does not trade impacts between surface water and groundwater. It will be up to local entities to determine the precise actions that would be taken in response to the implementation of the plan amendments, with or without the future condition of SGMA. For further discussion on these issues and why groundwater models were not used in the SED, please see Master Response 3.4, Groundwater Resources

	Table 4-1. Responses to Comments		
Ltr#	Cmt#	Comment	Response
			and the Sustainable Groundwater Management Act.
792	6	This proposal takes water at a time when it's most valuable and sends it down river with only a hope that it will benefit the fish population. Water is too valuable to waste on the hope that it will make a difference. I hope that you will rethink this approach you have advocated and develop a plan that works to the mutual benefit of the region, rather than one based on faulty science.	Please see Master Response 1.1, General Comments, for responses to comments that either make a general comment regarding the plan amendments or do not raise significant environmental issues.
792	7	The Governor called out and asked for a voluntary agreement, and I think we would like that, but you have to understand how we feel. This is largely the first time some of these folks have been able to talk to you. Now, they have requested the studies. But there's been no meetings with the local Irrigation District to understand what those studies mean and what the science is that we're submitting. And largely the actual science that we spent millions and millions of dollars on has been excluded from this report. And I would say that we want to have a voluntary agreement, but we feel like we're negotiating with a gun to our head. Because now that proposal is out there that is such a big deal, now we're terrified and don't know what to do. And then talk about good faith, to just end with, we want to negotiate in good faith. But when there's legislation that was presented by Gordon last year, and there's already legislation we had talked about that will make it where we will not be able to stop this process, even during litigation. So if this gets adopted and it's sued, which it will be, the legislation that was authored by Gordon would say, well, it moves forward anyway until it's settled, and that is not good-faith negotiations.	Please refer to Master Response 1.1 General Comments for information regarding the public outreach process and voluntary agreements. Please refer to Master Response 1.2, Water Quality Control Planning Process for information regarding the authorities and regulations governing the water quality control planning process.
793	1	One thing that I didn't learn that I feel might be missing is what are we [City of Merced] supposed to do? So if this goes through as it's been presented, what are we supposed to do when the land runs fallow? What are we supposed to do when we start pumping groundwater at rates never before seen? What are we supposed to do when the economic impact strikes us? I may not know a lot about the numbers, but I do know how people feel. And as you probably have sensed, obviously, there's anger. But beyond anger there's hurt, there's pain, there's anguish and there's betrayal. And it isn't just because of the decision that may be put forth here.	Please see Master Response 1.1, General Comments, for responses to comments that either make a general comment regarding the plan amendments or do not raise significant environmental issues. For additional discussion of agricultural and economic impacts, please refer to Master Response 3.5, Agricultural Resources, Master Response 8.0, Economic Analyses Framework and Assessment Tools, Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, and Master Response 8.2, Regional Agricultural Economic Effects. For further discussion of groundwater issues, please refer to Master Response 3.4, Groundwater and the Sustainable Groundwater Management Act.
793	2	We [City of Merced] are a people that will stand up and we will fight and we will do what we need to do to make sure that we can continue to have a better life. There's nobody in this room that doesn't want to work with the Board. There's nobody in this room that doesn't want to give their fair share or give their peace to help make California great. But all we want is a chance. All we want is a chance to work with you, a chance to meet fair and equitable means. All we want is a shot to pick ourselves up so we can walk with you and not have to kneel before you. So I ask you, please give this county, give this region, give these people a shot at working with you and coming up with desirable means that everyone can be happy with.	Please see Master Response 1.1, General Comments, regarding the public outreach process and voluntary agreements.
794	1	I am the Assessor of Merced County. As the Assessor, I am charged with locating, identifying, describing and valuing all taxable property in the county. Property ownership is a dream, a goal, an achievement and an investment, and so much more. For property tax	Please see Master Response 1.1, General Comments, for general information regarding the economic analysis and effects. Please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP

		Table 4-1. Response	es to Comments
Ltr#	Cmt#	Comment	Response
		purposes, land includes, among other things, water rights. Appraisers, when they're valuing property, are trained to look at and evaluate water sources and supply, water rights, the quality of the water, the water source, and the durability of those rights. All of these may affect the value of a given property. As the Assessor, I am in contact with our property owners daily. I hear their frustrations and their fears about water. Through this drought, I have dealt with properties that have been fallowed; properties with expensive new wells or dropped wells; and changes in income streams because of the cost of the wells, the production, the changes in crop rotations. Through all of this, I see resilient farmers and growers and resilient property owners who have worked hard, have sacrificed much, and to weather the drought years, all because they have faith in the future and are invested in our community and in their property. Our community is dependent upon the Merced River. The losses that would be imposed upon Merced County growers and property owners under the Bay-Delta Plan are tremendous. These losses will impact our economy through lost jobs, lost revenues, lost opportunities and reduced property values. Supply and demand are often the first lessons in economics. One of the most important determinants of supply is the expectation of developers regarding future demand. If developers are optimistic about future demand, the quantity of supply tends to increase, and vice versa. The ability to which our property owners can depend on their water supply will impact the value of our property and impact supply and demand.	Model, regarding the scope of the economic analysis and property values.
795	1		Please see Master Response 3.3, Southern Delta Water Quality, for responses to comments regarding why the southern Delta Salinity objectives are being updated. Furthermore, please see Appendix E, Salt Tolerance of Crops in the Southern Sacramento - San Joaquin Delta, for discussion of why the salinity standard is protective of agriculture.
795	2	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 [Restore the Delta] 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 [ATT1:ATT3]. If we have this impression, you should expect that this occurs to export customers as well. 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.	Please see Master Response 1.1, General Comments, regarding the relationship of the plan amendments to other projects, programs, and policies, including California WaterFix and the State Water Project. Please also see Master Response 1.2, Water Quality Control Planning Process, for a discussion of the water quality control planning process and Bay-Delta proceedings, including the State Water Board's protection of beneficial uses in the Bay-Delta and tributary watersheds through independent proceedings. That discussion also addresses export issues.

Table 4-1. Responses to Comments			s to Comments
Ltr#	Cmt#	Comment	Response
		Related to that, if San Joaquin water quality 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.	
795	3	My 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 [ATT1:ATT4] 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 [ATT1:ATT5] 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.	Please refer to Master Response 3.3, Southern Delta Water Quality, regarding the protection of southern Delta water quality in response to the implementation of the plan amendments. Please also refer to Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, and Master Response 8.2, Regional Agricultural Economic Effects for more information regarding the analysis of potential effects to local and regional economies. Please refer to Master Response 3.3, Southern Delta Water Quality, regarding the southern Delta salinity objective and the protection of agricultural beneficial uses in the Delta.
795	4	The Plan's Multinomial Logit Model 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 [ATT1:ATT6].	Please see Master Response 3.3, Southern Delta Water Quality, for information about the water quality in the Delta. Please see Chapter 11 Agricultural Resources Section 11.4.2 SDWQ Alternatives for information on the impacts of salinity to crops in the southern Delta. The information presented in the comment refers to a statistical modeling effort completed for the Delta Sustainability Plan. The comment mischaracterizes the analysis provided in Chapter 11 Agricultural Resources Section 11.4.2 Methods and Approach. The statistical approach, used for the Delta Sustainability Plan, looked at relating variables to best describe the data but they may or may not be related in a physical sense. The Hoffman approach (used to prepare the Chapter 11 analysis), cited literature that relates physical relationships among salinity in the water, soil, and crops.
795	5	Restore the Delta 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 [HABs]. 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 [ATT1:ATT7] 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 1 documents, by which I refer to proposed flow changes and relaxation of south Delta salinity	Please see Master Response 1.1, General Comments, for discussion of harmful algal blooms in the southern Delta. Most of the factors affecting harmful algal blooms in the Delta are unaffected by the plan amendments. However, the plan amendments are generally expected to increase flow and fresh water dilution of nutrients in the Delta, so are not expected to result in any increase in harmful algal blooms and could actually be helpful.

	Table 4-1. Responses to Comments		
Ltr#	Cmt#	Comment	Response
795	6	objectives. Harmful algal blooms, as the Board knows, are potentially serious [ATT1:ATT8]. 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 [ATT1:ATT8]. Cautions, then warnings, then danger signs when and where toxin concentrations reach their highest trigger levels. The public health issue of harmful algal blooms intersects 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 [ATT1:ATT9], as Department of Fish and Wildlife biologist Peggy Lehman told the Delta [ATT1:ATT9], 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. [Restore the Delta] urges 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 falls 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 n	
795	7	No environmental justice analysis was conducted on the Phase 1 draft SED proposals in 2013. And in [Restore the Delta's] review to date, we have come across no environmental	Please see response to Comment 795-6.

Table 4-1. Responses to Comments				
Ltr#	Cmt#	Comment	Response	
		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 [ATT2:ATT4]. 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.		
795	8	Nearly one-third of the families in San Joaquin County and Stockton with children under five are living in poverty [ATT2:ATT5]. 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.	Please see response to Comment 795-6.	
795	9	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 [ATT2:ATT6]. And those are impacts on their jobs, where they play in the Delta, and particularly where they catch fish for their diets.	Please see response to Comment 795-6. The State Water Board's notice of the public hearings for the plan amendments identified that alternative communications could be arranged by noticing: "On-site Spanish translation may be provided upon request. For more information, or to request translation accommodations, please contact Marina Perez at (916) 322-4265 no later than Friday, October 14, 2016 November 4, 2016. Para más información o para solicitar servicios de intérprete en español, puede contactar a Marina Perez (bilingüe) al (916) 322-4265 para el Viernes, 14 de octubre del 2016 4 de noviembre del 2016."	
795	10	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.	Implementation of the SDWQ alternatives would not affect groundwater recharge for the City of Stockton. The SDWQ alternatives are numeric objectives and an associated program of implementation. Please refer to Master Response 3.6, Service Providers, regarding potential effects of the SDWQ alternatives on wastewater treatment plants.	
795	11	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 [ATT2:ATT7].	The LSJR alternatives would improve flow conditions in the Stanislaus, Tuolumne, and Merced Rivers, and the lower San Joaquin River (Impact WQ-3, Chapter 5). As described in Chapter 7, Aquatic Resources, impacts AQUA-5 and AQUA-6 specifically address the potential for an increase in pollutants and turbidity. Higher flows would result in dilution of pollutants and changes in suspended sediment and turbidity resulting from changes in flow would be minor and within the historical levels experienced by native fish and other aquatic species. Contaminant levels are not expected to increase in fishes and negatively affect subsistence fishing.	
795	12	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	As described in Chapter 11, Agricultural Resources; agricultural production will not change and therefore, income of farm workers will not be affected. Also refer to Master Response 3.3, Southern Delta Water	

	Table 4-1. Responses to Comments			
Ltr#	Cmt#	Comment	Response	
		environmental justice community members out of work, further reducing their incomes.	Quality, regarding the SDWQ salinity objectives and southern Delta agriculture.	
795	13	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 [ATT2:ATT8]. 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 [ATT2:ATT9]. 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.	Please see response to Comment 795-6.	
795	14	In recent years Stockton has begun to recover from disinvestment experienced by our municipal bankruptcy and much of its loss of its manufacturing base [ATT2:ATT10]. Stockton and San Joaquin County however, remain agricultural and [are] 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.	Please refer to Master Response 3.3, Southern Delta Water Quality, regarding the protection of southern Delta water quality in response to the implementation of the plan amendments. Please also refer to Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, and Master Response 8.2, Regional Agricultural Economic Effects, for more information regarding the analysis of potential effects to local and regional economies.	
795	15	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. Somebody also has to be advocating for that water quality standard in the south Delta.	Please see Master Response 1.1, General Comments, for responses to comments that either make a general comment regarding the plan amendments or do not raise significant environmental issues. For additional detail regarding water quality in the south Delta, please refer to Master Response 3.3, Southern Delta Water Quality.	
795	16	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.	Please see Master Response 1.1, General Comments, for responses to comments that either make a general comment regarding the plan amendments or do not raise significant environmental issues.	
795	17	[The California Sportfishing Protection Alliance's] 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.	Please see Master Response 1.1, General Comments, for a response to comments regarding the use of best available science and consideration of beneficial uses. Please refer to sections that discuss the scientific basis of plan amendments and the consideration of beneficial uses.	
795	18	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.	Please see Master Response 1.1, General Comments, for a discussion of the San Joaquin River Restoration Program and the upper San Joaquin River with respect to the plan amendments.	
795	19	[The California Sportfishing Protection Alliance] 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 could we	Please see Master Response 2.1, Amendments to the Water Quality Control Plan, for responses to comments regarding science and policy support for considering adopting the plan amendments. For additional information, please see SED Chapter 18, Summary of Impacts and Comparison of Alternatives. Please see Master Response 2.1 for responses to comments regarding the Program of Implementation, development of biological goals, the Stanislaus, Tuolumne, and Merced Working Group (STM Working	

	Table 4-1. Responses to Comments		
Ltr#	Cmt#	Comment	Response
		find enforceable, quantitative and qualitative performance measures to ensure progress.	Group), and the San Joaquin Monitoring and Evaluation Program.
795	20	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.	Please see Master Response 2.1, Amendments to the Water Quality Control Plan, Master Response 2.2, Adaptive Implementation, and SED Appendix K for responses to comments and information regarding adaptive implementation. The program of implementation described in Appendix K provides clear parameters under which adaptive implementation must operate. Please see sections regarding biological goals, Executive Director authority, and STM Working Group in Master Response 2.1, Amendments to the Water Quality Control Plan. Master Response 2.2, Adaptive Implementation, provides additional description and examples of how adaptive management may proceed and the bounds under which it may do so.
795	21	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.	Please see Master Response 1.2, Water Quality Control Planning Process, for a discussion of the State Water Board's authorities and the consideration of beneficial uses in the water quality control planning process, as well as a consideration of public trust resources. Chapter 20, Economic Analyses, does provide quantitative and qualitative evaluations of resources such as commercial and sport fisheries and recreation. Section 20.3.5, Effects on Fisheries and Associated Regional Economies, and Section 20.3.6, Effects on Recreational Opportunities, Activity, and the Regional Economy, addresses the economic considerations of commercial and sport fisheries and recreation. Section 20.3.7, Non-Flow Measures, addresses costs associated with habitat restoration. Please see Master Response 8.4, Non-Agricultural Economic Considerations, for a further discussion of ecosystem services and benefits. Please see Master Response 5.2, Incorporation of Non-Flow Measures, for additional information regarding non-flow measure costs.
795	22	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. [California Sportfishing Protection Alliance] notes that the public trust balancing at Mono 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.	Please see Master Response 1.1, General Comments, and Master Response 1.2, Water Quality Control Planning Process, regarding the consideration of beneficial uses. Please also see Master Response 1.2 regarding the State Water Board's authorities, as well as consideration of public trust resources. Please see Chapter 20, Economic Analyses, Section 20.1, Introduction, and Master Response 8.0, Economic Analyses Framework and Assessment Tools, for a description of how economics are considered in the SED and the tools used. As described in Chapter 20, "The purposes of and the analytical framework for these analyses are (1) to compare potential changes in surface water diversion-related economic effects of the LSJR alternatives, and (2) to describe the potential costs of compliance with updated water quality objectives for the southern Delta. Although the analyses conducted to address these two purposes are presented together in this chapter, this should not be interpreted as an attempt to compare relevant costs and benefits of the LSJR alternatives or of the SDWQ alternatives." The State Water Board is not required to conduct a cost-benefit analysis and the analysis in the SED is not a cost-benefit analysis. Please see Chapter 20, Section 20.3.5, Effects on Fisheries and Associated Regional Economies and Section 20.3.6, Effects on Recreational Opportunities, Activity, and the Regional Economy, for quantification and evaluation of the commercial and recreational benefits associated with the plan amendments. Finally, please see Master Response 8.4, Non-Agricultural Economic Considerations, for a discussion regarding ecosystem services and potential benefits. To review responses to comments submitted by other entities within the comment period on the 2016 Recirculated Draft SED, please refer to the index of commenters in Volume 3 to locate the letter number(s) of interest.
795	23	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 stagesof 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	Please see Appendix E, Salt Tolerance of Crops in the Southern Sacramento-San Joaquin Delta, and Master Response 3.3, Southern Delta Water Quality, regarding the justification for amending the salinity objective. Appendix E used the current state of knowledge on crop salt tolerance along with available input information such as leaching fraction, crops, and water quality from the Delta. Please see Chapter 11, Agricultural Resources, Section 11.4.2, Methods and Approach, and Impacts AG-1 through AG-4 for the analysis of potential impacts of salinity on crops in the southern Delta. Please see Master Response 3.3 for

	Table 4-1. Responses to Comments			
Ltr#	Cmt#	Comment	Response	
		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.	more information on leaching fractions. While the State Water Board has not conducted additional studies, other studies have been conducted, which the State Water Board has considered as part of its response to comments in the Final SED.	
795	24	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.	For the purposes of the impact analysis in Chapter 7, Aquatic Biological Resources, the information given is sufficient. Adding the elements mentioned by the commenter regarding salinity impacts to riparian and aquatic vegetation, fish, and plankton populations, would not change the impact determinations made in Chapter 7.	
795	25	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.	Please see Master Response 1.1, General Responses for responses to comments that do not raise significant environmental issues associated with the analysis contained within the SED or request a modification to the plan amendments, and for information about the relationship with other plans, programs and agencies.	
795	26	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.	comment regarding the plan amendments or do not raise significant environmental issues.	
795	27	[ATT1: Presentation of Phase 1 Draft Recirculated Substitute Environmental Document: Legal, Operational, Agricultural, and Public Health Concerns. By Tim Stroshane of restore the Delta, December 2016.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
795	28	[ATT1:ATT1: Restore the Delta presentation, Outline.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
795	29	[ATT1:ATT2: Restore the Delta presentation, Legal and Operational Concerns with Phase 1.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
795	30	[ATT1:ATT3: Restore the Delta presentation, Legal and Operational Concerns with Phase 1, continued.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
795	31	[ATT1:ATT4: Restore the Delta presentation, Ag economy information and FMMP Delta farmland coverage figure.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
795	32	[ATT1:ATT5: Restore the Delta presentation, Ag economy information and Delta crop value, 2009 figure.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
795	33	[ATT1:ATT6: Restore the Delta presentation, salinity impacts table.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
795	34	[ATT1:ATT7: Restore the Delta presentation, Public health: harmful algal bloom growth factors.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
795	35	[ATT1:ATT8: Restore the Delta presentation, Public health: harmful algal bloom growth factors, continued.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
795	36	[ATT1:ATT9: Restore the Delta presentation, Public health: map of harmful algal bloom distributions.]	The commenter is providing this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	

	Table 4-1. Responses to Comments			
Ltr#	Cmt#	Comment	Response	
795	37	[ATT2: Presentation of Environmental Justice Communities and the State Water Board's Draft Recirculated Phase 1 SED, South Delta Salinity Objectives. By Barbara Barrigan-Parrilla of Restore the Delta.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
795	38	[ATT2:ATT1: Restore the Delta's environmental justice presentation, Outline.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
795	39	[ATT2:ATT2: Restore the Delta's environmental justice presentation, Environmental justice policies.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
795	40	[ATT2:ATT3: Restore the Delta's environmental justice presentation, Environmental justice argument.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
795	41	[ATT2:ATT4: Restore the Delta's environmental justice presentation, Table of environmental justice communities of San Joaquin County.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
795	42	[ATT2:ATT5: Restore the Delta's environmental justice presentation, Table of families and people living below poverty level.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
795	43	[ATT2:ATT6: Restore the Delta's environmental justice presentation, Table of languages spoken at home in San Joaquin County.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
795	44	[ATT2:ATT7: Restore the Delta's environmental justice presentation, Beneficial uses of water.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
795	45	[ATT2:ATT8: Restore the Delta's environmental justice presentation, Table of distressed and prosperous U.S. cities.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
795	46	[ATT2:ATT9: Restore the Delta's environmental justice presentation, Other distress sources.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
795	47	[ATT2:ATT10: Restore the Delta's environmental justice presentation, Quote regarding prospects and threats in Stockton, CA from Caifornia & Metro Forecast, University of the Pacific.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.	
796	1	We appreciate your attendance in the county today, even though we are disturbed with the timing of the release of the SED and setting meetings at a time where children and their families are trying to enjoy Christmas, making it twice as difficult to have more people even attend this meeting.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
796	2	Le Grand Community Services Water District is located in the southeast corner of Merced County Basin and the Merced Irrigation District. We oppose the draft SED, as well, as we believe it will create irreversible damage to our water supply in our community.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
796	3	We [Le Grand Community Services District] believe our district will be the canary in the coal mine and will probably be the first community to suffer water shortages as a result of the SED.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
		While static groundwater levels in the basin average around 90 feet, in our community it averages around 220 feet. The specific yield of groundwater wells in our area have plummeted as a result. Being on the edge of the Sierra Foothills, the aquifer is less yielding		

	Table 4-1. Responses to Comments			
Ltr#	Cmt#	Comment	Response	
		than the center of the basin. The only means to alleviate the drop in the groundwater levels is to not pump groundwater. Merced Irrigation District conducted a study of possible groundwater well field between Planada and Le Grand in 2000, and concluded that it would not be sustainable. As a result, the Merced Irrigation District does not own or operate any district wells in Le Grand. Typically, in a year of short water supply, MID diverts all surface water to Le Grand and uses its conjunctive groundwater wells in other areas. However, private land owners around Le Grand do operate their private wells. The Le Grand Community Services Water District is concerned the MID will not be able to provide enough surface water in the future as a result of SED, forcing landowners to systematically use more groundwater.		
796	4	We urge the State Board not to abandon this region and reconsider its options. We don't believe that the quantity of water released will proportionately improve the health of the fishery. It is dependent on a consortium of factors. The salmon return to the Merced River shattered all previous records this year, thanks to healthy hydrology this year that only salmon can actually engage. Similarly, salmon returns understandably dwindled during the severe drought. Salmon will return as the hydrology allows. In return, we need to furnish the right conditions for successful spawning. We respectfully request the Board reconsider the water volumes contemplated and the timing of their running. For example, prescribing releases in June will be more than a waste, due to unexpected diminishing returns in salmon production as there are barely any salmon in the Merced River at this time. Please don't let Le Grand become the next Porterville, even in wet years ahead.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
797	1	As a Former Secretary of Agriculture for the State of California, a third generation farmer, who has been farming in this area for over 90 years, our family, in this region, I'm here today to voice my opposition to your staff's draft proposal of 40 percent flows.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
797	2	As a former Ag Secretary, I realize the impact of taking 40 percent of the surface water supply from one of the most productive farm regions in the country. If the counties of Merced, Stanislaus and San Joaquin were a state, its gross ag production would land it in the top 15 states of the nation. Your proposal will take 40 percent of that water away from them.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
797	3	This has been described as a water grab. I call it a water taking by the state, yet I see little mitigation and no compensation in that taking. The Board and the staff have lost the trust, I want to say that again: have lost the trust of an entire region within the State of California. In my opinion, public approach has not occurred here. I'm disappointed, as a former public official, at the way this process has been conducted. I am encouraged by your recent outreach. But it bothers me, when I see the elected officials that many in these room have elected, stand up and say they have not had the opportunity to be as engaged as they should be. No one in this region opposes improving the environment, restoring habitat. However, we do oppose flawed science and a process that avoids discussion with the very people, these people, that you're going to impact.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	

		Table 4-1. Response	es to Comments
Ltr#	Cmt#	Comment	Response
797	4	I ask that you work with the local electeds; that you work with the local irrigation districts; that you work with the local stakeholders; that you be inclusive, that you use sound science; that you strongly consider mitigation and compensation to those that are going to be effected; that you strongly consider habitat restoration and predator suppression; that you listen to the Governor who appointed you to have reasonable settlements and to work with people in those reasonable settlements.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
798	1	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	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
798	2	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.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
799	1	I'm a farmer and environmental planner for Provost and Pritchard Consulting Group. My comments, today, are on behalf of Bert Crane Orchards. The Crane family has farmed in Merced County for seven generations, and were some of the early pioneers that financed and built the original Crocker Huffman infrastructure. The eighth generation is in their early twenties and are working on the farm, and plan to pass the ranch to their children. The Cranes are diversified, with crops such as oats, walnuts, almonds, cotton, grapes, as well as cattle. Their ranches are located both within and outside the Merced Irrigation District and have tens of millions of dollars of investment.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.

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		Currently, my environmental planning practice is consumed with helping Merced area farmers comply with SGMA. I'm sure you know that the end goal of SGMA is to achieve a groundwater balance by 2040.		
		One thing you have not heard today is that the Merced Subbasin currently operates at a deficit of approximately 120,000 acre-feet per year.		
		I can tell you that the vast majority of farmers, including the Cranes, are taking SGMA seriously and are hard at work planning, and implementing conservation and recharge projects to help achieve the groundwater balance.		
799	2	Conservation, alone, won't solve our groundwater pumping deficit. The agricultural community and the municipalities will be relying on the surface water provided by MID to both offset groundwater pumping and recharge of the aquifer. The SED's analysis of groundwater impact is severely flawed.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	
799	3	The economic analysis within the SED is also grossly flawed. The analysis makes minimal mention of those hit the hardest, our disadvantaged communities. Now, I say this without trying to sound dramatic, or be dramatic, but it is absolutely true, from someone who was born and raised in this community. The SED will cause children to go hungry. It's that simple. If you go into our rural communities, these are people who are living on the edge. Remember that the pioneers built our system, with the State's encouragement, and in full compliance with the laws and regulations at that time. Our livelihood and our children are more important. I'm going to grossly overstate and go ten times the number, 10,000 salmon predicted with the SED's flawed model.		
799	4	The Crane Family supports the Merced SAFE Plan. The Merced SAFE Plan is comprehensive. Actually, I'll skip all this because you guys know about the SAFE Plan. I would tell you that we would encourage settlement, with no more downstream flows than the final FERC EIR.	Please see Master Response 1.1, General Comments for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.	