

Table 4-1. Responses to Comments

Ltr#	Cmt#	Comment	Response
645	1	As a scientist, I found the staff presentation to be informative and persuasive. Preparation obviously required a tremendous amount of work. The inputs of other organizations and individuals add meaningful and relevant depth and detail. I would like to state that my personal opinion is that I strongly support the objectives of improving fish populations and reducing salinity in the Delta.	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.
645	2	As a consumer of water I am concerned about salinity. Santa Clara County, where I live, obtains about 55,000 acre-feet of water, which is half of its total supply from the southern Delta to support a population of 2.9 million people as well as agricultural production.	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.
645	3	I'm also an indirect consumer. I eat California-grown produce. It is my hope that food producers and growers will make efforts to use water efficiently and effectively and not see the choice as either produce or 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.
645	4	I eat fish, including salmon, which is a natural sustainable food source, with significant economic value. But to have salmon, we need to protect the ecosystem in which it thrives.	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.
646	1	I listened to the presentation here and I had a number of things that I felt that just were not adequately addressed by the staff members. There was an uncertainty by the staff regarding the effectiveness of this Plan to make sure that the fishes actually do double. My irrigation district says that they have a better management plan. That's the Turlock Irrigation District. They say from their experience and so forth, that there should be timed releases and that they know the way that it should be released.	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.
646	2	<p>I'm going to jump now to the use of water at the farm level, which I didn't hear anybody really talking about. For one thing, the use of wells is a non-starter, because that's going to deplete a limited amount of water that we have in the ground and compresses the aquifers and they can't be used any longer. Percolation back to the groundwater--that just doesn't happen, because nowadays the farmers are being told use less water. And so we have methods of using less water, which do not include enough water to percolate back into the groundwater.</p> <p>Surface runoff, that isn't happening either. We're already being told water will not leave our farms. So I guess what you're talking about is the water that runs on by in the canal. But that water is going to be reduced as the farmers get very experienced at figuring out just how much water they're going to have to grab in order to manage their water resources.</p>	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.
646	3	<p>I don't think there was an understanding of the farm business. And that when we grow crops, we need a specific quantity of water. We need those three acre-feet to grow our crops. And we're already not getting three acre-feet all the time and so we have to make do with less, which means we have to fallow fields. And I'm already scrambling around to figure out how to grow crops on my farm and finding out that if your guys are going to take more water, flush it down the stream, that's going to affect me. I'm not going to have as much water.</p> <p>There's not going to be any fallowing of fields any longer, because they can't make money fallowing those fields. You can't make money on 10 acres when you've got 100 that you've got to pay your taxes on. So you're not going to be paying your taxes. You're not going to be making money. You're not going to be paying the banks. You're not going to be doing the obligations in the community. And so those people who rely upon you, they're going to go out of business. So the big impact, really, is the economic impact to the farmers, which has</p>	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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		not been adequately addressed by the Plan.	
647	1	Contra Costa County supports the State Board's proposal to restore river flows in the San Joaquin Valley to protect fish and wildlife and the idea of setting minimum flow requirements based on a percentage of unimpaired flow. We appreciate all the hard work that you have all put in to get us to this point. However, we do oppose the Board's proposal to degrade rather than improve water quality in the south Delta by relaxing the April through August Irrigation Water Quality Standard.	Please see Master Response 1.1 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 1.1, General Comments, for responses to comments in general support of the plan amendments, a specific percent of unimpaired flow, or an LSJR alternative. Please see Master Response 1.1 regarding responses to general opposition to the plan amendments or the SDWQ alternatives. Please see Master Response 3.3, Southern Delta Water Quality, regarding the water quality of the southern Delta and amending the salinity objectives in the plan amendments.
647	2	<p>One concern we have is that you're only proposing to increase the flows on three of the four tributaries. Unfortunately the most heavily impacted stream in the San Joaquin River is the upper San Joaquin, below Friant. And it was a salmon-bearing river before Friant Dam. It contributes about 30 percent on average, of the total unimpaired flow for the San Joaquin River.</p> <p>So if you end up, for instance, setting a 40 percent of unimpaired flow requirement on the three tributaries, that's only a 70 percent contribution from the whole watershed. So 70 percent of 40 percent means that at Vernalis you're only going to get 28 percent of total unimpaired flow for San Joaquin, which is way less than what you had proposed in 2010, which was 60 percent. So you are missing out a key component of that.</p>	Please see Master Response 1.1, General Comments, regarding a general discussion of the watersheds considered. Please see Master Response 2.1, Amendments to the Water Quality Control Plan, regarding the upper San Joaquin River and its relationship to the plan amendments.
647	3	<p>The Ninth Circuit Court of Appeals did confirm that the Fish and Game Code Section 5937 does apply to the San Joaquin, below Friant. That led to a settlement agreement, which you appear to be relying on to provide some flows for the system. However, up until now we have had basically no real flow improvements as a result of that restoration. And unfortunately with a new federal administration it could be stopped altogether. So that's something that you're going to be missing when you do this restoration.</p> <p>Another part of this is that the past State Board's -- previous Board's failure to require compliance with the Fish and Game Code when Friant was built is another problem, because in the future you're likely be required to make a decision on Temperance Flat Reservoir, which is upstream of there. So failure to set flow objectives at this point could result in the State Board doubling down on the mistakes of the past.</p>	The comment incorrectly states that flows from the San Joaquin River Restoration Program (SJRRP) were relied on in the SED analysis. The CALSIM water balance used for modeling purposes in the SED does not include SJRRP restoration flows in the baseline or LSJR alternatives, because these were not considered part of the "existing environment" at the time of the 2009 NOP. More information is available in Master Response 2.5, Baseline and No Project. The upper San Joaquin River is outside the plan area. Flow changes associated with the SJRRP or potential future dam construction on the upper San Joaquin River were not evaluated in the analysis.
647	4	With respect to degradation of the south Delta water quality standard, just because you're increasing flows February through June doesn't mean that you will end up with improved water quality in July or August, for example, or September. And if you really do believe that those increased flows are going to improve water quality then there is really no need to relax that standard.	Please see Master Response 3.3, Southern Delta Water Quality, for responses to comments regarding why the southern Delta Salinity objectives are being updated.
648	1	I'm hearing about millions of dollars being spent to flush at least 50 percent of our water into the ocean for fish. And I don't think it's all about fish. I don't think anybody in this room are for dirty water or dirty air, fish suffering, animals suffering. But I recently learned that the allotment of water that's been granted for this next year, 2017, has been increased to 20 percent, which is half again as much as it was projected to be, which was about 10 percent from what I heard.	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.
648	2	25 percent plus the farmers were losing and ripping up crops and fallowing land and tearing out trees and these brittle trees in piles, it's because they didn't have enough water to keep them alive. And so they're losing their land. The ranchers are losing their property. Animals	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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		are suffering. People are suffering. Jobs are suffering. And dairies are going under.	
648	3	<p>This may be the intended consequences of all of this in keeping with Agenda 21 and upcoming Agenda 2030. And I'm sure you all are lovely people, have families who love you, and people who care about you. And I'm sure not everyone in this body of bureaucrats is this way, but it's difficult for me to view people who craft this scheme as soulless individuals. I think of it that way. And to sit here and look into the faces of these people, that are being detrimentally affected by this and decry the intended and unfortunately consequences and the animal and human suffering by the actions that are being taken, and I see it as criminal.</p> <p>With all the respect that I can muster, who does everybody think they are to have the right to tell those with water rights how much of their water they can have. You've all, I'm sure remember that you work for us. We pay you. Your salaries, your pensions, your perks that we don't even have ourselves. Some people are struggling to have what they do have.</p> <p>And our water is not the state's water. We have the water rights, not the state. And certainly not the EPA or a small body of unelected bureaucrats. This is the way the Control Board with the emphasis on control is humorous to me. This is why the state wants agreements from people. And water districts shouldn't have accepted the premise in the beginning that they should come up with agreements and settlements. And I think they should stop bargaining and start getting down to business and fighting this. And use their consumers' resources to take back our water and not give one more drop.</p>	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.
649	1	One thing that might be missing is an analysis of the economic benefits of restoring these flows. I can tell you, we expect to see more salmon in the ocean. And it will absolutely be economic benefits accrued to the salmon fishery and to the communities both on the Coast and in inland waterways who benefit from 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.
649	2	The Golden Gate Salmon Association supports the proposal, I would say with the caveats that were presented by the NRDC TBI Panel. It can be strengthened, but I think you're moving in a really good direction.	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.
649	3	The state recognized the groundwater was way over-drafted when it passed the Sustainable Groundwater Management Act. And I think what you're doing here today is a recognition that we have over-allocated our surface waters. And I actually don't envy the mess that you Board members have inherited. It's something of a thankless task, but I want to tell you that if we get some more water and some more salmon, coastal communities and inland salmon communities will be very thankful to you.	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.
649	4	We've had two bad salmon seasons in the last couple of years. We're living on hatchery fish right now. The wild fish basically are not reproducing in the drought conditions. We need more water, obviously. There's not much you can do about drought, but we're in a period of sustained, chronic, man-made drought, as far as salmon are concerned, because over-diversions of the waters, which they need.	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.
649	5	There's been a lot of talk about flow. I just want to translate that into simple language. And that is baby salmon, when they're three inches long, they need fast murky water to safely get downstream to the Delta and out to the Bay. They need to move fast. And the murkiness, the turbidity, hides them from predators. You'll hear a lot of our friends and neighbors from upstream talk about it's really a predation problem. It really isn't. There've	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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		<p>always been predators up there. And when you take away the natural tools salmon have evolved with to avoid predators, it may appear that we have a predation problem. But it's really a flow problem.</p>	
649	6	<p>I want to echo a comment that was made earlier about Fish and Game Code 5937, which requires that fish downstream of dams be maintained in good condition. I don't know anybody who's been in this meeting all day today, who would argue that our fish have been maintained in good condition downstream of the dams in this state. This goes not only for the San Joaquin Valley, but also for the Sacramento.</p> <p>How we got into this situation, how all these water diversions were permitted, in violation of 5937? Maybe history will sort that one out. It's landed on your desk and we hope that you're able to move forward and address it.</p>	<p>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.</p>
650	1	<p>The fact that we're building a tunnel for billions of dollars is not going to bring one more drop of rain or one flake of snow. And what we're trying to do here today is talk about how we divide what water there is and what runoff there is. And there just isn't going to be any more and possibly less. So dividing it and figuring out how you can conserve and divide it best is important. But what we need, of course, is more water.</p>	<p>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.</p>
650	2	<p>I used to fly down to L.A. all the time from San Francisco. And in the winter, I'd fly over arroyos that were dry in the summer. They were as wide as this room and sometimes wider and they were gushing with water that was running out to the ocean. It was seasonal rains. And I think we need to conserve those waters that are now gushing out to the ocean.</p> <p>We can spend billions on a tunnel; it isn't going to create any more water. If we spend a few of those billions catching this runoff—and I'm not talking about blocking running streams, I'm talking about catching wasted runoff that goes into the ocean—that runoff, which is in the southern part of the state and central part of the state isn't going to help people up in the San Joaquin Valley perhaps. But it would reduce the amount of water that they need in the southern part of the state and the central part of the state, which would mean of course mean that there was more for up here and more for the fish. So we hope that you'll consider catching water and conserving water and making more water, not just dividing up the water that we've got.</p>	<p>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.</p>
651	1	<p>MS. RADABAUGH: The dairy industry is shrinking. And I think that economically, we could take every single discussion point that we've heard today as it applies to several other industries, and apply it to the dairy industry. Since 2005, we have lost over 50 percent of the dairies in California. We were at over 2,500. As of this year, we are under 1,400. Between January and July of this year we've lost 53 dairies, according to CDFA data.</p> <p>But specifically, I wanted to point out some of the general nature of our commodities and the dual purposes that a lot of biomass serves to the dairy industry. So we use approximately 3.5 billion pounds of almond hulls. That is a byproduct that otherwise would not have any home except to be burned as biomass. So the dairy industry has moved its green footprint, or green hoofprint, as people like to say, in a direction that we are very proud of.</p> <p>Another thing that as it relates to this proposal, we do receive tens of millions of dollars in grants towards better and sustainable water efficiency technology. And again, we have been progressively moving in that direction. So we are very cognizant of what reduced flows</p>	<p>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.</p>

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		<p>would do, specifically to the Central Valley. And the possibility that our forages, which are a major feed stock for our cows, would be impacted is a very real threat to us. And I am prepared to give you quite a few more economics backing that up.</p> <p>But we use a tremendous amount of forage commodities to balance our cow's diets, depending on the end product, whether its cheese or yoghurt or ice creams they are fed differently. And so we tend to rely very much on what I believe staff has indicated is a lower value commodity. The grains, the corns, the silages, the alfalfas. Those are a huge staple for our cows.</p> <p>And respectfully, my membership is very alarmed by the proposal. We have been following it for many years. This is a rural cry for social justice, from most of my dairy communities that feel that they have been under-prioritized on a variety of different levels. So we are looking forward to offering solutions as part of our economic proposal that will hopefully help the Board arrive at a more definitive conclusion that's better for one of what we call the keystone commodities in the Valley.</p> <p>MS. D'ADAMO: I just think that this is a really important issue. And not to take up time now, but just to get whether its staff and then also your industry to give us a sense of what a dairy will do with their forage crops if there's an assumption that they will sell the water to the highest bidder, when they're going to end up with a loss of feed for their dairy. So some way to make that real in terms of what's the acreage out there that is owned or under control by these dairies as opposed to purchasing it from other growers that are in the area. And I have no sense of what that would be, but if you could help to shed some light on it I think it would be helpful.</p> <p>MS. RADABAUGH: At this time or later?</p> <p>MS. D'ADAMO: Oh, later. In Merced or Modesto or wherever you plan on doing your presentation.</p> <p>MS. RADABAUGH: I am so happy to do that. I certainly can tell you right now that we cannot afford to buy it. That's what makes dairy a kind of a boutique community and a boutique industry is that we are very self-sustaining. And so if we don't have access to the water to our forage crops, the cows will just be sold.</p>	
652	1	<p>I own the charter boat "Soul Man," out of a little harbor called Fisherman's Wharf in San Francisco. And I'm in support of the Plan. In short, I've heard the pain. I've seen the pain. I've seen the pain of the fishermen. For much of the testimony of what could come to farmers, that has been the reality of the commercial fishermen on the Coast. This year with shortened crab season, no crab seasons, no salmon seasons, bad salmon seasons we've had people literally sell their boats, lose their houses and there's been food lines to help the fishermen in places like Bodega Bay.</p> <p>Growing up in San Francisco we had probably a little over 30 charter boats. Now, right now we have seven of the big boats and we have six of the smaller six-pack boats like I own. In my own lifetime, I've seen what the change is of salinity in the Bay. We used to fish a place called California City, along the Tiburon Coastline. And it was to change of fresh water to salt water where we could catch spawning salmon. And guys that had the smaller boats could go out and actually get a chance of catching a very large fish. It doesn't happen there anymore. That change now is up in Benicia. That's how far up it's gone. I have friends that have told</p>	<p>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.</p>

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		<p>me they've caught Leopard sharks as us as Benicia. It's not where they're supposed to be.</p> <p>The guys that would fish shrimp, for the Bay shrimp for us, and get the grass shrimp we're down to about two boats now, from down to seven and eight. And it's harder and harder them. I've seen the pain of how much people are no longer getting because of salmon. And we need the river flows in order to keep things going.</p> <p>I can't tell you when I get up in the morning my one-little person operation, it supports the toll taker, the Starbucks guy, the people from the hotels that affect us. I'd imagine this whole process is supporting a ton of litigation and lawyers. So there's a lot of jobs around these salmon.</p>	
653	1	<p>I know it doesn't seem like an opportunity, but if we increase it to 50-60 percent we're going to really see something big, with the salmon. But if we do 30-40, you know 40-50, everybody must be like kind of upset, because the farmers aren't going to get what they're wanting. The salmon aren't going to really be growing. So I think that this is a time that we just go for it and give -- and say, "Let's just try it."</p> <p>And let's just work with the farmers. Let's have everybody work together and try to figure out innovative ways to bring water and help farmers grow, but -- and I think that's the opportunity now, because if we just do 40 I don't think it's going to please anybody that much. So I just want to say thank you very much and I appreciate everything you guys have been listening and doing.</p>	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.
654	1	<p>So anyway to my comments, first I'd like to say it's really an honor to be speaking to you guys. The process you've laid out here is wonderful. I thought the 2010 report that you did was just a great foundation and I really appreciate the science orientation. I've had several people say to me that the proposal you have out in front of us today has a bunch of innovative ideas, which is just outstanding. So thank you for all of that.</p>	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.
654	2	<p>I will say in my opinion in reading the 2010 report and reading the Executive Summary and trying to make sense of it all, it does seem like we'll have a hard time achieving our fish population growth with the alternative three that you guys are recommending. So I would sort of ask you to look at that.</p> <p>My main points however, are the first one is it seems to me that California people as a whole -- and we've certainly heard exceptions -- have said, "We want to protect our fish." And it's hugely important to protect our fish. And I think we've seen that through voting. We've seen that through legislation. And we've seen that from remarkable investments. And we've seen that through -- oh they've left -- just incredible scientific analyses. So I think that's something where I think you guys have a responsibility to help us protect our fish. And so please make decisions that meet that will of the people. That's my first main point.</p>	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.
654	3	<p>My second main point is if we're going to improve the flow for fishes let's make sure we get it right. You know and right now my brother, and actually most all my family, they have rain barrels to collect water, they take Navy showers, they have a bucket to catch the water before it gets hot in the shower. You know, we're all doing these things. If we set an objective that we think might do it, but turns out not to be, then several years from now, we'll be sitting or standing right here having the same discussion about further</p>	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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		<p>improving our water flow, so that we get the salmon to survive.</p> <p>So let's get it right now. And let everyone figure out now what we have to do and what the innovations are that we need now. So really my second and last point is let's get this right this time. And let's take this as a key foundational piece that we can build so many things other things on.</p>	
655	1	<p>I am here today to share my concerns about the devastation the Delta SED Plan will have on recreational trout fishing throughout California. During the 48 years the Calaveras Trout Farm has been in operation we have had to shut down only once as a result of the severe drought prolonged. We had to temporarily close down our operation from April 15th to October 2016 for a total of 18 months. The cause of this closure was the warm water that flowed from Lake McClure when it fell to a historic low of 6 percent. This in turn caused the Merced River, near Snelling to experience high-water temperatures. Trout, which are members of the Salmonidae family, is a coldwater fish and can't survive at high water temperatures.</p> <p>I can tell you from experience that MID's water operation on the Merced River is advantageous of androgynous fish and water temperatures. My December Water Division provides adequate cold water for androgynous fish to survive and thrive like trout that the Calaveras Trout Farm has for 47 out of 48 years. I'm</p> <p>concerned that if the state even takes 30 percent of the water from Lake McClure, that is going to create drought conditions annually.</p> <p>If this is the case, it will put Calaveras Trout Farm out of business permanently. During our recent closure many of our customers had to either shut down or pay extremely high prices for fish purchased out of the state. They were paying seven dollars a pound and could only purchase trout if they bought 7,000 pounds. Many of our customers were priced out and simply couldn't afford it.</p>	<p>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.</p>
656	1	<p>I want to applaud you for this effort. The Institute for Fisheries Resources support the 60 percent scientifically proven or not proven, but scientifically-based proposal. We do not support the lowering of the salt standards. A lot of -- as you guys know millions of people depend on the fish from the -- I mean the water from the San Joaquin River for clean drinking water. And I think we need to do whatever we can to protect that water. And that includes keeping salinity standards and making sure that there is clean water for people to drink.</p>	<p>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.</p>
656	2	<p>I also wanted to say I encourage you to work as much as possible with local communities, state agencies and federal agencies to use TMDLs, the State ESA and the Federal ESA to create habitat while you are also putting water in the rivers.</p>	<p>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.</p>
656	3	<p>I also wanted to say that when you are working on your final documents to please include in your economic analysis, the fact the fishing industry was really strong before any of the State Water Project went in. And the economic analysis right now like looks of</p> <p>the '80s and areas before -- after the project went in. And I think a restored fishery that's actually restored to the high levels as possible could bring a lot of industry to the state and could really help us rebound our economy. So other than that, I had a lot to say about water</p>	<p>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.</p>

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		quality standards.	
656	4	<p>Oh, another thing is with the salinity, that's not just salt that we're talking about.</p> <p>There's selenium, there's pesticides, and there's all kinds of different chemicals. And we want to make sure that the 60 percent water in the river is actually clean water, not salt waste, not agricultural tail returns, but actually clean cold water for the fish to use.</p>	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.
656	5	<p>Looking at the future is a guy like this. I grew up in big cities moving around all the time, Army brat. I never saw salmon in my life until I was an adult and my boy has a chance now to grow up with salmon. So please think of the interests of everyone including the rural people north of here.</p>	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.
657	1	<p>Our district (East Merced RCD) is dependent upon water from the Merced River. This water irrigates the crops of our large agricultural economy, recharges our groundwater aquifer and provides water for our communities. It is our only source of water. We are not connected with the Central Valley Project. We are not connected with the State Water Project. Once diverted, our water cannot be replenished and will result in a shrinking of our agricultural economy, a loss of jobs, declining revenue for schools and social services, and an unsustainable groundwater overdraft. Taking a holistic approach to natural resource management requires assessing the social and economic impact of water diversions from the Merced River on the nearby communities.</p>	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.
657	2	<p>Our district (East Merced RCD) is in the process of obtaining a programmatic permit for ecosystem restoration along the entire 55-mile reach of the lower Merced River. This permit will allow us to remove invasive plants, create riparian buffer zones to reduce nutrient loads and pollution, and also perform river cleanup projects. These actions will greatly improve habitat for salmon and ecosystem health. Although important, water flows are only one element to consider in creating an ecosystem suitable for salmon. A holistic approach requires that ecosystem complexities be understood and efforts be made to address each factor that contributes to a healthy ecosystem.</p>	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.
657	3	<p>Our district (East Merced RCD) supports the Merced Irrigation District Safe River Plan. This plan will create and maintain a balance between local human needs and a healthy salmon fishery. This plan is holistic and balances the water resources needs of agriculture, communities and the environment and will create a sustainable salmon fishery. We recommend that the Board revise its SED issued in September and adopt a more holistic plan similar to that proposed by the Merced Irrigation District.</p>	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.
658	1	<p>The District has concerns in regards to the SED factually, procedurally, legally and technically, not to mention feasibility and acceptability. So when the benefit is no more than 1,000 to 1,100 fish even with the 50 percent unimpaired flows, according to Table 1932 in trade and in exchange for over 300,000 acre-feet and 1,000 jobs out of Merced County alone.</p> <p>MID is Eastern Merced County's major surface water provider and groundwater recharger. Reducing our surface water reliability will cripple water supply and drinking groundwater quality for tens of thousands of people in the cities and the urban areas. Your economic impact analysis limitation to Merced ID boundaries underscores by 300 to 500 percent for the true regional economic impacts.</p>	Please see Master Response 1.1, General Comments, regarding general responses to economic-related comments, including those attempting to compare costs and benefits across resources or economic sectors. Please see Master Response 8.0, Economic Analyses Framework and Assessment Tools, regarding the regulatory context of the economic analysis, reasonable assumptions, and spatial and temporal considerations. Please refer to Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, for a discussion of the boundaries and acres used in the local agricultural economic analysis. Please see Master Response 8.4, Non-Agricultural Economic Considerations, for a discussion of ecosystem services and benefits expected from the plan amendments. Please refer to Master Response 3.1, Fish Protection, for information regarding the limitations of SalSim.

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658	2	<p>Our analysis shows that if the SED is implemented as is, the Merced River will actually lose overall salmon habitat. Salmon abundance in the San Joaquin River system is overwhelmingly influenced by one major factor, the successful operation of the Merced River Salmon Hatchery. The revisions made by the State Board staff over the last couple of years are unfortunately confusing. And make it difficult for us to even decipher what the project is and what the adaptive management means.</p>	<p>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.</p>
658	3	<p>The SED does not provide enough information to consider how we could manage what remaining water supply you contemplate leaving us with. Too many unknowns and gaps in the SED. The unimpaired flow concept, while maybe simple at the surface, it is actually not and will lead to waste of water. The 2016 SED already started shifting water and move-in compliance points leading to potentially over 100 percent of unimpaired flows releases in certain months, especially in February and June. And the list goes on.</p>	<p>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 In addition, please see Master Response 1.1., General Comments, for information regarding the definition of unimpaired flow and the volume of water to remain in the river as a result of the unimpaired flow requirement. Please see Master Response 3.2, Surface Water Analyses and Modeling, regarding the results of modeling the LSJR alternatives evaluated in the SED, which include the volume of water remaining for diversions.</p>
658	4	<p>We [Modesto Irrigation District] implore the Board to move away from the unimpaired flows concept and work with the districts on a comprehensive approach with meaningful measures that are defined and will succeed. The current SED backs Merced ID into a corner, leaving us no recourse but to seek legal remedies. Meanwhile we are losing time and meaningful benefits to the Merced River and salmon.</p>	<p>Please see Master Response 1.1, General Comments, regarding collaboration between the State Water Board and interested parties and the support of voluntary agreements by the State Water Board.</p>
658	5	<p>The escapement returns of fall Schnook salmon this year, at the Merced River Salmon Hatchery have exceeded all records. So basically we have surpassed all the records of returned salmon to the hatchery since its construction, so do we really have a salmon problem on the Merced River? Or as we suggest, from science and history, salmon populations are cyclic. This recent development alone gives us all reason to pause and reevaluate the SED approach.</p>	<p>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.</p>
659	1	<p>Our district was formed when the dam was built at New Exchequer with the thought that the area was going to grow and the foothills were going to blossom and there was going to be adequate water supply now to serve these communities into the future. Unfortunately, the Sierra Nevada has been the source of supply for everybody else's needs, including their own. And is now something that is in focus in this document and will be for decades [to] come. The District does provide water supply to a population of approximately 3,500 in the Lake Don Pedro area. If you ever look on Google Earth we are between Lake Don Pedro and Lake McClure. And we are separated by a couple hundred feet from those big bodies of water and we almost ran out of water this last year.</p> <p>And I know that I've heard it come out of the mouths of the State Board members after the driest January on record last year, on February 1st we calculated 52 days of water supply left. And we planned intensely to try to get water supply to the community. And that involves trucking in, bringing tanks. Doing that for 3,200 people, 3,500 people is really a difficult thing at \$1.2 million a month and an annual budget of \$1.2 million.</p> <p>The main thing that I want to urge the Board today is to be very aware that the fact that it's not just as simple as going out and drilling a new well to serve your community's needs, or deepening an existing well. We can drill 1,000 feet deep and we're going to still be in rock. Or we can drill 15 pilot holes, a needle in a haystack, and still be in rock without any water supply.</p> <p>We were lucky enough to get state grants to help us develop a certain amount of groundwater supply in that 52 days. And we had a February 9th storm that helped us out</p>	<p>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.</p>

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		<p>and got us through the year. And that's something that's very important for this document to consider is the fact that the groundwater supply in the rural communities, in the Sierra Nevada foothills, is not going to sustain a replacement of the surface water supply.</p> <p>And with the increased flows, we're going to be out of water a significant portion of the time.</p>	
660	1	<p>I am concerned about my recent observations in the East Bay with the charter boat fleet and the landings that support these charter boats. In recent years the effects of the drought and proper water flows to the Bay and Delta are critical to recovery of our way of life. The reasons for my concern are during two salmon seasons, 2015 and 2016, these East Bay landings have lost four Coast Guard-inspected vessels, four out of ten that existed in the East Bay. These are real numbers. I'm not fabricating any of it.</p> <p>The East Bay salmon fishing fleet has been reduced from ten to six. In real numbers, that's a 40 percent reduction in carrying capacity of passenger-carrying vessels. During the course of the 2016 salmon season, one of the East Bay landings stopped booking salmon trips altogether, because of lack of interest. That's almost criminal. And it's very important that a decision by this Board redirect the course of the salmon fishing future.</p>	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.
661	1	<p>We really support the non-flow action alternatives, because we believe that the multi-benefits that those projects can bring is really a great path forward. From the state's perspective or the Water Board's perspective, you can help meet your potential groundwater enhancement goals through related to SGMA. You get improved water quality benefits. You also get habitat protection and restoration, meet those types of goals.</p> <p>From a landowner and local community perspective, they can get low-cost stream bank protection, flood protection and flood control, which is more important now than ever, due to climate change and more intense storms, and also erosion control. Not to mention restoration projects bring in a lot of money and good jobs to the local economy and a lot of that's going to be coming down the pipe.</p>	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.
661	2	<p>We really support the use of programmatic or simplified permitting to try to get those non-flow projects approved in a way that's efficient and effective without compromising any environmental protections. Specifically, if you can use--the Water Board has a Small Habitat Restoration 401 General Order for voluntary restoration projects. If that can be adapted to be used for some of these non-flow action projects, that will help get projects through quicker. In addition, consider looking at creating a 401 certification for larger habitat restoration projects. Because with Prop 1 and other new sources of funding, you're going to have a bigger permitting burden. In addition, we want to encourage you to have other agencies look to programmatic to get these projects approved.</p> <p>And then, finally my last point is to get projects done there's a lot of technical expertise and know-how needed. A lot of landowners and farmers may not have that available. So as much as the Water Board can do, to help support the implementation of these restoration projects either through identifying funding sources or creating new funding, and identifying sort of a shepherd to get these projects through the permitting and planning process will help get the projects done.</p>	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.
662	1	Merced was particularly hit hard in the recession in 2008-2009. You may remember we made national headlines many times for being one of the top foreclosure areas. That has	Please see Master Response 1.1, General Comments, for responses to comments that either make a general

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		<p>lasted really until very, very recently. We are just now starting to economically come out of the recession. Many of the coastal regions were very early and quick to come out whereas the inland areas, specifically Merced, lagged behind for a very, very long time.</p> <p>We're the happy recipient of UC Merced and that's been a tremendous boom. But for us the loss of these water resources could be the next recession, essentially for us. We're already a very economically disadvantaged area. There's been several people that have talked about that. You've heard testimony to that effect. And that's what we're fearing is that not so much that something's spurred on by bad home loans, but something that's regulatory created here locally at the state level. And we don't want to see that happen.</p> <p>A balanced approach I think is important. We've heard a lot of testimony today. Today's been very informative. Even the NRDC stated how important it is that habitat be part of the Plan. And as your staff aid at the Merced presentation unfortunately non-flow improvements are not necessarily under the state water resources toolkit. You can't mandate certain changes. You mainly have flow at your control.</p>	<p>comment on the plan amendments or do not raise significant environmental issues.</p>
662	2	<p>The Merced River Safe Plan that has been put together by MID has a lot of habitat addressed in it and a lot of other very balanced approaches to how to meet our goal.</p>	<p>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.</p>
662	3	<p>being a business owner and being in business everything we do is some kind of cost/benefit analysis. Unfortunately, I mean generating hopefully another 1,100 fish at a tremendous economic loss to our area, the cost/benefit there doesn't really seem to make sense to me.</p>	<p>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.</p>
663	1	<p>Merced is a community of roughly around 100,000 people or close there. And we are home to the UC Merced campus. We are one of three cities in the SED most impacted areas along with six other communities, along with six other smaller communities within the footprint of the MID Irrigation District. And we share a portion of the state groundwater basin. These urban communities like ours, rely solely upon groundwater, 100 percent of groundwater.</p> <p>The City of Merced opposes the SED for a number of reasons.</p> <p>First, the City along with 13 other water purveyors, which include both Merced Irrigation District, the County of Merced, have been coordinating to best understand the groundwater resource since 1997. The City, as mentioned, is within the Merced Irrigation Boundary. And as such, we are joining forces with SGMA, with Merced County, and the Merced Irrigation District to form a single sustainable agency and follow a single groundwater sustainability plan by 2020.</p> <p>The City has been following with great interest and concern, the development of the Bay-Delta Plan SED in 2012 and the current version, as it will cause the largest impact on the City and its inhabitants since the construction of Lake Yosemite, in 1887, the first drinking water source for the City of Merced. With the only difference being the SED carries an equivalent but negative impact.</p> <p>Until the SED is implemented, Merced ID irrigation has been sustainable from a groundwater perspective. However, the basin groundwater levels continue to drop due to high groundwater extractions outside the Merced Irrigation boundary and adjacent basins. The Merced Groundwater Basin is a high priority basin as we know, as is critically over-drafting.</p>	<p>The State Board Water appreciates the efforts that the City and its partners have made to comply with SGMA. The State Water Board also recognizes the negative consequences of groundwater overdraft. The need to address these negative consequences is why the legislature passed SGMA in 2014. However, the State Water Board also has a legal mandate to reasonably protect fish and wildlife beneficial uses, which it is proposing to do with the plan amendments.</p> <p>The State Water Board acknowledges that it will be challenging, but SGMA compliance cannot occur at the expense of reasonably protecting surface water beneficial uses—both surface water and groundwater resources must be protected. Comprehensively addressing both resources allows for integrated planning 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. It is worth noting that SGMA does not allow one subbasin to attain sustainability at the expense of an adjoining subbasin (Cal., Code Regs., div. 2, § 350.4, subdv. f).</p> <p>For further discussion on groundwater overdraft as a legacy issue, and SGMA compliance in the context of plan amendments, please see Master Response 3.4, Groundwater Resources and the Sustainable Groundwater Management Act.</p> <p>Please see Master Response 3.6, Service Providers, for response to comments related to why the LSJR flow objectives would not jeopardize municipal water supply.</p>

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		<p>Due to a small area of subsidence in the southwest corner of the basin, the basin continually loses groundwater to adjacent basins. This current un-volunteered migration of water under the active role of the devestro winds (phonetic) may continue even at lower rates until 2040, if not beyond. The SED is expected to be implemented by 2022. However with this combination of events, the only sustainable area in the basin will be immediately deprived of water when outlying ground pumping areas are offered 20 years to adjust.</p>	
663	2	<p>The Technical Board met a few weeks ago in Modesto and we asked what are the impacts to the regions like ours? And they said it was very problematic and speculative. I just want to add that in Merced, those impacts will not only be problematic and speculative, they will be real impacts to communities like ours, which are disadvantaged communities. And so we implore you to relook at the SED.</p>	<p>Reduction in surface water diversions would result in response to the implementation of the proposed flow objectives, and that could in turn result in water supply reduction to some agencies. However, the extent to which agencies would be affected is a function of their ability to use existing alternative supplies (e.g., groundwater, and the specific contract agreement that they have with relevant irrigation districts) or to develop alternative water supplies.</p> <p>The State Water Board recognizes the value and importance of safe and reliable water supply. As set forth in the Program of Implementation (described in Appendix K, Revised Water Quality Control Plan), the State Water Board will “take actions as necessary to ensure that implementation of the LSJR flow objectives does not impact supplies of water for minimum health and safety needs...”. For further discussion regarding consideration of disadvantage communities and the resources available to assist them as regards their water supply, please refer to Master Response 2.7, Disadvantaged Communities.</p>
664	1	<p>The Delta problem is so complex and so divisive it seemed almost undoable. I want to thank this Board tremendously for moving on this water reallocation scheme. I think you've got to remember that this Board has recognized more claims to water than there is water in the whole system. And that is one of the problems that we're dealing with. And it's not just on the multiple of twice as much water rights as there is water. It's five to eight times, those are hard. I mean who has real rights? That's the incredible political problem.</p>	<p>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.</p>
664	2	<p>We've got a tremendous problem as our planet changes, to move towards sustainability. And there's a lot of adaptations that we're all going to have to make. And what we saw today, it really isn't a matter of farmers against fish, or even a broader conception of people balanced against the environment. We've got to change the way we do stuff and how we share the fruits of our work.</p> <p>And then there's law. And the Public Trust Alliance really depends on the idea that the public trust is there, even though there seems to have been a treaty amongst advocates and Board members not to even mention the words "public trust." That is there and it was not totally ushered out of the picture by adopting a picture of co-equal goals. That doesn't do it. And I'm really, really enthusiastic in feeling much better about things, because of the care that the Board staff put into showing their work as to how they were moving towards management compromises on public water.</p>	<p>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.</p>
665	1	<p>We need to start thinking differently. We hear it a lot and we're even guilty of saying it in the past. The Delta is not declining; it's evolving. And we really need to recognize that going forward. We've got some fish species that are clearly declining. But the Delta is evolving and we're not going to solve it unless we recognize that.</p>	<p>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.</p>
665	2	<p>Two numbers always jump out for me when we have these discussions. And the first one is that 95 percent of the native habitat in the Delta has been lost. And the second one is that 95 percent of the biomass in the Delta is not native. There's plenty of fish and fauna. It's just no longer native. And we need to really recognize those two things as we move forward.</p>	<p>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.</p>

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		<p>And it points us, I think to my second point, which is a big point which is water alone is not going to solve this. And I know you know that. And we really need to focus on some of these other actions to address some of these other stressors. They're all human caused, whether its diversions or exports, toxic pollutants, climate change, storm water discharges, and invasive species. They're all the result of human behavior that's causing this evolution.</p> <p>We're going to have to begin to address some of those other stressors...habitat restoration. You've heard a lot of discussion about that. There seems to be a lot of support from everybody about habitat restoration. You can't lose 95 percent and not address the issue without restoring some of that.</p>	
665	3	<p>We need to begin to address predation. It's not a new issue. It's been at least five years since Fish and Wildlife said we're not going to recover salmon unless we address predation. And I'm not harping on you, but I will harp a little bit on your counterparts over at Fish and Wildlife and Fish and Game. They've got to quit dragging their feet on predation. They are doing a few things finally, but they for the most part have drug their feet on this issue. It's a simple issue. It's not a complicated one. It's made more complicated by the fact that the Delta is complicated. But we've got a lot of predators that are eating a lot of the fish we're trying to save.</p> <p>And the Plan gives very little time to the issue of predation. We're going to need to give it more time and discussion. I think it becomes part of those voluntary solutions.</p>	<p>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.</p>
666	1	<p>Ms D'Adamo: I wanted to follow up on just another component on the SalSim Model, and that has to do with June [see letter WQCP1.0644 ATT 1:ATT 1 to ATT 1:ATT 15]. And I had asked Dr. Sturrock to come back up, but we're running out of time. So I'm going to just paraphrase my conversation with her and with Dick Pool and that is not so sure about June. And so we'd really like to drill down a little bit more on the SalSim Model and what it is showing on the benefits of returning fish in June.</p> <p>Dr. Sturrock had some information in her PowerPoint that took it to May 30th and the numbers seemed to drop, but it didn't have anything there on June. So maybe you'll be following up with some supplemental information, but I would like to definitely get some information from staff on that.</p>	<p>The commenter references a letter and attachments in her comments. For the full context of the letter and attachments that are referenced and a complete response to those remarks, please refer to the index of commenters in Volume 3 to locate the material from the November 2016 public hearing, which will be identified by the person's name and is assigned a letter number.</p> <p>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.</p>
666	2	<p>Mr. Moore: With climate change December is the new January. We're going to get much more flashy peaky hydrology in December going forward and the 21st Century hydrology already shows that. So are these cues for the fry outmigration actually going to be earlier in the season? And does staff proposal allow enough flexibility for the working group to shape flows accordingly and will that be important with climate change?</p> <p>Dr. Sturrock: That's a very big question. I think we should look at that, is my quick answer. But I think someone was mentioning how kind of attraction flows are also getting later. So it might not be that they're ready to come out in December, so I think that that needs to be thought about with full flows as well. But we should talk about that.</p>	<p>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.</p>
667	1	<p>The intent of thinking here is that we're going to try and dispel the myth that this is farmers versus fish, because there are really people on the other end of the decision that you guys are really burdened with making. And we appreciate all the work that you and your staff are doing. We want to make sure that there is actually a face to what's going on, on the coastal</p>	<p>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. Chapter 20, Economic Analyses, Section 20.3.5, Effects on Fisheries and Associated Regional Economies, presents an evaluation of the economic effects concerning commercial and sport fisheries. The commenter's reference to the effects on the salmon fishing industry was generally consistent with the information presented in</p>

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		<p>side of this equation.</p> <p>You've got a panel of experts from different phases of the salmon fishery-dependent industry here. We've got commercial fisherman, charter boat captain, tackle manufacturer, wholesaler, direct consumer sales.</p> <p>Since the last time the Board looked at San Joaquin flows, in 1995, we've lost about 62 percent of salmon fishing vessels in this state. That's a huge infrastructure loss. That's a food security loss. These are sustainable fishery harvesters that we don't have in the state anymore. These guys can illustrate better than I can how that impacts them and how that impacts their families. But I hope that you really take the opportunity to let science guide you and do what's right to restore these fish.</p>	<p>Chapter 20 regarding the reduction(s) in salmon populations and the resulting crash(es) of the fishing industry. Please also see Master Response 8.4, Non-Agricultural Economic Considerations, regarding ecosystem services.</p>
667	2	<p>My wife and I together own and operate a 40-foot commercial salmon boat. And we also operate a fish cutting facility that's Health Department approved, where we take our fish that we catch and prepare it for our farmers' markets, where we then take the prepared fish and sell it to essentially our neighbors. And our entire neighborhood, who thinks that we're doing a fantastic service for them.</p> <p>And I'm not only representing myself and my own business, but I'm representing all these customers that buy our fish.</p>	<p>Please see the response to comment 667-1 regarding commercial and sport fishing and economic considerations.</p>
667	3	<p>I started fishing in the '90s and our fishing season went from the 1st of May until October 15th, which is five-and-a-half months. Then the old timers told me in the 80s we used to start fishing in April. So before I even started fishing our fleet lost about 20 percent of their annual income. Then over the years we started having closures in two weeks in June, two weeks in July, which then takes another 20 percent of our time off the water.</p> <p>On top of that, we have areas where we're then allowed to fish on the ocean and areas that are closed. And essentially what it -- if I would put it in farming terms, I'm not allowed to plow my best fields. And I've got to go over in the rocky patch somewhere there's not so much fish to be caught. Also, the closures happen during the times when traditionally most of our fish are being caught during the season.</p> <p>So since the '80s, our fishing fleet, our salmon fleet in California lost about 80 percent of boats. From 5,000 boats we're down to a little over 1,000 boats, which is very, very drastic. If you're trying to make a business out of this fishery, it gets a little bit harder every year.</p> <p>And when we started fishing, May, June, July, we would have a lot of days where we would go out there and catch 100 salmon in a day. And we were able to take those fish to a farmers' market and sell them to our customers for \$10 to \$15 a pound for fillets. And we would have a line. We would have 40 people standing in line all day long to buy some of this beautiful salmon that we caught.</p>	<p>Please see the response to comment 667-1 regarding commercial and sport fishing and economic considerations.</p>
667	4	<p>This last year, which was pretty much the worst salmon season I've ever actually participated in, my highest fishing day was 21 salmon. So now I'm burning more fuel. I'm spending more days at sea to catch less fish and we're having to sell that fish to our customers for a lot more money. We're selling it upward of \$30 a pound. And that takes a food that's supposed to be everybody's food, because that fish is a public trust resource. It belongs to everybody, right. And it takes that food and it turns it into a food for just the rich</p>	<p>Please see the response to comment 667-1 regarding commercial and sport fishing and economic considerations.</p>

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		<p>and famous, essentially. And that's a bad thing.</p> <p>You know, our industry in its prime is \$1.4 billion -- a billion dollars annually a year -- which kind of pales in comparison when you compare it to agriculture, which is over \$50 billion a year I believe, right? But you can really compare our fishery to rice, to tomatoes, in the economic value to our state.</p> <p>So all these restrictions that we've been seeing over the years that are getting worse and worse on our fleet not all of them, but a good amount of them is to protect spring-run salmon. The San Joaquin, traditionally was a very strong spring-run salmon producer. So when we get more spring-run salmon into the ocean, we have more access to our fall-run salmon, first of all. Also, it doesn't hurt if we produce another 100,000 fall-run salmon to actually be able to go out and catch a fish again, lower our price for all these good people that we're selling the fish to.</p>	
667	5	<p>I represent Golden Gate Fisherman's Association, who has the majority of the commercial passing fishing vessels in Northern and Central California, primarily fishing salmon. I'm also owner-operator of my own commercial passenger fishing vessel, The Salty Lady. And I'm Chairman of the Board of the Golden Gate Salmon Association Directors.</p> <p>70 years ago I got acquainted with the San Joaquin River salmon. That is when they turned the water off on the Friant Dam. And my uncle took me over to see it. And they let people, Fish and Game Department removed the regulations for catching, and they let people spear the salmon to take them home. And they were some of the most wonderful-sized salmon I ever saw. They were all like that. And the spring-run was a great run of fish.</p> <p>Talking to old time commercial people when I finally started salmon fishing in Monterey Bay, they just were really sad about what was going on with the spring-run salmon. Unfortunately, many of our salmon runs now are getting to the stage -- it isn't that the water's turned off, but they're not getting enough water.</p>	<p>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.</p>
667	6	<p>I've represented the Golden Gate Fisherman's Association as Director and President since 1968. In that period of time I've been involved in many of the regulatory issues, habitat issues and other issues that have caused many adverse conditions throughout the years. Now we have some of the worst issues that fish have ever encountered.</p> <p>Salmon are the heart of the recreational fishing business as well as the commercial fleet. Our clientele loves the salmon fishery and everybody knows the valuable healthy product it is for personal consumption and health. Our business is directly affected by seasons, catches and our fleet in many instances totally depends on the salmon fishery resource to provide for a successful season and business.</p> <p>In regards to my vessel, Salty Lady, and my business and the statement I just made on behalf of GGFA certainly applies to the participation of customers regarding salmon abundance, salmon catches and their decision on going fishing. I believe it applies to all of our membership. In most cases they are family businesses and dependence on their salmon fishery produces most of their livelihood. I urge an adequate flow of water for the needs of salmon in the San Joaquin system as recommended by salmon scientists.</p>	<p>Please see the response to comment 667-1 regarding commercial and sport fishing and economic considerations. Please also refer to Master Response 1.1, General Comments, for responses to comments that support the plan amendments.</p>
667	7	<p>A list of past industry losses, which in '08 and '09 amounted to 46 related business and there's many businesses that are on the brink of not continuing very much longer if the</p>	<p>Please see the response to comment 667-1 regarding commercial and sport fishing and economic</p>

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		<p>salmon resource doesn't come back.</p> <p>Also, I have one chart that I'll talk about very briefly in regards to the commercial and sport catch. And what I used was the year 2000 through '07 and then we had two years closed and then 2010 to 2015. The average harvest for a commercial fleet in the first period of years was 318,998 fish. The average harvest from '10 through '15 was 147,169 salmon. And the harvest for sport was 130,848. And in the next series of six years it was 51,087 fish.</p> <p>In talking to Cal Fish and Wildlife yesterday, they just have estimated numbers now and they haven't got the final numbers, because they still have tags coming in and logs from the sport boats. This year's catch for the commercial fleet was 55,300 and for the sport fleet 36,500. So this chart illustrates the serious situation that we have now.</p> <p>And we urge the Board to go ahead and provide some more water for our valuable resource and food.</p>	<p>considerations.</p>
667	8	<p>I am a member of the salmon industry. My business is Pro-Troll Fishing Products located in Concord, California. We manufacture recreational and commercial salmon gear and we sell it worldwide. Our sales currently, are roughly \$1 million a year. They used to be good in California. They're almost nil in California now</p>	<p>Please see the response to comment 667-1 regarding commercial and sport fishing and economic considerations.</p>
667	9	<p>I will refer to flows on both the San Joaquin and the Sacramento rivers. In some cases, the Sacramento is a better example. For the record, we strongly support the Board's increased flows. They can turn a lot of very bad circumstances around.</p>	<p>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.</p>
667	10	<p>This is a macro slide showing the overall export pumping between years 2000 and 2009. [See ATT:1, ATT:1] It also shows the number of salmon returns in that same period. Between 2004 and 2008, you see a very steep decline. During that period, there were no federal restrictions on the pumping. As the pumping went up, the flows for the salmon went down and you can see the overall results. There are a number of reasons, other reasons behind these, but this is just the overall picture.</p> <p>This is a slide of my business. [See ATT:1, ATT:2] The slide shows the percent of sales that my company made in California between 2003 and 2015. In 2003, 23 percent of our sales were in California. In 2015, there were only 2.8 percent. The message on this slide is the bump you see in 2012 and 2013.</p> <p>In the spring of 2011, both the upper Sacramento and the San Joaquin Rivers were running at or near flood stage in the months of March and April. In those same months, those are the same months that the juvenile salmon started their migration down the river in March and April. What happened is that millions of the juveniles got pushed down the river, through the Delta and into the ocean.</p> <p>Three years later, when those salmon matured, the harvest set a modern record. The fish were there. The fisherman went after them. And my California sales bounced back to 12 percent. This is a good example of the relationship between increased flows and a healthy salmon population and the businesses that support it.</p> <p>This slide shows the bump that created the record harvest. [See ATT:1, ATT:3] It shows the average Keswick flows during March and April, from 2007 to 2018. Each year is on there and it's just two months, March and April. You can see that in 2011, the flows increased</p>	<p>Please see the response to comment 667-1 regarding commercial and sport fishing and economic considerations. Please also refer to 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. Please see Master Response 3.1, Fish Protection, regarding the scientific basis for the plan amendments and expected temperature and other benefits associated with the plan amendments. Please also see Master Response 2.2, Adaptive Implementation, regarding the methods of adaptive implementation and how adaptive implementation could be implemented. Please also see Master Response 8.4, Non-Agricultural Economic Considerations, for additional information about ecosystem services and potential benefits.</p>

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		<p>four times to an average of over 16,000 cubic feet per second. The juveniles in that period got a onetime free ride to the ocean and this is the example behind that big bump in my business.</p>	
667	11	<p>This slide is a plot of the abundance of the fall-run salmon in the ocean from 2000 to 2018. [See ATT:1, ATT:4] Abundance is a very important number. And it is the sum of adding the number of harvested fish to the number that return to spawn. In 2002, the ocean abundance was 1.4 million fish. You see the big slide down. And by 2009, it was only 44,000 fish. And that's one of the years when we were shut down.</p> <p>You can readily see the 2013 bump. The commercial industry needs an abundance of at least 400,000 fish to operate successfully, which is the yellow line on the chart. They would catch about 50 percent of those fish or 200,000, and another 200,000 would return to spawn. You can see that many of the recent years are below the minimums. And that's in the red area. And according to the water for fish model, the blue section at the very end shows that the returns remain grim.</p> <p>The commercial salmon fishery is in very deep trouble and desperately needs an early turnaround. You can help. We're looking at a sustained period below the time when the commercial season can operate.</p>	<p>Please see the responses to comments 667-1 and 667-10 regarding commercial and sport fishing and economic considerations.</p>
667	12	<p>It was talked about earlier about the wild spawning fall-run fish. This slide shows the natural spawning fall-run fish that have returned each year. [See ATT:1, ATT:5] When this number goes below 100,000 fish, there's a risk of extinction. In 2013, there were only 73,000 fish that returned as far as that return to the Sacramento system and the near future looks even worse. Bad ocean conditions, disease or more drought could wipe out this run entirely. This is a huge risk and probably the number reason why we would hope that you would look very hard at some increased flows.</p>	<p>Please refer to Master Response 3.1, Fish Protection, Appendix C, Technical Report on the Scientific Basis for Alternative San Joaquin River Flow and Southern Delta Salinity Objectives and Chapter 19, Analyses of Benefits to Native Fish Populations from Increased Flow between February 1 and June 30, regarding why increased flows are needed.</p>
667	13	<p>Keys to San Joaquin success, obviously number one is increased flows and we support that. [See ATT:1, ATT:6] Number two, we're getting into habitat considerations. And I put two other important habitat factors in there, reduce entrainment and predation at the pumps. Now you've seen all the studies and regardless of what comes out of the San Joaquin, the survival through the pumps is somewhere between 2 and 5 percent, certainly an unsustainable fishery.</p> <p>The last thing I put on there is eliminate straying at the cross channel gates. I don't know if you've heard the figures there, but the total air tag give us the data between 50 and 75 percent of the adults that return to the San Joaquin, are now straying through the cross channel gates into the Sacramento River. That's another problem we need to solve in we're going to have the benefit of increased flows.</p>	<p>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</p> <p>Please refer to Master Response 5.2, Incorporation of Non-Flow Measures regarding the role of non-flow measures in the plan amendments. For further discussion on State Water Board's authority related to non-flow measures and the incorporation of non-flow measures into the plan amendments, please see Master Response 5.2, Incorporation of Non-Flow Measures.</p>
667	14	<p>Let's talk a little bit about habitat. It has come up a number of times. And I myself and a number of us, certainly agree and thank you all that in your reports suggesting that we need habitat items.</p> <p>The salmon fishing industry itself has identified, we started with 110 habitat projects, boiled it down to 27 that we think are very, very key. And we have identified 53 predation locations where hot spots, where things can be changed and reduce predation.</p> <p>A number of us are also starting to work, as some of you have suggested, with the water</p>	<p>Please see response to Comment 667-13.</p>

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		<p>contractors and other trying to find cooperative things that we can do. And the contractors have said if we can find the right things, they are willing to try to help us fund them. So we encourage you continue to talk about habitat. A lot of the things we propose are still sitting with -- a number of them have gone ahead and are good. A lot of them are sitting unfunded, unsupported and we know and understand you can't -- this isn't within your purview, but please bully pulpit and help us get some of these things going.</p>	
667	15	<p>MS. D'ADAMO: I have a question for you. Can you provide us with a list of the 110 projects and 27 key projects and the predation?</p> <p>MR. POOL: Certainly. The 110, that was several years ago. We started to develop a salmon plan. And we had the fish agencies, it wasn't their plan, but they all helped advise, and we had the scientists' list 110 items. And then we boiled those down to the 26, 27 that could be done within a reasonable period of time that would give us the biggest bang for the buck.</p> <p>I could furnish the whole 110. I'd rather furnish -- We're working on a list of all the good habitat and other projects that are taking place that are candidates for taking place now. But I can give you all of those. It'll be another month or so. We've been requested to list everything that's going on that can help salmon. And we're working on that list. It'll be probably 200 or 300 items. But I can furnish all that if you'd like.</p> <p>MS. D'ADAMO: Sure. And then how about on the San Joaquin? I know a lot of your work has been on the Sacramento.</p> <p>MR. POOL: Well, the San Joaquin has a number, as was mentioned earlier a number of good habitat proposals. So they'll be on the list.</p> <p>MS. D'ADAMO: Great, terrific.</p>	<p>Please see response to Comment 667-13.</p>
667	16	<p>MR. MOORE: Yeah. I was curious, Mr. Pool, if you could expound a little bit from a business person's standpoint, why is the San Joaquin so important given your statement that Sacramento is where you're focused? What would you tell folks, why?</p> <p>MR. POOL: Well, I just used Sacramento, because there's a little more data there that we can analyze. But you put the San Joaquin together with the Sacramento and when you talk abundance they're both there. The wild fish are there, not in very big numbers now. The hatchery fish are there. So I more or less grouped them together.</p> <p>But my thought is if we talk about flows in the Sacramento, like there's a big bump. You know, we don't need 16,000 CFS. Maybe we need some pulse flows and strategic times on both rivers. That's been discussed. But I just grouped them together. And I think the San Joaquin is equally important for all the reasons that some of the scientists outlined earlier.</p>	<p>Please see the responses to comments 667-1 and 667-10 regarding commercial and sport fishing and economic considerations.</p>
667	17	<p>You know, in our discussions about habitat -- and obviously we've been very plugged into those discussions and see the value of them -- but one thing I've observed through the days and days of hearings is the timing of habitat degradation going back 100 years relative to the timing of flow alteration.</p> <p>Have you thought about -- from your perspective again -- has the habitat degradation been a recent perturbation to the salmon fishery or is this something that's been in place for many years. And somehow the salmon fishery kept at a higher level through the '80s and</p>	<p>Please see the responses to comments 667-1 and 667-10 regarding commercial and sport fishing and economic considerations. Please also see Master Response 5.2, Incorporation of Non-Flow Measures, for a discussion of non-flow measures and their role in the overall health of the tributaries' ecosystems.</p>

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		<p>'90s and yet there's habitat degradation that had already occurred?</p> <p>MR. POOL: Well, let me describe where I think the habitat degradation started. It was the slow development of the water system, starting with the dams and Shasta Dam on the Sacramento. Then the degradation took place -- the Corps reclamation or the Army Corps rip-rapping the sides of the river where -- taking away the rearing and habitat areas for the fish along the river.</p> <p>The change in flows that took place, Shasta Dam allowed the flows. Now they can be uniform. And we talked about historically when the spring rains would come and the snow started melting there'd be huge flows. And the fish were automatically pushed down the river when they were spawned.</p> <p>So I attribute the start of the habitat degradation was when the dams and the whole Central Valley water delivery system was developed, a lot of things -- and for many, many years salmon had no consideration in that development. Not until 1992 when Congress passed the Central Valley Project Improvement Act. Does that answer your question?</p> <p>MR. MOORE: Yeah. I just -- a lot of that degradation had occurred and yet there was a very vibrant salmon fishery industry for several decades. If you look at the salmon doubling numbers that were presented earlier and the testimony that there were 5,000 boats and there was an industry. And yet was there habitat degradation that led to that 5,000 to 1,000 decline, or had it already occurred?</p> <p>MR. POOL: In the 1980s, it was the heyday of salmon fishing. And then I was on a panel that was very involved in the winter-run being listed. And in the mid-to-late '80s we saw a lot of degradation. The pumping was increasing, diversions were increasing, unscreened diversions were another big, big factor that contributed to the degradation. But then we tried to avoid a listing of the winter-run, but it finally got down to 191 fish, we had no choice.</p> <p>But all of that took place and when the winter run was listed I was on a committee. We developed the screening projects for GCID, the temperature curtain, we scoped all of those projects just like we're scoping projects now. We couldn't get any of them funded until the winter run got listed. Then the federal government stuck a \$1 billion in, fixed the temperature curtain, fixed Iron Mountain Line, screened GCID, and did a bunch of other things and the curve went like that. Then after 2002, it took the decline again.</p>	
667	18	<p>I have been a fish wholesaler in the Bay Area for 40 years now. I've seen profound changes take place in the salmon industry since I've been involved. And the most dramatic has been what's happened to our local king salmon. I've watched the salmon go from a pillar of the coastal community, an economic pillar to complete commercial collapse in 2008-2009. It's not that difficult to figure out why this has happened, to quote the Chairperson we've simply diverted too much water from our rivers for the fish to survive.</p> <p>It's been economic disaster for the fishing industry. We've gone from 10,000 active salmon permits to less than 2,000 today. We've lost tens of thousands of jobs, hundreds of millions if not billions in revenue, local and state taxes, services. Thousands of businesses have been impacted. At one time small businesses such as my own were dependent upon as much as 35 percent of the year's profit on a good salmon season.</p>	<p>Please see the responses to comments 667-1 and 667-10 regarding commercial and sport fishing and economic considerations.</p>

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		<p>And that's what put me in business was salmon. But that's gone now, because salmon has turned into a boutique fishery. There's not enough fish. The fish is too expensive. It wasn't that long ago, one could walk down to the docks and see hundreds of small boat fisherman working local waters to feed their families. There was a good bustling support industry, there was people selling gas and beer and boots and just about everything else. Plenty of jobs.</p> <p>Now, I feel as if we're walking with ghosts. There's nothing left of that. Boats lie idle. Support businesses are gone. Just the small pier that I'm on in San Francisco, which is about a quarter of a mile from Fisherman's Warf there were six of us. Three of those people have gone out of business since the 2009-'10 closure. They were mostly salmon dependent, but that's what it did to -- and they took local jobs with them. That's jobs, that's businesses, that's revenue.</p>	
667	19	<p>It's not only about jobs and money. There's something about salmon, which is part of our heritage, part of our culture, part of the definition of who we are in California, in the Bay Area. It's as if we lose salmon, we lose something as sacrosanct as the bald eagle.</p> <p>I think that it's something that for the future we have to also be aware that we're in danger of actually losing the most important estuary on the West Coast of the Americas. If the salmon go what's to stop the rest of the Delta from going? I feel strongly that we're in danger. We're that close to losing the Delta itself.</p> <p>I feel right now we have a once-in-a-lifetime opportunity. I think what you're doing is really great. I think that decisions that are made here and now will impact decisions, which are made in the future. This is not just an isolated case. Many decisions are going to have to be made and those decisions are going to impact the entire Sacramento-San Joaquin Watershed from the mountains to the Farallons. It's going to impact the whole State of California, the people of California, everyone in California who values good clean water and salmon.</p> <p>I think that if we could bring back salmon, it would inject thousands of jobs and millions of dollars into the economy. It would allow small businesses such as my own to create sustainable jobs from a renewable resource. A resource that nature has laid at our feet and said, "Here you go. It's free. Just don't mess it up, that's all you've got to do."</p>	Please see the responses to comments 667-1 and 667-10 regarding commercial and sport fishing and economic considerations.
667	20	<p>So I'm here today to ask the Board to strike a balance amongst beneficial uses of our water. A balance that salmon fishermen, salmon, even many Delta farmers, all of the Californians who value good clean healthy water whether it be for recreation, work, drinking, would all love to see a return of that balance that's been missing for decades. For decades we've abused our rivers, our streams, our fresh water. And I think that it's just a compromise that allows only 40 percent of the water to come down the San Joaquin is not going to do it. It's just not enough water to return the salmon.</p> <p>I'm asking the Board to abide by your own research and allow 50 to 60 percent of the water to come down the streams, the tributaries, through the San Joaquin to the Delta to restore salmon and fresh green water for all Californians. And we'll thank you for that.</p>	Please see Master Response 1.1, General Comments, and Master Response 1.2, Water Quality Control Planning Process, regarding consideration of beneficial uses. Please see Master Response 1.1 for responses to comments in general support of the plan amendments, a specific percent of unimpaired flow, or an LSJR alternative.
667	21	<p>I spent my youth working on an all-female salmon fishing boat, up in Alaska. I've been an author and a journalist and I'm currently the Director of Marketing for Real Good Fish. We're a community-supported fishery based in Moss Landing, so that's right on the</p>	Please see the responses to comments 667-1 and 667-10 regarding commercial and sport fishing and economic considerations.

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		<p>Monterey Bay. We have about 1,200 members that get weekly subscriptions to seafood. Fresh seafood that we deliver, drop sites – they may be by gyms, community centers, libraries, private homes. People go and get their fish from a cooler once a week. They get a newsletter the day before. It tells them what kind of fish, who caught it, how they caught it, with the recipes and handling tips.</p> <p>And so we buy from about between 20 and 50 fisherman up and down the coast. We buy from Fort Bragg, all the way down to Santa Barbara. And part of our value proposition we really want people to learn about the ocean and about the water ways by how they eat. That's the most visceral connection really.</p> <p>So we try to educate them on what's happening on things like domoic acid in crab or the sardine fishery being closed. They learn about that. Even storms, the boats can't go out. A lot of people don't think about that with seafood, how that might happen. And then of course the drought with salmon. Salmon is by far our most popular fish. It's our biggest spike in revenue over the year.</p> <p>We use every part of it. We make ikura eggs. People buy that. We make salmon burger out of the spoon meat. We smoke the bellies. We smoke the collars. It's one of those fish that -- I'm sure you guys know this --but 136 creatures depend on this besides us, it's Eucharistic in nature. It's an incredible creature.</p> <p>And then we give the heads to local organic farmers and they use it in their fields. And so some of the farmers, we partner with. They have CSAs. So they are doing drop box of organic produce throughout California as well, so we share drop sites. Sometimes they buy our salmon. Sometimes we buy their produce or their meat and so we work together. So I don't really consider this an us versus them, fishermen versus farmers. We're all part of the watershed.</p>	
667	22	<p>And so another program we have at Real Good Fish is called Bay to Tray. So we get a fish that doesn't have a market, that's under-utilized. One of them is Grenadier. It's very ugly. It is the by-catch of the Black Cod industry. So we purchase that. We have it filleted at our local processor in Watsonville and we provide it to public schools. They use it in school lunches. And it is part of the initiative called California Thursdays to bring local food into California public schools.</p> <p>So we've been told we can't scale this, because only in California will schoolchildren choose fish tacos over pizza. But we think it might be possible, so we've gone into a -- we've been in Oakland Unified School District, Monterey Peninsula, Santa Clara, Pescadero, La Honda. We are trying to expand statewide to reduce food waste. And so that our children actually learn about the ocean through their seafood as well.</p> <p>And so we've received numerous grants where we send fisherman into the classrooms to talk about their jobs. And of course all the questions are usually "Have you even seen a shark?" No, we don't fact check our fishermen. But the children, they get very excited. They take lingcod and squid in with them. The kids get to touch it. It's really a great program. In fact our founder, Alan Lovewell, just received an award at the Whitehouse, a Champions of Change Award for sustainable seafood.</p> <p>And one thing we're trying to is we're trying to brand and story our sea foods for our amazingly iconic beautiful places in California. So we have sand dabs and other under-loved</p>	<p>Please see the responses to comments 667-1 and 667-10 regarding commercial and sport fishing and economic considerations.</p>

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		<p>species. We call ours Big Sir sand dabs. We all our Black Cod, Carmel Canyon Black cod. Our salmon, we have to call it just California King Salmon, because you get to the rivers people start saying, "Well, it didn't really go up that river or that river."</p>	
667	23	<p>What we're really proud of is that California has some of the strictest rules on sustainability. So we are actually competing with imported seafood, 90 percent of the seafood consumed in the United States comes from other countries. The vast majority of that is from Asia. The vast majority is farmed. As you guys have seen in the news recently, there is a lot of slavery going on in Thailand on the fishing boats. There's a lot of pirate fishing. There's a lot of untraced seafood. A lot of children peeling shrimp in southeast Asia.</p> <p>So everything we're doing is we're trying to shift the way the United States eats seafood, particularly in our communities. But we find is what happens if we lose a species, sometimes that can happen due to say overfishing, with Rockfish we saw that collapse. They were limited. It got red listed with the Seafood Watch. It's incredibly difficult, from a marketing perspective, to bring back a species.</p> <p>So if we lose salmon, what will happen is cheap imported farm salmon that is devastating to the environment will replace it. So we will lose the jobs. And then we will have this cheap replacement for it. It'll be very difficult to bring the market for that back. But even more difficult will be the infrastructure that we lose.</p>	<p>Please see the responses to comments 667-1 and 667-10 regarding commercial and sport fishing and economic considerations.</p>
667	24	<p>So a lot of our coastal communities are now trying to form kind of cooperatives, so they can bring back ice machines. Morrow Bay just spent a million dollars on an ice machine, so this is no small thing. Also, to have a hoist. The Santa Cruise Harbor does not have a hoist. They've said if you guys will come and haul the fish up, we'll sell it to you, right?</p> <p>So we have also trucking and shipping and all of these things and these are all not just jobs, these are infrastructures. So if we lose a species, then we lose these infrastructures.</p> <p>So this is something that, like I said, I actually come from the Midwest and I come from a farming background. And my heart goes out to people who are suffering and really I know it's hard. It's very, very difficult to make a living on a farm. But I don't think this comes down to fishing versus farming. I really think this comes down more to sustainable food systems and unsustainable food systems. And the way that the planet is moving right now, with climate change, with our realization of cause and effect, we really have to move toward sustainable food systems. And we really have to stop food waste in our food systems as well.</p> <p>And so this is something that, when we talk about salmon, that they not only enrich everybody in this industry, they not only keep these industries alive, but they actually help so many other species. They help keep our water ways and our farms healthy.</p>	<p>Please see the responses to comments 667-1 and 667-10 regarding commercial and sport fishing and economic considerations. Please see Master Response 1.1, General Comments, regarding consideration of beneficial uses, and Master Response 8.0, Economic Analyses Framework and Assessment Tools, regarding economic considerations and values as they related to economic considerations.</p>
667	25	<p>[ATT 1:] Slide Presentation -- San Joaquin Flow Increases</p> <p>Dick Pool</p> <p>November 29, 2016</p>	<p>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.</p>
667	26	<p>[ATT 1, ATT 1:] Delta Exports and Salmon Returns chart</p>	<p>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.</p>

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667	27	[ATT 1, ATT 2:] Chart (Pro-Troll % of Tackle Sold in California 2003-2015)	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.
667	28	[ATT 1, ATT 3:] Chart (Average Keswick Release Flows March and April 2007-2016)	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.
667	29	[ATT 1, ATT 4:] Chart (Central Valley Fall-Run Ocean Abundance 2000-2018)	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.
667	30	[ATT 1, ATT 5:] Chart (Natural Spawning Adult Fall-Run Salmon Returns 2000-2018, Sacramento System)	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.
667	31	[ATT 1, ATT 6:] Keys to Joaquin Success	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.
668	1	A healthy, vibrant Sacramento-San Joaquin Delta Estuary is closely tied to the physical, societal and economic health of those who live, work and recreate in the San Francisco Bay-Delta region and throughout much of the state. The eastern portion of Contra Costa County, my district, is located within the Delta. And the County's entire northern border is bounded by waterfront that flows from the Delta to the Bay. Thus, Contra Costa County lies at the center of the Bay-Delta region. And the future of this nationally significant resource substantially influences the future of the County.	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.
668	2	Restoring the health of the Delta protects the Bay, which is linked to the long-term success of the County and the region. Increased flows are critical to restoring the health of the Bay-Delta Estuary. As part of the Sacramento-San Joaquin Delta, we understand better than many others the Delta is in serious decline and so we support restoration of flow into, through and from the Delta into San Francisco Bay to the higher levels that the best available science demonstrates is necessary to conserve salmon and other native fish and wildlife.	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.
668	3	The Board has the opportunity to set water quality standards that could represent the most comprehensive and ambitious set of protections for the Bay-Delta Estuary we've seen. Adopting tough standards in Phase 1 is the best action that can be taken to protect and restore the Estuary and will set the stage for the future WQCP phases and set a realistic baseline for approval of future Delta and Central Valley water supply projects.	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.
668	4	<p>The Supervisor encourages the Board to do the right thing. What is the right thing? There is no basis in science to think that 40 percent of unimpaired flow will be enough to restore salmon or protect the environment of the San Joaquin River system and the Delta. And the Board's 40 percent unimpaired flow proposal is actually less than 40 percent. The Board is considering using far less than half of the river flows. According to the scientific consensus reflected in findings of the California Department of Fish and Wildlife and the SWRCB's 2010 Delta Flow Criteria Report, the best available science presented to the Board in recent years indicates that 50 to 60 percent of unimpaired flows are necessary to restore these rivers and their salmon populations.</p> <p>If the Board doesn't follow the best available science for the San Joaquin system then what can we expect when it tackles the need for Sacramento River inflow, Delta export controls, and flows to the San Francisco Bay in Phase 2? In some respects the Board's revised proposal is even worse than its original proposal from 2012. Flows can be decreased as low</p>	Please see Master Response 1.1, General Comments, for responses to comments in general opposition to the plan amendments, a specific percent of unimpaired flow, or an LSJR alternative. Please see Master Response 3.1, Fish Protection, regarding the scientific justification for the plan amendments and the use of best available science as it relates to the fish analyses in the SED. The State Water Board used the best available science throughout the SED. A variety of data were obtained: quantitative data from peer-reviewed published literature on topics specific to the plan area; peer-reviewed published literature outside the plan area but on topics relevant to the plan amendments; unpublished quantitative data from within the plan area and from outside of the plan area; and/or qualitative data or personal communication with topical experts.

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Ltr#	Cmt#	Comment	Response
		<p>as 30 percent in any given year and some of the water stored for use and -- in use later in the year or subsequent years.</p> <p>The Board needs to set a starting requirement at 50 percent or more to reverse the decline of salmon and ecosystem conditions. And then raise or lower the requirement depending on how salmon and the ecosystem respond over a multi-year period using clear and enforceable metrics.</p>	
669	1	<p>I have serious reservations regarding the Bay-Delta SED released in September. My first concern was with the public comment process for a proposal with such serious impacts to the area involved. Although I appreciate the 60-day extension to the original 60-day comment period, I don't believe it's adequate for the affected parties to thoroughly review and respond to a complex 4,000-page report compiled over 4 years, suggesting a significant reallocation of water from the three rivers that will have dire impacts on the three-county area and beyond.</p>	<p>Please see Master Response 1.1, General Comments, regarding the public outreach process and the comment period. Note that the public comment period was extended for a total duration of 6 months.</p>
669	2	<p>Studies and estimates by local economists and water and ag agencies clearly suggest that the assumptions in the SED in regard to the impacts on the local economy, groundwater, drinking water, and ag production are greatly underestimated. Most experts indicate that the potential for increase in the salmon population may be very minimal and is very speculative.</p>	<p>The comment provides the commenter's opinion of benefits to salmon populations and the magnitude of impacts as a result of the plan amendments. 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 also see Master Response 3.1, Fish Protection, for additional detail on the salmonid biological goals and fish benefits.</p>
669	3	<p>The SED acknowledges that the region would have to make up the loss of surface water by increased pumping of groundwater. This directly contradicts the goals of the Sustainable Groundwater Management Act process by reducing irrigation water, which is the largest recharge factor in this area, which already has some significant overdraft issues.</p>	<p>The SED does not require or encourage increases in groundwater pumping 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. 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, please see Master Response 3.4, Groundwater Resources and the Sustainable Groundwater Management Act.</p>
669	4	<p>The SED suggests no form of mitigation for these economic and groundwater impacts, but merely states that the impact will be significant but unavoidable. This is less than acceptable response to these three counties, which have not yet recovered from the economic downturn. They've been the most impacted areas in the country by the mortgage crisis and have been weathering a historic drought for years. I've proposed for years that California needs a comprehensive and consistent approach to water planning, taking into account all projects in development and all proposed projects, large and small.</p>	<p>Please see Master Response 1.1, General Comments, acknowledging the concerns of elected representatives and community members. Please also see Master Response 1.1 for a discussion of the mitigation measures proposed throughout the Recirculated SED and the State Water Board's authority and obligations with respect to mitigation. Please see Master Response 3.4, Groundwater and the Sustainable Groundwater Management Act, for more specific details regarding mitigation measures as they relate to groundwater resources. Please also see Master Response 1.1 for information regarding the plan amendments and the relationship to other California water planning or infrastructure efforts. Please see Chapter 20, Economic Analyses, for a discussion of local and regional economic effects. Chapter 20 and the Recirculated SED do not identify economic effects as being significant and unavoidable as it is only required to make significance determination with respect to physical environmental impacts. Chapter 20 and the Recirculated SED disclose the economic considerations related to the plan amendments and disclose the potential differences between the LSJR alternatives with respect to different economic sectors or resource areas. Please also see 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.</p>

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Ltr#	Cmt#	Comment	Response
669	5	<p>A Plan that does not take into account 165 years of alterations to the Delta and the rivers that feed it, as well as the introduction of invasive species and subsequent predation seems unlikely to succeed on its own without the expertise and assistance of our local water agencies. Even this Board recognized in 1995, that the health of the salmon rests on more than just increased flows allowing that actions on predation, hatcheries, ocean harvest and habitat are required.</p>	<p>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.</p> <p>For a discussion on State Water Board’s authority related to non-flow measures and the incorporation of non-flow measures into the plan amendments, please see Master Response 5.2, Incorporation of Non-Flow Measures.</p>
669	6	<p>A report released last year by four Delta lead scientists on the challenges and recommendations for managing the Delta stated, "If the problem were just about allocating fresh flows it might be solvable. Add in the complexity of moving water through a hydro-dynamically complex Delta it becomes complicated."</p> <p>I respectfully request that the Board concentrate its efforts in this direction. This kind of cooperation and comprehensive program with all parties working together would be a much more productive way to move toward the Board goals.</p>	<p>Please see Master Response 1.1, General Comments, regarding the plan amendments and their relationship with other plans, programs, and agencies. Please see Master Response 1.2, Water Quality Control Planning Process, regarding the authorities that govern the water quality control planning process and the State Water Board’s planning efforts. Please see Chapter 3, Alternatives Description and Master Response 2.1, Amendments to the Water Quality Control Plan, regarding the purpose and goals of the plan amendments and a description of the plan amendments. Please see Master Response 5.2, Incorporation of Non-Flow Measures, regarding the complementary nature of non-flow measures when implemented with flow requirements and the authority of the State Water Board over non-flow measures.</p>
669	7	<p>[ATT1: Letter from State Senator Cathleen Galgiani, Fifth Senate District]</p>	<p>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.</p>
670	1	<p>I'm here today and to express my opposition to the proposed flow requirements on the Board's Plan. The proposed Plan would have a devastating effect on our region's economic and local economy and it fails to balance the state water's policies and objectives. It is well known that in the 12th District, in my district, and the Central Valley, our economic success is heavily reliant on agriculture and in turn, water. The Don Pedro Reservoir itself, in the 12th District alone, has a \$4.1 billion economic output, a \$730 million wage income, and represents 18,900 jobs within the region.</p>	<p>Please see Master Response 1.1, General Comments, acknowledging the concerns of elected representatives and community members. Please also see Master Response 1.1 for responses to comments that make a general comment regarding the plan amendments, the potential economic effects, or do not raise significant environmental issues. Please also see Master Response 1.1 regarding the relationship of the plan amendments to other plans, programs, policies, and agencies related to water resource planning and infrastructure. For information regarding the authorities of the State Water Board and the consideration of beneficial uses, please see Master Response 1.1 and Master Response 1.2, Water Quality Control Planning Process. Finally, please see 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.</p>
670	2	<p>Our District, and the state, has endured three years of a critical drought that has damaged the economic wellbeing of our counties and others that will be impacted by this proposal. San Joaquin County alone has suffered a half-a-billion dollars in losses in farmland production last year and Stanislaus County faces losses on the same magnitude.</p> <p>The estimates on the amount of farmland we've followed reached 240,000 acres, the equivalent to 800 California farms. Furthermore, San Francisco's PUC General Manager, Harlan Kelly, Jr., estimates that the Bay Area can see a decrease in sales transactions between \$37 and \$49 billion and roughly 180,000 jobs could potentially be lost if this SED were to be approved.</p> <p>The impacts of this Plan are far-reaching and potentially devastating for California and the Central Valley's economy. This proposal only further strains the delicate and complicated relationship between California agriculture, our environmental interests, and our municipalities of our limited water supply.</p>	<p>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 and general information regarding the economic analysis.</p>
670	3	<p>The proposal only focuses on instream flows and ignores the other possible approaches that benefit environmental species.</p>	<p>The State Water Board also recommends a suite of non-flow measures complementary to the flow objectives for the reasonable protection of fish and wildlife. Please see Appendix K, Revised Water Quality Control Plan, for a list of the recommended non-flow measures, and Chapter 16, Evaluation of Other indirect</p>

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Ltr#	Cmt#	Comment	Response
			<p>and Additional Actions, Section 16.3, Lower San Joaquin River Alternatives–Non-Flow Measures, for a description of these actions and their associated cost and potential environmental impacts. Please also see Master Response 5.2, Incorporation of Non-Flow Measures and Non-Flow Measure Analyses, for a discussion of the role of non-flow measures and their relationship to the plan amendments.</p> <p>For a discussion regarding other stressors on fish populations (e.g., predation, ocean conditions, and climate change), please see Master Response 3.1, Fish Protection.</p>
670	4	<p>A balance, not a heavy-handed approach, is needed to fulfill the Board and California's water and goals. Simply reallocating thousands of acre-feet of water for environmental goals with little regard to the water users in the Central Valley is truly unacceptable. So I implore and encourage the Board to continue to work with our local irrigation districts, our local elected officials, that we together can find a solution for this massive problem that we face in the State of California.</p> <p>I greatly appreciate your time and I look forward to working with you. And my staff and myself are at your service whenever you need us.</p>	<p>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.</p> <p>Please see the section in Master Response 1.1 that acknowledges the concerns of community members.</p>
671	1	<p>The 2009 Delta Reform Act, the basic law of the state, requires the Delta Stewardship Council to adopt a Delta Plan in order to guide achievement of the state's co-equal goals, which were referred to in the briefing, of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem achieved in a manner that protects and enhances the unique cultural, recreational, natural resource and agricultural values of the Delta as an evolving place. That's the law.</p> <p>The Delta Plan that we, the Stewardship Council, adopted in 2013 says in part, "Development, implementation and enforcement of new and updated flow objectives for the Delta and high-priority tributaries are key to the achievement of the co-equal goals." The Delta Plan names among others the Merced River, the Stanislaus River, the Tuolumne River and the Lower San Joaquin River.</p>	<p>Please see Master Response 1.1, General Comments, regarding the Delta Reform Act. Please see also Master Response 1.2, Water Quality Control Planning Process, regarding the consideration of beneficial uses.</p>
671	2	<p>The goal of your standard setting is to achieve a more natural functional flow. That does not mean reverting to the river's historical flow, but it does mean linking the biology of fish to flows, particularly between February and June. And those flows must be higher than they have been.</p>	<p>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 3.1, Fish Protection, regarding unimpaired flow and functional flows.</p>
671	3	<p>The best advice today will be from those here who can help you shape and sculpt protocols that balance the competing demands for water with the need to improve the fisheries. Advice that is less helpful includes those who claim more water is not necessary to save fish; or those who say more water is needed, but somebody else should give it up. It just isn't credible to say save the Delta, but don't reduce diversions in the San Joaquin Watershed.</p>	<p>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 1.1, General Comments, Master Response 1.2, Water Quality Control Planning Process, and Master Response 2.1, Amendments to the Water Quality Control Plan, for information regarding State Water Board consideration beneficial uses.</p>
672	1	<p>SUPERVISOR RODEFER: I do represent Tuolumne County, 55,000 people, but more to the point I represent the well over 10 million people that visit Tuolumne County every year, from all over the State of California and all over the world, 9.5 million go through the town of Oakdale alone headed up 108-120 for our fair county. Eighty percent of those people, by research, come for water recreation. And I think that one of the big pieces that is missing -- and thank you Board Member D'Adamo for mentioning recreation -- one of the big pieces that's missing is the recreational economy piece in most of the analysis.</p>	<p>Please see Chapter 20, Economic Analyses, Section 20.3.6, Effects on Recreational Opportunities, Activity, and the Regional Economy, for information regarding the recreational economic effects. Please also see Master Response 8.4, Non-Agricultural Economic Considerations, for additional information regarding potential recreational economic effects in the extended plan area.</p>

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Ltr#	Cmt#	Comment	Response
672	2	<p>I would also say that in our county we don't have the benefit of having a groundwater basin that we can fall back on. So the water from the Stanislaus River and the Tuolumne River are our pretty much sole source of water in the County. And we do get water from both. In my district alone there are two state parks and most importantly, we have a CAL FIRE Air Attack Base and with the increased frequency and intensity of forest fires that is a really key public safety asset and we supply the water for that asset. And they fight fires, not just in our county but in neighboring counties, and the Valley as well.</p>	<p>As discussed in Appendix B, State Water Board's Environmental Checklist, under "VIII. Hazards and Hazardous Materials", the flow requirements would result in a change in volume of water in existing reservoirs and rivers in the plan area and extended plan area. However, these changes would not alter the requirements of the state and local agencies to enforce defensible space requirements and other requirements to reduce the potential for fire and control fires. Water would continue to be available in either reservoirs or rivers to fight potential forest fires.</p>
672	3	<p>I think what I would ask is that -- and I was just down in ACWA and had the benefit of listening to gubernatorial candidate Antonio Villaraigosa speak. And he said something very profound that I haven't heard very much of and that is that we need to put the human and human uses of water back into the ecological equation. And I fully support that.</p>	<p>Please see Master Response 1.1, General Comments, regarding the consideration of beneficial uses. For a more detailed discussion, please see Master Response 1.2, Water Quality Control Planning Process.</p>
672	4	<p>We need a balanced approach that addresses all the multiple beneficial uses of water. And I, quite frankly, don't see that in the Plan. I think that flow for flow's sake, as we saw in the past two years where we flush water out of Melones in particular for the fish, and it was too warm and it had the reverse effect that was desired, just doesn't make sense. I think we need to look at all the other possible solutions that will help our fish. We certainly need all of our species, but I think that just flow is not the answer.</p> <p>So I want to thank you again for the time. And I don't envy you, your task.</p>	<p>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 further discussion regarding the consideration of beneficial uses please see Master Response 1.1 and Master Response 1.2, Water Quality Control Planning Process.</p>
673	1	<p>The San Joaquin Valley is one of the richest and most productive areas in the world. The primary reason the Valley is so productive is its well-developed water supply. When you mention water, it is a simple five letter, two syllable word, which has vast meanings including river water, groundwater, surface water, potable water and stormwater, just to name a few. Yet it covers more than 70 percent of the earth's surface. But today I'm here to speak on the importance of its existence and the citizens of Manteca and the surrounding communities.</p> <p>Fully developing water resources has taken many years of combined effort of federal, state and local governments along with investment from the agricultural industry. In 1997, the City of Manteca started down a road to ensure there would adequate water supply for our community to grow and thrive. The Plan called for a developed balanced water supply utilizing sustainable groundwater and surface water.</p> <p>In 2003, the city joined with South San Joaquin Irrigation District and the cities of Tracy, Escalon and Lathrop to construct the South San Joaquin Water Supply Project. The city alone invested over \$43 million in the project. The city is relying on water from the project, which is to provide half of their current water supply and the project will also provide sufficient water to support the next 25 years of growth, which is estimated to exceed 125,000 residents. That is assuming the state does not take water to which historic senior rights exist.</p> <p>If the state continues in their assault on local water supplies the city will lose a significant part of their baseline water supply placing undue hardships on not only our community, but those cities which endure a collaborative partnership with SSJID. In 2014, the state passed the Sustainable Groundwater Management Act. The city supports the state efforts to protect our valuable water supply. Groundwater provides about half the city's water supply and in order of the city to be sustainable, we must utilize both safe surface water and groundwater. In our opinion, taking more under the guise of helping fish while increasing</p>	<p>Please refer to Master Response 1.1, General Comments, regarding exports to south of Delta users.</p> <p>Please refer to Master Response 8.4, Non-Agricultural Economic Considerations, regarding potential effects on the growth of municipalities.</p>

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Ltr#	Cmt#	Comment	Response
		<p>divergence from around the Delta will create a perpetual drought in the San Joaquin Valley.</p> <p>The citizens of the San Joaquin Valley, County of Manteca, deserve to have their legally-obtained water supply and diverting water from the Central Valley to supply Southern California will have an irrevocable and negative impact on the region. We urge the state to reject this SED and work together with a more balanced approach that will protect and respect the rights of property owners, of the citizens, and the industry of San Joaquin Valley.</p>	
674	1	<p>I would seek that you would look at a more balanced approach, if you will, and look at the economic and social impacts of what you're doing as well as the ecosystem impacts of the upper watershed. Supervisor Rodefer already mentioned some of the issues here. Our economy is largely based on ag, natural resources and tourism -- big impacts. And tourism, he gave you some numbers.</p>	<p>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). For information regarding the authorities of the State Water Board and consideration of beneficial uses, please see Master Response 1.1 and Master Response 1.2, Water Quality Control Planning Process. Please also refer to Master Response 8.4, Non-Agricultural Economic Considerations, for information regarding ecosystem services and benefits, as well as information regarding potential recreation effects.</p>
674	2	<p>Let me tell you a little about the water system. We are virtually, totally dependent on surface water. We don't have a groundwater basin. We have fractured rock and that's proven to be very unreliable, both quality and quantity.</p> <p>We are currently under a state of emergency and have been for several years now, because our groundwater wells are failing. And we have over 300 families dependent on us providing water deliveries to them right now. And there's no hope in the near term of that recovery. We're seeing a few wells continue to fail in spite of the increased precipitation, but we're not seeing recovery. And that's a problem and that will continue for some time. We make it up with surface water. I mean, that's clearly an issue.</p>	<p>Please refer to Master Response 1.1, General Comments, regarding comments that do not raise any issues related to the adequacy of the environmental impact analysis.</p>
674	3	<p>Recreation is a big part of our economy and as Supervisor Rodefer said, most of the people come there for water-based recreation. We are the playground for the Central Valley, and I might add, the Bay Area, because of all those people and a lot of people from the world. Now, he mentioned nine-and-a-half million people come up, five million people visited Yosemite this year, a little more, but they don't come through Tuolumne County. A portion of them do, but a small fraction. And many of those people that come through Yosemite Valley from the other sources, come back to Tuolumne County and come here for recreation. So it's a big issue.</p>	<p>The commenter stressed that recreation plays a significant role in the economy of Tuolumne County. Chapter 10, Recreational Resources and Aesthetics, acknowledges water-based recreational resources found in the plan area and in the extended plan area. This comment does not make a general comment regarding the plan amendments or raise significant environmental issues.</p>
674	4	<p>Our ag people need water as well, and it's an important part of our economy. So I close that you look at a balanced approach, again put the human factor back in, and look at the upper watershed ecosystems and the impacts. When you push on a balloon you know it gives everywhere else. And when you draw off excessive amounts it hurts the rest of the system. So we ask for a fair and balanced approach.</p>	<p>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 1.1, General Comments, Master Response 1.2, Water Quality Control Planning Process, and Master Response 2.1, Amendments to the Water Quality Control Plan, for information regarding State Water Board consideration beneficial uses.</p>
675	1	<p>[Mr. Denham] is happy the Board is holding the public hearing today in San Joaquin County and in Stanislaus and Merced counties. The overwhelming economic loss over the horizon with your proposed plan will devastate the areas you will be visiting over the next few days and I implore you to listen to those impacted. Read the data and research and find a reasonable balance for our economy and environment.</p>	<p>Please see Master Response 1.1, General Comments, acknowledging the concerns of elected representatives and community members.</p> <p>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). For information regarding the authorities of the State Water Board and consideration of beneficial uses, please see Master Response 1.1 and Master Response 1.2, Water</p>

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Ltr#	Cmt#	Comment	Response
			Quality Control Planning Process.
675	2	Any plan needs to be scientifically justified with the ability to alter government mandates as more data and information is learned, understood and as environmental conditions change and warrant. A one-size fits all approach, as is proposed in the Draft Plan, fails the people of this region. The Draft SED's data is woefully inadequate and has no correlation for the assumed environmental benefits. In short, the heavy hand of government threatens to destroy our way of life in the Valley and frankly is unacceptable.	Please see Master Response 3.1, Fish Protection for information regarding the scientific basis for the LSJR flow objective to reasonably protect fisheries beneficial uses.
675	3	What is needed is a collaborative, driven approach by locals who understand the unique needs of each watershed and can react the fastest to changing conditions. Numerous times I have stated my position that any water releases ordered meet critical human needs first, and the benefits of additional water releases above current operating standards be justified with scientific and ecological benefits defined prior to any change.	Please see Master Response 1.1, General Comments, regarding collaboration and voluntary agreements. Please see Master Response 1.2, Water Quality Control Planning Process, for information regarding the consideration of beneficial uses relating to public health and safety needs. Additional information 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.
675	4	<p>Instead of increasing unimpaired flow for no proven scientific benefit, why not address predation? Striped bass, a known non-native predator fish, needs to be an area focus before more water is released downstream. In fact, local, state and federal agency studies have shown upwards of 95 percent mortality on listed species. To ignore and take no action on this matter prior to implementing any flow regime changes demonstrates no balance and shows a complete bias by the State Board.</p> <p>I ask you to request your sister agency at the California Fish and Wildlife Service to stop holding scientific research permits hostage and allow scientific studies to happen immediately, so research can occur. I'm not a scientist, but it's baffling to me Cal Fish and Wildlife continues to deny research. Could it be a predator fish as serious impact, the initial studies have shown; are predators not a threat? I don't have the answers, but the politically motivated actions by Cal Fish and Wildlife continue to deny the basic science to do all we can to improve the balance between our rivers and economy.</p>	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 a discussion regarding other stressors on fish populations (e.g., predation, ocean conditions, and climate change), please see Master Response 3.1, Fish Protection. Also, please see Chapter 16, Evaluation of Other indirect and Additional Actions Section 16.3, Lower San Joaquin River Alternatives– Non-Flow Measures, for a discussion of predatory fish control actions, their associated cost, and potential environmental impacts.
675	5	The current draft proposal is unsustainable. It will destroy our economy and way of life. It needs to be placed on hold, reworked, and any new proposal must include scientific public input including making all scientific information and data available for public review prior to a final decision.	For information regarding the framework for the economic analysis, local, regional, agricultural economic effects, fiscal economics and other economic considerations please refer to Master Responses 8.0, Economic Analysis Framework and Assessment Tools, Master Response 8.1, Local Agricultural Economic Effects and SWAP, Master Response 8.2, Regional Agricultural Economic Effects, and Master Response 8.4, Non-Agricultural Economic Considerations.
676	1	<p>Stockton, California has experienced numerous economic challenges including the recent bankruptcy that has had a direct impact on our residents. Median incomes are 74 percent of the national average and a significant percentage of our population is part of the legally defined environmental justice community. Stockton, in fact, has the largest environmental justice community in California as percentage of the population.</p> <p>A weakening of the South Delta salinity standards will have a negative impact on agriculture, which is Stockton's primary economy. I understand that even small changes in salinity can have a negative impact on Delta crop production. We're not an economy that can presently tolerate reductions in our primary economy, which is again agriculture. Plus good water quality is essential to attracting new businesses and economic development that could lift a sizable portion of Stockton residents out of poverty.</p>	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. Also, please see Master Response 3.3, Southern Delta Water Quality, for responses to comments regarding why the southern Delta Salinity objectives are being updated.
676	2	The weakening of salinity standards would have a negative effect on Stockton's ability to use our recently completed Delta Water Supply Project. And would force us to use lower	Please see Master Response 3.3, Southern Delta Water Quality, regarding the justification for updating the southern Delta salinity objectives and why there will not be degradation in water quality. Since water quality

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Ltr#	Cmt#	Comment	Response
		quality groundwater, reversing the many years of planning and investment in surface water supply that has been shown to improve overall Delta water quality.	will not be degraded use of the Delta Water Supply Project will not be affected. Additional information is provided in the SED Chapter 5, Surface Hydrology and Water Quality.
676	3	Water losses and degraded water quality will put additional economic stress on Stockton and hamper our recovery. Our city panel will be addressing how the proposed imposition of stricter salinity standards at wastewater treatment plants will make discharge from our municipal wastewater treatment facility more difficult and more expensive for our ratepayers. This could all lead to increased treatment costs that about one-third of our residents simply cannot afford.	Please see Master Response 3.3, Southern Delta Water Quality, regarding the potential water quality effects associated with the plan amendments in the southern Delta. Please see Chapter 20, Economic Analyses, regarding potential ratepayer effects associated with the plan amendments (Section 20.4, Southern Delta).
676	4	You are seeking in this document for water sacrifices to be made by a combination of Delta interests and agricultural interests on the east side of San Joaquin County. This is a no-win answer for economic development of the Stockton municipal region. Why are we expected to make this sacrifice when the draft SED for the San Joaquin River is silent on water exports? If water exports were reduced to levels that are sustainable for the Delta and San Joaquin River there would be appropriate flows for all parties in Stockton and San Joaquin County.	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 the resources and impacts evaluated in the SED, including economic impacts. For further information on economic impacts, please refer to Master Response 8.2, Regional Agricultural Economic Effects. Please see Master Response 1.1 and 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. That discussion also addresses export issues.
677	1	I am Supervisor Elect in San Joaquin County District 3. My district covers the interior of the Delta from the Stockton Deepwater Channel west to our most precious farmlands. I represent some of the most bountiful agricultural land in the world and some of the poorest people in California, all within my district. I will state clearly as a matter of fact, the weakening of south Delta salinity standards will have a negative impact on agriculture, which is my district's primary economy and 30 percent of our regional GDP. Reductions in agricultural output resulting from salty irrigation water will ripple through our already stressed economy inflicting negative impacts on growers, farmers, workers and our food supply.	USBR will be required to maintain the EC at Vernalis at or below 0.7 dS/m April–August and 1.0 dS/m September–March, as it is under the current objectives. Therefore, salinity will not increase above baseline conditions and there will be no degradation of water quality. Please see Master Response 3.3, Southern Delta Water Quality, for discussion of 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 crops salt tolerance and why southern Delta agriculture will be protected with a salinity objective of 1.0 dS/m.
677	2	Our Delta is currently under stress with toxicity, invasive weeds and increased salinity levels that contribute to the proliferation of toxic algal bloom that has occurred in recent years in the south Delta. In my 45 years of exposure and recreation on the Delta it is in peril. The Delta, the health of the Delta, is in complete demise. Have you considered the public health impacts for those who swim, fish and boat, and recreate on the Delta, which as noted, economically recreation alone is a \$750 million annual boost to our economy? If our water is deemed unsafe who is going to pay for the revenues lost to our marinas, residents and other local businesses?	As described in Chapters 5, Surface Hydrology and Water Quality, and Chapter 13, Service Providers, water quality in the southern Delta would not be degraded in response to the implementation of the plan amendments. The USBR water rights permits will continue to include requirements to meet the current 0.7 EC April–August Vernalis salinity standard, as contained in the program of implementation of the plan amendments. This would maintain the historical range of salinity in the southern Delta. In addition, Chapter 10, Recreational Resources and Aesthetics, Section 10.4.2, Methods and Approach, identifies that the water quality would remain within baseline conditions in the southern Delta and as such would not affect water-based recreational users. Therefore, a substantial degradation of water quality in the southern Delta would not occur and there would be no change relative to baseline regarding potential public health impacts due to water recreation activities in the southern Delta. Please refer to Master Response 3.3, Southern Delta Water Quality, regarding water quality in the southern Delta and for a discussion regarding the reasoning and justification for updating the SDWQ objectives. As discussed in Master Response 1.1, General Comments, harmful algal blooms (HABs [i.e., toxic algal blooms]) are not expected in the southern Delta as a result of the plan amendments. HABs are typically influenced, or triggered, by higher water temperatures and lower flows and not salinity. Furthermore, the plan amendments would improve the flow conditions in the southern Delta, by requiring a percent of unimpaired flow from February through June to reasonably protect fish and wildlife beneficial uses. Hence, water would not be deemed unsafe, and recreation, including fishing would not be negatively affected

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Ltr#	Cmt#	Comment	Response
			under plan amendments.
677	3	<p>The Delta has been deprived of the freshwater flows that it needs to serve San Joaquin County as a result of being over pumped for 30 years, which by the way brings up a question -- why is the draft SED silent on water exports to the South San Joaquin Valley? Curious, and this is truly most curious to me, is that all planning discussion are about what is being taken away from the Delta. But there is zero discussion about how a plan will improve the Delta with a greater supply of clean water. Where are the new water reservoirs? Where is the Plan for growth and sustainability, not the current plan of complete decimation?</p> <p>As you will hear today, we in this region are not idle. We are active, engaged and determined not to be the sacrificial lamb of California. A true water fix would increase supply and flow into the Delta, not bypass our sustainable needs.</p>	Please see Master Response 1.1, General Comments, for information related to the California WaterFix.
678	1	As a representative of the Sacramento-San Joaquin Delta I take very seriously the quality and quantity of fresh water flowing through it. We in the Delta depend on its waters for our daily lives, as does our most productive economic sector, agriculture, and our natural environment and the species it sustains. Any good faith effort to improve conditions in a way that balances those needs is welcome and deserves our support. This includes increasing the amount of fresh water flowing through our waterways, vital to sustaining fisheries and maintaining water quality for both residential and agricultural users. However, we know too well that there is not a better way to exploit the Delta, bypass its statutory and regulatory protections, and supersede our senior water rights than to do so under the guise of fixing it.	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.
678	2	It is unfortunate that such an enormously complicated plan to manage the Delta is released precisely at the time of year when local agencies and the public are least able to adequately respond. Even a state legislative office is hard pressed to read and evaluate a 4,000-page Substitute Environmental Document within the extended period. That people have already managed to mount substantive concerns about this Plan should be cause not only for concern, but for the Board to consider a more collaborative approach from now on.	Please see Master Response 1.1, General Comments, regarding the public outreach process and the comment period. Note that the public comment period was extended for a total duration of 6 months.
678	3	No plan to protect the Delta can succeed without taking into account actions taken well outside of the region, rising statewide demand for surface water exports, increasing acreage devoted to permanent crops in arid export-dependent regions, drought and climate change for example. In other words, we need more fresh water flowing through the Delta, but less being pumped from it.	Please see Master Response 1.2, Water Quality Control Planning Process with regard to the State Water Boards approach to the Bay-Delta updates in independent proceedings. Also see Master Response 1.1, General Comments regarding exports.
678	4	It [any plan to protect the Delta] must [be] consistent with the co-equal goals under the Delta Reform Act, give proper weight to the potential economic impacts. This is one of the poorest regions of the state and Stockton is by some measures the most economically distressed major city in California. The potential consequences of a substantial reduction in agricultural production both on the economy, and on long-term food security, must be given appropriate consideration.	<p>Please see Master Response 1.2, Water Quality Control Planning Process, for discussion of the balancing of beneficial uses.</p> <p>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 and general information regarding the economic analysis.</p>
678	5	While we deliberate over how exactly to save Delta fish, Congress has passed and the President is considering legislation that will undermine all of our efforts. Legislation backed by exactly those interests who have also supported other plans over the years to save the Delta; legislation that a veto may only delay given the stated intentions of this congressional majority in the incoming Administration.	The Water Infrastructure Improvements for the Nation Act was signed into law in December 2016 and address export pumping from the Delta. The revised SED and Phase 1 of the Bay-Delta Plan amendments do not address Delta exports. Please also see Master Response 1.2, Water Quality Control Planning Process regarding the authorities and governing regulations for the water quality control planning process.

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Ltr#	Cmt#	Comment	Response
679	1	<p>We're here to talk about our concerns regarding as they relate to our members, specifically Wastewater Treatment Plan issues or POTWs [Publically-Owned Treatment Works]. CVCWA members that are most directly--by the impacts of the proposed salinity and flow objectives are the City of Stockton, the City of Tracy, the City of Manteca and Mountain House Community Service District.</p> <p>We have several concerns, mostly that the SED assumes that the 1,000 micromhos per centimeter EC [electro-conductivity] objective will be applied at the end-of-pipe. Those effluent limits would require the installation of a reverse osmosis or RO treatment plants at the POTWs. RO has significant impacts including increased energy consumption, greenhouse gas emissions, brine disposal challenges and significant socioeconomic impacts. The SED, in fact, concludes RO would have significant and unavoidable impacts. However, RO would not measurably improve the EC levels in south Delta.</p> <p>Our request is that your staff would work with us to modify the SED to include an implementation plan and language for how these water quality objectives would be incorporated in NPDES permits for our POTWs.</p>	<p>Please refer to Master Response 2.1, Amendments to the Water Quality Control Plan, regarding a description of the plan amendments and a discussion of modifications requested by commenters to the plan amendments.</p> <p>Please refer to Appendix K, Revised Water Quality Control Plan, regarding POTW discharges to the southern Delta, southern Delta salinity objectives, and reverse osmosis.</p> <p>Please refer to Master Response 3.6, Service Providers, regarding potential effects of the SDWQ Alternatives on wastewater treatment plants, the revised implementation program for wastewater treatment plants.</p> <p>Please see Master Response 3.3, Southern Delta Water Quality regarding suggested changes by the commenter to the program of implementation of the salinity water quality objectives.</p>
679	2	<p>Our presentation...will really cover four main areas. One is the impact that the POTWs in the south Delta are having on salinity. Second point is what the effluent quality is for those POTWs. Thirdly, some of the facts to elaborate on...the effectiveness of reverse osmosis and the impacts of reverse osmosis. And then fourth, we want to spend some time talking about our proposed solution.</p> <p>It's commonly accepted based on--and it's actually identified in the SED and in the technical appendix for the SED that the discharges from south Delta POTWs will have a very small effect on salinity. And so this is one example of language excerpted from the SED itself, also from the appendix. Some work was done, and I'll talk about it a little bit in a minute, regarding some modeling that was done back in 2007 specifically looking at the impact to the City of Tracy and Mountain House on the impacts of their discharges on salinity. And the fact that those are limited impacts, so this again is an excerpt from the technical appendix.</p> <p>And then finally, State Board staff did an analysis of loading, taking into account not only the POTW discharges, but also other sources. And the finding again in the appendix is that those loadings represent a small percentage of the salt load in the system.</p>	<p>This commenter is referring to 2007 DSM2 modeling, which concluded that the discharge from City of Tracy and Mountain House CSD wastewater treatment plants had limited impacts on the salinity in the south Delta. In addition, the commenter refers to Appendix C, Technical Report on the Scientific Basis for Alternative San Joaquin River Flow and southern Delta Salinity Objectives, and the discussion regarding salinity in the southern Delta and sources. However, the comment does not raise significant environmental issues or make a general comment regarding the plan amendments. As such, no further response is required.</p>
679	3	<p>For quite some time there's been a concern over the impact of POTW discharges on the south Delta salinity. So in 2007, DWR using its DSM-2 model--and through a collaborative that included the Central Valley Regional Water Quality Control Board, the cities of Tracy and Mountain House, also South Delta Water Agency and CalSPA--worked together to coordinate a modeling effort. And it looked at the effect of--on this map you can see the City of Tracy discharge point as well as the Mountain House discharge points and Old River--and it looked at the three D-1641 compliance points in the San Joaquin Middle River and Old River. And it did an assessment of reasonable worst-case impacts. Out of that there were determinations made regarding the percentage of effluent that goes to different places in the Delta. That information was used in--you recently approved a Basin Plan Amendment for a Central Valley salinity variance. And this information shown on this chart shows if using the information from the DWR modeling--and if the assumption was made that in this case Tracy was to install reverse osmosis to meet an effluent level of 1,000 EC, which is what's described in the SED currently--this shows you the impacts with and without reverse osmosis at these 1641 compliance points. So it's a very, very small, negligible benefit of</p>	<p>Please see response to Comment 679-1.</p>

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Ltr#	Cmt#	Comment	Response
		<p>installing reverse osmosis to meet 1,000. Same type of plot shown for Mountain House where there's basically no effect in San Joaquin or in the Middle River and essentially no effect in the Old River from installing reverse osmosis.</p> <p>In the SED there's really three compliance actions, which are identified. One of those is for the cities to seek new water supply, surface water supplies, to basically minimize their use of groundwater as a component of their water supply portfolio. That actually has been implemented by the communities in the south Delta. And I'll show you some information on that.</p> <p>Also a second compliance action that's identified in the SED is for the communities to do source control, industrial source control, residential basically. And this is required in their existing NPDES permits to implement salinity management to do all they can to reduce the amount of salinity in their discharges. That has also been implemented.</p> <p>And so I'm going to show you three charts of effluent quality. That first for the City of Tracy [ATT:1 ATT:16]--and this is for the period of over approximately the last ten years--and what we're showing in this chart is the y axis is the effluent annual average EC value for the City of Tracy discharge. And on the bottom is time. And so over time you can see that, as I said the impact, what you're seeing here is the impact of bringing in a new water supply. And the significant effect that actually has had by bringing in less saline water to replace more saline groundwater. And then also you're seeing the combined effect of the salinity management source control that I described.</p> <p>This chart also gives us a picture of what has happened through the drought where you see an uptick in effluent salinity due to water conservation. And also some of the measures that were taken that force the City back on to groundwater usage.</p> <p>A similar chart for the City of Manteca [ATT:1 ATT:17] where they implemented a new surface water supply approximately ten years ago. You can see the drop that resulted from that. You can also see the uptick in effluent salinity that happened during the recent drought. And then finally, for the City of Stockton [ATT:1 ATT:18] who did the same type of thing, going more to surface water supply from groundwater. And you can see a dramatic effect in 2015 of an uptick in salinity that actually if an effluent limit of 1,000 had been established it would have taken the city from on an annual average basis from compliance to noncompliance. So drought effects are an important consideration in writing--constructing the effluent limits for these communities.</p> <p>So as I said there are basically three compliance actions that the SED refers to. And in essence the first two have already been implemented. The third--let me mention also just the cost of the surface water supplies. And on this chart [ATT:1 ATT:20] we show the amounts, significant expenditures by the City of Tracy, Manteca and Stockton for implementing those new surface water source supplies. And of course, for the rest of what we're talking about here today those supplies will become less available in the future. So it's already been implemented, it's probably not likely it's going to continue to be able to be used as a tool.</p> <p>The third option that's identified as a compliance action in the SED is for the communities to install reverse osmosis. And as I showed in those prior charts, that's really not an effective solution. It doesn't really create a benefit. Certainly, reverse osmosis, a high-pressure treatment system increases energy demand, greenhouse gas emissions, and is a high-cost</p>	

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		<p>proposition. And through that salinity variance Basin Plan Amendment we actually have developed information, which we can provide to your staff, which will allow a closer examination of some of those costs and impacts. And again, high cost in impact and really not an appreciable benefit from implementing that approach.</p>	
679	4	<p>What we assumed here is that just enough RO [reverse osmosis] would be installed to meet an effluent limit of 1,000 EC. And so this shows you energy and greenhouse gas emissions. And then in terms of costs we're able to identify capital O&M and annual costs, which are clearly significant. And would lead to socioeconomic effects in each of the communities.</p> <p>So what CVCWA has asked is asking is for the Board to allow your staff to work with us to actually implement a different option. And that is to, we believe the flexibility exists within NPDES regulations, to actually not implement the proposed water quality objectives as stated in the SED. We believe that the effluent limits don't necessarily need to match the objective. There are various considerations and I won't go into detail here, but there are mixing zones, points of compliance, averaging period considerations. Also we believe that some consideration of drought, how the limits might be effected or implemented during drought.</p> <p>And also by working with your staff I think it would really help CVCWA and the communities, help resolve some of the issues that came out of the litigation on this matter. And the offer is strong from this side of the table to do that.</p> <p>So just in summary, the problem that we see is that the SED paints a picture of a preferred alternative, which would lead to significant and unavoidable impacts on local communities. And our assessment is that that would really not have a commensurate water quality benefit.</p> <p>Our solution is that we believe we can work through this, through the plan of implementation that's required under the Water Code 13242, and come up with language both in the SED and in the Plan itself that will resolve this issue.</p>	<p>Please see response to Comment 679-1.</p>
679	5	<p>MS. D'ADAMO: So on the charts the City of Tracy [ATT:1 ATT:16], Manteca [ATT:1 ATT:17] and Stockton [ATT:1 ATT:18] where you show what you call an uptick where you were forced back on to groundwater.</p> <p>MR. GROVHOUG: Right.</p> <p>MS. D'ADAMO: Would you be able to either now or in your written comments parse out the increase that's attributed to groundwater versus other factors? Groundwater use versus other factors.</p> <p>MR. GROVHOUG: We will sure take that on in our written comments.</p>	<p>Please see response to Comment 679-1.</p>
679	6	<p>So you [Publically Owned Treatment Works] just want to work with our staff on how it's measured and implemented, so that we don't cause undue costs--</p> <p>MR. GROVHOUG: Exactly.</p> <p>CHAIR MARCUS: --without commensurate benefit?</p>	<p>Please refer to response to Comment 679-4</p>

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Ltr#	Cmt#	Comment	Response
		<p>MR. GROVHOUG: Yes.</p> <p>CHAIR MARCUS: All right.</p> <p>MR. GROVHOUG: We think we can live within the construct of the NPDES permit regulations and anti-degradation provisions and come up with a permit requirement that will work.</p>	
679	7	<p>MS. DUNHAM: Just to make it very clear what we're asking is that it needs to be articulated within the Program of Implementation, so there isn't future uncertainty as to how the objective gets implemented, which is where we've run into problems in the past. And so we're looking for clear articulation with respect to when you take that objective and you apply it to a POTW how it's done, so we don't wind up onerous end-of-pipe effluent limits.</p> <p>CHAIR MARCUS: Or so that you don't end up with disparities between different facilities--</p> <p>MR. MOORE: So the existing Bay-Delta Water Quality Control Plan, does it have a governing effect on existing NPDES permits and their limits that are derived?</p> <p>MS. DUNHAM: So it did at one point, but due to litigation that occurred with the City of Tracy, and CVCWA was an intervenor, the court basically set aside the application of the south Delta objectives on the POTWs while the State Water Board went through this process of updating the objectives, and looked at the impact on the POTWs. So it's basically kind of been in abeyance so to speak under the court's direction at this point and time.</p> <p>MR. MOORE: Oh, thanks for that clarification. That's for the benefit of the audience members too. And so it's interesting as this is a unique place in the state, because usually the Regional Water Board would have the standard that is ultimately derived for the effluent limit. But does the Central Valley Regional Board's Basin Plan not have an objective that is translated to a salinity limit at this time?</p> <p>MS. DUNHAM: Not for the Delta, the Regional Board has to rely on the Bay-Delta Plan for objectives for the south Delta.</p>	<p>Please see Master Response 2.1, Amendments to the Water Quality Control Plan, regarding the program of implementation. See Master Response 3.6, Service Providers, regarding potential effects of SDWQ Alternatives on wastewater treatment plants and a discussion regarding POTWs. Master Response 3.3, Southern Delta Water Quality, regarding southern Delta water quality.</p>
679	8	<p>MR. MOORE: While we're talking about POTWs, obviously people know I'm the Sanitary Engineer on the Water Board, it's close to my heart and my discipline. I have to ask the question, where does recycled water development fit into this? What are the possibilities for enhancement of wastewater effluent as beneficially reused in your areas? And what can we look forward to there and does that solve some of the compliance conundrums?</p> <p>MR. GRANBERG: Good morning, Robert Granberg, City of Stockton. I'd like to briefly describe how our Recycled Water Program works. We are a POTW discharger here, near the City of Stockton. We also have a drinking water intake about 10 or 11 miles downstream, or north, on the San Joaquin River. And our water right is based on the amount that we discharge into the river. So we essentially have one-for-one recycling program that utilizes the San Joaquin River as our conveyance to our drinking water intake. So we're unique in that we're regulated on discharge and on our intake, and so water quality in the San Joaquin River is of high importance to us. And that's how we recycle water.</p> <p>CHAIR MARCUS: That's similar to the Las Vegas model, right? The one for one.</p> <p>MR. GRANBERG: I believe so. I say one for one, because we can deliver that recycled water</p>	<p>The commenters are describing how the City of Stockton's Recycled Water Program works, and disclosing that the City of Tracy received a grant from the Department of Water Resources for \$18 million to "implement recycled water into Tracy". This comment does not make a general comment regarding the plan amendments or raise significant environmental issues. As such, no further response is required.</p>

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		<p>essentially to the tap and not just to landscape.</p> <p>MR. BAYLEY: And Steve Bayley, City of Tracy, we received recently a grant from the Department of Water Resources for \$18 million to implement recycled water into Tracy. We hope to use it for our parks and our green space areas as well as serve it to ag in the vicinity of Tracy as well as industrial in the San Joaquin County. So we're hoping to implement recycled water in the next three years.</p>	
679	9	[ATT1: Bay-Delta Plan Hearing. December 16, 2016, Stockton, CA. Testimony by: Central Valley Clean Water Association (CVCWA) Panel]	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.
679	10	[ATT1:ATT2: CVCWA Panelists]	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.
679	11	[ATT1:ATT3: Southern Delta POTWs]	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.
679	12	[ATT1:ATT4: POTW 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.
679	13	[ATT1:ATT5: POTW 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.
679	14	[ATT1:ATT6: POTWs have a de minimis impact]	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.
679	15	[ATT1:ATT7: POTWs have a de minimis impact]	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.
679	16	[ATT1:ATT8: POTWs have a de minimis impact]	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.
679	17	[ATT1:ATT9: DWR Modeling (2007)]	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.
679	18	[ATT1:ATT10: DWR Modeling (2007): City of Tracy WWTP--Far-Field Impacts]	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.
679	19	[ATT1:ATT11: DWR Modeling (2007): Mountain House CSD WWTP--Far-Field Impacts]	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.
679	20	[ATT1:ATT12: Suggested Compliance Actions in SED]	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.
679	21	[ATT1:ATT13: Suggested Compliance Actions in SED]	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.
679	22	[ATT1:ATT14: Suggested Compliance Actions in SED]	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.
679	23	[ATT1:ATT15: Suggested Compliance Actions in SED]	The commenter provided this attachment for reference purposes in support of their comments. Those

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			comments are addressed in these responses to comments; therefore, no additional response is required.
679	24	[ATT1:ATT16: City of Tracy WWTP, Annual]	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.
679	25	[ATT1:ATT17: City of Manteca WQCF, Annual]	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.
679	26	[ATT1:ATT18: City of Stockton RWCF, Annual]	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.
679	27	[ATT1:ATT19: Compliance Actions in SED Already Implemented]	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.
679	28	[ATT1:ATT20: Cost of Surface Water Supplies to Reduce 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.
679	29	[ATT1:ATT21: Suggested Compliance Actions in SED]	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.
679	30	[ATT1:ATT22: Reverse Osmosis is Not a Reasonable Compliance Action]	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.
679	31	[ATT1:ATT23: Greenhouse Gas Emissions]	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.
679	32	[ATT1:ATT24: RO Cost Estimates]	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.
679	33	[ATT1:ATT25: Recommended SED Changes]	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.
679	34	[ATT1:ATT26: Summary]	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.
679	35	[ATT2: Additional Slides for Board Member Consideration]	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.
679	36	[ATT2:ATT1: City of Tracy WWTP, Monthly]	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.
679	37	[ATT2:ATT2: City of Manteca WQCF, Monthly]	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.
679	38	[ATT2:ATT3: City of Stockton RWCF, Monthly]	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.
679	39	[ATT2:ATT4: Mountain House CSD WWTP, Monthly]	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.
679	40	[ATT2:ATT5: Mountain House CSD WWTP, Annual]	The commenter provided this attachment for reference purposes in support of their comments. Those

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			<p>comments are addressed in these responses to comments; therefore, no additional response is required.</p>
680	1	<p>I'm here today to express the strong unanimous opposition of the entire San Joaquin County Board of Supervisors to the SED proposal. As a public official I can appreciate the difficulty associated with balancing interests. I recognize that this is hard. However, properly weighing the impacts of our decisions is a duty inherent in public service. The SED fails to adequately analyze all impacts and unfairly burdens the San Joaquin region rather than focus on water exports that have caused the greatest harm to fish species.</p>	<p>Please see Master Response 1.1, General Comments, acknowledging the concerns of elected representatives and other community members, including general opposition to the plan amendments. Please also see Master Response 1.1 for a discussion of the approach to the analysis and a summary of the resource impacts evaluated in the SED.</p>
680	2	<p>The SED proposes that at least 40 percent of natural flow remain in the Stanislaus River for fish. This water sustains and has sustained for over a century our cities, industries and agriculture. The SED assumes that the loss of surface water supplies from the Stanislaus River will result in greater groundwater demand. We have worked hard over the past several decades to improve our groundwater basin and we have made great progress.</p> <p>As you are aware, sustainable groundwater management is now mandated by SGMA. By greatly reducing the supply of Stanislaus River water, the SED proposal will not only undo decades of progress in recovering our already stressed groundwater basin, but also put groundwater sustainability hopelessly out of reach.</p>	<p>The existing groundwater overdraft conditions in the plan area are legacy issues caused by unsustainable agricultural expansion; SGMA was passed by the legislature in 2014 to address overdraft issues. The State Water Board acknowledges that it will be challenging, but SGMA compliance cannot occur at the expense of reasonably protecting surface water beneficial uses; both groundwater and surface water must be protected.</p> <p>The SED and plan amendments do not require or encourage increases in groundwater pumping as a response to reductions in surface water. The SED reflects the historical response of water users to increase groundwater pumping when surface water availability is reduced.</p> <p>The SED proposed LSJR flow objectives (which range from 30 percent to 50 percent of unimpaired flow) do not conflict with SGMA. Comprehensively addressing both resources allows for integrated planning that does not trade impacts between surface and groundwater and ensures long-term adequate drinking water supplies. 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.</p> <p>For further discussion on potential increases in groundwater pumping, groundwater overdraft as a legacy issue in the plan area, and SGMA compliance in the context of plan amendments, please see Master Response 3.4, Groundwater Resources and the Sustainable Groundwater Management Act.</p>
680	3	<p>A less reliable water supply will weaken the economy in San Joaquin County. This will limit our ability to attract employers, create higher paying jobs and promote investments in sustainable development.</p>	<p>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 and general information regarding the economic analysis.</p>
680	4	<p>Much of San Joaquin County is economically disadvantaged. The SED will have the greatest impact on farm workers, truck drivers, cannery workers and others who can least afford it, thereby creating an environmental justice nightmare for our region.</p>	<p>As described in Master Response 2.7, the concerns of disadvantaged communities and environmental justice issues are important to the State Water Board. The plan amendments are in no way discriminate against people on the basis of race, culture or income.</p> <p>Please refer to Master Response 8.2, Regional Agricultural Economic Effects, for a discussion regarding the potential impacts of the plan amendments on employment.</p>
680	5	<p>Agriculture is the leading sector in San Joaquin County and was valued at over \$3.2 billion in 2014. Lost agricultural production due to SED will result in economic losses that will ripple throughout our regional economy. Farming-related economic fallout includes reduced property values, equipment sales and employment.</p>	<p>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 and general information regarding the economic analysis.</p>
680	6	<p>The proposed salinity standard relaxation in the SED will adversely affect the quality of prime agricultural land, which is a finite and irreplaceable resource. Those impacts will decimate the San Joaquin region and limit future economic development.</p>	<p>Please see Master Response 1.1, General Comments, for responses to comments that generally oppose the plan amendments. Please see Master Response 3.3, Southern Delta Water Quality, for information on salinity and crop production. Please see Chapter 5, Surface Water Hydrology and Water Quality, regarding water quality in the southern Delta. Please see Chapter 11, Agricultural Resources, Impacts AG-1 through AG-4, regarding the evaluation of the potential impacts of SDWQ Alternatives 2 and 3 on agricultural resources in the southern Delta. As described in Master Response 3.3 and Chapter 5, water quality in the</p>

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			southern Delta would not be degraded in response to the implementation of the plan amendments. The U.S. Bureau of Reclamation (USBR) water rights permits would continue to include requirements to meet the current 0.7 EC April-August Vernalis Salinity Standard, as contained in the program of implementation. This would maintain the historical range of salinity in the southern Delta. The water quality would not significantly impact agricultural resources in the southern Delta, as describe in Master Response 3.3 and Chapter 11.
680	7	The SED proposal fails to fully evaluate its impacts and places an extremely unfair burden on San Joaquin County and other eastside tributary counties. The current SED is inadequate and a decision based on the information provided would be unlawful and a disservice to the citizens of California that you serve.	Please see Master Response 1.1, General Comments, regarding the evaluation of impacts in the SED.
680	8	We [San Joaquin County Board of Supervisors] ask that the Board fulfill their obligations by collaborating with local stakeholders and carefully reevaluating and revising the SED proposal.	Please see Master Response 1.1, General Comments, regarding the public outreach process and stakeholder involvement.
681	1	<p>I have grave, grave concerns for the well being of San Joaquin County and its citizens based on the Board’s current intentions to export more water south of the Delta.</p> <p>My concerns are immediate for the County. They are largely economic as those factors impact public safety greatly. It is undeniable that economic opportunity is tied directly to crime rate. San Joaquin County is and has been historically at risk, unfortunately.</p> <p>There are members of our community who live in distressed communities where a combination of lack of job opportunities, crime, poverty, poor health, struggling schools, inadequate housing and disinvestment keeps many residents from reaching their full potential. Researchers call these hot spots, which account for a disproportionate amount of crime and disorder in our community.</p> <p>Research has shown that a driving force to sustainable success is job opportunities and a healthy environment, coupled with community, government, local region agencies and support services. Areas where we have been able to provide those services -- resources, excuse me -- have been seeing a slow and steady decline in violence and criminal behavior. We have built hope in San Joaquin County.</p> <p>The critical step in assisting and restoring these impacted neighborhoods is driven by employment opportunities. Your current proposal would adversely affect one of our largest job creators and economic tools, the ag community. The loss of these resources can be estimated in staggering monitory numbers. But what it means to me is different, because it means an increase in crime, which means more children will be harmed, more lives will be lost. And more violence will be required for all of us here in San Joaquin County to live in.</p>	The commenters concerns regarding crime are acknowledged. Please see Master Response 1.1, General Comments, for responses to comments regarding the purposes and needs of the plan amendments, which include the reasonable protection of the beneficial uses of fish and wildlife and agriculture in the southern Delta. Please also see Master Response 1.1 regarding the State Water Project and exports south of the Delta as they relate to the plan amendments. Please see Master Response 1.2, Water Quality Control Planning Process, regarding the independent proceedings of the updates to the Bay-Delta Plan and Chapter 5, Surface Hydrology and Water Quality, Section 5.4.2, Methods and Approach, Exports and Outflow, regarding the consideration of exports. Please see Master Response 1.1 regarding responses to general economic comments and requirements to consider economics, as well as Master Response 8.0, Economic Analyses Framework and Assessment Tools, for more detail regarding the requirements to consider economics and the framework under which economics is considered within the SED. The evaluation of the potential regional economic impacts appropriately addresses potential changes of employment at a programmatic level. Attempting to evaluate secondary or tertiary, non-physical environmental effects, as a result of potential changes in employment, would be too speculative and beyond the scope of this evaluation of the plan amendments.
681	2	by depleting resources and job opportunities, you will further impact our high-risk spots, while potentially creating new ones. This will significantly impact the work and the hope we have worked to build so. With an economy largely based on agriculture, if you determine this basis you undermine our viability in this region. If so, you will bring about an increase in crime that statistically is undeniable. This is unacceptable. And for what? For taking a viable area, decimating it to the benefit of another area, is unprecedented. This should be avoided at all cost.	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). For information regarding the authorities of the State Water Board and consideration of beneficial uses, please see Master Response 1.1 and Master Response 1.2, Water Quality Control Planning Process.

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681	3	If you transfer further water out of this area, you will impact the economic viability of San Joaquin County, which in turn ultimately impacts the crime rate and public safety.	Please see response to comment 681-2. Please see Master Response 1.1, General Comments, for information regarding the purposes and goals of the plan amendments.
681	4	This is the best damn county in the State of California and we're here today to ask you reconsider your proposal, and understand the true impact you have upon our community. Thank you for your consideration.	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.
682	1	<p>On the Board of Supervisors I deal with all eight counties in the Valley. And we talk about SGMA. We talk about the issues in regards to water. Also, we're part of the five-county Delta Counties Coalition, obviously which is diverse, as you know. Also, I deal with the mountain from Placer down to Tuolumne. And when I talk about these three different regions obviously, there's times we think of them being separate and different. They aren't. And the reason is that because you look at the mountain counties they provide the watershed, the water for our rivers. As it comes through the Delta, it goes to Southern California and other areas.</p> <p>I've had conversation with Randy Record, the Chairman of Metropolitan. I've had conversations also with also Frank Mellon, East Bay MUD. I would offer you this. They are open to alternatives, because we've talked about the WaterFix and other things. I would only suggest that as a group collectively, throughout the state, we have an opportunity to really make a difference. And I think we can have one of the best water systems in the world. This, unfortunately in my opinion, is not the way to go. Underground storage, things that we're doing with East Bay MUD etcetera are certainly an opportunity. Certainly, what the Federal Government just passed is also beneficial. So I would offer that we need to step back, look at all the opportunities that we have available and move forward.</p>	Please refer to Master Response 3.4, Groundwater and Sustainable Groundwater Management Act regarding the approach to the groundwater analysis contained in the SED.
683	1	California in general, and the San Joaquin tributaries in particular, have an unsustainable agricultural business model. It is a boom-and-bust cycle built on over-allocation of water. Too much delivery in good years creates crisis after two-to-three dry years. This system remains semi-functional only because it diverts water needed for rivers, over-pumps groundwater or both.	Please see Master Response 1.2, Water Quality Control Planning Process for information on the consideration of beneficial uses. Please see Master Response 3.4, Groundwater and the Sustainable Groundwater Management Act, regarding historical groundwater uses and overdraft in the plan area, and implementation of the Sustainable Groundwater Management Act (SGMA) and agriculture. This comment does not make a general comment about the plan amendments or raise significant environmental issues. No further response is required.
683	2	<p>Many water interests have argued in this proceeding that re-restoration of protective flows to rivers and the Sustainable Groundwater Management Act will be the cause of water shortage. On the contrary, these initiatives daylight a condition that was already there.</p> <p>On the three major San Joaquin tributaries, average annual diversions are about half of the average annual runoff. This level of deliveries is not sustainable and creates permanent stress on the system. The SED accepts this system by pushing the impacts of flow increases to dry and critically dry years. The Board needs to require water management when there is water to manage in the good years. The urban model passed by the Legislature in 2009, 20 percent reduction in urban water use by the year 2020, is a better model. These are four of the biggest problems with the SED.</p>	Please see Master Response 3.4, Groundwater and the Sustainable Groundwater Management Act, regarding the potential for the reduction of groundwater pumping under SGMA in the plan area. Please see Master Response 2.1, Amendments to the Water Quality Control Plan, and Master Response 2.2, Adaptive Implementation, regarding the incorporation of adaptive implementation and the potential use of adaptive implementation to manage water. This comment does not raise significant environmental issues.
683	3	Many aspects of the modeling in the SED are better than modeling was in 2013. But the SED uses modeling to avoid showing the impacts of how one might actually run the system. The SED uses the Water Supply Effects Model to show, with perfect foresight, that an adaptive management group could make annual adjustments to eliminate this or that impact, such as high-water temperatures in September or summer increases in salinity. A more realistic approach would be to use alternatives for each variable of concern, including rules and	Please see Master Response 1.1, General Comments, regarding a general discussion of the overall approach to the analyses contained in the SED and the programmatic nature of the analyses. Please see Master Response 1.2, Water Quality Control Planning Process, for a description of the water quality control planning process. Please see Master Response 3.2, Surface Water Analyses and Modeling, regarding model foresight, the WSE as an appropriate tool to evaluate water supply effects and potential environmental impacts for the programmatic analyses contained in the SED, and a discussion of carryover and adaptive implementation as

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		triggers. And either acknowledge the impacts or budget enough water to mitigate them.	represented by the model. Please see Master Response 3.3, Southern Delta Water Quality, for a discussion of potential increases in salinity. Please see Master Response 2.2, Adaptive Implementation, regarding how adaptive implementation can occur under the plan amendments. Please see Chapter 18, Summary of Impacts and Comparison of Alternatives, for a summary of impacts identified throughout the SED. Please see Master Response 1.1., General Comments, regarding the applicability of mitigation measures to the plan amendments and mitigation measures proposed throughout the SED.
683	4	When the 1988 Stipulation Agreement on the Stanislaus, and the 1966 Fourth Agreement on the Tuolumne were created, the public trust was not at the table. These agreements divide up amounts of water that don't account for what the rivers need. The Bay Area, and San Francisco in particular, has done a good job of reducing demands and water deliveries. Efficiencies in agricultural use on the east side of the San Joaquin Valley have not translated into reduced demand and deliveries are down only in droughts.	Please see Master Response 1.1, General Comments, regarding public trust. Please see Master Response 3.2, Surface Water Analyses and Modeling regarding the assumptions regarding agricultural and municipal demands. Please refer to Master Response 1.2, Water Quality Control Planning Process regarding the water rights priority system.
683	5	The San Francisco Public Utilities Commission and the Bay Area Water Supply and Conservation Agency deserve credit for reducing demand, in large part through conservation messaging. But their messaging on increased flows in the Tuolumne River has consistently been in opposition. This opposition doesn't line up with the values of their customers. These agencies must diversify their water portfolios, much as East Bay MUD has done, including treatment plants for water diverted from the Delta.	<p>This comment is part of a presentation regarding the San Francisco Public Utilities Commission and Bay Area water agencies.</p> <p>This response summarizes this comment and comments 683-8, 683-9, 683-10, 683-12, 683-14, and 683-16, which are part of the same presentation.</p> <p>A full response to these comments is provided here and referenced in the responses to the remaining comments.</p> <p>The commenter presents information on the following topics regarding San Francisco Public Utilities Commission and the Bay Area Water Supply and Conservation Agency:</p> <ul style="list-style-type: none"> • The success of the entities' demand reduction • The need for the entities to diversify their water supply portfolios • The need for the entities to be proactive on drought planning and management and to make broad investments in diversified water supply reliability. • Potential socioeconomic impacts of the Bay-Delta Water Quality Control Plan, on the San Francisco Public Utilities Commission and their customers • SFPUC storage, carryover and replenishment • SFPUC's Socioeconomic Study <p>The SED acknowledges in Chapter 13, Service Providers, and Chapter 16, Evaluation of Other Indirect and Additional Actions, that other actions could be taken by SFPUC.</p> <p>The contents of the commenter's statement are generally consistent with the information presented in Chapter 16 and Appendix L.</p> <p>Please refer to see Master Response 8.5, Assessment of Potential Effects on the San Francisco Bay Area Regional Water System, for a discussion of analyses pertaining to the city and county of SF.</p> <p>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)</p>

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			of interest.
683	6	The SED assumes transfers from Merced - excuse me, from Modesto and Turlock irrigation districts, but these entities do not appear to be willing sellers. There is no reason not to look to other sources. The Bay Area needs to invest in reliability and not just its own. It needs to look not only at what it can do in the Bay area, but also what it can do in the Valley to generally increase water supply reliability.	Please see Master Response 8.5, Assessment of Potential Effects on the San Francisco Bay Area Regional Water System, regarding transfer of surface water, as well as other approaches to address potential water supply reductions.
683	7	This slide [ATT 1: ATT 1] is a summary of some of the major general recommendations for the SED. And I would point out that export operations are definitely one of the things you must consider. It's hard to say where you consider it. I just reviewed the Scientific Basis Report for Phase 2, but you need to consider some of these options in the context of Phase 1. Otherwise many people -- and we've heard this a lot today -- consider that water released from the San Joaquin tributaries is simply an unpaid water transfer.	Please see Master Response 1.2, Water Quality Control Planning Process, for a discussion of the approach to Bay-Delta plan updates through independent proceedings. The Water Board is proposing to evaluate Delta exports in a future independent proceeding. In addition, please see Master Response 2.1, Amendments to the Water Quality Control Plan, for a discussion of protecting migratory fish in the LSJR watershed and Sacramento-San Joaquin Delta.
683	8	Here is a summary for the Bay Area and its water agencies. Particularly, San Francisco and the Bay Area need to be proactive on drought planning and management. And the Bay Area needs to make broad investments in diversified water supply reliability.	Refer to response to comment 683-5.
683	9	I appreciate the opportunity to present some information on potential socioeconomic impacts of the Bay-Delta Water Quality Control Plan, on the San Francisco Public Utilities Commission and their customers. So I'm going to cover SFPUC water supply and demand, their socioeconomic study and SFPUC storage, carryover and replenishment. And I'm going to start with a couple quotes from the SED. "The average annual amount of water available to the SFPUC from the Tuolumne River is 750,000 acre-feet or 678 million gallons per day, after conversion. And the SFPUC's average annual diversion from the Tuolumne is 244,000 acre-feet, which converts to 218 million gallons per day." And it should be noted that on average 85 percent of SFPUC's water comes from the Tuolumne and 15 percent comes from Bay Area watersheds. So this graph is from the SFPUC's EIR for their Water System Improvement Program and it showed that water demand was expected to continue to increase. And going to talk a little bit about how much water is used, so in 2007 the demand projections for 2018 were 285 million gallons per day. There was a lot of opposition from the environmental community about diverting more water from the Tuolumne. And to quell that the SFPUC, to their credit, agreed to cap water sales at 265 MGD until 2018. And between 2010 and 2014 we were averaging about 225 million gallons per day. I say "we," because I live in the service territory. In fiscal year 2014-15 it was down to 195. And in '15-'16, 180 MGD, so it was 32 percent below the cap. Really quite phenomenal.	Refer to response to comment 683-5.
683	10	So this graph shows SFPUC annual system deliveries. Over the past ten years we've seen a tremendous drop in water use due to conservation. And water demand was 180 last year, 180 MGD, so 32 percent below the 265 cap. In 2014 the Bay Area Water Supply and Conservation Agency, which is known as BAWSCA and represents the SFPUC's 26 wholesale customers that use two-thirds of the water delivered from the SFPUC, they revised their demand projections and they're now 20 percent lower by 2040.	Refer to response to comment 683-5.
683	11	So now I'm going to talk a little bit about the SFPUC's Socioeconomic Study. So this is a controversial quote from the general managers of the SFPUC and BAWSCA and it suggests	The commenter is commenting on a previous study prepared by another party as part of a project that is different than the plan amendments. This comment does not make a general comment regarding the plan

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		<p>that the Bay-Delta Plan could result in the loss of up to 188,000 jobs and \$49 billion in decreased sales. Well, this is erroneous and apparently contagious; you heard Mr. Flora refer to these figures earlier. These figures were based on work done by an economist named David Sunding. And we took a look at his study in 2014, the most recent one, and we found a number of flaws in the study.</p> <p>So for example, it based rationing on demand versus supply. It included Bay Area water supplies as if they would be impacted by changes in flows on the Tuolumne. It failed to understand adequately how storage replenishment in normal and wet years could erase past deficits. And it failed to analyze the potential for water conservation. For example, over the past few years people have installed high-efficiency appliances, taken shorter showers, and reduced overwatering of lawns. And we were able to achieve great things with no economic impact.</p> <p>So according to his 2014 study, the SFPUC service territory should have seen a loss of \$6.5 billion in sales last year when water demand was more than 30 percent below average supply. And we should have seen the loss of almost 25,000 jobs. Now, the SFPUC in BAWSCA claim the figures that they have been citing are based on Sunding's -- not on his 2014 study -- but on previous work he did in 2009 that was later presented to the State Water Board in 2013, as you might recall. So this suggests his work became less accurate over time.</p> <p>But if you compare his projections from 2009 with 2014 they're even more inflated. He didn't produce figures for 30 percent rationing in 2009, but his figure for sales losses at 20 percent rationing was 50 percent higher than in 2014 and his figure for 40 percent rationing was more than double. The \$49 billion at the bottom of this chart is what the SFPUC and BAWSCA are quoting. His 2014 study had \$20.56 billion, but if you go to look at 30 percent it would have been \$6.5 billion.</p> <p>Same for job losses, his figure from 2009 for 40 percent rationing was two-and-a-half times greater than the figure from his 2014 study. And again we didn't see any jobs lost last year. In fact, jobs were created. According to the California Employment Development Department San Francisco added more than 125,000 jobs between 2010 and 2015, and San Francisco makes up only a third of the SFPUC service territory. So this slide shows the actual number of jobs created between 2010 and 2015 in the four counties that receive some or all of their water from the SFPUC.</p>	<p>amendments or raise significant environmental issues.</p> <p>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.</p>
683	12	<p>So now I'm going to talk about SFPUC storage, carryover and replenishment, so total SFPUC storage capacity is almost one-and-a-half million acre-feet. And that's enough water to supply its 2.6 million customers for six years at full capacity.</p>	<p>Refer to response to comment 683-5.</p>
683	13	<p>The next series of graphs focus on water availability and capture. This one shows inflow into Don Pedro Reservoir over the past six years. For most of the year the Modesto and Turlock irrigation districts have rights to the first 2,400 cfs of runoff. From mid-April to mid-June they are entitled to the first 4,000 cfs. The SFPUC has rights to the additional runoff.</p>	<p>A discussion of existing water rights and surface water conditions is provided in Chapter 5, Surface Hydrology and Water Quality, and includes discussion of Modesto Irrigation District and Turlock Irrigations District's senior water rights as well as the average diversions by SFPUC from the Tuolumne River. The commenter's statements do not conflict with information presented in the SED. No further response is required.</p>
683	14	<p>You can see it here that after four dry years the SFPUC captured 651,000 acre-feet last year, which was a normal water year. That was enough to last two-and-a-half years. And the reservoirs and water bank have rebounded back to normal. The blue line there is reservoir storage and the red line is the water bank. The lowest SFPUC storage got during the drought</p>	<p>Refer to response to comment 683-5.</p>

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		<p>was about 600,000 acre-feet. And that didn't include their Bay Area storage, which they keep pretty full, because with an earthquake we would depend on that.</p> <p>Currently, SFPUC storage is above normal at 83 percent and we're still in the drought. And it's likely to fill completely this year. There are more than a million acre feet in the SFPUC's Tuolumne storage alone. Total system storage is currently at 1.2 million acre-feet. That's enough water to last five years.</p>	
683	15	<p>The next series of graphs demonstrate how current reservoir operations can harm fish without necessarily benefiting water supply: 2002 [see ATT 2: ATT 16] was a below-average water year and very dry for fish, so the blue is unimpaired runoff and the red is actual flow; 2003 [see ATT 2: ATT 17] was again dry and fish in the ecosystem suffered, another dry year in 2004 [see ATT 2: ATT 18]. But then, 2005 [see ATT 2: ATT 19] was a very wet year and much of the runoff had to be released. Fish certainly would have benefited from this extra water in previous years. And 2006 [see ATT 2: ATT 20] was even wetter with most of the runoff having to be released. When we have a really good water year or even a couple of normal years, the system fills and any past deficit is erased.</p>	<p>The commenter provided an attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required. 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.</p>
683	16	<p>The SFPUC's Socioeconomic Study is seriously flawed yet they continue to cite the figures as do other people. The SFPUC has enough storage to provide a buffer against extended dry years. And we can improve the ecosystem while maintaining a strong economy.</p>	<p>Refer to response to comment 683-5.</p>
683	17	<p>[ATT 1 -- Phase I SED: Basic Issues & The Role of San Francisco. Chris Shutes, California Sportfishing Protection Alliance. December 16, 2016.]</p>	<p>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.</p>
683	18	<p>[ATT 1: ATT 1 -- Presentation Summary]</p>	<p>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.</p>
683	19	<p>[ATT 1: ATT 2 -- California has an unsustainable agricultural business model]</p>	<p>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.</p>
683	20	<p>[ATT 1: ATT 3 -- Unsustainable level of deliveries]</p>	<p>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.</p>
683	21	<p>[ATT 1: ATT 4 -- No basis for 40% Feb-June unimpaired Block or Budget]</p>	<p>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.</p>
683	22	<p>[ATT 1: ATT 5 -- Need rules in SED, Analyze real alternatives for:]</p>	<p>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.</p>
683	23	<p>[ATT 1: ATT 6 -- Two major agreements must change]</p>	<p>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.</p>
683	24	<p>[ATT 1: ATT 7 -- Conservation disparities]</p>	<p>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.</p>
683	25	<p>[ATT 1: ATT 8 -- SFPUC and BAWSCA deserve credit for reducing demand, but not a free pass]</p>	<p>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.</p>
683	26	<p>[ATT 1: ATT 9 -- Bay Area should invest in reliability]</p>	<p>The commenter provided this attachment for reference purposes in support of their comments. Those</p>

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			comments are addressed in these responses to comments; therefore, no additional response is required.
683	27	[ATT 1: ATT 10 -- Summary (1). Final SED must define the alternatives and shows the analysis for:]	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.
683	28	[ATT 1: ATT 11 -- Summary (2). Bay Area role consistent with values]	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.
683	29	[ATT 1: ATT 12 -- Socioeconomic Impacts of the Bay Delta Water Quality Control Plan on SFPUC Customers]	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.
683	30	[ATT 1: ATT 13 -- Presentation Summary]	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.
683	31	[ATT 1: ATT 14 -- SFPUC Water Supply & Demand]	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.
683	32	[ATT 1: ATT 15 -- Demand Projections from 2007 Suggested Continued Growth in Water Demand]	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.
683	33	[ATT 1: ATT 16 -- Water Use in the SFPUC Service Territory]	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.
683	34	[ATT 1: ATT 17 -- Water Demand Decreased 30% Between 2007 and 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.
683	35	[ATT 1: ATT 18 -- Projected Demands are 20% Lower than 2008 Demand Study]	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.
683	36	[ATT 2: SFPUC Socioeconomics Study]	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.
683	37	[ATT 2: ATT 1 -- San Francisco Chronicle, Guest Editorial. October 9, 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.
683	38	[ATT 2: ATT 2 -- Flaws in the Study]	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.
683	39	[ATT 2: ATT 3 -- Had the Study been accurate, we would have lost \$6.5 billion in sales last year. Table 5-3: Annual Business Sales Losses by Shortage Scenario (\$ Billions)]	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.
683	40	[ATT 2: ATT 4 -- Had the Study been accurate, we would have lost 24,510 jobs last year. Table 5-4: Annual Job Losses by Shortage Scenario (Thousands of jobs)]	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.
683	41	[ATT 2: ATT 5 -- Projected Sales Losses were Inflated]	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.
683	42	[ATT 2: ATT 6 -- Projected Sales Losses were Inflated]	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.
683	43	[ATT 2: ATT 7 -- Job Growth Annually Increased Between 2010 and 2015]	The commenter provided this attachment for reference purposes in support of their comments. Those

Table 4-1. Responses to Comments

Ltr#	Cmt#	Comment	Response
			comments are addressed in these responses to comments; therefore, no additional response is required.
683	44	[ATT 2: ATT 8 -- SFPUC Storage, Carryover & Replenishment]	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.
683	45	[ATT 2: ATT 9 -- Inflows to Don Pedro Reservoir]	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.
683	46	[ATT 2: ATT 10 -- Irrigation District Entitlements]	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.
683	47	[ATT 2: ATT 11 -- Water Available to SFPUC]	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.
683	48	[ATT 2: ATT 12 -- Reservoir Storage and Water Bank]	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.
683	49	[ATT 2: ATT 13 -- SFPUC Tuolumne Storage]	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.
683	50	[ATT 2: ATT 14 -- December 11, 2016 Reservoir Storage Levels]	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.
683	51	[ATT 2: ATT 15 -- December 11, 2016 Reservoir Storage Levels]	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.
683	52	[ATT 2: ATT 16 -- Tuolumne River, 2002 Unimpaired Runoff (1117 TAF Feb-June), 2002 Actual Flow (129 TAF Feb-June)]	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.
683	53	[ATT 2: ATT 17 -- Tuolumne River, 2003 Unimpaired Runoff (1298 TAF Feb-June), 2003 Actual Flow (140 TAF Feb-June)]	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.
683	54	[ATT 2: ATT 18 -- Tuolumne River, 2004 Unimpaired Runoff (1090 TAF Feb-June), 2004 Actual Flow (232 TAF Feb-June)]	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.
683	55	[ATT 2: ATT 19 -- Tuolumne River, 2005 Unimpaired Runoff (2247 TAF Feb-June), 2005 Actual Flow (1229 TAF Feb-June)]	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.
683	56	[ATT 2: ATT 20 -- Tuolumne River, 2006 Unimpaired Runoff (2522 TAF Feb-June), 2006 Actual Flow (1714 TAF Feb-June)]	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.
683	57	[ATT 2: ATT 21 -- Conclusions]	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.