

Table 4-1. Responses to Comments

Ltr#	Cmt#	Comment	Response
960	1	We're a voluntary trade association that represents a majority of the dairy farms in the state. A state where dairy is the number one commodity at a farm gate value of \$6.3 billion. This is the value of the commodity, not what the dairy family actually makes.	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.
960	2	<p>The California dairy industry is in rapid decline.[ATT 1: ATT 2] You can see the milk production in pounds year over year. We have just broken a 23-month consecutive decline in milk production. So, consequently, you see the average number of dairy farms in California rapidly declining. That is a red bar going down. We have lost almost 58 dairies just in the last six months in the state.[ATT 1: ATT 3]</p> <p>So the California dairy industry's costs of production have been exceedingly high, essentially since the drought began.[ATT 1: ATT 4] You can see a CDFA based chart where the cost of production really has hit an all-time high and sustained itself at a relatively high level since the drought began.</p> <p>The California dairy industry benefits consumers, however, we have been able to keep a fairly average low consumer cost, and their consumers have benefitted from relatively low milk prices [ATT 1: ATT5], which assures the product that is very healthy is also affordable.</p>	Please see Master Response 1.1, General Comments, for responses to comments that make a general comment regarding the plan amendments and general information regarding the economic analysis. Also, please see Master Response 3.5, Agricultural Resources, and Master Response 8.2, Regional Agricultural Economic Effects, for discussion of potential effects on dairies.
960	3	The dairy industry is actually highly codependent on composting, and eliminates significant GHG emissions through its production practices.[ATT 1: ATT 6]	This comment describes dairy industry practices but does not raise significant environmental issues related to the analysis of impacts discussed in the SED, provide evidence to support the assertion the dairy industry eliminates GHG emissions through its production practices, nor make a general comment regarding the plan amendments.
960	4	This is a graph that shows the relationship to almond hull values. So, again, the two number one industries, the one and two, dairy and almonds, are inextricably linked and one actually cannot exist without the other. We tend to feed almond hulls. It's a carbohydrate-based component in our TMR. So, we take what would ordinarily go into landfills and turn it into feed. And that's something that we're very proud of.	Please see Chapter 11, Agricultural Resources, Section 11.2.2, Lower San Joaquin River Watershed and Eastside Tributaries, for information on other agricultural production (dairies). Please see Master Responses 3.5, Agricultural Resources, for information on dairy feed, and Master Response 8.2, Regional Agricultural Economic Effects, regarding economic effects of alternative feedstock options to corn silage. This comment does not make a general comment regarding the plan amendments or raise significant environmental issues.
960	5	<p>One of the major flaws that we have found with the proposal is that GHG emission impacts were not analyzed in the document.[ATT 1: ATT 9] The California dairy industry has recently been regulated for methane, which is a short-lived climate pollutant, classified as a GHG.</p> <p>Methane's ability to be quantified by both the ARB and the industry is not finite or accurate. We have very few reporting tools that actually quantify that, and we are right now trying to hit and meet targets that we cannot identify baselines for. The increase in GHG as a result of the SED proposes a serious risk of non-compliance for the dairy industry because of subjective baselines. We're very alarmed about that.</p> <p>And shifting river flows earlier in the year reduces hydropower, which is a GHG neutral power source, during the peak summer power demand. The loss of power is likely to be at least partially offset by power sources with greater GHG emissions.</p> <p>And, if dairies cannot grow their feed locally, they will likely purchase or grow feed in more distant places, increasing transportation emissions and, therefore, increasing your GHG linkage issues in the State of California.</p> <p>Continuing on, the GHG emission impacts will be increased under the plan.[ATT 1: ATT 10] As a result of not having surface water available to grow their feed, the inevitable shutdown of dairies in California will lead to major GHG leakage from the displacement of this</p>	<p>Please see response to comment 960-3. Potential indirect GHG increases associated with the plan amendments affecting the ability of the dairy industry to meet ARB-established methane targets is beyond the scope of environmental issues required for analysis in the SED.</p> <p>As discussed in Master Response 3.5, Agricultural Resources, and Master Response 8.2, Regional Agricultural Economic Effects, dairies can substitute silage, which may reduce the need to truck in other feed. However, it would be speculative to identify the amount of feed needed, where it would be trucked from, and where it would be trucked to, the number of trucks needed in the event dairies would need to supplement feed from outside of the plan area and transport it locally. As a result, attempting to quantify or identify a potential increase in GHGs associated with these activities would be speculative. Furthermore, it should be noted that reductions in available irrigation water could lead to reduced intensity of agricultural operations in other areas of the plan area, thereby reducing potential GHG emissions from these activities, as disclosed in Chapter 14, Energy and Greenhouse Gases. The net effect of emissions potentially generated from truck trips and emissions reduced from reduction of agricultural uses would be too speculative to quantify. Any additional transportation of feed stock into the region would not change the significance determination disclosed in Impact EG-3 or EG-4 under LSJR Alternative 2 with adaptive implementation or LSJR Alternatives 3 or 4 with or without adaptive implementation, as the significance determination is significant and unavoidable.</p> <p>As discussed in Chapter 11, Agricultural Resources, Impact AG-2, Master Response 3.5, Agricultural Resources and Master Response 8.2, Regional Agricultural Economic Effects, a complete elimination of</p>

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		<p>commodity elsewhere in the world.</p> <p>Other countries located on the Pacific Rim that will be natural trade partners for California dairy need and the U.S. dairies' needs are not a fraction as carbon compliant as we have become.</p>	<p>dairies associated with changes in surface water supply due to the plan amendments is not expected because dairies can and have substituted feed and can purchase water. Furthermore, analyzing the GHG leakage and the GHG production from other countries on the Pacific Rim is beyond the scope of analysis for the SED.</p> <p>Chapter 14, Energy and Greenhouse Gases, analyzes the potential change in hydropower in response to the implementation of the LSJR alternatives as it relates to the potential to generate GHGs in Impact EG-3 and Impact EG-4.</p>
960	6	<p>The conversation about water quality and CV-SALTS is very relevant to this Board.[ATT 1: ATT 11] And we'd certainly like to touch on that briefly. Open to more questions. But it is a process that we are fully committed to and have a tremendous amount of investment in. We believe wholeheartedly that the CV-SALTS process will benefit all users and have some long-term goals that we can all meet. It's been working with stakeholders to develop a regulatory process that allows more certainty in industry permitting while ensuring that everyone gets safe drinking water.</p> <p>Without high quality water to recharge our aquifers, groundwater quality will decline, as we have seen as a result of the drought to date. I know you know that. But this leads to water quality issues for one had everyone, especially for disadvantaged communities, which we happen to surround. CV-SALTS has been working with those disadvantaged communities along with many, many varieties of stakeholders to address this issue but plans to make it -- but this plan makes its job quite a bit more difficult.</p> <p>The State Water Resources Control Board should consult with CV-SALTS to minimize the impact of this plan on disadvantaged communities and the CV-SALTS efforts.</p> <p>And if you need, there is lots and lots of documents that we can provide, and we'll be providing in our written comments for your reference.</p>	<p>The State Water Board appreciates the opportunity to work collaboratively with CV-SALTS. Please see Master Response 2.7, Disadvantaged Communities, regarding drinking water and Disadvantaged Communities. Please refer to Master Response 1.1, General Comments regarding collaboration with others and the programmatic nature of the SED. Please see Master Response 2.1, Amendments to the Water Quality Control Plan regarding the program of implementation and the STM working group and the incorporation of non-flow measures.</p>
960	7	<p>The document fails to consider nutrient management in the economic analysis.[ATT 1: ATT 12] Livestock operations, for example, must take into consideration nutrient management at all times. It's one of our number one concerns in the dairy industry. And while producing alfalfa may be a low value use of lands, as stated by the document, livestock operations may not be presented with a clear choice to fallow that land or convert it to tomatoes, for example, because they need to spread their manure out.</p> <p>Regulations state that the amount of nitrogen you can apply is tied directly to the amount of nitrogen you can remove. So simply having the acres to do it does not work if there's no crop to remove the nitrogen. By omitting this linkage between land use and livestock operations [ATT 1: ATT 13], the result of the economic study are skewed and inaccurate.</p>	<p>Please see Master Response 3.5, Agricultural Resources, regarding dairies and nutrient management as it relates to impacts to agricultural resources. As discussed in Master Response 3.5, based on a review of the Central Valley RWQCB's regulatory documentation, although manure waste is typically applied to crops used by dairies, there are no restrictions on the type of crop that dairy waste can be applied to. Please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, regarding the use of SWAP as a tool for analyzing potential economic effects to different crops including those used as feedstock for dairies. As discussed in Master Response 8.1, the State Water Board used SWAP because it is peer reviewed and already widely used by state and federal agencies to model cropping decisions. SWAP reflects observed grower behavior in response to changing conditions, which is that in times when available water supplies are reduced, some water supplies will typically shift from lower net revenue crops (e.g., certain row crops) to ones with higher net revenue (e.g., certain tree crops). As discussed in Master Response 3.5 and Master Response 8.1, based on SWAP model output there are sufficient acres available in all year types to accommodate manure generated from dairy operations. Please see Master Response 8.2, Regional Agricultural Economic Effects, for regarding potential economic effects on the dairy sector.</p>
960	8	<p>The failure to consider nutrient management in the economic analysis [ATT 1: ATT14]: According to the conclusions of your own economic study and your staff has derived from this proposal, optimal returns to farmers are reached only as water becomes scarcer. And the crops most affected are pasture, alfalfa, rice, and other field crops.</p> <p>The document states that these crops face the largest reduction because they require</p>	<p>Please see response to comment 960-7.</p>

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		<p>relatively high water use and/or generate lower net revenue per acre when considered -- compared to annual crops, such as almonds or pistachios. The modeling results predict that the higher value crops, such as tomatoes, are less affected by reduced surface water diversion than lower value crops because farmers would be expected to fallow lower value crops first.</p> <p>Decisions regarding land use sometimes are part of an entire operation and cannot be isolated. Livestock operations, for example, must take into consideration nutrient management. While producing alfalfa may be a low value use of the land, livestock operations may not be presented with any further clear choice that that land has to be fallowed, and they need it to spread their manure.</p> <p>Again, continuing on this topic. Manure management, air quality, and water quality are inextricably linked to operating a sustainable dairy that meets with California's high standards of green progress. The SED will force dairies out of compliance with most of their operating permits and all of their operating regulations as a result of restricted surface water.</p>	
960	9	<p>Moving into some of our comments with more relative terms about CEQA. And this comes from the perception that CEQA is also here to save us as a protected resource in California.</p> <p>The distinction is really important between a substitute project EIR -- subject EIR versus a project EIR because the SED represents a deferral of environmental and economic analysis. Environmental analysis in the document is deficient towards local agriculture, local water supplies, and total impacts, which we just discussed as part of the economic analysis, and instead the SED explicitly defers analysis over 800 times in these same resource areas.</p> <p>The full project EIR should be conducted that includes a full analysis under the Public Resources Code, including, but not limit to proper use of what we are labeling as a SWAP economic analysis, any full economic analysis for IMPLAN.</p> <p>The suggestion in the document that the previous Bay-Delta Plan is the programmatic document [ATT 1: ATT 16] for which all analysis and decisions should be tiered and plan amendments is completely unreasonable, in our opinion.</p>	<p>Please see Master Response 1.1, General Comments, for responses to comments regarding the regarding programmatic analysis and the difference between programmatic environmental documents and project environmental documents.</p>
960	10	<p>There's no reference to SGMA. We've been through this. SGMA will have dramatic effects on the region. And certainly not a legal use of the term "later activities" of a geographic region.</p>	<p>SGMA was properly included in the analyses as an existing legal requirement to prevent further degradation of the groundwater basins and as a potential cumulative limit on future irrigation supplies (Executive Summary; Chapter 9, Groundwater Resources; Chapter 11, Agricultural Resources; Chapter 13, Service Providers; Chapter 17, Cumulative Impacts, Growth-Inducing Effects, and Irreversible Commitment of Resources; Chapter 22, Integrated Discussion of Potential Municipal and Domestic Water Supply Management Options).</p> <p>The State Water Board acknowledges that it will be challenging, but the plan amendments do not limit the ability of local entities to comply with SGMA; comprehensively addressing both surface water and groundwater resources allows for true integrated planning of California's scarce water resources.</p> <p>The SED and plan amendments do not require or encourage groundwater substitution as a response to reductions in surface water. Rather, the SED reflects the historical local response to increase groundwater pumping when surface water availability is reduced. 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 SED consideration of SGMA, please see Master</p>

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			<p>Response 3.4, Groundwater and the Sustainable Groundwater Management Act.</p> <p>For responses to comments on potential economic impacts, please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, and Master Response 8.2, Regional Agricultural Economic Effects.</p>
960	11	<p>All of the baseline conditions, especially as it comes to nutrient management for the fish, for agriculture, and for climate change, have changed dramatically compared to the prior programmatic document. So, again, moving into the topic of deferral of analysis, the CEQA requires that the significant impacts to any one or all resource areas must not be deferred to a later date. In all categories of regulatory compliance for the dairy industry, impact is deferred.</p>	<p>Please see Master Response 2.5, Baseline and No Project, for information regarding the baseline and CEQA requirements.</p> <p>Please see Master Response 1.1, General Comments, for general information regarding the Recirculated SED and the programmatic analysis.</p> <p>Please see Master Response 3.5, Agricultural Resources, for information regarding potential effects to existing dairy uses and cattle.</p>
960	12	<p>Nutrient management equals water quality for us. They are completely linked and we cannot separate the two. GHG, short-lived climate pollutant management, equals air quality for us. We cannot separate the two.</p> <p>The rural cry for social justice here is equally important for the Board's consideration, and CEQA is required to save agriculture in this case.[ATT 1: ATT 17]</p>	<p>Please see Master Response 2.7, Disadvantaged Communities, which provides a discussion regarding how Disadvantaged Communities were considered. Please see Master Response 1.1, General Comments, State Water Board Authorities, for a discussion of balancing water demand.</p> <p>Please see Master Response 1.1, General Comments, for responses to comments regarding the concerns of community members, greenhouse gases and water quality concerning nutrients.</p>
960	13	<p>Because the California dairy industry is currently in sharp decline, any further regulatory constraints on the industry cannot be suggested as possibilities for collaboration. [ATT 1: ATT 18] Areas that are currently within the dairy industry's scope of production costs include, substantial and ongoing investment in the CV-SALTS process, substantial and ongoing investment in regional habitat solutions for salmon and fish populations. We are heavily invested with those in our local irrigation districts, and we look forward to seeing more productive conversations about that. Regulatory costs associated with water quality compliance for both the CDQAP program and future WDR requirements for the industry are something we also look forward to working and collaborating with you on.</p>	<p>Please see Master Response 3.5, Agricultural Resources, regarding potential effects to existing dairy uses and cattle. Please see Master Response 1.1, General Comments, for regarding voluntary agreements and collaboration with agencies. Voluntary agreements can be submitted to the Board for consideration at any time. Additionally, the SED Executive Summary, ES 3.1 Lower San Joaquin River Flow and Southern Delta Salinity Proposals, and Appendix K, Voluntary Agreements, address the minimum standard the agreements must meet for Board consideration including "measures that meet or exceed the proposed objectives and protect fish and wildlife uses".</p>
960	14	<p>There are major economic flaws in the SED model as it pertains to the dairy industry. The lack of analysis for manure management, nitrogen application and overall nutrient management makes the analysis flawed and inaccurate. Tiered analysis from an aged programmatic document has resulted in systematically incorrect baseline assumptions for the dairy industry. The industry is ready to work collaboratively within its existing cost of production, but cannot suggest any further regulatory constraints as a viable option. CEQA is here to protect us all. Specifically, we feel that agriculture is also an endangered species. There's actually far more salmon than there are of us. The real cry for social justice is here and equally important for the Board's consideration.</p> <p>I'd like to kind of finish by suggesting that when I look at the California dairy industry, I cannot talk about solutions for any one sector. I can't talk about the California dairy industry and not talk about my Southern California dairies. I can't talk about the industry and not consider my Northern California dairies. I have to look at it as a whole. And I don't think that you can look at water quality without discussing all of the options that are available to fix the Delta. And that's really important for us to consider as a whole because I have dairies all over the state, and I know you consider that.</p>	<p>Please see Master Response 3.5, Agricultural Resources, for discussion of the potential effects on dairies and livestock operations and for discussion of manure and nutrient management. Also, please see Master Response 8.2, Regional Agricultural Economic Effects, for discussion of potential economic effects on dairies.</p>

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960	15	<p>I just wanted to summarize I think that are very important. That the plan must consider SGMA. The plan states that groundwater will replace lost surface water, but SGMA is the law of the land and it has to be considered. And, in consideration of SGMA, the economic costs are going to be higher because there will be more lands fallowed and lost, and that needs to be incorporated into the plan.</p>	<p>Please see response to Comment 960-10.</p>
960	16	<p>We heard a lot about settlements today. And I just -- if this is about the fish, you know, water is not going to be the only piece. We've kind of heard that. But I think that settlements should look first at non-flow elements, I think that's very important, which achieves the same goals with lower economic costs.</p> <p>So, in closing, I just want to say, please work with the districts. I think we've kind of heard that. The Modesto and Turlock Irrigation District were here earlier today. I know you've heard from the other districts. Please work with them to achieve solutions that we can all live with.</p>	<p>Please see Master Response 1.1, General Comments, and Master Response 2.1, Amendments to the Water Quality Control Plan, for responses to comments by the State Water Board supporting voluntary agreements and a discussion of non-flow measures. Please see Chapter 3, Alternatives Description, for information on non-flow measures and Chapter 16, Evaluation of Other Indirect and Additional Actions, for an evaluation of the non-flow measures.</p>
960	17	<p>MS. D'ADAMO: In the economic analysis, there's an assumption that the water cuts are going to be absorbed by some of the lower value crops and water would go to the highest producing crops? But if you have a dairy and, Paul, maybe you would be the one to answer this question, if you have a dairy and you're growing alfalfa, you're growing feedstock for your dairy, are you going to be willing to fallow that ground so that you can move it to or sell it to somebody else, and what impact would that have on your dairy?</p> <p>MR. SOUSA: Yeah, I can take this one. So, yeah, the report looks at shifting crop values and going from low value to high value crops in order to justify the costs. But you're not able to do that as a dairy for a couple of reasons. Because your output is milk. It's not like you have land that, you know, tomatoes this year, bell peppers next year, maybe I'll plant some trees on half of it. You know, what you're producing is milk.</p> <p>And you need feed for your cows and you need to balance it with, Anya was saying, your manure that your cows are producing with the crops that you're growing. So, dairy farmers don't have that ability to shift from year to year the crops. They need to grow crops that they can apply the manure to and that they can feed to their cows.</p> <p>So, that flexibility that the economic analysis looked at is not there for dairy farmers. We're much more tied to the crops that we have. Their value on what's coming off of that field might look like low value, but, ultimately, what we're sending to market is the milk.</p> <p>MS. RAUDABAUGH: And can I add to that? You hear a lot about this conversation from agriculture about the price takers versus price makers and let me see if I can do you one better. The California dairy industry is a California minimum state regulated price. So, our price is not within our control, and it is actually set by the State. So, we have no ability to pass on any of these costs, which is why I've said very clearly, I hope, that we can only suggest things that are currently within our estimated cost of production.</p>	<p>Please see Master Response 3.5, Agricultural Resources, for discussion of the potential effects on dairies and livestock operations. Please see Master Response 8.2, Regional Agricultural Economic Effects, for discussion of the potential economic effects on dairies.</p>
960	18	<p>[ATT 1: SED Impacts to California Dairy Sector. PowerPoint for 12/20/2016 public hearing. "Water Quality Control Plan SED Impacts to California Dairy Sector, December 20th, 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>
960	19	<p>[ATT 1: ATT1: PowerPoint slide: "California Dairy Industry"]</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>

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960	20	[ATT 1: ATT2: PowerPoint slide: Graph "California Dairy Industry is in Rapid Decline"]	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.
960	21	[ATT 1: ATT3: PowerPoint slide: Table "California Dairy Industry is in Rapid Decline." Less Milk Production Means Fewer Family Dairies]	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.
960	22	[ATT 1: ATT4: PowerPoint slide: Graph "California Dairy Industry Costs of Production Have Been High Since the Drought Began"]	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.
960	23	[ATT 1: ATT5: PowerPoint slide: Graph "California Dairy Industry Benefits Consumers"]	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.
960	24	[ATT 1: ATT6: PowerPoint slide: Graph "Dairy Industry is Co-Dependent on Composting and Eliminates Significant GHG 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.
960	25	[ATT 1: ATT7: PowerPoint slide: "Pizza consumption is the Heart of America"]	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.
960	26	[ATT 1: ATT 8: PowerPoint slide: Graph "Interest for Eggnog is Rising!"]	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.
960	27	[ATT 1: ATT 9: PowerPoint slide: "GHG Emission Impacts Were Not Analyzed"]	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.
960	28	[ATT 1: ATT 10: PowerPoint slide: "GHG Emission Impacts Will Be Increased Under Plan"]	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.
960	29	[ATT 1: ATT 11: PowerPoint slide: "Water Quality - CV-Salts"]	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.
960	30	[ATT 1: ATT 12: PowerPoint slide: "Document Fails to Consider Nutrient Management in Economic Analysis"]	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.
960	31	[ATT 1: ATT 13: PowerPoint slide - "Document Fails to Consider Nutrient Management in Economic Analysis"]	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.
960	32	[ATT 1: ATT 14: PowerPoint slide - "Document Fails to Take Nutrient Management into Economic Analysis"]	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.
960	33	[ATT 1: ATT 15: PowerPoint slide - "Substitute EIR v. Project EIR"]	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.
960	34	[ATT 1: ATT 16: PowerPoint slide - "Project EIR v. Programmatic Document"]	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.
960	35	[ATT 1: ATT 17: PowerPoint slide - "Deferral of Analysis"]	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.
960	36	[ATT 1: ATT 18: PowerPoint slide - "Suggestions for Collaboration"]	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.

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960	37	[ATT 1: ATT 19: PowerPoint slide - "Summary of Contents"]	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.
960	38	[ATT 1: ATT 20: PowerPoint slide - "Questions or Comments"]	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.
960	39	<p>[ATT 2 - From "Written Comments Accompanying Oral Testimony to SWRCB Board"]</p> <p>In the Bay-Delta SED, the State Water Resource Conversation Board (SWRCB) presented an analysis of the economic impact of agricultural production changes caused by reduced surface water diversions under the LSJR alternatives. The state agency used a combination of three different models to calculate effects on the regional economy: 1) WSE model to estimate total agricultural applied water for the irrigation districts, 2) Statewide Agricultural Production (SWAP) model to estimate the effects of those water changes on agricultural production, and 3) Impact Analysis for Planning (IMPLAN) to estimate regional economic effects from those changes in agricultural production.</p> <p>Because the final economic impact is derived from SWAP's results, it is important to understand the kind of information SWAP is able to provide. According to the SED, Appendix G, SWAP is the best tool to use for this particular policy analysis. The agency cites SWAP makes use of Positive Mathematical Programming (PMP), which "is directly based on profit-maximizing behavior of farmers". Specifically, "The SWAP model predicts the production decisions of farmers at a regional level based on principles of economic optimization. The model assumes that farmers maximize net returns to land and management subject to resource, technical, and market constraints. The model selects those crops, water supplies, and irrigation technology that maximize profit subject to these equations and constraints". While such a model may be helpful in producing broad results on some policy evaluations, we have concerns in this particular instance. Farmers may follow certain profit-maximizing behavior on their operation, but assuming this as their only path for business decisions will lead to inaccurate observations.</p> <p>Consideration for non-economic factors as well as the knowledge that farmers are not constantly bound by rationality lead us to believe the results of the study may be misguided. Many farmers do what they do because 1) the business has been in the family for generations and they hope to pass it on or 2) because they have a passion for it. All of them want to keep their business viable, and as such profit maximizing is on their mind within the confines of their existing operation. According to researchers who developed the SWAP model, "as conditions change within a SWAP region, the model optimizes production by adjusting the crop mix, water sources and quantities used and other inputs. It also follows land when that appears to be the most cost- effective response to resource conditions". While this is rational behavior you would expect from an economic being, human beings don't always behave that way. Farmers and ranchers will dig though their equity to stay afloat, even if at times going out or changing production would be the rational choice.</p>	<p>Recognizing the diversity in production methods and local environmental conditions, the SWAP model considers representative base farming operations that arise from profit-maximizing behavior within each modeled region. This includes farming operations whose net returns are below average and above average. Historical data and observations on agricultural production in the SED plan area suggest that cropping decisions in the aggregate increase the value of production. While the economic rationality assumptions may not fully capture personal choice to operate a farm with less than average profits or losses, representing individual farm operations or grower decisions with SWAP is beyond the scope of the programmatic analysis in the SED. Please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, for discussion of the SWAP model and its capabilities.</p>
960	40	<p>[ATT 2 - From "Written Comments Accompanying Oral Testimony to SWRCB Board"]</p> <p>Decision making by farmers regarding land extends beyond financial factors. Psychological and societal factors simultaneously influence farmers' decision. A study [Footnote 1: OECD, Farmer Behavior, Agricultural Management and Climate Change, 2012] published by the Organization for Economic Co-operation and Development (OECD) lays out the importance of considering such internal factors. More specifically, it states the following: ""Anomalies",</p>	Please see Response to comment 960-39.

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		<p>which are circumstances in which individuals exhibit surprising departures from rationality, occur due to these internal factors. From the wide body of research (e.g. The Royal Swedish Academy of Science, 2002), this suggests that in several cases individual behavior systematically deviates from economic rational behavior."</p> <p>The paper adds to this topic by emphasizing the importance of prospect theory. Farmers' great sensitivity to losses than to gain "systematically distorts the individual's ability to make what might be perceived as rational judgments based on simple profit maximization assumptions". Furthermore, "people tend to prefer the status quo and demand a great deal to justify any changes. This is called the "status quo" bias where choices are evaluated in terms of changes from an endowment or status quo point. A central finding from prospect theory is that people evaluate situations largely in accordance with their relationship to a certain reference point, and from which consequently their gains and losses are evaluated. Current status and history are favored by farmers relative to alternatives that have not been tested". The reference point for farmers may also differ if the farmer owns or rents the land; it may differ if the operation has been in the family for generations; it may differ if there are young family members willing to take over; it may differ if the farmer views less water availability as a short term problem or a long term one.</p>	
960	41	<p>[ATT 2 - From "Written Comments Accompanying Oral Testimony to SWRCB Board]</p> <p>Basing the SWAP model on profit maximization fails to account for farmers' use of psychological and socio-economic behavior during the decision making process. Some of the quotes below provide clear examples of such thought process used by dairy farmers:</p> <p>The last three months have been very difficult to cash flow. We are tapping once again into our valuable assets to borrow from our lender to keep up with the rising cost of producing because the low, extreme mailbox price that we are receiving does not pay the bills. The cycle of volatility is very difficult when the lenders are looking to our year-end finances and contemplating if they are going to renew our loans and how much more operating funds will be available when we make the call. This is all very trying on our health and our family life. I don't need \$25 milk. I just want to continue to have a viable dairy operation to keep our valuable employees that we have had for over 25 years, to have a future for my son, possibly my grandchildren. (Antoinette Duarte, Dairy producer, June 2015)</p> <p>I am a second generation dairyman. I've got a real passion for what I do. I hope my kids can be the third generation. It's going to be tough. (Frank Mendonsa, dairy producer, June 2015)</p> <p>We struggle to survive without bank loans because we as a family dairy farm refuse to lose what my grandfather and my father himself worked so hard for. So my wife's teaching income is, in the short-run, continually being used to keep our dairy in operation. (Rick Adams, dairy producer, June 2015)</p> <p>According to the conclusions of the SWAP analysis, as optimal returns to farmers are reached and as water becomes scarcer, the crops most affected are Pasture, Alfalfa, Rice, and Other Field Crops. The SWRCB states these crops face the largest reduction because "they require relatively high water use and/or generate lower net revenue per acre when compared to annual crops, such as Almonds and Pistachios. The modeling results predict that higher-value crops, such as Tomatoes, are less affected by reduced surface water diversion than lower-value crops because farmers would be expected to fallow lower-value crops first". Again, this follows economic behavior logic. However, decisions regarding land</p>	<p>During recent drought (2014-2016) agricultural statistics indicate that 1) less acres of vegetables and permanent crops were fallowed compared to field crops and grains, and 2) the demand for feed crops highly depends on milk and market conditions. The SWAP model accounts for dairy operations by maintaining some level of corn silage production (because it is heavy and expensive to transport), while assuming that alfalfa (dry roughage) can be hauled from longer distances than silage. Please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, for discussion of the SWAP model. Please see Master Response 3.5, Agricultural Resources, for discussion of the potential effects on dairies and livestock operations and also please see Master Response 8.2, Regional Agricultural Economic Effects, for discussion of substitute feed crops for dairies.</p>

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		<p>use sometimes are part of an entire operation and cannot be isolated. Livestock operations for example must take into consideration nutrient management. While producing alfalfa may be a low value use of the land, livestock operations may not be presented with a clear choice to fallow that land (or convert it to tomatoes) because they need it to spread their manure. Regulations state that the amount of nitrogen you can apply is tied to the amount of nitrogen you can remove. Simply having acres to do it does not work if there is no crop on it to remove the nitrogen. By omitting this linkage between land use and livestock operations, the results of the study are likely skewed.</p> <p>To be fair, some of the limitations regarding the impact to livestock operations are mentioned in the study. However, those limitations pertain to the IMPLAN portion of the analysis, not the SWAP portion to which we stated concerns above. While we can appreciate that inferred economic information allows the IMPLAN model to take into account higher input costs for cattle and dairy producers, therefore reducing dairy and cattle operations' net returns in the results, it still does not address the skewed results from which IMPLAN calculates an economic impact analysis.</p>	
961	1	<p>The California State Constitution Section 1. States "All people are by nature free and Independent and have inalienable rights. Among the e are enjoying and defending life and liberty, acquiring, possessing, and protecting property, and pursuing and obtaining safety, happiness, and privacy". The SWRCB water controlling and taking activities are a violation of the California Constitution.</p> <p>The Constitution states "It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put beneficial use to the fullest extent to which they are capable, that the waste or unreasonable use or unreasonable method of use of water be prevented". Denying people the beneficial use of their water is a violation of the Constitution.</p> <p>Water is private property every drop of it. There is no such thing as government water in free America. All water is available for the beneficial use of man and is therefore private property, and government has no right to tamper with people's rights. America is founded upon individual's unalienable rights, private property, free enterprise, the people's beneficial use of water, land, and resources, and on liberty and justice. There is no authorization in the Constitution, or even any concept, of government owning, controlling, or regulating water, resources, land, or restricting the people's use of any of it.</p> <p>Sovereignty is the application of Individuals' unalienable rights over themselves, their homes and families, properties, livelihoods, resources, communities, and political subdivisions. Sovereignty comes from the bottom level upward as proper government is re-established to establish local jurisdiction, justice, and govern the Counties, States, and Country for the people and with their consent</p> <p>We the people are the supreme authority and decision makers. Demanding justice and Constitutional law and holding people personally accountable are the tools we the people will be using.</p> <p>We are a Republic not a democracy. The majority has no right to impose its will on a minority. Persons' unalienable rights, their sovereign homes and lands, and Common Law, are Constitutionally protected and cannot be infringed upon, no matter how many people</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>vote for something to the contrary.</p> <p>Violation of people's rights or property is a crime even if it's done with government sanctions. Politicians or government exceeding the limited constitutional authorization and using government power to infringe on persons rights, or to damage their property or resources, are criminals.</p> <p>It doesn't matter how long an unconstitutional law or agency has been in place, or how many abuses and usurpations of power the people have tolerated, it is still a violation of person's unalienable rights and the US Constitution, and the persons In charge of it are accountable under the law of Justice.</p> <p>Stealing is a crime and has been since the beginning of civilization and always will be as long as people are free to own property. Environmentalists begin tampering with American law the 1970s. Those laws are unconstitutional, but even If they were they would not overrule senior water rights, or the law of justice, and they can never make stealing legal even If it is done by government.</p> <p>The SWRCB is suggesting a settlement agreement be made because they have no legal basis or Constitutional authorization for what they're doing, and they want the peoples Representatives to give them permission to steal the people's water. Making agreements gives the leftists a legitimate position which they did not have before, and the people lose their unalienable rights, Constitutional law, and the law of justice, and therefore they have no protection from then on. No one has any authority to make an agreement with the government to give away any of people's water, property, or unalienable rights.</p> <p>When the SWRCB makes their decision it will mean nothing, because they do not have the authority to make stealing water from the people legal. All of government does not have the authority to make transferring the water from the people to the government legal and legitimate. Any agreements with the government and environmentalists are not legitimate contracts because one side is gaining and one side is losing based on the Intimidation and threat of government power.</p> <p>The SWRCB has shown themselves to be dishonorable contract breakers by not delivering the water that was contracted for under the State water project.</p> <p>The SWRCB has no constitutional authority for the exercise they are conducting, of deciding what to do with the people's water and they are trying to get the people to accept it as a legitimate government action. Until the SWRCB removes the word control from their title, stops using unconstitutional environmental laws to take from the people, and start to build dams to store the lost rainwater and spring runoff to create more water for the needs of a growing California population, they are not a Constitutional, legitimate government agency. Their agendas are against the people and not for the people's benefit.</p> <p>The Bay Delta plan is based on taking people's water away from them, which is necessary for their livelihoods, therefore it is a declaration of war of destruction against the people, and it is a criminal Indictment of everyone associated with it.</p> <p>The Sheriff is the highest law enforcement official in the land because they are not part of the limited Federal or State government and do not answer to them. The Sheriff works directly for the people to defend their unalienable rights and enforce justice throughout the</p>	

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		<p>County.</p> <p>THEREFORE - It is the Duty of the People to re-establish government that is within the purposes and limited scope defined in the US Constitution. We must protect our livelihoods and our economy by bringing the State Water Resources Control Board Members to justice for their abuse of government power and theft of water from the property owners.</p> <p>At the County level, people must exercise their unalienable rights and reestablish proper government and local jurisdiction and demand justice be implemented at the County level.</p> <p>Therefore, we the people of Stanislaus County hereby exercise our unalienable rights and reestablish the following:</p> <ol style="list-style-type: none"> 1. Water is private property. Water rights is the essential component of the value and productivity of land. 2. Persons who take water from the rightful owners are guilty of crimes even if they are associated with government. The State Water Resources Control Board members are personally guilty of crimes of theft of water, and for restitution of the civil damages. 3. The State Water Resources Control Board members are also personally guilty of the crimes of violating the Constitution and persons unalienable rights. 4. We are subject only to Constitutionally limited government and are not subject to unconstitutional environmental laws, socialism, or the voice of people in other areas. 5. It is the duty of the County Supervisors to enact ordinances officially nullifying unconstitutional laws and setting fines for promoting the nullified laws. <ol style="list-style-type: none"> 1. It is the duty of the Sheriff: <ol style="list-style-type: none"> a. To fulfill their oath to protect the Constitution, which is the people's unalienable rights, from all enemies foreign and domestic b. To establish and maintain justice c. To be the highest law enforcement official in the County, and exercise jurisdiction on all law enforcement matters unless federal or state officials can demonstrate Constitutional jurisdiction in specific limited cases. d. To defend the people from all unconstitutional Federal and State laws and agencies that the people have filed nullification orders against in the County e. To protect the people from abuses of government power f. Apprehend all persons, especially politicians or government officials, who violate person's unalienable rights or the Constitution. <p>Copies provided to: Stanislaus County Sheriff, Stanislaus County Supervisors, and to We the People of Stanislaus County for Constitutionally Limited Government.</p>	
962	1	<p>I was wondering why the Calaveras and Mokelumne rivers haven't been asked to join into this water -- robbery as I see it. They're closer to the cross-channel intake, and it would take</p>	<p>Please see Master Response 1.1, General Comments, for responses to comments that either make a general</p>

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		<p>less water from those watersheds to keep the salinity out of the Delta, whereas, these three rivers that you want to take water from are -- feed into the Delta through the San Joaquin River and are going to be dispersed before they really do any good.</p>	<p>comment on the plan amendments or do not raise significant environmental issues.</p>
962	2	<p>You wanted some suggestions for possibly repair of the systems that we have. And I've talked with a few people about a circumferential water system that would start at Shasta Dam and at about the thousand-foot elevation would have a pipeline that would be on the west side of the Sierras clear down to Bakersfield and then back up to approximately Mount Diablo, and then from Shasta Dam and the eastside of the coast range approximately to the Napa Valley.</p> <p>Everywhere that a river crossed that pipeline had about a 200-foot additional elevation. It would feed water into this pipeline. This pipe would operate at about an 85 PSI, and the water -- this water could be used in off-stream dam sites. They could either be 2-, or 300-foot deep that would continue to keep this water pressure the same. And then where irrigation districts took the water out, they could generate a positive amount of electricity from the reduction of that water pressure as it's used for irrigation. It's quite more complicated than 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>
962	3	<p>It seems as though this has been less than a democratic attempt at taking water from the area. And it seems like it's -- as we've had recently this electoral college discussion about how we elect people, it seems like the people in L.A. and San Francisco are able to vote whatever they want from our area. And I think that we should have a better voting system here, such as an electoral-college type of system that allows us to actually have a voice in what goes on.</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>
963	1	<p>California second highest's economic income is the agriculture industry. The Central Valley alone producing one-fourth of the world's entire food supply. With that being said, the reduction of the agricultural water supply in the Central Valley would not only cause a local and state distribution, but the ripple effects could affect other states and neighboring countries. These are the facts and the statistics. However, coming from a passionate fourth-generation farmer, I'm here to strongly urge you the consideration of the direct effect on me, my family, and our economic future.</p> <p>On our national basis, only one-and-a-half percent of Americans live on a family operation. I'm more than proud and honored to say that I'm one of those one-and-a-half percent.</p> <p>That number is continuously dropping due to the costs of sustaining a family farming operation. With the cost increasing to put in wells and now the chance of water being sent out of the Central Valley, failing farms like mine won't be able to keep pursuing our passion for producing an adequate and safe supply of food.</p> <p>We are trying to work together and strive to better our agricultural industry. As a fourth-generation Marchy dairy farmer, I'm fulfilling our duty and producing a sustainable and safe food supply. But I can only continue this heritage with the most the valuable resource, water.</p> <p>As I stand before you today in my blue corduroy jacket, please keep this in mind as you vote</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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		to keep our valued water safe and allow my family the opportunity to farm for a fifth generation and not lose what my family and others have built over generations.	
964	1	I strongly stand by my colleagues in congress and representatives in the assembly and the senate, and with the cities, counties and districts of this area recommending that your draft report be substantially altered. Your flow regimen does not guarantee that we will meet these goals. In fact, in terms of fish, it is even hard to find where the goal is supposed to be.	Please see Master Response 1.1, General Comments, acknowledging the concerns of elected representatives and other community members and for responses to comments that either make a general comment regarding the plan amendments or do not raise a significant environmental issue. Please refer to the Service Providers Section in Master Response 1.1, General Comments, for a discussion of health and safety.
964	2	There is one thing most of us can agree on, and that is that the health of the salmon requires more than just flow increases. We also need habitat and predation control. So in your rewrite, I suggest that you tie these two together. Put in triggering points, flows take once the habitat effects are funded and approved and the predation efforts are funded and have the start dates.	For a discussion 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.
964	3	<p>The Governor called for honest efforts to find reasonable settlements on the Bay-Delta items. Everybody of goodwill in this room support that. But we have to recognize that the path that as led us to today's hearing has not always been easy. There have been jumpstarts, and then hurry up and wait periods. As you have focused on other issues, the stakeholders in this region were left in the dark and had their questions ignored. But we can now start over.</p> <p>Please continue the goodwill you have shown by spending time in the valley. Work with us on long-term solutions that help all of California, but don't burden just one part of the state. Don't penalize a part of the state that has invested in water infrastructure beyond that of most Californians. All the taxpayers funded the state and federal projects, but only the ratepayers of our local districts and the City and County of San Francisco paid for the dams at issue here.</p>	<p>Please see Master Response 1.1, General Comments, and Master Response 2.1, Amendments to the Water Quality Control Plan for responses to comments by the State Water Board supporting voluntary agreements.</p> <p>Please also see Master Response 1.1 regarding the public outreach process for the plan amendments.</p>
965	1	<p>MID has 3,100 irrigation customers, and we irrigate approximately 60,000 acres. We're also the electric utility. We have 117,000 electric customers, a peak load of about 670-some megawatts, including part of that is our hydro. We also provide safe and reliable drinking without to the City of Modesto. You heard from them today. And as you heard from them, they provide water to over 250,000 residents and 6,000 businesses.</p> <p>You've heard from many of the speakers today about the impact of this Bay-Delta Water Quality Plan and the SED, and we mirror that. It definitely has a direct impact to our water operations and our electric operations, and it would devastate the livelihood of a lot of our customers.</p>	Please see Master Response 8.4, Non-Agricultural Economic Considerations, for discussion of potential effect on hydropower generation.
965	2	You heard from the Turlock Irrigation District. We own a third of that project and Turlock owns two-thirds of it. And that includes the dam and the reservoir and the powerhouse, a 200-megawatt powerhouse. You also heard about the extensive studies that were done on that as part of the FERC relicensing and all the modeling that has been done. We were part of that, too, that effort. That project is very valuable to us. It supports approximately \$4.1 billion in output, more than \$730 million in labor income, and close to 19,000 jobs a year.	Please see Master Response 1.1, General Comments, for responses to comments that make a general comment regarding the plan amendments and general information regarding the economic analysis. Also, please see Master Response 8.4, Non-Agricultural Economic Considerations, for discussion of potential effect on hydropower generation.
965	3	Surface water is critical to this area, it's critical to this irrigation district. And not just agriculture; it's critical to our urban homes, it's critical to our churches, to the schools that	This comment provides' the commenter's assessment of surface water needs and benefits. Please see Master Response 1.1, General Comments, for responses to comments that either make a general comment

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		you heard from today, our businesses, and our industry.	regarding the plan amendments or do not raise significant environmental issues.
965	4	Under this SED proposal, that during wet years, it's not too bad, but it's when you get into the drought. And there's times when things collapse for us, and we would not be able to provide surface water to our customers. We took a look at 2015, for example. And, on 2015, under the conditions right now as you heard today, we had to cut our deliveries by 60 percent. So, with 40 percent of deliveries that we delivered, a good portion of that was made up with groundwater. So, we were already impacted, and that was without this SED in place.	Please refer to Master Response 3.6, Service Providers, regarding the potential impacts of the plan amendments on service providers' ability to provide safe and reliable water.
965	5	We looked at what happens if this SED was in place. Well, first off, we would have a loss of about \$1.6 billion in economic output, about 167,000 million in farm gate revenue, and a loss of 6,500 jobs. Basically, we would provide almost no surface water to our customers under that condition.	Please see Master Response 1.1, General Comments, for general information regarding the economic analysis and effects. Also, please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, and Master Response 8.2, Regional Agricultural Economic Effects, for discussion of the agricultural economic effects.
965	6	A lot of our farming is permanent crops. And with permanent crops, when you don't have the water to give them, if they don't have their own wells with the capacity needed to keep those trees alive, those trees will die, and that would be a huge impact.	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 Chapter 11, Agricultural Resources, Section 11.4.2, Methods and Approach, for information on other permanent crops. Please see Master Responses 3.5, Agricultural Resources, regarding irrigation and permanent crops. Also, please refer to Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, regarding permanent crops.
965	7	With this proposal, it will definitely have a huge impact on groundwater sustainability, impact our drinking water quality and quantity, also impacts our hydroelectric economics and operability.	Please see Master Response 1.1, General Comments, for responses to general comments regarding impacts. Please see Master Response 3.4, Groundwater and the Sustainable Groundwater Management Act (SGMA), and Chapter 9, Groundwater Resources, regarding impacts on groundwater resources and SGMA. Please see Master Response 3.2, Surface Water Analyses and Modeling, and Appendix J, Hydropower and Electric Grid Analysis of Lower San Joaquin River Flow Alternatives, for information regarding hydropower. Please see Master Response 3.3, Southern Delta Water Quality; Master Response 3.6, Service Providers; Chapter 5, Surface Hydrology and Water Quality; and Chapter 13, Service Providers, regarding water quality, drinking water quality, and drinking water quantity. Please see Master Response 8.4, Non-Agricultural Economic Considerations, and Chapter 20, Economic Analyses, regarding hydropower economics.
965	8	We rely on Don Pedro. And, in the summer, it's very valuable for us for operations. And under this SED, a lot of the operation would have to be shifted to spring when it's not nearly as valuable.	The shift to increased hydropower generation in the spring and reduced hydropower generation in the summer is described in Chapter 14, Energy and Greenhouse Gases, and Appendix J, Hydropower and Electric Grid Analysis of Lower San Joaquin River Flow Alternatives. The economic consequences of this shift are described in Chapter 20, Economic Analyses, as well as Master Response 8.4, Non-Agricultural Economic Considerations.
965	9	<p>I'll let our [Modesto Irrigation District] story begin in 1971 when the construction of the New Don Pedro Reservoir was completed. Unlike other reservoirs in the state, and reflecting the importance of maintaining local control, the City and County of San Francisco, TID and MID financed nearly 90 percent of the total project cost. As constructed, New Don Pedro Reservoir has a maximum capacity of approximately 2 million acre-feet and, on average, the watershed yields about the same volume. MID's founders were visionaries, they were courageous, they were pioneers, and they believed in bring the collective dreams of a region to a reality without government handouts.</p> <p>As documented in our centennial book, The Greening of Paradise Valley, recreation in New Don Pedro Reservoir was always considered frosting on the cake. Today, we unequivocally know its significance beyond simply water supply.</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. The information provided by the comment regarding the number of visitor days at New Don Pedro Reservoir is generally consistent with information found in the Recirculated SED. Please see Chapter 20, Economic Analyses, Section 20.3.6, Effects on Recreational Opportunities, Activity, and the Regional Economy, including Table 20.3.6-1, Estimated Use in Visitor Days of Affected Recreation Areas, by Watershed, for a discussion on visitor days and potential recreational-related economic effects in the watershed. Please see Master Response 8.4, Non-Agricultural Economic Considerations, for a further discussion of economic effects to recreational activities in the plan area and extended plan area.

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		<p>As California's sixth largest reservoir with a surface area of 13,000 acres and 160 miles of shoreline, New Don Pedro Reservoir has served as a recreational destination for over 40 years. So far in 2016, we've seen nearly 200,000 visitor days in New Don Pedro Reservoir. This represents a 35 percent increase over 2015 when the recent drought was at its peak and New Don Pedro Reservoir was nearing historic low.</p> <p>With this low, we saw boat ramps out of the water, hundreds of feet of mud between campgrounds and the shoreline, along with dozens of exposed boating hazards. As a result, many of our region's citizens were left without an affordable local recreational destination, and many of the mom-and-pop foothill businesses were left clinging for survival.</p>	
965	10	<p>Considering the fact that approximately 1.8 million acres of the SED's plan area is home to disadvantaged or severely disadvantaged residents with nearly the entire foothill population being severely disadvantaged, the impacts of your plan can only worsen economic conditions for an already struggling community.</p>	<p>Please see Master Response 2.7, Disadvantaged Communities, regarding the assessment of potential impacts of the plan amendments related to disadvantaged communities (DACs), and the State Water Board's technical and financial assistance programs for DACs.</p>
965	11	<p>Your staff's determination in Chapter 10 of the SED that there will be no physical deterioration nor reduction in the use of existing recreational facilities at lower lake levels because some boat ramps in New Don Pedro Reservoir are still operable at minimum reservoir elevations is wrong. There will be a significant reduction in the use of existing recreational facilities under what is proposed in the SED. This isn't hypothesis or a scare tactic. This is the harsh reality, one that we lived through in 2014 and 2015, and one that will grow in frequency and magnitude under your proposed alternatives.</p>	<p>As noted in SED Chapter 10, Recreation Resources and Aesthetics, implementation of LSJR Alternatives 3 and 4 would result in a decrease in the seasonal average reservoir elevations of more than 15 ft at the 30 percent cumulative distribution. Under LSJR Alternative 2, there would be a 3-foot decrease in the seasonal average reservoir elevation at the 30 percent cumulative distribution. However, reservoir elevation at the 30 percent cumulative distribution would not decrease below approximately 720 feet (the level at which some boat ramps become inoperable [e.g., Moccasin Point] and campgrounds and picnicking use begin to decline) for any of the alternatives. The seasonal average minimum elevation under LSJR Alternative 2 would be more than 15 ft higher than baseline. Under LSJR Alternatives 3 and 4, seasonal average minimum elevations would be 10 or more feet higher relative to baseline (Table 10-11).</p>
965	12	<p>With respect to reservoir operations, your staff has included minimum reservoir carryover storage targets to help ensure implementation of the flow objectives with management by a yet-to-be defined STM Working Group.</p>	<p>Please see response to Comment 965-32.</p>
965	13	<p>The City and County of San Francisco, TID and MID, financed nearly 90 percent of the total project cost for the construction of New Don Pedro Reservoir. For many us in this community and in this room, it's unimaginable that the state would propose to undermine the vision, courage, and determination of our predecessors.</p>	<p>This comment does not make a general comment regarding the plan amendments or raise significant environmental issues.</p>
965	14	<p>SED limitations will hamstring my operational flexibility as a local water manager, especially in sequential dry and critically dry years. This isn't a game for us. It's a science predicated on a solid understanding of the watershed and over a hundred years of making the tough decisions that must be made to succeed. We aren't shortsighted in our annual decisions. We balance the resources with the needs of our customers, our community, and the environment both in the near term and the long term.</p> <p>So, today, on the heels of the worst drought in recent time, New Don Pedro Reservoir sits at 73 percent of capacity. We get responsible sustainable water management. We use the best available science, we plan for the future, and our successes are evident. To propose the managing of the system through the STM Working Group with an unknown set of goals and responsibilities is irresponsible and will be catastrophic to our region, our state, and beyond.</p>	<p>The proposed Plan amendments provide several opportunities for coordination and collaboration. Please see Master Response 2.1, Amendments to the Water Quality Control Plan, regarding the purpose of the STM Working Group and the roles and responsibilities of the participants of the STM Working Group as described in the program of implementation of Appendix K, Revised Water Quality Control Plan. The STM Working Group will assist with the implementation, monitoring and effectiveness assessment of the February through June flow requirements and will include participants from state and federal agencies, water users, and others. In addition, the plan amendments provide for a comprehensive monitoring, special studies, and evaluation program where parties are encouraged to work collaboratively in one or more groups and in consultation with the STM Working Group, USBR, and DWR.</p>
965	15	<p>My use service area covers approximately 180 square miles and over half the irrigated acreage is in permanent crops. Today, approximately 75 percent of MID's [Modesto Irrigation District's] cropland is irrigated with flood irrigation, with a remainder in, quote,</p>	<p>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</p>

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		<p>unquote, high efficiency irrigation, drip micro-irrigation systems. In addition to our agricultural customers, we also provide safe and reliable drinking water at a wholesale price to the City of Modesto for its citizens and businesses.</p> <p>MID's customers, ag and urban alike, have historically enjoyed a very reliable water supply. But let me be clear that there's parity between our ag and urban customers, both from a price and a water supply perspective.</p> <p>In a December 12th, 2016, technical workshop, your staff noted that with respect to the calculations performed in the SED, the City of Modesto has had their supply held constant at 30,000 acre-feet. So, neglecting the nearly 10 percent difference relative to the true full allocation of 33,602 acre-feet, the City of Modesto's surface water isn't constant from year to year, but instead it fluctuates according to MID's determination of available water on an annual basis.</p> <p>In 2015, when MID's available water supply was a mere 40 percent of normal, the City of Modesto was allocated just 13,000 acre-feet of safe, reliable drinking water off the Tuolumne River, less than half of what your staff has assumed for the purposes of the impact analysis in the SED.</p> <p>So, from MID, this isn't an ag versus urban fight. Any reduction in available surface water will have equally significant and unavoids (sic) water supply impacts to both our ag and urban customers. Rather than sustaining water deliveries to both our ag and urban customers and nearly nine out of ten years, implementation of the SED will result in shortage to all of MID's customers one-third of the time, with annual shortages peaking at least 20 inches per acre over 150,000 acre-feet. So, with that average annual divergence of approximately 300,000 acre-feet, this amounts to half of our annual supply. Let me be clear that movement to high-efficiency, on-farm irrigation systems cannot mitigate the impacts of these shortages. This isn't something that we can conserve our way out of.</p>	<p>process and the relationship to the water rights priority system. As described in the Executive Summary, implementation, after approval and certification of the plan amendments, "could result in adding conditions to existing water rights or taking other water right actions that would require some water right holders to not divert water when flows are required to meet the proposed flow objective". Please see Master Response 3.2, Surface Water Analyses and Modeling, regarding the WSE model as an appropriate tool to evaluate water supply effects and potential environmental impacts for the programmatic analyses contained in the SED and water supply reliability. Please see Chapter 13, Service Providers, for a qualitative discussion of potential effects on service providers under Impacts SP-1, SP-2a and SP-2b. In Chapter 13 (Impact SP-1) it is acknowledged that the potential impacts due to surface water reductions are considered within the general context of water supply agreements and contracts. Please see Master Response 3.6, Service Providers, for clarifying information regarding service providers and potential effects.</p>
965	16	<p>A move to high-efficiency irrigation systems results in decreased groundwater recharge and that this is, in his opinion, an interesting problem. From a local perspective, the problem isn't just interesting, it's real.</p> <p>Your staff's reliance on the differential and applied water between flood irrigation and the high-efficiency irrigation systems is not supported. The differential, in fact, is minimal at best. What we do know is that there's more consumptive use by the crops irrigated with high-efficiency irrigation systems, which equates to higher yields, but that means that less water moves beyond the root zone as deep percolation.</p>	<p>The comment misstates information presented in Chapter 11, Agricultural Resources. Chapter 11, Section 11.5, Impacts and Mitigation Measures, discusses irrigation efficiency, but does not perform any analysis using irrigation efficiency. As discussed in Chapter 11 and in Master Response 3.5, Agricultural Resources, the decision to implement irrigation efficiency measures is an individual grower decision that cannot be quantified with any accuracy because it would depend on many site-specific conditions and assumptions.</p>
965	17	<p>The current SED proposal would make our ability to ensure sustainable groundwater for the future generations an impossible feat. Your proposal would inevitably result in our citizens and businesses not having a safe, reliable source of water, and would further endanger the listed terrestrial species that rely on the agricultural lands and wetlands for their survival.</p> <p>As you all know, the Modesto Subbasin is one of the two subbasins within the San Joaquin Valley not determined to be in a condition of critical overdraft. And you heard some of that today. This isn't by accident. Reliable surface water supply's effective conjunctive use and cooperative agreements with other local agencies within the Modesto Subbasin have achieved sustainable groundwater management well before sustainable groundwater</p>	<p>The State Water Board appreciates the efforts local entities have made to manage groundwater in the Modesto subbasin. The State Water Board also recognizes the negative impacts of overdraft; SGMA was passed by the legislature in 2014 to address overdraft issues. 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. The State Water Board acknowledges 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. The plan amendments do not conflict with SGMA. Rather, both processes allow local entities to comprehensively address groundwater and surface water resources through integrated planning that does not trade impacts between surface water and groundwater.</p> <p>The SED and plan amendments do not require or encourage increases in groundwater pumping as a</p>

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		<p>management came into fashion.</p> <p>As local water managers, we understand the importance of the health of our groundwater aquifers, our backup source in drought times. Our management decisions over the past 100 years provided us with the insurance policy that helped use weather the 2014 and 2015 drought. Since 1994, MID has delivered nearly 700,000 acre-feet of safe, reliable drinking water to the City of Modesto, which would have otherwise come from our local aquifers. So, through this partnership, we've significantly reduced their once sole reliance on groundwater.</p> <p>The response to our aquifers is remarkable. A significant cone of depression beneath the City of Modesto has substantially recovered. Instead of losing water near the city along the Tuolumne River, the Tuolumne River is once again a gaining waterway, and groundwater quality continues to improve. This is success predicated on opportunity. Opportunity to solve local problems with local resources for local benefit. For your staff in the SED to cast the impacts to groundwater as speculative is disingenuous.</p>	<p>response to reductions in surface water. The SED merely reflects the historical local response to increase groundwater pumping when surface water availability is reduced. 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. Under SGMA, GSAs will define what sustainability means at the local level based on the needs of the beneficial uses and users of groundwater in each basin. Any future GSPs will have to incorporate any projected reduction in surface water due to the plan amendments, and account for the amount of surface water available in accordance with all relevant water regulations. For further discussion on SGMA in the context of the plan amendments and misconceptions about flood irrigation as a way to recharge groundwater, please see Master Response 3.4, Groundwater Resources and the Sustainable Groundwater.</p> <p>The SED uses historical 2009 levels of groundwater pumping for the baseline analyses. This is appropriate, because 2009 is the year the State Water Board issued the Notice of Preparation for the SED. It is not appropriate to include SGMA in the baseline or in the alternative analysis, because the baseline predates SGMA, no GSPs were developed before the release of the Recirculated SED, and it is unknown what actions GSAs will take to achieve the sustainability goal. Therefore, any impact assessment would be speculative and beyond the scope of the SED. However, SGMA is properly considered in the analyses, both as an existing legal requirement to prevent further degradation of groundwater basins and as a potential cumulative limit on future irrigation supplies. For a discussion on establishing the baseline, please see Master Response 2.5, Baseline and No Project. For a discussion on modeling assumptions of the level of pumping associated with 2009 and 2014 infrastructure in the SWE model, please see Master Response 3.2, Surface Water Analyses and Modeling.</p> <p>Chapter 8, Terrestrial Biological Resources, describes the environmental setting for terrestrial biological resources and the environmental impacts on terrestrial biological resources that could result from the proposed LSJR flow objectives.</p>
965	18	<p>As MID's [Modesto Irrigation District] water manager, I can tell you without a doubt that to make up for surface water shortages forecasted in the SED, MID and its customers alone would have had to have pumped an additional 1 million acre-feet of groundwater from 1971 through 2012. During the worst years, and assuming the speculative existence of even the necessary infrastructure to pump that water, groundwater pumping would reach as high as 150,000 acre-feet.</p> <p>So, one thing I hope we can agree on is the sheer magnitude of these numbers. And, contrary to the calculations presented in the SED, this results in a negative change in groundwater storage. Simply put, this is not sustainable and violates the Sustainable Groundwater Management Act, which affirms this state's policy that groundwater resources must be managed sustainably for the long-term reliability, multiple economic social and environmental benefits for current and future beneficial uses. SGMA was constructed around the premise that locals know best how to solve local problems with local resources. And, again, you've heard that in this subbasin there's proof positive that this paradigm works and it works well.</p>	<p>Please see response to Comment 965-17.</p>
965	19	<p>What you have presented within the context of the SED robs this region of our opportunity to sustainably manage our collective fate into the future as we have done since our forefathers transformed an otherwise arid landscape. To describe the impacts of your proposed actions as significant and unavoidable is unnecessary by our standards.</p> <p>As you can see from today's attendance, what's left of it, this region stands united, we stand firm, and we won't endanger the future of our generations to come. We are more than</p>	<p>Please see Master Response 1.1, General Comments, for responses to comments that either regarding the plan amendments or do not raise significant environmental issues. Please refer to the section acknowledging the concerns of community members and elected representatives.</p>

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		<p>willing to work with you on a solution that benefits the fish and the environment while allowing our communities to prosper. We are the day-to-day operational decision-makers and the experts on our rivers. No one is more invested in preserving them for the future than we are. We are absolutely committed to improving the health in native fisheries and at Tuolumne and San Joaquin rivers. We, as a region, are poised to do just that, and we intend to do it on terms founded on the principles of sound science.</p> <p>We look forward to durable solutions that ensure our long-term sustainability, economic viability, and health of an otherwise underprivileged, disadvantaged, and economically distressed area.</p>	
965	20	<p>[Mr. Moore:] You did state in pretty firm uncertain terms in your remarks just now that "Flood irrigation works and we shouldn't mess with it. We figured it out. This is how we manage our basin." Well, I talked to folks in Israel and I asked them about this area of our state and what they think. Because, you probably know this, but, in Israel, it's not legal to flood irrigate. You actually go to jail. And it's a different culture, a different setting and all that. So, I asked them, "Well, what would I tell my colleagues, you know, in this part of our state?" You know, "What are the compelling reasons to move to high efficiency?" And I think you know the list, but you prevent migration of salts and pollutants to the groundwater, and you help solve water quality problems, you pump less groundwater, which causes greenhouse gas emissions and energy use and that sort of thing. So, if we take a step back, there may be opportunities for high-efficiency irrigation that we haven't collectively explored and completely thought through. And I was wondering if, you know, there's an open door there do you think to be able to solve some problems?</p> <p>MR. DAVIDS: Absolutely. I think that we're, you know, as a district, we're focused on being as progressive as we can. So, we're always open to that. But it can't be overstated within the context of today's discussion that the fact that the Modesto Subbasin along with the Turlock groundwater basin is in a condition that it is, based, at least, on the past of flood irrigation and the migration of water through the root zone and through the soil profile for the benefit of the aquifer. So, are we open to that? Yes. But I also want to be cognizant of our future with respect to SGMA and this region's commitment to comply with SGMA. But, absolutely.</p> <p>MR. WENGER: And I would like to touch on that, too, a little bit, as a farmer in the area who predominantly flood irrigates. I think, first off, with all due respect, if you're looking for expertise in farming in the Central Valley, Israel might not be the place to go. You might want to talk to the Central Valley farmers. But there's always things to learn and we like to look at other countries and nations. I know Australia became popular as one to look at during their millennium drought and things they did. And I know that from a lot of tours that have gone on that really Australia has gotten up to speed with what California was doing 20 years ago.</p> <p>For a lot of it, for the most part, it was overstated that we needed to take some lessons from Australia. And I think you have some valid points when it comes to water use efficiency, but, at the same time, part of the problem when it comes to determining best usage for irrigation in any region is also dictated by temperature and climate, it's dictated by soil types, and it can vary from one place on one side of the street to your neighbor's place on the opposite side of the street. And you might have a ten-acre block with various soil types. The ground at my house where I live, if I towed (phonetic) peas, you're going to get</p>	Please see response to Comment 965-17.

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		<p>stuck if you try and drive it. It's just very clay, very heavy soil.</p> <p>I've got another ranch that I can irrigate, and these are both flood irrigation, I can irrigate it, put water on it at 11 o'clock at night. I finish a check in three hours. I come back at 6:00 in the morning, switching another check, there's no standing water left in the field. It's gone. And the advantage to that, with flood irrigation on those sandy soils, is you do see significant groundwater recharge. And, in our irrigation district, we do like to brag that we do have sandy loam soils in a large part of the Modesto irrigation district.</p> <p>And it goes back to some of the things you folks heard earlier about what are the two subbasins in the Central Valley that are not listed in critical overdraft. Well, they're two of the irrigation subbasins involve two of the oldest irrigation districts that have had very good surface water supplies, that have not had to rely on groundwater and are primarily flood irrigation. So, it does stand to reason that flood irrigation does have its place if it's located in the right climates, the right regions, and the right soil types.</p>	
965	21	<p>Last year, we really end up in a situation with the reservoir where we had an average year and we filled our reservoir, because our forefathers had the foresight building a reservoir with just over 2 million acre-foot capacity, 2,030,000 acre-foot storage capacity. And the average yield for our watershed is right at 2 million acre-feet. So, the nice thing is, in a drought year, we had an average year and were able to pretty much bring our reservoir back to good levels and come back out of it. And, then, we get hit with the plan that comes out in September in the SED. And we look at, now we're losing significant portions of that. And I don't want to go into a lot of the impacts. You've heard more than enough of that over the last several days of hearings.</p> <p>But I do want to talk about the possibilities that are coming through it. And we hear a lot about alternative measures and what else can we do besides these impacts that some of them are listed by your staff as significant and unavoidable. And, Number 1, water will always play a part in that solution. I think the districts have always understood that. We've heard time and again that more water equals more fish. And I think that needs a caveat and a little more clarity. More water equals more fish if it's put in the river when the fish are present, at the right time.</p>	Please refer to Master Response 1.1, General Comments, regarding general concerns raised by commenters.
965	22	<p>MR. WENGER: And functional flows are a key asset in managing and bringing back salmon to the river system. And when you hear the plan as a base unimpaired flow plan, it doesn't instill a lot of confidence in the people who came up with that, that's what they were hearing, functional flows. But we hear about we're going to have releases through the year. We know that there's carryover storage in the plan. So, already, the plan is a little bit mislabeled as an unimpaired flow plan, because an unimpaired flow plan implies no impairment, or less impairment, and this one, according to your staff even during one of the technical workshops, there is no scenario that made unimpaired flow work without carryover storage. And, right there, you have the fight on your hands that you saw today from a lot of very concerned and worried people.</p>	Please see Master Response 3.1, Fish Protection, regarding unimpaired flow and functional flows. Please see Master Response 2.1, Amendments to the Water Quality Control Plan, and Master Response 3.2, Surface Water Analyses and Modeling, regarding carryover storage.
965	23	<p>When you're talking about, for us, Don Pedro Reservoir, the sixth largest reservoir in California, the largest built without state or federal funds, this is people who believe in their water. And when you see it marked for carryover storage, you start having very concerned people who are going to come and speak like they've spoken over the last few days. So, we know that functional flows is going to be a key part.</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 2.1, Amendments to the Water Quality Control Plan, for information regarding carryover storage as it relates to the plan amendments. Please see Master Response 3.2, Surface Water Analyses and Modeling, regarding the representation of carryover storage in the WSE model. In addition, Chapter 5, Surface Water Hydrology and Water Quality provides changes carryover storage in response to the

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			implementation of the LSJR alternatives in Section 5.4.2. Please see Master Response 3.1, Fish Protection, regarding unimpaired flows and functional flows.
965	24	<p>What we have been able to do through the last few years in FERC relicensing is, understand that we've done over 40 studies on the Tuolumne River during that time span. And we've found out that habitat restoration is as critical a component as functional flows, because you need places for spawning, you need places for habitat. And the districts have understood that for a long time. It's not something recent we just learned.</p> <p>Over the years, since 1996, the districts have been involved in habitat restoration efforts in a much larger way. Through the Tuolumne River Technical Advisory Committee, we've completed four separate non-flow projects assisted our local fisheries and the Tuolumne River. Three of those projects looked at storing habitat by placing different types of gravel in specific parts of the river to help with assisting different spawning behaviors, because there isn't a one-size-fits-all approach to habitat restoration just as there's not a one-size-fits-all approach to flow.</p>	<p>The State Water Board recognizes the importance of implementing non-flow measures, such as predator removal and habitat restoration, for fishery recovery. Detailed descriptions of such non-flow measures are provided in Chapter 16, Evaluation of Other Indirect and Additional Actions, Section 16.3, Lower San Joaquin River Alternatives – Non-Flow Measures. Please refer to Master Response 5.2, Incorporation of Non-Flow Measures regarding the role of non-flow measures in the plan amendments. The State Water Board recommends, but does not require, non-flow measures, to be incorporated as part of a comprehensive effort to address Delta aquatic ecosystem needs, as set forth in Appendix K, Revised Water Quality Control Plan.</p> <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 the need for improved flow in protecting fish and wildlife, consideration of fish predation, and the approach of unimpaired flow as functional flow, please see Master Response 3.1, Fish Protection.</p> <p>For further discussion on non-flow measures, please see Master Response 5.2, Incorporation of Non-Flow Measures.</p>
965	25	<p>There's lots of other entities that we have partnered with on the river system, from CDFW to Friends of the Tuolumne, Tuolumne River Trust, NRCS, East Stanislaus Resource Conservation District, that we have worked very well with in making significant improvements to the Tuolumne River system.</p> <p>In total, the districts have placed approximately 44,000 cubic yards of gravel habitat between river miles 50 and 43 since 1996. Additionally, there has been another approximately 178,000 square feet of riffle spawning habitat that's been placed into the lower river by various parties between 1999 and 2003. So, there has been a lot of significant work that has already been done.</p>	Please see response to Comment 965-24.
965	26	<p>A lot of studies that we've been doing through FERC relicensing has identified other ways to be able to help the fish. And the primary concern is how do we help juvenile salmon grow strong in our river so that they can out migrate. Don Pedro studies have identified at least five reaches of the lower Tuolumne River that could be targeted with various gravel augmentation measures to improve the likelihood for successful spawning and juvenile rearing if we act to improve the type of sediment upon which the fish depend to lay their eggs or to raise juveniles.</p> <p>Don Pedro studies have identified in-river benefits to fish and wildlife by also planting native riparian vegetation along the sides of the river to create a more biodiverse habitat along the sides of the river that offers the benefits of shade and cover. And, let's be honest, for those of us that like to recreate on the river, it looks a little better, too.</p>	Please see response to Comment 965-24.
965	27	It's sort of what's become the four letter word a lot of times in dealing with this issue, which is "predation." And I know that there's been a lot of discussion, and you get a lot of the people from the NGO side and from the fisheries and who -- it's a word they don't like to hear said. But, if we're talking about helping a protected species, you also have to talk about how we're going to deal with the things that are eating them. And I've heard throughout the hearing that, "Well, more water is going to help that. If we put more water down, we see	Please see response to Comment 965-24.

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		<p>predation numbers decrease." Maybe to a point. But I'll put it a different way. If we're all leaving here tonight walking across the street to the parking garage and we found that Modesto had a serious problem, there was a pack of coyotes that lived in the crosswalk, and any time that big flush of us was leaving here to go to the garage and we were getting ripped apart by coyotes, we'd have a problem. We'd go to the city council. We'd say, "You have a problem. There's coyotes in the street by Brenden Theater." And they said, "Don't worry, we have a solution."</p> <p>"We're going to widen the crosswalk to a city block, and, that way, a lot more of you are going to make it across and we're going to diminish the problem." The City of Modesto would have a few people showing up to their counsel to say, "I think you're missing the point."</p> <p>So, I think when we want to discuss the issue of predation we do have to understand that it is going to require addressing and perhaps eliminating some predators at times. And, when I say "eliminate," we're not removing a species from the river system. But we did find that during our studies, in 2012, for instance, during FERC, we did a predation study that determined that 96 percent of juvenile salmon were lost due to predation in that year. That was a drought year, and you can add all the caveats. FERC even went on and we were asked by some of the state agencies and fish agencies to do a more detailed study. FERC ordered us to do that study. We said, absolutely, we'll do it. Not at first, but we relented and said, okay, we'll go ahead and do the study. We couldn't get the permit from Fish and Wildlife to do the more detailed study.</p> <p>So, being that we couldn't get the permit, FERC went ahead and said that the study that we did perform would be the study of record for predation for our FERC license. So, while a lot of people don't agree or find something else, it is our study of record. So, we do know that predation is going to be a serious problem. And what we did find is there's a 10-percent reduction in predation, and we saw it in TID's presentation earlier, would be equal to the benefit that your staff says we would receive a 35 percent unimpaired flow. So, now, when you start taking into consideration functional flows, habitat restoration, and depredation, you're starting to significantly minimize the impacts on our communities while extremely benefiting the salmon population on the Tuolumne River. And I think that's what we've all been pushing for.</p>	
965	28	<p>One of my favorite quotes, by William Jennings Bryan, who said, "The great cities rest upon our broad on fertile plains. Burn down your cities and leave your farms, and your cities will spring up again as if by magic. But destroy our farms, and grass will grow in the streets of every city in the nation." The interesting thing about this plan is it's not just the farms that are threatened, it's the farms and the cities. And if we burn down the farms and the cities in the Central Valley, we have nothing left.</p>	<p>Please see Master Response 1.1, General Comments, for a response to comments that either make a general comment regarding the plan amendments or do not raise significant environmental issues. Please refer to the Service Providers section for a general response to a health and safety comments.</p>
965	29	<p>I appreciate that your Board has asked for voluntarily agreements and made it very clear that you would look for voluntarily agreements. But I think we do need more assistance in that because, on one hand, we've got a 3,800-page document of things that make people very unhappy, and, on the other side, we've got something that's not very specific that's really two words, "voluntary agreements." But being that you are the governing body that would have to accept any voluntarily agreement, I think it would be helpful to find out, what would you like to see as part of voluntary agreements?</p> <p>Is there biological objectives that you would like to see maintained? Who are the parties</p>	<p>Please see Master Response 1.1, General Comments, and Master Response 2.1, Amendments to the Water Quality Control Plan, for responses to comments by the State Water Board supporting voluntary agreements. Please note that the public comment period was extended for a total duration of 6 months. Although the public comment period has ended, this does not preclude the continuation of the settlement process, nor would adoption of the plan amendments preclude voluntary agreements. The State Water Board oversees and regulates water right and water quality and, as such, holds the authority to approve voluntary agreements to implement the Bay-Delta Plan.</p>

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		<p>that would you like to see involved and participating in this? What is the time frame that you would like to see this happen in? And when we talk about working with the Board, I think this would be a great step in being able to mend some of that miscommunication that's happened and set up some guidelines to provide these voluntary agreements their best chance for success.</p> <p>I think along with that, we would like to join the U.S. Fish and Wildlife, Bureau of Reclamation, the Department of Energy and those who have asked for 120-day extension on the comment period, I think that would be a wise decision and helpful in pushing forward on voluntary agreements so that we at the districts and those in the area can continue to work with you guys and the state agencies and the fish agencies and the environmental organizations that we've already been working with to develop a plan that will avoid these significant and unavoidable impacts that are in the SED.</p>	
965	30	<p>I would like to take a few minutes to do that awful thing we lawyers have to do and talk a little boring process and point out to you some of what we consider to be just some legally deficient flaws in the SED. As you all know, the SED is a CEQA-equivalent document. It is to inform you, because you have a difficult job to do, and we understand that. You have to balance the needs of the fish, the needs of communities, the needs of agriculture. And that is really difficult.</p> <p>When you have a document that is so fundamentally flawed that it doesn't give you a clear picture about tradeoffs, about assumptions, doesn't even clearly define your project, it makes your job almost impossible. And, unfortunately, the SED as currently written, in our opinion, respectfully, is deficient on its face because it doesn't adequately define the project.</p>	<p>Please see Master Response 1.2, Water Quality Control Planning Process, regarding consideration of beneficial uses. Please see Master Response 2.1, Amendments to the Water Quality Control Plan, regarding the project description of the plan amendments. Please see Master Response 1.1, General Comments, for response to comments regarding the adequacy of analysis and difference between programmatic environmental documents and project environmental documents.</p>
965	31	<p>I would like to highlight, your project is an unimpaired flow, we believe. It's a 40-percent unimpaired flow -- or it's a range, excuse me, 30 to 50 percent. Your project is not a block of water. It's not flow-shifting measures. It's not carryover storage capacity. In fact, those things aren't analyzed in any great detail. They're just assumptions baked into your models. And, so, that is a fundamental flaw on its face.</p>	<p>Please see Master Response 2.1, Amendments to the Water Quality Control Plan, for a description of the plan amendments, including adaptive implementation (see also Master Response 2.2, Adaptive Implementation). Please see Master Response 3.2, Surface Water Analyses and Modeling, regarding the modeling and modeling assumptions.</p>
965	32	<p>When your staff ran the models to support the SED and they just baked in carryover storage, they left out one critical aspect, you don't have a right to that carryover storage, arguably. We, as the Modesto Irrigation District, in partnership with the Turlock Irrigation District, as has already been stated, built Don Pedro. We are the trustees of that project, of that asset. We have constitutional obligations when it comes to the rates that we place upon our members, our customers, about what we can charge them, how we charge them, and that the benefits that we're charging them for stay in the district.</p> <p>One of the huge benefits of Don Pedro is storage. We can't just give it to you. And, yet, without it, your models, your assumptions, don't work. That's a fundamental flaw on its face. And I don't, frankly, know how you get around it, respectfully.</p> <p>I'm willing to work with you. We are clearly willing to have discussions with you. But these fundamental flaws have to be fixed in order for you to make an informed decision and do your job to balance the needs.</p>	<p>Please see Master Response 2.1, Amendments to the Water Quality Control Plan, regarding the LSJR flow program of implementation, including discussion of carryover storage. The plan amendments do not establish specific carryover storage requirements to avoid constraining future implementation. Specific carryover or other requirements will be established when implementing the plan amendments through future water right and water quality proceedings.</p> <p>Please see Master Response 3.2, Surface Water Analyses and Modeling, regarding reservoir operations assumptions, including carryover storage. The model results in the SED present a range of potential and likely generalized operations, sufficient to evaluate water supply and other effects of the project from a programmatic perspective. The State Water Board modeled potential reservoir operations (including carryover storage) to show the range of potential environmental impacts in such a way that the public and the State Water Board can compare the relative effects.</p>
965	33	<p>Another technical problem that we see with the SED -- your project appears to be an unimpaired flow objective, or a regime, 30 to 50 percent. And pages upon pages of the SED</p>	<p>It is currently not possible to restore natural conditions in the plan area, and the plan amendments do not propose to create natural conditions in the plan area. The plan amendments are designed to improve river</p>

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		<p>are dedicated to analyzing and reporting the unimpaired flow and its various percentages on the three rivers. And you guys -- your staff undertakes this exercise because, as you state in Chapter 19, The Analysis of Benefits, quote, "Using a river's unaltered hydrographic condition as a foundation for determining ecosystem flow requirements is well supported by scientific literature." You go on to state, "Developing ecologically protective flow prescriptions concur that mimicking the unimpaired hydrographic conditions of a river is essential to protecting populations of native aquatic species and promoting natural ecological functions." And you have statements like this throughout the document. However, even the SED acknowledges that the unimpaired flow does not represent the unaltered pre-development flow regime to which the fish would be adapted. Native fish could not possibly be adapted to unimpaired flows, because unimpaired flows are a human invention and have never actually occurred in nature. So, it is impossible that these species would be somehow adapted to a flow regime that never existed.</p> <p>This basic fact undermines the SED's most fundamental underlying principle. In the end, your staff recognized the problem and presented, by this logic and technical flaws -- presented with this logical and technical flaw, found it necessary to declare by definition in Appendix C, quote, "For the purposes of this report, a more natural flow regime is defined as a flow regime that more closely mimics the shape of the unimpaired hydrograph."</p> <p>In March of this year, the state agency that is expert in water resources, the California Department of Water Resources Agency, issued a report, Page 1 of which in the Executive Summary states unequivocally, quote, "Unimpaired flow estimates are theoretical in that such conditions have not occurred historically. In sum, the findings of this report..." and, again, this is the Department of Water Resources report, "...showed that unimpaired flow estimates are poor surrogates for natural flow conditions." So, your underlying premise is flawed.</p>	<p>conditions during the time of year important to native fish as documented in 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. The scientific basis for why this is important to native fish is documented in Appendix C, Chapter 19, and Master Response 3.1, Fish Protection.</p> <p>Please see Master Response 3.1 for additional information on the unimpaired flow approach and need for increased flows.</p> <p>Also see Master Response 2.2, Adaptive Implementation, regarding the use of adaptive implementation to maximize the project benefits using limited quantities of water.</p>
965	34	<p>When we heard a little more about this carryover storage that was baked into the models and not fully disclosed or analyzed, it became clear that this unimpaired flow really turned into a block of water, and it just magically morphed into a block of water. So, after spending large amounts of time and pages stressing the importance of providing flows that mimic the natural flow regime of the eastside tributaries and the lower San Joaquin River and trying to show that unimpaired flow accomplishes this, the SED and your staff's description of how this plan is going to work completely abandons the very basis for its existence. And none of this is truly analyzed in a CEQA context. This is hugely problematic.</p> <p>The flow shifting that has to occur causes huge amounts of water. For what reason? That's not an unimpaired flow. That's a block of water. Do you want an unimpaired flow, or do you want a block of water? Those are two fundamentally different approaches. And the distinction is critical. The block-of-water concept is why so many in this room and throughout this region believe this is a naked water grab. That's not an unimpaired flow.</p>	<p>Please see Master Response 2.1, Amendments to the Water Quality Control Plan, for information regarding implementation of the Bay-Delta Plan, including using percent of unimpaired flow carryover storage.</p> <p>Please see Master Response 3.1, Surface Water Hydrology and Hydrologic Modeling Using the Water Supply Effects Model for information regarding carryover requirements and assumptions in the model.</p> <p>Please see Master Response 3.1, Fish Protection, for information regarding managing the percent unimpaired flow and functional flows.</p>
965	35	<p>We're concerned about the actual benefits you will see to Chinook salmon. I won't get into the 1,100 number. I think it's been illustrated that that is on your graph and it's in your chart. But what I would like to stay is that the only quantitative -- it is the only quantitative estimate in the 3,500 pages on the effect of the roughly 4 300,000 acre-foot take of flow from us and the water users in this valley. We can sit -- and it will -- again, it's about 1,100.</p> <p>But we call this the one-percent solution. Because the SED reports that the San Joaquin River fall run Chinook population makes up about five percent of the total Central Valley</p>	<p>Please see Master Response 3.1, Fish Protection, regarding SalSim, and the benefits anticipated with implementation of the plan amendments. Also, see Appendix C, Technical Report on the Scientific Basis for Alternative San Joaquin River Flow and Southern Delta Salinity Objectives, specifically Section 3.6, Analyses of Flow Effects on Fish Survival and Abundance, for an analysis of flow effects on fish survival and abundance.</p> <p>Please refer to Master Response 1.1, General Comments, and Master Response 1.2, Water Quality Control</p>

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		<p>fall-run Chinook population, and that's what is actually listed, is the Central Valley fall-run Chinook population. So, a 10-percent increase in the San Joaquin River will mean less than a 1-percent increase overall to the Central Valley fall-run Chinook population at a cost of 300,000 acre-feet of water, billions of dollars, lost revenue, devastating impacts to some of the most impoverished communities here in this region, a loss of food security and food viability, devastating impacts to local schools, increases in crime, and the list goes on and on. That doesn't appear to be a very well placed balance.</p>	<p>Planning Process, regarding reasonable protection of beneficial uses.</p>
965	36	<p>One other flaw that I would like to hit upon, that it is a broad statement, is the use of averages. Frankly, the use of averages hides the true impacts and makes the analysis almost impossible to really figure out. It masks the true impacts in the most critically dry years, which is where it matters most. That's when we need the water most, that's when the fish need the water most.</p> <p>And I would just like to end with this useful analogy to drive home the point about averages. Let's pretend that all of us here today were locked in this room and it was airtight. And we're looked in here for 24 hours. But, don't worry, they're going to pump in oxygen for 22 of those 24 hours. That means there's no oxygen for two of those hours. But, overall, averaging throughout the day, we have a 92 percent supply of the needed oxygen. That's a pretty good average, but we're all dead. That's the problem with using averages.</p>	<p>Please see Master Response 2.3, Presentation of Data and Results in SED and Response to Comments. Please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, for information regarding economic effects during critically dry years.</p>
965	37	<p>I want to assure you, this is our river, this is our home, we are committed to fixing the river and we know how to do it. We stand ready, willing, and able, but not at the cost of our water rights, not at the cost of our growers, not at the cost of this entire community. Please do not water this valley and destroy this region.</p>	<p>Please refer to Master Response 1.1, General Comments regarding community concerns and for responses to commonly raised issues and concerns.</p>
966	1	<p>I'm a parent and resident from the airport area. My children and I have a wonderful experience canoeing in the Tuolumne River. It has been an amazing time with them that I hardly ever have because I'm a working mother, and I also attend school.</p> <p>The downfall is that the water flows are currently low and it affects our recreational activities at the river. I strongly believe with the river becoming lower and lower, our few recreational activities are going to be less accessible. That affects our children. This causes our future youth not to have more healthy family-oriented recreational activities. The outcome leaves a gap of time, endangering or becoming tempted for possible illicit activities, getting in trouble with the law. In addition, being a parent of young children, I would rather see my children grow up with nature than in the streets doing nothing.</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>
967	1	<p>I recognize that everybody on the Board and everybody in here in the room is kind of inheriting a problem that was created in the State of California about 167 years ago when it became a state and water resources were overallocated. And so we're -- everybody is vying for a resource that there isn't as much of as was promised to the people of California, so inherently there is going to be conflict and everybody's just putting their opinion forth. And so I appreciate you guys dedicating your careers, basically, to sorting out those issues.</p> <p>Things I want to mention is just the value of salmon, not only for river habitat and the environment. And I want to address that, not as something that is separate from our human issues but something that's part of it. A lot of the nutrients that has made the Central Valley one of the most fertile landscape in the world, really, is the historic presence of salmon. And in so many ways, it is a very salmon-based ecosystem. So the economic benefits that we enjoy here in California as a result of agriculture in so many ways have to do with the</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>historic presence of salmon. If we can bring those back, right, the agricultural lands become much more fertile.</p> <p>One case study I would encourage you guys to look at for salmon restoration would be the Lower Elwha River up in the Olympic Peninsula up in Washington. Now, I'm personally not an expert in salmon and the issues. I won't claim to be. I'm still young myself. But there is a lot of information that's coming out of that area that has a lot to do with soil, which near-shore habitat, with all the things related to that watershed with the reintroduction of salmon.</p> <p>MR. MOORE: Just as a clarification, you mentioned the Elwha River and the reason that's something to look at. Was that because of the dam removal, and that now there are lands upstream of the dam that are accessible to salmon that weren't, and that creates some kind of a scientific research opportunity?</p> <p>MR. SCHUETTGEN: Exactly. I think there's a research opportunity that exists in the fertility of soil up in those landscapes. Now, naturally, it's a different landscape because you're talking about a national park land versus, you know, industrial and agricultural land. But the same properties of biology and chemistry apply.</p> <p>MR. MOORE: So, the salmon content and nutrient content compared to the soil compared to the soil nutrient content?</p> <p>MR. SCHUETTGEN: Exactly.</p>	
967	2	<p>I would like to just touch on very, very briefly is again the opportunity for water conservation. And that hasn't been something that's been brought up a lot, but how efficiently we are using water. And with water conservation also come opportunities for innovation. And innovation will bring opportunities for jobs and the economy, as well. And so I would encourage the Board to look towards what opportunities there are for water conservation and innovation, and then what economic impact those could potentially have in the future.</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>
968	1	<p>A lot of my work with the Tuolumne River Trust is involved with doing watershed restoration in the Upper Tuolumne River Watershed, which I think is maybe notable to you guys for maybe two reasons.</p> <p>First of all, I think if successful, we're hoping that we will be able to potentially add a little bit to the water supply, so there's that.</p> <p>More importantly, I think, is the Upper Tuolumne River Watershed is right now in a state of crisis. There's a lot of ecosystem collapse. And one thing that I would convey is that it's really not a matter of, you know, environment versus economy or fish versus people. It's really not a baseball game. I mean, we're really all in this together and have to come up with ways to make it work. But with the environmental challenges up there, with tree mortality and wildfire and drought, the environmental impacts are very severe.</p> <p>But what may be even more important is the economic impacts. These are very expensive problems to address once you have to get in and do restoration. And I know that a lot of them are happening in the Bay-Delta, as well. So I would just encourage people to think of the long term of environmental and economic sustainability and what we're doing, you</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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		know, and just look at it in that sense, rather than just the short term of economic loss.	
969	1	<p>The issue of groundwater pumping and lost surface water supplies [ATT1:ATT2]. The staff’s analysis basically says that if you lose an acre-foot of surface water, you’ll fully replace it by pumping an additional acre-foot of groundwater until your capacity to pump is exhausted. That’s a full offset model that is driving the economic analysis. What we did is question that. But rather than just sort of say let’s do a different assumption, we actually looked at an actual experience. And of course, the CVPIA and other sort of federal restrictions has created what economists would call a natural experiment.</p> <p>So we looked at the historic record of what happened to groundwater pumping in the Westlands Water District since 1988 when, indeed, we found that fundamental transformation and availability and volatility in available surface water. And when we submit our final report next year, you’ll see a discussion where basically the record shows that there’s about a 50 percent offset. So if you lost an acre-foot of surface water supply, you’re only going to offset that by a half-acre-foot of additional pumping, up to capacity.</p>	<p>The State Water Board strived to use best available science and information for the SED, and wrote the SED as objectively and completely as possible—following the appropriate legal process and in compliance with the regulations that govern certified regulatory programs. However, the State Water Board acknowledges that uncertainty is inherent in a programmatic planning effort of this geographic and temporal scale. The SED is a program-level (not project-level) first-tier evaluation, consistent with CEQA Guidelines, Section 15168. Therefore, a location-specific groundwater analysis is outside the scope of the SED, because the State Water Board cannot reasonably foresee the mitigation actions local water users would take in response to surface water reductions, and quantification of the impacts of the proposed LSJR flow objectives would be speculative. The “natural experiments” referenced in the comment were site-specific historical records, which were not available and not suitable for the analyses conducted in the SED. Please see Master Response 1.1, General Comments, for a discussion regarding the scope of the SED, and the requirements of CEQA and program-level review.</p> <p>Groundwater overdraft conditions in the plan area are legacy issues caused by unsustainable agricultural expansion. The State Water Board recognizes the negative impacts of overdraft (e.g., declines in groundwater levels, increases in pumping costs, new wells, deepening of wells, and more) in Chapter 9, Groundwater Resources. SGMA was passed by the legislature in 2014 to address those negative impacts. Under SGMA, GSAs will define what sustainability means at the local level based on the needs of the beneficial uses and users of groundwater in each basin. Any future GSPs would have to account for projected availability of surface water in accordance with relevant water regulations, including the proposed LSJR flow objectives. The SED did not include SGMA in the baseline or alternative analysis, because the baseline predates SGMA, no GSPs were developed before the release of the Recirculated SED, and it is unknown what actions GSAs will take to achieve the sustainability goal. Therefore, any impact assessment would be speculative and beyond the scope of the SED. However, SGMA was properly considered in the analyses, both as an existing legal requirement to prevent further degradation of groundwater basins and as a potential cumulative limit on future irrigation supplies. Please see Master Response 2.5, Baseline and No Project, for a discussion on establishing the baseline. Please see Master Response 3.2, Surface Water Analyses and Modeling, for a discussion on modeling assumptions of the level of pumping associated with 2009 and 2014 infrastructure in the SWE model.</p> <p>The SED reflects the historical local response to increase groundwater pumping when surface water availability is reduced, but the SED and plan amendments do not require or encourage increased groundwater pumping as a response to reductions in surface water. Actions water users could take to replace surface water are described in the SED (Chapter 16, Evaluation of Other Indirect and Additional Actions, Section 16.2, Lower San Joaquin River Alternatives—Other Indirect Actions); substitution of surface water with groundwater is only one of the actions. 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>The State Water Board acknowledges 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. Implementation of the LSJR flow objectives do not conflict with SGMA. Rather, both processes allow local entities to comprehensively address groundwater and surface water resources through integrated planning that does not trade impacts between surface water and groundwater. Please see Master Response 3.4, Groundwater Resources and the Sustainable Groundwater Management Act, for a discussion on groundwater overdraft as a legacy issue, approach to the groundwater impact analysis, groundwater recharge, and compliance with SGMA in the context of the plan amendments.</p> <p>The assumptions used in the SED (Results of the economic impact analysis are in Chapter 20, Economic</p>

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			<p>Analysis; the methodology and approach of the analysis are in Appendix G, Agricultural Economic Effects of Lower San Joaquin River Flow Alternatives: Methodology and Modeling Results) differ from those in the Stratecon economic impact analysis. There are many ways to conduct an economic analysis. For a discussion on how the SED economic analyses was conducted, the factors considered, and the differences between the SED assumptions and those made by various commenters, please see Master Response 8.0, Economic Analyses Framework and Assessment Tools; Master Responses 8.1, Local Agricultural Economic Effects and the SWAP Model; 8.2, Regional Agricultural Economic Effects, and Master Response 8.4, Non-Agricultural Economic Considerations.</p>
969	2	<p>We have issues of the overlay of SGMA, which was not a part of the sample period of the Westlands’ experience [ATT1:ATT3]. And quite frankly, given the fact of when SGMA comes into this area, the idea that you’re going to expand groundwater pumping is just not in the cards. There will be a retraction of allowable groundwater pumping, and we believe that retraction groundwater pumping will be a consequence to SGMA, not of your action. But the implications for the analysis of the flow objective is you’re not going to be able to offset future losses of surface water supply by any groundwater pumping.</p>	<p>Please see response to Comment 969-1.</p>
969	3	<p>Volatility of impacts [ATT1:ATT4]. The study area faces variable hydrologic conditions. What the state staff analysis does is it sort of looks at each of the impacts by hydrologic conditions and sort of averages over that, focusing only on the average. Volatility, in our view, has consequences, and you’ll see how we emphasize that. Volatility of impacts have impacts on the reliability of surface water supplies. As we all know in water policy, supply reliability is a cornerstone of an economy. And secondly, volatility has issues as it relates to the sustainability of any groundwater pumping in and of itself, doubly so in a SGMA world.</p>	<p>Variability of hydrologic conditions is incorporated in the Water Supply Effects (WSE) model. The monthly WSE results for surface water availability and shortage (i.e. unmet demand) were aggregated annually, along with annual groundwater pumping, used as inputs in the Statewide Agricultural Production (SWAP) model to assess economic impacts. The impact analysis does not focus on averages. Average values of potential impacts are presented in the SED for clarity and ease of understanding, and to highlight important impact trends. Presenting average values is a common practice in scientific literature. The SED would be impossibly long and difficult to comprehend if all model results for the entire 82-year modeling period were presented. For further discussion regarding the use of average values in the SED, please see Master Response 2.3, Presentation of Data and Results in SED and Responses to Comments.</p> <p>For further information on model inputs and outputs and the methods and approaches of the WSE and SWAP models, please see Appendix F1, Hydrologic and Water Quality Modeling, and Appendix G, Agricultural Economic Effects of Lower San Joaquin River Flow Alternatives: Methodology and Modeling Results.</p> <p>Please see Master Response 3.2, Surface Water Analyses and Modeling, for further discussions on SED use of the WSE model. Please see Master Response 8.2, Regional Agricultural Economic Effects, for a discussion regarding the potential economic impacts of reduced surface water supply reliability. Please also see Master Response 8.2 regarding the State Water Board’s evaluation of potential regional economic effects associated with change(s) in agricultural production, and a discussion on surface water supply reliability. As discussed in Master Response 8.2, while the 2016 Recirculated Draft SED’s analyses and conclusions differ from the commenters, the SED’s analysis are supported by reasonable assumptions, substantial evidence, and an appropriate level of analysis for considering economic effects.</p>
969	4	<p>Impacts on well elevations [ATT1:ATT5]. Your staff acknowledged that the proposed flow objective will have significant unavoidable adverse impacts on groundwater resources, but had no quantification of those impacts. Again, we take advantage of the natural experience off the New Melones where the Central San Joaquin Water Conservation District has had a life of litigation against the federal government for breach of contract for which they’ve been successful. But from an analysis point of view, we have a historic record of volatility and available to surface water supplies. And San Joaquin County has a good historic record on well elevations in that district. And so we will take advantage of that.</p> <p>And the thing that’s important to also understand, which we relate to the scope of the</p>	<p>Please see response to Comment 969-1.</p>

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		<p>impact, is any impact on well elevations will not only have an impact on pumpers served by the irrigation districts, but the other ag operations outside of irrigation districts, as well as the domestic-commercial people.</p>	
969	5	<p>Downstream linkages [ATT1:ATT6]. There's a vertical structure to this local economy. They're just not shipping stuff from the farm gate out of here. It's going into dairies. It goes into livestock, and it goes into food processing, so there's that linkage. Your staff does not consider the impact of that based on limitations of the model that they chose to employ and reconsider it.</p>	<p>As Appendix G page G-55 states, "Evaluating the effects of the LSJR alternatives on [the beef and dairy] sectors requires a forward-linkage assessment that typically is beyond the capabilities of traditional input-output analysis, including IMPLAN." Please see Master Response 8.2, Regional Agricultural Economic Effects, for discussion of the limitations of IMPLAN for estimating downstream economic effects on dairies. To perform a downstream linkage analysis it would require assuming some relationship between input sectors and downstream industries. No information has been found or provided to realistically model this relationship. However, the potential economic effects of the LSJR alternatives on downstream industries, such as dairies, are discussed in Chapter 20, Economic Analysis, and in Master Response 8.2.</p>
969	6	<p>Surface supply and reliability [ATT1:ATT7]. What we've done here is we have accepted your staff's analysis of what's the impact of the 40 percent dedication on available surface water supply, so what we've done is started with that. So what you're going to see here is no alternative analysis of the impact on availability, it's instead looking at it from a supply reliability expected.</p> <p>On the far left under the baseline conditions [ATT1:ATT8], what you can see is roughly under the baseline there's about a million acre-feet of reliable water supply out of the surface water rights, and about 300,000 acre-feet of unexpected average, unreliable. What do we define reliability as? The same way the Department of Water Resources defines supply reliability for the State Project. You asked the question: What quantity of water could be made available in light of variable hydrologic conditions with some likelihood of cutoff? Stratecon used the criteria that on average about the expected arrival of interruption would be once a decade. That creates these bar charts.</p> <p>We next look at the availability of surface water as it relates to under the 40 percent dedication. The reliable water supply falls by 60 percent. Unreliable goes up, as we'll show in our report next year. The economic value of the left bar in the slide under the baseline is twice the value of that, so we have volatility. Another way of looking at this is, again, taking out your own spreadsheets, you just look at what's the loss in the water supply? The horizontal line gives you the average over all the years, that's 241,000 acre-feet, that's the flat line.</p> <p>And what you see is, again, the volatility [ATT1:ATT9]. We have peaks as much as four times the loss. And, of course, in wet and above-normal years, we may have no loss. So we've got something. In fact, this will be translated in through the economic impacts. But think of sort of going on a bumpy road. You know, you're sort of really throttling up, you're throttling down.</p>	<p>Please see Response to Comment 969-3.</p>
969	7	<p>Groundwater sustainability [ATT1:ATT10]. This we compiled from your staff's reports and just put it here, is that if you look at all these subbasins what you can see is that there's declining well elevations [ATT1:ATT11]. And you can see, but for Eastern San Joaquin, you see in the earlier period relative to the more recent period, well elevations are falling at faster rates, not slower rates. And here was their compilation of the range of the overdraft. So we have to look at this context of not only the response, but then interaction with SGMA within this context.</p> <p>The last thing in terms of the setup of the groundwater situation is that, again compiling</p>	<p>Please see response to Comment 969-1.</p>

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		<p>from some of the spreadsheets that was put on the website, for which you should be commended as I think as was your staff said, you showed your work, you did, and God bless you because it would be more work for us if you didn't show your work.</p> <p>And what you can see here is that, as you've already heard from your staff, is that when you have--and you've also heard from people here today, when there's less delivery of surface water we're going to have less recharge from distribution losses and deep percolation [ATT1:ATT12]. This is what your staff calculated. What's interesting about all of this, of course, is when we have the greatest loss of recharge is precisely the hydrologic conditions when things are a little more, you know, hot in terms of drought.</p>	
969	8	<p>The proposed flow objectives and well elevations [ATT1:ATT13], again what we did is we conducted also the natural experiment of looking at the relation between surface water deliveries to Central San Joaquin since the mid-'90s to well elevations. And what you can see is what a good hydrologist would tell you, no basin is uniform. There's some locations in the basins where the impacts will be larger than others. But this is what the historic record shows from the experiment there. And so what we do is we use these impacts to estimate what the range will be by hydrologic conditions of the losses of water supply [ATT1:ATT15].</p>	Please see response to Comment 969-1.
969	9	<p>What I wanted to do was, preliminarily or out the gate, focus primarily on the main places where our [Stratecon's] analysis really differed from staff's analysis. We obviously translated some of those analyses a little differently. We all agree that there's going to be increased groundwater pumping, for example. We just happen to disagree on the amount and have our own analysis towards that end. We also know that there's going to be some following of land, but we also disagree on the amount. I'm sorry. But ultimately what we saw was that there was really no effective quantitative treatment of certain considerations that are fundamental to an economic analysis of the potential impacts of the SED, particularly increased groundwater depths. That comes at a cost. When you don't address that and all you do is address increased pumping by folks, you know, currently using surface water supplies, you're only really addressing the impact to them of the cost of groundwater increases. Because now I'm a farmer in MID and I'm pumping groundwater to replace surface water that I lost. That's the impact.</p> <p>But that impact is much greater when we start to consider groundwater depths and significant groundwater depth impacts as a result of this increased pumping. And that extends to all of the other irrigators in the region who are relying solely on groundwater for their irrigation. But it also extends, obviously, to communities, to businesses. We heard comments from schools, et cetera, who are already facing significant challenges with the drought.</p>	Please see response to Comment 969-1.
969	10	<p>[One] issue is sector losses called forward linkages. If you reduce the production of corn in an area and corn silage, you're going to use then production by the dairies, and subsequently by cheese manufacturers. If you reduce hay production locally, you're going to lose production by livestock producers, meat packing, et cetera, and other processors. Same with vegetables and vegetable processors. Those effects were not quantified by staff.</p>	<p>Please see response to comment 969-5.</p> <p>Please see Master Response 3.5, Agricultural Resources, for discussion of the potential effects on dairies and livestock operations. Also, please see Master Response 8.2, Regional Agricultural Economic Effects, for discussion of potential economic effects on dairies and food processors.</p>
969	11	<p>Let me jump to increased groundwater depths just really quickly. The current pumping visual there shows what's currently happening [ATT1:ATT16]. Obviously, there's groundwater pumping going on regionally by both irrigators and municipalities. Under staff's analysis, effectively again, they say there's going to be increased pumping, effectively</p>	Please see response to Comment 969-1.

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		<p>one-to-one, constrained by capacity to offset loss of surface supply. So we have a bigger drop of water coming out our faucet.</p> <p>The actual outcome is going to be increased groundwater depths, potentially significant [ATT1:ATT17]. And then there are many years when we hit extreme dry conditions where the amount of pumping envisioned potentially, whether by us or staff, is going to have a significant, potentially significant impact on depths, and therefore increase everyone's costs significantly, pumping electrical costs, pumping to replace wells, to extend well depths, to deal with additional treatment costs associated with deteriorating groundwater quality, which we're already seeing as a result of the drought.</p>	
969	12	<p>Irrigator impacts [ATT1:ATT18]. Currently the irrigation districts, which are the collection of irrigation districts that receive surface supplies from the three rivers, irrigate about half a million acres of land. And they rely on groundwater for a relatively small portion of their water supplies. Outside of the irrigation districts, by staff's estimates, you have four- or five-fold the amount of irrigation going on by folks relying solely on groundwater [ATT1:ATT19], smaller districts, individual farmers, et cetera, who effectively now are going to face increased groundwater depths because of the expansion of irrigation--of groundwater pumping within the irrigation districts, and they're going to, obviously, be impacted by costs. And a lot of these farmers are dealing with very slim margins to begin with, and therefore going to face additional challenges.</p>	<p>Please see Master Response 3.4, Groundwater and the Sustainable Groundwater Management Act, for discussion of groundwater recharge. Please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, regarding the scope of the economic analysis and groundwater pumping costs.</p>
969	13	<p>The concept of this sort of long-run volatility when we really look at increased groundwater depths, and this graph models out the upper bound of lost employment, as one example, that we've estimated, and you see tremendous volatility [ATT1:ATT20]. There could be many years where because of just the increase of pumping costs regionally by irrigators, you're going to have a significant reduction in farm profitability, and that's going to go right to the ability of farmers to produce crops. You may have a following rate response. And you're going to certainly have an employment impact, which is going to feed through the larger economy. Less dollars in farmworkers pockets, less dollars spent at the supermarket, impacts downstream, and the whole economy suffers.</p> <p>And so while the staff has examined sort of average impacts, over the longer run when we see these significant changes in groundwater depths as pumping increases exponentially to respond to surface supply reductions, we're going to see spikes in how much employment is affected, how much output is affected, and that's going to spread out regionally. And that really wasn't addressed in the analysis.</p>	<p>Please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, regarding the scope of the economic analysis and groundwater pumping costs. The direct cost of increased groundwater pumping is included in the analysis as shown in Appendix G, section G.4.4. Though averages were presented in the document, the analysis was performed on an annual basis for hydrologic conditions from 1922 to 2003, which included many critical years. Impacts for these specific years can be obtained from the supporting modeling files posted on the SWRCB website. Please see Master Response 2.3, Presentation of Data and Results in SED and Responses to Comments, for discussion of why average results were presented. In addition, please see Master Response 8.1 and Master Response 8.2, Regional Agricultural Economic Effects, for presentation of the results of the revised SWAP model run averaged by water year type.</p>
969	14	<p>Community impacts [ATT1:ATT21]. If we look at the region, and a lot of people have commented on this, there's a very large portion of the local households, local communities that are designated as disadvantaged, many of them severely disadvantaged, by the State of California Department of Water Resources. If we look at Merced, for example, over 80 percent of the households are Merced are effectively in communities that are disadvantaged, yet we're talking about an action that will have an effect on the cost of water from municipalities. And has been mentioned by many today, that cost will ultimately get passed on to ratepayers who have already seen increases in their cost of water.</p> <p>As the City of Modesto, for example, has to replace wells to go to deeper depths and add additional treatment to respond to deteriorating groundwater quality as a result of increased pumping. All of these factors are going to feed through to these communities and their cost of water, and the household ultimately pays for the water [ATT1:ATT22]. The</p>	<p>Please see Master Response 2.7, Disadvantaged Communities, regarding the assessment of potential impacts of the plan amendments related to disadvantaged communities (DACs), the human right to water as it relates to DACs, and the State Water Board's technical and financial assistance programs for DACs.</p> <p>Please refer to Master Response 8.4, Non-Agricultural Economic Considerations, regarding the potential rate increase to municipalities in the plan area, including DACs, as well as case studies presented in Chapter 20, Economic Analyses, Section 20.3.3, Effects on Municipal and Industrial Water Supplies and Affected Regional Economies.</p>

Table 4-1. Responses to Comments

Ltr#	Cmt#	Comment	Response
		business that already is challenged from a profitability perspective has to pay for that water somehow.	
969	15	Increased groundwater depths, this graph looks at unemployment [ATT1:ATT23]. It's been mentioned a lot of times today, as well. Relative to the state, the county's unemployment rates are much higher. And historically then, again, the challenge of facing increasing water costs, taking money out of people's pockets to pay PG&E for higher pumping costs because groundwater depths have increased. That money is not going to be spent locally. You're going to have economic impacts as a result.	Please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, regarding the scope of the agricultural economic analysis and groundwater pumping costs. Also, please see Master Response 8.2, Regional Agricultural Economic Effects, for discussion of the economic analysis performed by Stratecon, Inc.
969	16	Increased groundwater depths [ATT1:ATT24]. There's going to be this volatility as every year we hit a dry year. All of a sudden pumping increases exponentially. Groundwater depths drop. And what are you going to see? Higher costs associated with pumping. And ultimately that gets passed on to the household and the ratepayer and the small business.	Please also see Master Response 8.2, Regional Agricultural Economic Effects, regarding the State Water Board's evaluation of potential regional economic effects associated with change(s) in agricultural production, and a discussion on surface water supply reliability. As discussed in Master Response 8.2, while the 2016 Recirculated Draft SED's analyses and conclusions differ from the commenters, the SED's analyses are supported by reasonable assumptions, substantial evidence, and an appropriate level of analysis for considering economic effects. Please also see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, regarding the potential costs associated with groundwater pumping.
969	17	Crop production impacts [ATT1:ATT25]. Tremendous volatility in years where we're going to switch from surface water to some groundwater, there's going to be significant reductions in crop production as a result. And we've modeled more significant impacts than what staff modeled. And as a result, you're going to see, potentially, when you look at this just on an annual basis, looking at the historical record [ATT1:ATT26], you're going to see a lot of instances where there's significant spikes in the decline in production, agricultural production in the area, or deficit irrigation and therefore reduced agricultural production. And as a result, that's going to feed through to employment. And we've measured impacts that are significantly higher than the state. Because not only have we factored in crop production impacts, but also these forward linkage impacts.	Please see Master Response 8.2, Regional Agricultural Economic Effects, for discussion of the economic analysis performed by Stratecon, Inc.
969	18	<p>So when we get to forward linkages [ATT1:ATT27], and this is [a] simple graphic [ATT1:ATT28], the state's analysis, staff's analysis focused really only on crop production. It is mentioned in their analysis that there are these forward linkages but there was not attempt to quantify them, even though they represent a very significant portion of the regional economy, as we've heard today.</p> <p>So when someone grows corn regionally and turns it into silage, it goes to those dairies locally, and then that dairy then provides milk for cheese production, just one example of many. People have mentioned a variety of companies in the region that are major players, significant top ten employment sources for the regional economy, Foster Farms, Frito-Lay, the list goes on and on. All of these folks rely on local production of crops [ATT1:ATT29].</p> <p>The dairy sector, just isolating that, for example, we looked at the dairy sector [ATT1:ATT30]. And we see tremendous potential volatility and lost employment because of the feed through of the reduction of crop production in certain years as a result of the irrigator response to reductions in their surface supply. Yes, we can make up some of it with groundwater pumping, but a lot of it we can't. So what's the impact? It's going to be reduced production of crops, which then feed through to the dairy sector, silage, hay, et cetera.</p>	Please see response to comment 969-5.
969	19	We didn't just analyze the impacts of increased water costs associated with groundwater pumping that is going to necessarily increase to offset those surface supply reductions, we	Please see response to Comment 969-1.

Table 4-1. Responses to Comments

Ltr#	Cmt#	Comment	Response
		<p>also looked at the costs associated with increased groundwater depths that were not addressed. We also looked at the costs associated with these forward linkages, et cetera. We also considered SGMA, which was not really explicitly considered in the analysis [ATT1:ATT31].</p> <p>We can talk all day long about responding with increasing groundwater pumping. But in truth, the reality that a lot of these communities face is that 10-15 years, as these SGMA rules come into play and have to be addressed, we're going to be at a point where you can't offset and you're going to be squeezed from both sides, reduced surface supplies and an inability to respond with groundwater. What's the result? Lower production, which is really one of the foundations for the regional economy, as we've observed.</p>	
969	20	<p>The [economic] impacts on an annualized or averaged basis, which tended to be the focus of the staff's analysis, even from our estimations, by trying to consider at least some of those additional forward linkages, some of those other impacts, you know, pushes \$300 million a year of output and thousands of jobs that are going to stay on the table. And that's even about the same under SGMA. Because when you go to SGMA, you're really trading--you know, the groundwater depth issue isn't a challenge because now you're controlling for that by reducing groundwater pumping, but the agricultural sector now gets hit even harder because they have no option on source of water. So you're going to see an even further reduction in anticipated crop production.</p>	<p>Please see Master Response 8.2, Regional Agricultural Economic Effects, for discussion of the economic analysis performed by Stratecon, Inc.</p>
969	21	<p>The very, very important point to make which is lost, we believe, on the staff's analysis, is the volatility as Dr. [Rodney] Smith noted. We also have the peak year, what we call our peak year. So when you look at that historic hydrograph and you pick those maximum years, those critically dry years, and you overlay the SED at the 40 percent level, the impacts are off the charts.</p>	<p>Please see Master response 2.3, Presentation of Data and Results in SED and in Response to Comments, for a description of how the SED uses multiple types of statistics and graphs to show the distribution of modeling results, not just overall averages. Please see Master Response 3.2, Surface Water Analyses and Modeling, regarding water supply reliability and reservoir operations. Please see Master Response 3.4, Groundwater and the Sustainable Groundwater Management Act, regarding groundwater pumping and water supply reliability. Please see Master Response 3.5, Agricultural Resources, for a discussion of multi-year dry periods and permanent crops. In addition, please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, for a discussion of water supply reliability and economics.</p>
969	22	<p>What happens in our analysis [is] we get into the billions of you know, annualized impacts as a result of this situation in those severely critical dry years. And what does that mean bigger picture? What that means bigger picture is that if I'm an investor into this economy, if I've built a dairy, if I am someone looking to invest, you've created an environment now where the foundation for a stable and low-risk investment has been eliminated in a reliable water supply; that completely and fundamentally will change the economic landscape of this region.</p> <p>So we can talk all day long about single-year impacts and spikes in impacts and they're very meaningful. But really the bigger picture is a real undermining of the regional economy and the attractiveness of that economy to investment, which is foundational to a region whose population is growing faster than the State of California, who already faces high unemployment above state levels of poverty, et cetera. So we really have to consider that bigger picture, as well as just these annualized impacts.</p>	<p>Please see Master Response 8.2, Regional Agricultural Economic Effects, for discussion of the economic analysis performed by Stratecon, Inc. Also, please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, regarding the scope of the economic analysis and potential effects of reduced water supply reliability.</p>
969	23	<p>Volatility really matters, and you can't average it out. I've got a hydrogeologist that I used for the last 30 years on any groundwater investment I ever look at. And when I met him years ago he says, "You know, there's two ways you die in the desert. One we immediately think of, you know, we die of thirst. Well, you know the other way you can die? In a flash</p>	<p>Please see response to Comment 969-1.</p>

Table 4-1. Responses to Comments

Ltr#	Cmt#	Comment	Response
		<p>flood." So you have to think about as you trek through the world about the world within the context of that volatility.</p> <p>Think about all these spikes and charts. Think about an investment decision in that world, even from the employment point of view. Think about if someone is going to be in this community with that volatility in an employment opportunity. Both capital and labor in the long run will move, to what extent, we don't know. We're not clairvoyant. And those impacts are not in our analysis. They're qualitative, but it's not it the numbers.</p> <p>But let me tell you what is in the numbers. What we've done is we ran, and in our submitted report we'll show you the sensitivity analysis. We're just going to assume SED comes, you know--you start implementing in 2018. The timing of SGMA, well, these are all high-priority basins, they'll get started in 2020. They've got 20 years, okay, to fully ramp up or fully get in, so in 20 years.</p> <p>So what the future is going to look like is that for next year there's no impact because you're deciding. And we start with a schedule that for the next two years thereafter we're in a pre-SGMA world, so that's going to be on the one side of Jason's table. But then we're going to phase into SGMA. Now, SGMA is not going to have the full impact immediately. It's going to be stretched out over 20 years. So what we do is then we say here's going to be a time period of implementation of SGMA, so we're going to bleed into that post-SGMA world. But once we get to 2039, which is 20 years later, thereafter we're into the SGMA world [ATT1:ATT33].</p> <p>Now, what is true, and that's certainly crystal clear in your staff analysis that we agree with the fundamental thing, these impacts depend on hydrologic conditions. So the features that depend on hydrology. And God knows, I have--we all have no clue on hydrology, what's going to be the future. So we did a Monte Carlo study using the sequential index method, which just basically says, who knows, maybe next year is going to be 1923 conditions and we'll follow thereafter, or who knows, it could be 1963 conditions, follow thereafter, so that's what we did [ATT1:ATT34].</p>	
969	24	<p>This tells you what the present value of lost economic input over a 40-year evaluation period by what happens next year [ATT1:ATT34]. What you can see is, again, hydrology matters; right? Our future is going to depend on where we start next year, that's certainly true. But you're going to see that the present value of these impacts are going to be, you know, at least \$5 billion, maybe as high as \$9 billion. We just take the average across all of these scenarios.</p> <p>And what you can see is that the crop output impacts themselves is 3.31 billion, which is only 44 percent of the total [ATT1:ATT35]. Why is that important? Your staff is focused on crop output implications only. Our number is going to be higher. If you put your staff's analysis through our Monte Carlo model, the expected present value is \$1.5 billion, okay? So we're roughly a little bit--two times, let's say. And the reason why we're two times higher is we don't see how you'd have the same degree of offset, of full offset increased groundwater pumping to fully offset that. So that's a big issue to think about, the groundwater offset issue. But as you can see, these downstream linkages of dairy, of livestock, they're adding up.</p> <p>We want to show you that these linkages are really significant in the context of this economy. There may be other areas in agriculture in California where that may not be as</p>	<p>Please see Master Response 8.2, Regional Agricultural Economic Effects, for discussion of the economic analysis performed by Stratecon, Inc.</p>

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Ltr#	Cmt#	Comment	Response
		important. Here, they are.	
969	25	<p>The implications of the increased pumping costs, as you can see, while they're significant, are relatively minor [ATT1:ATT35]. And why is that? Because in our analysis, we assume SGMA gets implemented, and over time, fully implemented. Our view is once you go to full SGMA implementation, the idea you're going to increase groundwater pumping to offset lost surface water is [finished]. That's not happening. So what we have here is the increased cost from groundwater is a relatively 20-25 year phenomenon. So that's why they're going to be important in the early years. But from a longer-term perspective, they're going to be bled out.</p> <p>Reliable supplies is a critical foundation for a community's economic sustainability and growth. It's time for us to put our reliability sort of glasses on; right?</p>	Please see response to Comment 969-1.
969	26	<p>Looking at averages, saying, oh, the hydrology sort of averages off plus or minus, isn't good enough. We find, in our opinion, the scope has been narrow and does not account for supply reliability, sustainability and volatility challenges that will happen to this community, yet there will be a major transformation in the investment environment from one of relative stability. If you look at the relative stability, the baseline conditions versus the SED, it's relatively stable. And that's going to have huge implications as it relates to both investment and employment decisions and will herald a retrenchment or change in trajectory of this community, which is probably why, you know, the economic development people came here today.</p> <p>And that the consequences of this deterioration are not quantified in the Stratecon studies. What does that mean, what you should do? I think you've got to improve your risk assessment. You've got to think more about the implications of volatility for impacts. And I'm only speaking on economics right now, okay, although there may be something on the other side too. And that I think it's just time to do that.</p>	Please see response to comment 969-3. Please see Master Response 2.3, Presentation of Data and Results in SED and Responses to Comments, for discussion of average results. Please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, regarding the scope of the agricultural economic analysis and potential longer term local economic effects of changes in water supply availability.
969	27	I have sensed sort of a theme of negotiation here. So as those parties negotiate a solution to this, they should probably think of it within the context of the volatility and take into account whatever they structure, how does that change, not only the average but also the volatility and reliability of the community?	Please see Master Response 1.1, General Comments, for responses to comments that do not raise significant environmental issues or make a general comment about the plan amendments.
969	28	<p>One of the things that's important to note is that when we're doing our analysis, just like staff, we have to pick a set of outcomes that potentially will occur and examine those. But those outcomes represent ultimately proxies for other outcomes and ways to evaluate magnitudes of impacts. And as an example, when we talk about efficiencies, efficiencies don't just appear. Efficiencies come at a cost. And a lot of cost and expenditure has already been made regionally to address efficiencies for conservation, et cetera. Some communities may argue, we've done all we can. Maybe there are more opportunities, et cetera.</p> <p>So when we look at, for example, something like increased groundwater costs as a result of increased depths in groundwater, someone may come back and say, well, couldn't you be more efficient in how you use water so you wouldn't drive that depth to groundwater so much and reduce your cost on that end. Well, that's going to come at a cost on the other side. So we have effectively captured, by our estimation, from an order of magnitude perspective the cost implications by focusing, for example, on potential groundwater impacts as a result of that assumption that we're going to pump more in response to</p>	Please see response to comment 969-3.

Table 4-1. Responses to Comments

Ltr#	Cmt#	Comment	Response
		surface supplies.	
969	29	Economic decisions can deal with any set of rules you come with, but your rules have consequences. So we will have to, in terms of the dialogue we had, I would say, at least as economists, I'd come back to you and say, let's think about the incentive structure and what does that communicate about the nature of the economic lottery that's being defined for people making decisions? That's the only checkpoint I'd want to go back to [ATT1:ATT36].	Please refer to Master Response 1.1, General Comments, for responses to commonly raised concerns related to the economic analysis and considerations presented in the SED.
969	30	[ATT1: "The Economic Consequences of the Proposed Flow Objective for the Lower San Joaquin River in Merced, San Joaquin, and Stanislaus Counties." Slide presentation by Dr. Rodney Smith and Jason Bass of Stratecon, Inc. for December 20, 2016 public hearing.]	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.
969	31	[ATT1:ATT2: Stratecon presentation slide, "Stratecon versus SWRCB Methods."]	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.
969	32	[ATT1:ATT3: Stratecon presentation slide, "groundwater pumping and lost surface water supplies."]	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.
969	33	[ATT1:ATT4: Stratecon presentation slide, "Volatility if 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.
969	34	[ATT1:ATT5: Stratecon presentation slide, "Impacts on Well Elevations."]	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.
969	35	[ATT1:ATT6: Stratecon presentation slide, "Downstream Linkages from Farm Sector."]	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.
969	36	[ATT1:ATT7: Stratecon presentation slide, "Surface Water Supply Reliability."]	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.
969	37	[ATT1:ATT8: Stratecon presentation slide, graph: "Annual Reliable and (Expected) Unreliable Surface Water."]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.
969	38	[ATT1:ATT9: Stratecon presentation slide, graph: "Annual Loss of Surface Water Supplies are Volatile."]	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.
969	39	[ATT1:ATT10: Stratecon presentation slide, "Groundwater Sustainability."]	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.
969	40	[ATT1:ATT11: Stratecon presentation slide, table: "All sub-basins experiencing declining well elevations and are over-drafted."]	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.
969	41	[ATT1:ATT12: Stratecon presentation slide, graph: "Annual Recharge from Distribution Losses and Deep Percolation in Study Area."]	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.
969	42	[ATT1:ATT13: Stratecon presentation slide, "Proposed Flow Objective and Well Elevations."]	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.
969	43	[ATT1:ATT14: Stratecon presentation slide, graph: "Lessons from New Melones Litigation."]	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.

Table 4-1. Responses to Comments

Ltr#	Cmt#	Comment	Response
969	44	[ATT1:ATT15: Stratecon presentation slide, table: "Reduced Well Elevations from Proposed Flow Objective."]	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.
969	45	[ATT1:ATT16: Stratecon presentation slide, table: "Economic Impacts Analysis."]	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.
969	46	[ATT1:ATT17: Stratecon presentation slide, graph: "Increased Groundwater Depths."]	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.
969	47	[ATT1:ATT18: Stratecon presentation slide, "Increased Groundwater Depths: Irrigator 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.
969	48	[ATT1:ATT19: Stratecon presentation slide, table: "Increased Groundwater Depths--Farmers."]	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.
969	49	[ATT1:ATT20: Stratecon presentation slide, graph: "Increased Groundwater Depths--Irrigation."]	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.
969	50	[ATT1:ATT21: Stratecon presentation slide, "Increased Groundwater Depths: Community 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.
969	51	[ATT1:ATT22: Stratecon presentation slide, graph: "Increased Groundwater Depths--Communities."]	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.
969	52	[ATT1:ATT23: Stratecon presentation slide, graph: "Increased Groundwater Depths--Communities: Unemployment."]	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.
969	53	[ATT1:ATT24: Stratecon presentation slide, graph: "Increased Groundwater Depths--Communities: Upper Bound Lost Employment due to Community Pumping Cost 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.
969	54	[ATT1:ATT25: Stratecon presentation slide, "Forward Linkages."]	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.
969	55	[ATT1:ATT26: Stratecon presentation slide, graph: "Crop Production 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.
969	56	[ATT1:ATT27: Stratecon presentation slide, "Forward Linkage 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.
969	57	[ATT1:ATT28: Stratecon presentation slide, illustration: "Forward Linkages."]	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.
969	58	[ATT1:ATT29: Stratecon presentation slide, table of ag- and dairy-related companies in Merced, San Joaquin, and Stanislaus Counties.]	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.
969	59	[ATT1:ATT30: Stratecon presentation slide, graph: "Forward Linkages--Dairy Sector: Lost Employment Associated with Upper Bound Lost Dairy Sector Production."]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to comments; therefore, no additional response is required.
969	60	[ATT1:ATT31: Stratecon presentation slide, table: "SGMA Impact 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.

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Ltr#	Cmt#	Comment	Response
969	61	[ATT1:ATT32: Stratecon presentation slide, "Future Economic 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.
969	62	[ATT1:ATT33: Stratecon presentation slide, "Drivers of Future Economic 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.
969	63	[ATT1:ATT34: Stratecon presentation slide, graph: "Present Value of Lost Economic Output by 2017 Water Condition."]	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.
969	64	[ATT1:ATT35: Stratecon presentation slide, table: "Composition of Expected Present Value of Lost Economic Output."]	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.
969	65	[ATT1:ATT36: Stratecon presentation slide, "Conclusion."]	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.
970	1	There's three groups that need water. The cities, the farms, and the fish and the environmentalists. But they all need water. And what you're doing now is just fighting over a dwindling supply of water where there's not enough for everybody.	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.
970	2	<p>Everybody needs more water. More water is what you need. Okay. Good. So, what did our forefathers do from one-hundred thirty, to fifty years ago? They looked up in the hills and they saw snowpack and rain, so what did they do? They put in dams. And the dams provide water down the tributaries and into the rivers. That's where we get the water. So, if we need water again, maybe we should do more dams. That's where we got the water initially.</p> <p>And what do dams do? They do three things. Number 1, they collect more water, which we all need. Number 2, they store the water. There's a double. And, thirdly, they could have hydroelectric power out of dams. Hydroelectric power, of course, electricity, is both clean and renewable.</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.
971	1	<p>Do increased flows upon the Tuolumne River and the Stanislaus River really connect with the City of Fresno? And I believe they do. And the reason I believe they do and the reason I'm here today is because I believe the Central Valley is a region connected by water, by agriculture, by the economic opportunities that those two things bring to us. We have that in common all across, realistically, from Sacramento all the way down to Bakersfield. And we need to begin to let our voice be heard as a region, and even really as a super region. And that's why I drove from Fresno today to talk about this water grab that I'm hearing and learning more about.</p> <p>In the city -- so I'm going to talk a little bit about my area. And I think most people in here can relate really well. There are communities in Fresno County that have 40 percent unemployment, okay? These are -- the land in our valley is so beautiful, it's unique in the whole world. It's very unique. We can grow almost anything. But we need one thing to make that happen and that's water, and that's why we're all coming before you today. Without water in Fresno County, we have hundreds of thousands of acres that are just sitting fallow, no crops, beautiful land, the best land in the world, no crops being grown on it, hundreds of thousands of acres sitting fallow. They bring in no economic benefit. And they're actually beginning to lead to a humanitarian crisis. And I'm using that with a small H. It's nothing like you see in Aleppo, Syria, where a war is breaking out, but it is a humanitarian crisis as far as I'm concerned. And I believe that's spreading in our Central Valley and we need to stop 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.

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		<p>And just like there is a war going on against the citizens of Aleppo, in many ways, in my opinion, there is a war going on, on the citizens of the Central Valley of California. And I'm begging you to please consider the humanitarian cost of the decision you've got to make.</p>	
972	1	<p>This Plan is full of misconceptions and bad math. And we are told not to pump. We are told not to flood. Your staff stated they need more water to save the fish with no proof at all in many years of what's going to save the fish. Start with fixing the issue by other means. Insanity is when you keep doing the same task and expect different results. We keep dumping water and we expect the fish to grow.</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>
972	2	<p>We will fight to the end to keep our water, me, my kids, my grandkids, this community, to fight for what we have. We have built this valley. The dams, the canals, the lakes, they're all built with the forethought to build this valley to be the best in the world and to grow food. We are the fifth largest economy. Why are we not the fourth, the third, the second or the first? A lot of it, because of restrictions. We have potential.</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>
972	3	<p>I'm begging you folks to please listen to what these folks have been saying here. I can't believe that between TID, OID, the City of Modesto, Turlock, Ceres, Fresno, that we have not all got together. For five years, you guys have been working on this. And now we've got so many days to comment. And these folks come up with all these other stuff that's coming up and nobody's talking. It's unreal. We got email. We got phones. The communication availability is unreal. Please stop this mess. Start over, please.</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>
973	1	<p>We put together a study. It was paid for by [Stanislaus] County, by Merced County and San Joaquin County, to look at the impacts of what this increased flows is going to be here. And you'll see from that study, as you've heard before and you'll continue to hear today, just how devastating the impact is going to be here on the county.</p> <p>You know, as a county, we live and die by property taxes, by revenues, by property values. And as we lose values, we lose revenues. And as we lose revenues, we lose our ability to provide services to all of our citizens of this county. And in addition to all the jobs and everything that will be lost, everything that we provide in the county comes from our property taxes. So as land is fallowed, as industries disappear, as they leave our county our revenues continue to drop and we are unable to provide services.</p>	<p>Please see Master Response 1.1, General Comments, for general information regarding the economic analysis.</p> <p>Please see Master Response 8.2, Regional Agricultural Economic Effects, for discussion of the economic analysis performed by Stratecon, Inc. Also, please see Appendix G, Agricultural Economic Effects of the Lower San Joaquin River Flow Alternatives: Methodology and Modeling Results, section G.5.4 for discussion of potential fiscal impacts to local governments. Based on the fiscal effects estimated in the SED it is unlikely that the ability of local governments to provide services would be impaired.</p>
973	2	<p>[MR. WITHROW:] We have spent, myself and a group, probably, of other individuals here in this room today have spent the last two years working on negotiations, on settlements, trying to find a place to meet in the middle. And that's what it's all about, really.</p> <p>Life is about balance. I mean...you talk about balance in your presentation. You talk about settlement in your presentation. And we have spent two years meeting here, meeting up in Sacramento with the powers that be there. We've met here at my office. My wife made dinner for everyone one night as they all sat here. And we have, as we negotiate, we have found ourselves negotiating with ourselves. There has been no response. There's just been crickets on the other side as we attempt to put together and put offers forward. There has been--offers have been placed on the desk and there's been no response.</p> <p>So that's the answer to this thing. Really, the only way we're going to get somewhere is somewhere in the middle, somewhere where we negotiate. As long as it's a true middle, we can get there. We're all concerned about the environment. We're all, you know, very good stewards of the land. And we're willing to find that sweet spot in the middle. And maybe</p>	<p>Please see Master Response 1.1, General Comments, regarding the public outreach process and voluntary agreements.</p>

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		<p>some call it a bittersweet spot, but we're willing to get there.</p> <p>But we need the other side to be negotiated in good faith, and that just has not happened at this point. So I guess my request to you today is to think about, there are some settlement talks that are still going on, and I understand that they're getting a little more productive. So I ask you to let that settlement process happen, to let that play out, to not come out with a decision here, to just let us work through this until we get to a spot that we feel we all can live with and not to mandate or implement something on us that just won't work, because we'll end up in court. You know we'll end up in court on this thing, and we'll all lose if we end up in court. The attorneys will win and we will all lose.</p> <p>So I ask you to trust in this process. Let the settlement process continue on. Let us negotiate. Postpone, if you have to, any type of decision you have to make here and let us, between the two sides that are involved in this, work out a deal that we feel we all can live with.</p> <p>CHAIR MARCUS: I had seen comments. I think there is a little disconnect on that. I agree with you completely. Part of why we've brought in Natural Resources is that, A, they can talk in confidential negotiations where folks don't want to necessarily talk to us. And then ultimately we need to approve settlements, so there's a bit of a wall, but we're very supportive. And so--but there's some disconnect where folks think they've submitted things to us that haven't been to us, but we'll figure it out.</p> <p>I'll follow up with you, because I do want to understand the disconnect.</p> <p>MR. WITHROW: Yeah. And we feel there's been no disconnect on our part. We've been doing everything we can, faithfully trying to negotiate. And we feel the disconnect has come from the other side, so we hope that that is settled.</p>	
974	1	<p>You asked for suggestions to help you meet everyone's needs. And I want to talk about the strategy, and then I'll try to offer suggestions for your strategy. Your strategy is to create a government board with total control of a certain resource, in this case, water. So why don't we reorganize the Board? Let's get elected members from certain districts so there's some accountability to the people.</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>
974	2	<p>Your next strategy is through environmental activism, prohibit the means to create an abundant supply of the controlled resource, in this case, water storage. So why don't we allow the process to begin to build enough water storage to meet everyone's needs?</p> <p>The founders of MID and TID had the wisdom, common sense and foresight to do so for our community. Should we not expect the same from you?</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>
974	3	<p>Your third piece of your strategy is think of false reasons to steal the resource from those who legally control the rights to the resource, in this case, the protection of fish, which is a farce. So my suggestion is stop blaming your actions on the fish. Hell, you make me feel sorry for the fish, only as a scapegoat though.</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>
974	4	<p>Band together people who are foolish enough to believe your false reasons and willing to speak on your behalf and fund your false reasons, in this case, radical environmentalists. So my suggestion for them would be ask your people to give up 40 to 60 percent of their 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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		they currently use and instead -- and help fund the creation of water storage.	
974	5	<p>The fifth strategy is force those who oppose you to spend billions in research and legal fees to disprove your reasons, which are false reasons anyway, and hope their funds and their will to fight run out. My suggestion is stop forcing us to have these meetings, listen to our science, our voices, and realize we will never stop fighting.</p> <p>One more thing. Benjamin Franklin said, If you make yourselves out to be wolves -- I mean sheep, the wolves will eat you." There's no sheep in this audience today, ma'am.</p> <p>If you don't -- but if you still view us as sheep, then I guess I would say, beware of sheep -- no, beware of wolves in sheep's clothing.</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.
975	1	<p>My in-laws are farmers. They're fourth-generation rice farmers. And I can tell you that the last six years of drought have caused great concern among them and, obviously, water is the big part of that. They can't drill more wells. They can't pay for more water allocation by the state. And as a result, the last five years they've reduced what they have planted by 15 percent. And I've sat around the dinner table with my family members and I have heard them talk about what they're going to have to do for the employees that they've had for 40 years on their farm and what they're going to have to tell them to release them because they have to make a decision, are they going to keep their boys employed or some of these people that they've had for all these years.</p> <p>So this cuts at the heart of family. It cuts at the heart of the employees who are like family to them for generations. And I can tell you, those dinner table discussions have been filled with angst and a lot of heartache that goes on about this. So this is very personal. And I know that there's many people in the audience that have the same story because without water, we can't continue in the ag business. And we need that water to be embedded in our groundwater and our wells to be built back up.</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.
975	2	<p>I represent--I'm the voice of 106,000 children in Stanislaus County. We represent the 14th largest number of students that we educate in the State of California. You have heard previous speakers talk to you today about the hardships, the challenges that we have to overcome with families and students, and yet every day we do the very best that we can to provide them the necessities so that they can be successful in the classrooms.</p> <p>We have 25 school districts in Stanislaus County, six of which are what we call direct-service school districts. That means the county budgets are so tight, there's very little wiggle room. Those six districts are already experiencing silt coming up into their wells that students can't drink. And I want to make sure you understand the picture of what this is going to look like in the future. Students drinking bottled water. Okay. We'll just go to the store and provide bottled water. But think about the basketball courts and the playgrounds being lined with Porta Potties. If you're a parent and your second-grade child is going to school that has to use Porta Potties as their sanitary facility, is that something, as a parent, you're going to want to stay at that school? I'm already taking phone calls from families saying we're looking elsewhere if we don't do something about our water situation at our school.</p>	<p>Please see Master Response 3.4, Groundwater Resources and the Sustainable Groundwater Management Act; 2.7 Disadvantaged Communities, and 3.6, Service Providers for a discussion of ground and surface water supplies to municipalities and domestic uses.</p> <p>Please see Master Response 1.1, General Comments, for responses to comments that do not raise significant environmental issues.</p> <p>The State Water Board is not responsible for the long range planning of local schools. The State Water board acknowledges local schools have a number of non-environmental challenges they have faced in the past and they will continue to face in the future regardless of the approval of the plan amendments. The State Water Board acknowledges schools have a wide variety of considerations, including funding and appropriations from various sources, when they prepare for their long range plan and water supply is only one variable.</p>
975	3	We are already in a crisis state. This Plan does nothing to help that. We need to work together to make sure that our priorities and what we value are put number one, and that's our children who are the future of this state and this great nation of ours.	Please refer to Master Response 1.1, General Comments regarding community concerns and for responses to commonly raised issues and concerns.

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976	1	<p>I think that what you guys have put forth is a good start and a good plan. And I think you guys altogether should be proud of what you're doing, because overall it is the right thing to do, is to start thinking about water. Water, in today's day and age, it's one of the most complicated issues to tackle. And I think that with you guys as a group, you have a lot to look at.</p> <p>A suggestion is to look at the responsible use of water. I think that's one thing that hasn't really been maybe discussed so far. Ideally, the water should flow downstream and go to the ocean. But, of course, people need it for other things.</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>
977	1	<p>Many elected officials have spoken today about the sad statistics of our county here in Stanislaus County and the greater Central Valley. One thing that hasn't been put up enough today, I don't think, is the people here today. And a lot of them have left. But we know they're here. We are friends, neighbors, and family. We actually speak to one another still. We like each other. And it's much different than some of the larger communities that are wanting the resources that support us here. So, we take this a little personal. We are a resilient valley. We have been amazing stewards of our natural drought in the last five years.</p> <p>However, I'm not here to speak about the great stewards who are my friends and family. I'm here to tell you about 545 students who I refer to as "my kids." You see, I'm a school principal of a TK-through-sixth school here in Modesto. Ninety-seven percent of my students receive free and reduced lunch. That means they're kind of poor. Seventy percent of them are Hispanic and Latinos. These two facts say some things about--that are really hard to ignore.</p> <p>Our students live with parents who are proud, hard-working people who came to this state because of the farm labor that was available to them. They continue to work hard to achieve their dreams with companies like Gallo, Foster Farms, Blue Diamond, Crystal, Diamond Pet Foods, to name a few. They're working hard to improve the future of their children. They expect clean, safe schools, and their landlords' property taxes pay for that. Their future and the future of our school is dependent on water, our Valley's most important resource.</p> <p>Hence the stewardship we have practiced for eons. I plead to you on behalf of my kids, all 545 of them, consider the non-flow compromises these stewards are offering. The water districts have managed this Valley's water for decades. Bring them to the table. Listen to their research. And I'll close with this, a quote from Nelson Mandela, "Education is the most powerful weapon you can use to change the world." Let the local districts educate you about our Central Valley water so I can continue to educate my kids.</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>
978	1	<p>We [Yosemite Farm Credit] are geographically located within the five water districts that will be permanently impacted by the decisions that you make on unimpaired flow. We finance employers, who rely on the water that comes down the Stanislaus, Tuolumne, and Merced rivers to operate their family business. We have skin in this area. We've got \$2 billion worth of skin in this area. And the purpose of this background is to give you a perspective. As you carry out your obligation to balance all of these interests, those interests that are beneficial and detrimental, economic and social, tangible and intangible considerations to attain the highest quality water, I'm here representing our 5,000 member borrowers who are residents of Stanislaus and Merced counties. It's a great area, and it's home.</p> <p>The State Water Resource Proposal put forward will drastically alter the momentum that ag</p>	<p>Though the comment presents several facts related to agricultural industries and the plan area economy, it does not raise a significant environmental issue with the SED. Please see Master Response 1.1, General Comments, for responses to comments that do not raise significant environmental issues or make a general comment regarding the plan amendments and general information regarding the economic analysis. Furthermore, please see Appendix G, Agricultural Economic Effects of the Lower San Joaquin River Flow Alternatives: Methodology and Modeling Results, for estimates of the magnitude of the effects on industry revenue and employment.</p>

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		<p>has brought to this economy in our regions. While I say "momentum," it's with the perspective that our two-county area still wrestles with 25 percent plus or minus of the people living below the national poverty level.</p>	
978	2	<p>This proposal will increase our risk as a local ag lender. So, what does that mean to the people in our area? The families that depend on ag for their income, including the employees, suppliers, and employers, cannot simply sit out farming during dry years and jump back in when there's water. Many of these employers own one parcel, and the previous panel discussed that, but they own one parcel and they rely on district water. They can't go out and just dig a new well, spend the money on that. The impact will be felt more by small-family employers.</p> <p>In addition, our loans require monthly or annual installments. The investors that buy our bonds, which is where we get our money to lend, are not going to let us skip a payment in a dry or critically dry year. Employers who produce milk do not have the option of simply shutting down like a factory. Cows need to be cared for each day. Dairies are required to have more acres, rather than less acres, or reduced acres due to potential fallowing situation. Irrigated orchards that last 25 to 40 years cannot be dry farmed in the off years. Trees decrease in production and eventually die without water. Reducing the water supply will also hurt supporting industries in the area, jobs for farm labor, feed companies, nurseries that grow trees, and labor at dairy and nut processing facilities will be negatively impacted. Our local economy is already challenged with higher unemployment.</p>	<p>Please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, regarding the scope of the economic analysis. Also, please see Master Response 1.1, General Comments, for general information regarding the economic analysis.</p>
978	3	<p>Businesses that financially support farming in Stanislaus and Merced counties will need to reassess the risk of extending credit in an area that lacks a reliable source of water. Our ag employers who hire people, buy seed, equipment, and other inputs have a high risk in this business if they don't know if there will be enough water to finish the crop. Higher risk, that is, a less reliable water source, will result in higher costs and less available capital for our employers. The laws of economics will mean higher interest rates for higher risk.</p> <p>These are some of the direct impacts to the people that we finance. There are other impacts. The impacts that the models and assumptions show are not only things to consider in your decisions. I respect the effort of the SED analysis, but I don't agree with your conclusions. I think there are also some of these detrimental economic and social, tangible and intangible considerations that lead to a different conclusion.</p>	<p>Please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, regarding the scope of the economic analysis. Also, please see Master Response 1.1, General Comments, for general information regarding the economic analysis.</p>
978	4	<p>Without our current water supply, we'll see fourth- and fifth-generation businesses shut down. Some of them will be in production. Some of them will be on Main Street that support the farmers and farming employers in our area. Our young, smaller farmers are younger farmers and their employees are the most vulnerable. Again, back to the issue that they can't afford to just dig a new well. They can't afford to let all their ground lay fallow for a year.</p>	<p>Please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, regarding the scope of the economic analysis. Also, please see Master Response 1.1, General Comments, for general information regarding the economic analysis.</p>
978	5	<p>The effects of this SED will not be spread evenly over our area or equitably. On average, there will be 290,000 less acre-feet of surface water available. The assumption is that we'll be able to pump enough water or lay fallow acreage to make up for the loss. In the critically dry years, the SED shows six-hundred-and-some-odd-thousand acre-feet less water available. These cutbacks will be primarily borne by ag and the employees directly and indirectly related to ag, along with fish during those years; but it's really going to hurt here. Averages can be useful, but the models on this particular topic needs to be carefully</p>	<p>Please see Master Response 3.4, Groundwater and the Sustainable Groundwater Management Act, regarding a discussion of the groundwater analysis contained in Chapter 9, Groundwater Resources, and Appendix G, Agricultural Economic Effects of the Lower San Joaquin River Flow Alternatives: Methodology and Modeling Results. Please see Master Response 2.3, Presentation of Data and Results in SED and Responses to Comments, for discussion of averages. In addition, please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, and Master Response 8.2, Regional Agricultural Economic Effects, for presentation of the results of the refined SWAP model run averaged by water year</p>

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		reviewed, especially the dry and critically dry years.	type.
978	6	<p>Based on study, it looks like all requests for water can be met in wet years. The challenge is if we get dry and critically dry years, the loss for human benefit cannot be offset. A single year at higher pumping levels could be very challenging, and two to four years back to back would be impossible. With the SED requirements for cold water or storage, it appears there will be less flexibility to store water for the dry years.</p> <p>With this type of downside risk on water availability, how can ag employers plan? The type of year, wet to critically dry, will not be well known until after crops need to be planted. Who will help those additional unemployed people? The local community at 25 percent poverty level has little reserve. In addition, as the farming acreage is reduced, the increased food costs will be borne by a growing group of unemployed citizens even less capable of buying the food.</p>	<p>During extended dry periods in the past, growers have offset surface water shortage by increasing groundwater pumping where groundwater is available. It is expected that the Sustainable Groundwater Management Act (SGMA) will help to ensure sustainable groundwater supplies for use during future droughts. Please see Master Response 3.4, Groundwater and the Sustainable Groundwater Management Act, for discussion of SGMA and sustainably using groundwater to offset surface water shortage.</p> <p>Please see Master Response 2.1 Amendments to the Water Quality Control Plan, regarding the carryover storage requirements.</p> <p>Finally, please see Master Response 1.1, General Comments, for general information regarding the economic analysis.</p>
978	7	<p>Groundwater quality will also decrease in this area. This is true for those five districts. It's also true for those outside the water districts. These water basins do not track with the districts. The reduced supplies for cities, counties, and their citizens in towns and out of town may drive a want to deepen existing wells or build more wells as part of the answer. However, we will not even be able to support the groundwater pumping we're doing today.</p> <p>We have financed the deepening and digging of wells. Neither of these two things guarantee you'll get quality or quantity of water that the study implies. We have people who have spent a quarter of a million dollars digging a well and ended up with no water, poor water quality, or lost wells due to the effects of subsidence, which is literally the twisting of a well casing. This deepening of existing wells or building more wells is not a solution.</p>	Please see response to comment 978-8.
978	8	<p>[MR. VAN ELDEREN:] The most frustrating part is that we [Yosemite Farm Credit] spent the past two years talking to our borrowers about pending changes in groundwater management as a result of SGMA. It's very likely that we'll be pumping less groundwater in Stanislaus and Merced County when SGMA is fully implemented. We're going to pump less water even before considering the unimpaired flow proposal.</p> <p>Groundwater pumping is not a solution in an average year and certainly not in a critically dry year. On the one hand, the SED implies there is groundwater to pump to offset surface water that's no longer available. The SED studies say that if you remove surface water it can be replaced with necessary pumping. However, we need to put that next to the science used for the SGMA implementation. The new groundwater law would not have been approved by the governor if everyone thought that current pumping levels are at a sustainable level. If we say pumping is the answer in critically dry years to replace the removal of 600,000 acre-feet of surface water, there has to be an assumption that our groundwater basins are currently sustainable.</p> <p>I ask you as a Board to look at the science. It certainly appears that these two proposals, the SED and SGMA law, projections may not be in alignment. We're looking at the same three counties in both the unimpaired flow discussion and the groundwater discussion. And I just encourage you to have a look to make sure you're consistent.</p> <p>MS. D'ADAMO: Sir, I have a question for you, and I'm going to pose a hypothetical, and just do the best you can to answer it. I really wish that our staff had analyzed the impacts with</p>	<p>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. 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. 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. The plan amendments do not conflict with SGMA. Rather, both processes allow local entities to comprehensively address groundwater and surface water resources through integrated planning that does not trade impacts between surface water and groundwater.</p> <p>It is not appropriate to include SGMA in the SED baseline or in the alternative analysis, because the baseline predates SGMA, no GSPs were developed before the release of the Recirculated SED, and it is unknown what actions GSAs will take to achieve the sustainability goal. Therefore, any impact assessment would be speculative and beyond the scope of the SED. For a discussion on establishing the baseline, please see Master Response 2.5, Baseline and No Project.</p> <p>The SED and plan amendments do not require or encourage groundwater substitution as a response to reductions in surface water. The SED merely reflects the historical local response to increase groundwater pumping when surface water availability is reduced. 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. Under SGMA, GSAs will define what sustainability means at the local level based on the needs of the beneficial uses and users of groundwater in each basin. Any future GSPs will have to incorporate any projected reduction in surface water due to the plan amendments, and account for the</p>

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		<p>SGMA so this adjustment or this mitigation to groundwater pumping, in light of the fact that in 20 years from now we're going to see a very different world.</p> <p>We're also going to see just because of supplies tightening up anyway and the need for greater efficiency, we're probably going to see some challenges with groundwater recharge. So rather than ask you to speculate what things would look like under SGMA implementation, which I hear in your testimony here that you've questioned the analysis, could you comment on your experience on the west side of Merced, Stanislaus, and perhaps, you know, even Fresno counties, I don't know if you go that far, but the experience that you've had with farms that you're involved with there--where they have lost surface supplies and may have some groundwater or maybe not groundwater? Could you comment on what you're seeing in other regions where there's been an impact on surface supplies?</p> <p>MR. VAN ELDEREN: Well, we serve Stanislaus and Merced County, so I'll limit my comments [to] that. In our area on the west side where ground doesn't have as much water as it used to, or any water, or poor quality water, and that's the other thing that is starting to show up more, is that the quality of water is not good, we're starting to see some softening of values of those areas. You're going to see some orchards that are no longer going to be orchards. You're going to see some of those trees go out permanently. And while some may think that's a good thing, that's not necessarily what we're here for.</p> <p>I think that on the west side the challenge has always been water. It used to be--I've been in this for 35 years. It used to be when you looked at a hundred acres on the west side you figure that you might farm 60 of it. And that's--we may be coming back to that. The problem is that we may be coming back to that in the heart of this area in the heart of good water. I think that the SGMA is the thing that really is going to be a fundamental change for this</p>	<p>amount of surface water available in accordance with all relevant water regulations. For further discussion on SGMA in the context of the plan amendments, please see Master Response 3.4, Groundwater Resources and the Sustainable Groundwater.</p>
978	9	<p>The net result of less water for our region: Degraded groundwater quality. Groundwater quality in our area is already challenged. Removing 14 percent of the clean surface water will reduce quantity and quality of recharge. More unemployed citizens as ag and related employers reduce or close down their businesses in Stanislaus and Merced county. There will be a higher cost to this state's taxpayers to support these newly unemployed people. Also, a reduction of income in our region due to decreased farmable acres. Our ag employers in this area need to own more acres in the wet years to withstand the substantial decrease of surface water in dry and critically dry years.</p> <p>In addition, please consider what the employers we finance have just faced. It includes new overtime rules, new minimum wage rules, pending new air quality regulations, groundwater milestones that are rapidly approaching. With this SED, they face even a greater reduction. Reducing the water supply will also hurt supporting industries. The reverberations of this water reduction will rumble through a struggling economy in our area.</p> <p>For the sake of the economy of Stanislaus and Merced county, I would ask that you look for different solutions than the proposal in front of you. I would encourage you as a Board to collaborate with other boards in this area. This is like a merger; you're asking for a merger of resources. And that's something that needs to be taken care of at a board level.</p> <p>Consider the predatory issue. Consider the reaching out to irrigation districts who know these rivers and dams. Consider other measures available to you. Please think about the area you are in today and the people that live here. Our local economy and society need a</p>	<p>Please see Appendix G, Agricultural Economic Effects of the Lower San Joaquin River Flow Alternatives: Methodology and Modeling Results, for estimates of the magnitude of the effects on industry revenue and employment.</p> <p>Please see Master Response 3.4, Groundwater and the Sustainable Groundwater Management Act, for discussion of groundwater recharge. Also, please see Chapter 13, service providers for discussion of groundwater quality in the plan area.</p> <p>Please see Master Response 1.1, General Comments, for responses to comments that make a general comment regarding the plan amendments and general information regarding the economic analysis.</p>

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		place on the scale as you make decisions that are fair and balanced.	
979	1	I've been interested in the interaction between surface water and groundwater for a long time. And my feeling is that at this point there is not nearly enough effort and money being spent on understanding that interaction. There's a lot of inertia in the environment. And so what happens frequently is that decisions are made on a short-term basis and they have long-term impacts that are not appreciated, and that's what's going on here.	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.
979	2	The City of Modesto had a major drop in the groundwater elevation until they started using surface water. Now, that has recovered, but we don't know where that recovery came from. Did it come from the Tuolumne River? Did it come farmers flood irrigating? We don't know that. There are some potential techniques using tracers that you might be able to figure that out, and that's fundamental to seeing what the long-term effect is. So I would urge that a lot more effort and money be put into understanding what's going on before you carry on.	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.
980	1	<p>I'm going to tell you the statistics for the San Joaquin Valley versus the State of California. Poverty level, 12.6 for the State of California, 20 percent for the valley. Violent crimes, 395 per 100,000 in California, 563 for the San Joaquin Valley. Physicians per 1,000 people, 2.75 for California, 1.52 for the valley. Bachelor's degree, 31 percent for California, 16.1 percent. And unemployment tracks about four percent over the state average as a whole, it always has and always will.</p> <p>So going back to the Partnership of the San Joaquin Valley, we knew that there were struggles back in 2005. Then Governor Schwarzenegger, through Executive Order, established this, and Governor Brown has since continued it. But it was really convening an engagement of civic leaders, as well as elected leaders, to try and lift the valley up, and dealing with issues such as a well-trained workforce, diversified ag economy, a model education system and health care system. So it was very timely that our 2016 report came out. I will also tell you that Member D'Adamo is also on this board, as well as many cabinet-level secretaries.</p> <p>And the number one priority is water quality and supply. We've been working on making sure people have adequate and reliable and good quality drinking water, as well as an adequate supply. So I move on. So there's this huge distrust in government. It's been going for many, many years. And here we have a government created entity that's trying to lift people up and help them, and then we have a government created entity who potentially harms those people. So people, I can see why there's this dynamic of distrust. So I'm hoping, again I'm going to hope, that things are going to get better.</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.
980	2	<p>The balance? Les spoke at our Board of Supervisor meeting and he said "balance" many times. I've heard it already today, we're balancing municipal and industrial use, we're balancing ag's use, and we're balancing the environmental use. I would offer up to you today that no one in this room thinks 40 or 50 percent unimpaired flow is a balanced approach.</p> <p>But I will tell you that I'm here to challenge you and offer something. The challenge is that you listen today to the passion. There will probably be some anger, but I can tell you that people are scared, they really are, with what this could do to them, what this could do to the valley. We're working so hard to lift our community up and do better for all people.</p> <p>And then the offer is that I'm here to help facilitate. The Stanislaus County Board of</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>Supervisors, the irrigation districts are not the enemy. We are here. We want to see the environment survive. We want to see ag survive. We want to see drinking water survive. So I'm here to offer my assistance, as I always do. But please listen to the people. Please listen to their passion. It's going to be very important.</p>	
981	1	<p>Agriculture is vitally important for our communities, our state, our economy. My family comes from orchards in San Joaquin Valley. But I also worry that if we deplete our rivers, we're making life worse for the next generation. And so I think it's important to note that through existing water efficiency technologies, our ag industry can grow more food with less water than it does today. Efficiency won't solve everything, but it's one important piece of the puzzle.</p> <p>One example is recently in the South San Joaquin Water District, using a pressurized irrigation system, reduced water by 30 percent while increasing crop yield by 30 percent. I'd like to highlight a few studies which demonstrate the potential for water efficient irrigation technologies to reduce ag's water use while maintaining yield and profits.</p> <p>First, CALFED's 2006 Water Use Efficiency Comprehensive Evaluation estimated that irrigation water use in California could be reduced by 6.3 million acre-feet per year, of which 2 million acre-feet per year would be reductions in consumptive use, freeing up water that could be available to other uses. Second, in 2009 the Pacific Institute found that increased adoption of three on-farm technology and management practices, irrigation technology, irrigation scheduling and regulated deficit irrigation would save between 4.5 million acre-feet in a wet year and 6 million acre-feet in a dry year. This would reduce ag water use by 17 percent in all year types.</p> <p>And finally, in 2014 the NRDC and the Pacific Institute estimated that agricultural water use could be reduced by 5.6 million to 6.6 million acre-feet per year, or by about 17 to 22 percent, while maintaining productivity and total irrigated acreage. In addition to reducing water use, efficiency improvements can increase crop yield and quality while reducing input costs, resulting in higher profits for everyone.</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>
982	1	<p>The stakes are high and it's essential that the Board's balancing decision be based on good information and an adequate assessment of the effects of unimpaired flows implementation. For this reason, it is particularly distressing that the SED fails to even consider the effects that unimpaired flows implementation might have on complying with SGMA. We all recognize that SGMA is the new cornerstone of the California water policy and the Governor's Water Action Plan.</p> <p>Stanislaus County has a long history of conjunctively managing surface and groundwater. In most of the county, we've done a pretty good job. But we also face some significant challenges, especially in areas where surface water is not available or reliable. Most of our cities and unincorporated communities are heavily dependent on groundwater. Water quality issues and limited surface water availability are making it a challenge for these communities to meet their forecast water demands, especially since forecasted growth in this area is greater than the state average. And remember, it's the State of California who sets our regional housing needs, not us. Many hundreds of domestic wells have dried up during this drought, many in my district.</p> <p>We are hard at work informing GSAs and planning for SGMA compliance. As you know, this is a very challenging process. But through a lot of hard work and collaboration, we are</p>	<p>Please see Master Response 3.4, Groundwater and the Sustainable Groundwater Management Act, for a discussion on SED consideration of SGMA, why SGMA was not included in the baseline, and potential increases in groundwater pumping.</p> <p>Please see Master Response 2.5, Baseline and No Project, for general information on the baseline and CEQA requirements.</p> <p>Please see Master Response 1.1, General Comments, for a discussion regarding the scope of the SED and the requirements of CEQA for program-level review.</p> <p>The SED does not violate SGMA, because SGMA requires local public agencies to sustainably manage groundwater basins that are subject to SGMA without causing "undesirable results" (Water Code § 10721(x)). The SED and plan amendments do not require or encourage increased groundwater pumping. The SED analyses reflect that the historical local response to reduced surface water availability has been to choose to increase groundwater pumping; therefore, the SED was required to analyze this reasonably foreseeable and its impact on the groundwater basin from this local response.</p> <p>SGMA was passed by the legislature in 2014 to address overdraft issues and associated negative impacts to groundwater basins from overextraction. SGMA requires local public agencies in the plan area form</p>

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		<p>making progress. The proposed unimpaired flows requirements will radically change the local groundwater balance and put all of these efforts into serious uncertainty at what probably is the most critical time ever in groundwater management planning in this region.</p>	<p>groundwater sustainability agencies (GSAs) by June 30, 2017 and draft groundwater sustainability plans (GSPs) by 2020 for critically overdrafted basins and 2022 for all other basins. GSAs have 20 years to implement GSPs and achieve sustainability. GSAs are now formed in the plan area, but GSPs have yet to be drafted or implemented. The State Water Board acknowledges reaching sustainability in these overdrafted basins will be challenging, but the plan amendments do not conflict with SGMA. Instead, knowledge of the plan amendments during the GSP drafting phase allows for integrated planning of scarce water resources that does not trade impacts between surface and groundwater.</p> <p>Chapter 9, Groundwater Resources, recognizes that overdraft can lead to significant impacts such as decreases in groundwater levels, increases in pumping costs, land subsidence, and degradation of groundwater quality. The level of detail in the SED is reasonable and appropriate for a program-level analysis and is not meant to be, nor required to be, a site-specific analysis of, for example, each cone of depression or potential cone of depression in each basin. Moreover, it is speculative to assume how pumpers in each area will respond to implementation of the flow objectives because it will depend on many individual and collective decisions including, but not limited to, the discrete actions of local water users in response to reductions in surface water, crop choices in response to markets and other factors, and implementation of SGMA and conservation measures.</p>
982	2	<p>The SED does not analyze the impacts of unimpaired flows on local SGMA compliance. It includes a much generalized analysis of groundwater impacts and concludes they'll be significant and unavoidable of first impacts, but does not provide any information where those impacts will occur or how severe it will be.</p> <p>The SED implies, and the Board staff has stated, that the burden of analyzing and addressing groundwater impacts falls to the local communities under SGMA. They state that they are areas that are already in overdraft, and the issues already have to be addressed on a local level. They argue that since the local responses can't be predicted, the evaluation of unimpaired flows impacts on SGMA implementation would be speculative. You have tools available, C2VSim model that could be used to analyze these impacts.</p> <p>The areas that currently have overdraft have been working hard to achieve sustainability, a key component for these areas to find additional surface water sources to decrease groundwater dependence or for the use of recharge groundwater. Now these very plans are just thrown into a state of uncertainty because more surface water will be used to support unimpaired flows, but the effects are completely unknown.</p> <p>It's inconsistent and unfair that the state would require implementation of SGMA, threaten local basins with a state takeover if they don't comply, then completely change the playing field for what is needed to comply and take the position that they have no responsibility.</p>	<p>Please see response to Comment 982-1.</p>
982	3	<p>We [Stanislaus County Board of Supervisors] urge the state to use the tools you have available to provide an analysis of the impact of unimpaired flows on SGMA compliance and make the SED accessible and intelligible in this regard. The analysis does not need to be perfect, but it needs to be better than what it is now.</p>	<p>Please see response to Comment 982-1.</p>
982	4	<p>The SED should evaluate programmatic mitigation measures that could help the region successfully transition to unimpaired flows implementation and SGMA compliance. The SED currently does not discuss any mitigation measures, including what could help promote collaboration and a potential settlement.</p>	<p>For a discussion on mitigation measures, please see Master Response 1.1, General Comments.</p>

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982	5	Without a rational sensibility and methodology, the risk that GSA formation and GSA implementation will be unsuccessful as a result of unimpaired flows implementation is a very serious potential outcome.	Please see response to Comment 982-1.
982	6	Until all cards are on the table the state will never come up with a good, logical water policy. Significant and unavoidable environmental consequences on humans should be a priority of the State of California. I just ask you to come clean. We know you have your marching orders. We know it's about seawater intrusion. We know it's about the tunnels.	Please see Master Response 1.1, General Comments, for information related to the California WaterFix.
983	1	<p>I'm the Engineering Division Manager for the City of Modesto. But, here, I'm speaking on behalf of the seven member agencies of the Stanislaus and Tuolumne Rivers Groundwater Basin Association, who collectively manage the groundwater in the Modesto Subbasin.</p> <p>A little about the Modesto Subbasin. It's part of the larger San Joaquin Valley Groundwater Basin. It is bounded by the Stanislaus River to the north, the San Joaquin River to the west, the Tuolumne River to the south, and the foothills to the east. It encompasses approximately 250,000 acres, or 400 square miles, and approximately 70 percent of this area is irrigated. The Modesto Subbasin is also the water supply for safe and reliable drinking water supply for over a quarter million people in the cities of Modesto, Riverbank, Oakdale, Waterford, and also serves several disadvantaged communities. The storage capacity of the Modesto Subbasin is about 6.5 million acre-feet to a depth of 300 feet; and 14 million acre-feet to a depth of 1,000 feet. Per the U.S. Geological Service groundwater model, about 62 percent of gain in groundwater comes from deep percolation and precipitation.</p> <p>The Modesto Subbasin has not been identified by the DWR, or Department of Water Resources, to be in a condition of critical overdraft. And the reason is because the--it can be attributed to the past and current practices by the local agencies participating in the Stanislaus and Tuolumne River Groundwater Basin Association, or STRGBA. The STRGBA was formed in 1994 under an MOU to promote the coordination of groundwater management practice and planning activities in the Modesto Subbasin. It consists of seven local agencies, including two large irrigation districts, covering 70 percent of the total area within the subbasin and located entirely within Stanislaus County. Member agencies, agencies that overlie the Modesto Subbasin include the cities of Modesto, Oakdale, Riverbank, Waterford, Oakdale Irrigation District, the Modesto Irrigation District, and Stanislaus County.</p> <p>We are the envy of water managers up and down the State of California with respect to groundwater management due to our collaborative efforts in working amongst each other, and state and federal agencies. For over 20 years, the technical staff from each participating agency has met monthly. Our organization is predicated on relationships and strong technical focus and the belief in cooperation and coordination. The STRGBA provides information and guidance for the management and protection and enhancement of groundwater quality and quantity in the Modesto Subbasin.</p> <p>The 2005 Integrated Regional Groundwater Management Plan identified the total water demand in the basin to be approximately 600,000 acre-feet per year, of which surface water provides 70 percent of that water, or about 400,000 acre-feet. Total recharge is 310,000 acre-feet, thus a positive change in the groundwater storage annually. The STRGBA has been very active since its formation, completing a 2005 Integrated Regional Groundwater Management Plan. It has studied recharge characterizations in our area and has worked extensively with the USGS to complete hydrologic characterization of the subbasin,</p>	<p>The State Water Board appreciates the foresight and commitment the Stanislaus and Tuolumne River Groundwater Basin Association (STRGBA) has in managing groundwater resources in the region.</p> <p>The State Water Board acknowledges 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. Implementation of the LSJR flow objectives does not conflict with SGMA. Rather, both processes will allow local entities, like STRGBA, to comprehensively address groundwater and surface water resources through integrated planning that does not trade impacts between surface water and groundwater. It will be up to local entities to determine the precise actions, both demand-side and supply-side, that would be taken in response to the implementation of the plan amendments, with or without the future condition of SGMA.</p> <p>The SED is a program-level first-tier evaluation, consistent with CEQA Guidelines, Section 15168. As stated in Chapter 9, Groundwater Resources and further articulated in Master Response 3.4, Groundwater and the Sustainable Groundwater Management Act, SGMA was not included in the groundwater impact analysis, because the SED baseline predates SGMA, no GSPs were developed before the release of the Recirculated SED, and it is unknown what actions GSAs will take to achieve the sustainability goal. Therefore, any impact assessment would be speculative and beyond the scope of the SED. However, SGMA was properly included in the analyses as an existing legal requirement to prevent further degradation of the groundwater basins and as a potential cumulative limit on future irrigation supplies. As a program-level document, the SED is not required to focus on any one organization or local agency. Furthermore, the draft Recirculated SED was released for public comment in September 2016, prior to STRGBA notifying DWR of its intent to become a GSA.</p> <p>Please see Master Response 1.1, General Comments, for a discussion regarding the scope of the SED and requirements of CEQA program-level review.</p> <p>Please see Master Response 3.4, Groundwater Resources and the Sustainable Groundwater Management Act, for a discussion on the approach to the impact analysis and consideration of SMGA in the SED.</p> <p>Please see Master Response 2.7, Disadvantaged Communities, for a discussion regarding the plan amendments as they relate to disadvantaged communities and small water systems.</p>

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		<p>assessing susceptibility to contamination. It completed a USGS MerStan groundwater model, which studied the groundwater between the Merced River and the Stanislaus River; and has completed a well field optimization study project. The STRGBA also is recognized as a California Statewide Groundwater Elevation Monitoring entity, or CASGEM, with the DWR.</p> <p>In regards to the Sustainable Groundwater Management Act, or SGMA, the STRGBA was organized and enacted 20 years before SGMA was enacted. The STRGBA believes that locals are best equipped to solve local problems, and has spent a tremendous amount of time on education and outreach. Member agencies believe and stay in the course. The STRGBA will be the groundwater sustainability agency, or GSA, for the Modesto Subbasin, and its formation package is being sent to the DWR later on next year in February.</p> <p>In stark contrast to SGMA and the direction provided by the governor, it appears that the SED is specifically designed to retraite [sic] the Bay perils that the governor, SGMA, and the local water managers have been and are trying to combat.</p>	
983	2	<p>The STRGBA [Stanislaus and Tuolumne Rivers Groundwater Basin Association] has concerns with the SED. The SED does not adequately address impacts to municipal water providers and significantly jeopardizes their ability to continue to provide safe and reliable drinking water to over a quarter million residents that depend on this level of service.</p>	<p>Please see Master Response 1.1, General Comments, regarding general information about the impacts disclosed in the SED.</p> <p>In addition, please refer to Master Response 2.1, Amendments to the Water Quality Control Plan, for a discussion on protection of water supply for minimum health and safety needs as identified by the program of implementation. Please refer to Master Response 3.6, Service Providers, for further discussion of potential impacts of the plan amendments on municipal water providers.</p>
983	3	<p>The SED is entirely focused on the subbasin's major water rights holders and simply fails to acknowledge STRGBA [Stanislaus and Tuolumne Rivers Groundwater Basin Association]'s future role as a subbasin's GSA.</p>	<p>Please see response to Comment 983-1.</p>
983	4	<p>The SED did not utilize acceptable tools for its groundwater analysis and deliberately and adversely interferes with the STRGBA [Stanislaus and Tuolumne Rivers Groundwater Basin Association]'s mission to implement SGMA.</p>	<p>Please see response to Comment 983-1.</p>
983	5	<p>The SED ignores the existing groundwater relationship and management activities, like the STRGBA [Stanislaus and Tuolumne Rivers Groundwater Basin Association], that exist at a local level.</p> <p>We in the STRGBA have been managing groundwater in the Modesto basin for over 20 years and is poised to become the exclusive GSA for the Modesto Subbasin. We believe in local control, and SGMA was predicated on the premise that locals know best. We won't violate SGMA. And the SED ignores the existing groundwater relationship and management entities that exist at a local level. We won't accept--the impacts of SGMA are speculative and the impacts won't be significant and unavoidable. This conclusion is one that will lead to the absolute demise of our region.</p> <p>Based on our studies, groundwater and surface water are intimately connected. Taking 290,000 acre-feet of surface water from the plan area will have a devastating effect on our area.</p>	<p>Please see response to Comment 983-1.</p>
983	6	<p>[MR. DAVIDS:] The STRGBA [Stanislaus and Tuolumne Rivers Groundwater Basin Association] encourages the State Water Resources Control Board to go back to the drawing board, to work with local groundwater management entities, such as the STRGBA, that have</p>	<p>Please see response to Comment 983-1.</p>

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		<p>been doing good things for decades. We are proof positive that through transparent collaboration durable solutions to regional issues are possible.</p> <p>MS. D'ADAMO: Well, I'll just say, or ask you, you say that the SED interferes with your ability as the presumed GSA to meet SGMA. Can you explain or quantify, better yet, if you could quantify, how you think it would interfere with your ability to meet SGMA.</p> <p>MR. DAVIDS: Yeah. Maybe I'll take a stab at that. I think from a practical perspective, you know, the number that [William Wong] threw out with respect to the net change in groundwater on an annual basis with the Modesto Subbasin is about 310,000 acre-feet annually. So, when we look at taking, you know, a couple hundred thousand acre-feet of surface water out of the basin, our ability to sustainably manage our groundwater resources into the future is in significant jeopardy.</p> <p>And I give, as the chairman for the STRGBA, I have the fortune of giving different talks up and down the State of California. And I'm in an envious spot, you know. And I think that we are a need basin, as I call it. We're bounded by rivers on three different sides. We have the Stanislaus River to the north, the San Joaquin River on the east side, and the Tuolumne to the south, and the foothills to the east, and we're all located in one county. So, our job with respect to SGMA is relatively easy in comparison to other groundwater basins within the State of California.</p> <p>But I think it really is a discussion with respect to opportunity. And, so, our opportunity to continue to sustainably manage our groundwater system with the loss of resources is a significant concern of our members.</p>	
984	1	<p>I'm a proud Future Farmer of America, which is what brings me here today. This decision will directly affect my future far more than imaginable. Our creed starts with the words, "I believe in the future of agriculture." And water is the vital lifeline of our industry. By taking away a part of this vital lifeline, you are directly taking a part of my future and for generations to come. I urge you to take into consideration the many lives, jobs, and futures you will be affecting.</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>
985	1	<p>Grandpa came here in 1910. I still live on the same farm that he came to. He came here because of the Wood Colony area, Modesto, is because the soil, the weather, and the water. And, interestingly, at the time, he thought a reservoir was really pretty stupid. Because if you dug a hole down 30 inches, you could see the water in the bottom of the hole when you dug a posthole.</p> <p>But we know that the population in California in 1910 is much different than it is today. Folks had the foresight. But I can remember the stories of paying the bonds on retiring a debt. Of course, it didn't retire the debt until they got it to where it started generating power, and then they could go out and get bonds to be able to service a debt on that. But it was the City of San Francisco, the farmers and the ranchers in Modesto and Turlock that didn't have riparian water rights. You had to be in the district and you had to pay those bonds or they would take your land.</p> <p>It's an irony that we're talking today about flows for a reservoir that, had those forefathers not created and foremothers and forebearers created that, we wouldn't be talking about anything today.</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. Please see Master Response 2.1, Amendments to the Water Quality Control Plan, for clarification of the program of implementation and discussion of carryover storage.</p>

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		<p>And it seems like folks say that if we didn't have reservoirs our rivers would run full all year. Well, I guess they don't realize the force of gravity, that it would go out very quickly and we'd have nothing left.</p> <p>And I guess one of the greatest concerns is the flows is one thing, but to carryover water for the cold water is a real concern because no government agency, there was a little bit of federal money for flood control, but beyond that, this was paid by individuals' money, and now somebody else wants that water.</p>	
985	2	<p>It's really interesting that we talk about the decline of salmon, predation, habitat, flows, pollution, but we're overlooking the one major issue. Over a hundred years ago, if you were a farmer, you staked out a piece on the prairie, you farmed it until it was no longer fertile, and then you moved on. And you did the same thing again. And we know we can't do that any longer.</p> <p>California agriculture defines sustainability. Everybody wants to define that word. Best California agriculture, we make our soils more productive, we produce more crop per drop, and we do it with the least amount of carbon than anybody else in the world can do.</p> <p>It's very interesting, because some of the folks that were probably here today, as I heard them decry the crop protection materials we use and other things, and they probably buy organic, do they realize that their water footprint is greater? And we represent a lot of organic growers. It's a great and growing part, segment, of agriculture production today, but organic production, it might get there to where it's as efficient with water as what conventional production is, but here we decry the use of crop protection materials and biotechnology, but that's what allows us to squeeze more crop per drop.</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>
985	3	<p>Market hunting disappeared many, many decades ago. We almost killed out the bison, the elk, and the deer. And we did away with market hunting ducks. For up in the Sacramento valley for years, people would go and kill ducks and put them at the market. And we did away with market hunting, and yet we allow market fishing.</p> <p>A lot of studies have been done by universities around the world, Stanford University one of them, that by 2050, we are very, very close that 90 percent of our fish species will have been harvested. And when you think about the indiscriminate mining and harvesting of our oceans, it's really kind of silly to be talking about what we're talking about here today. Because you're not going to have fish if we don't do something. And what is done is the new technology with the great big trollers in the way that, when you look at these studies, they say we have to go back to smaller boats, the way fishermen used to do it. And my hat is off to the fishermen because they are the farmers of the sea.</p> <p>But some folks say it's important to catch, be able to go out and catch fish. And, as I like always like to say, there's 40 million Californians, if we all caught a fish every other week, how many fish would we have in California? Not much. It's a luxury item.</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>
985	4	<p>The other thing we forget, and as one individual said that he's reduced and reused water and everything, that's great, but there's one thing you can't change, and it takes 1,500 gallons of water to feed every one of us every day a 1,200-calorie diet; 1,200 calorie diet, 1,500 gallons of water. That water is going to come from some place.</p> <p>We've heard people that say we shouldn't be growing almonds. Isn't it interesting when</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>

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Ltr#	Cmt#	Comment	Response
		<p>Japan suffered the earthquake and the terrible tsunami, what was it they did? They started calling California processors of almonds asking for almonds. And when people said, "Why are you wanting to buy almonds?" They said, "We need nonperishable protein."</p> <p>As an almond grower, I'm proud of that.</p> <p>When we talk about resiliency in the face of climate change, it is those of us here in California agriculture that will be able to show a way not only for the rest of the country but the world.</p>	
985	5	<p>I've heard some things said that we're here from Modesto, we have a lot of underprivileged area, we're uneducated. And, yet, I find it very interesting, and we've had some folks say we need to talk to people in the Bay Area, it was legislators mostly from the Bay Area and other places that passed a \$15 an hour minimum wage. When the University of California, Davis, Phil Martin did a study, in 2022 when the \$15 an hour minimum wage comes into effect, that will equate, based on the San Francisco, a \$15 an hour minimum wage in San Francisco will equate to \$6.71 in Modesto. So, since the minimum wage in Modesto would be \$15, that means a correlation to San Francisco, the minimum wage should be \$33.50 an hour. It's going to be \$15 an hour. So, do you wonder why there's a red ribbon of cars every morning going over the Bay Area and a red ribbon of cars coming back, driving by renewable power with windmills and solar fields just extruding all kinds of climate pollutants that we should be concerned about. But, yet, we do nothing about the fact that we have people that can't live and work in the Bay Area.</p> <p>It's interesting, too, then we have folks that say that we ought to talk about -- and talk to people in the Bay Area. When some of the largest developments that have happened in agriculture in the many sensitive grounds here in Stanislaus County, their home address is Sand Hill Road in Palo Alto.</p> <p>Some of the people that are here are probably invested in pension funds or have their pensions invested in funds that are benefiting from things that the family farmers that were behind us here today would never have invested in. They would not have done that. And, yet, we are being the ones that are going to be have to carry the ball for that.</p> <p>Ironically, you know, when you have those folks over there saying that we're not doing it right and, yet, I have one of my workers makes \$15 an hour, bought his first home this year. And he was living on the ranch for \$300 a month. And I said, "Why in the world are you buying a home?" And he said, "I wanted to live the American dream." He bought a home.</p> <p>Some of these folks that were here from Palo Alto today, the median priced home is a million dollars. Good luck buying a home over there even if you're making \$150,000 a year.</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). 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. Please see Master Response 8.5, Assessment of Potential Effects on the San Francisco Bay Area Regional Water System, and Master Response 6.1, Cumulative Analysis, regarding growth, development, and housing.</p>
985	6	<p>We've heard, "What can we do for the salmon?" Seven years ago, we went up with a -- a number of us went to up the Yakama Indians, the tribe in Washington, to see what some fish biologists were doing in mist incubation. They had been able to increase with mist incubation and flocculating the gravel bed and reintroducing salmon in the eyed-egg stage into their native habitat. They've increased it by nine-fold, the out-migration of salmon. If you can increase the out-migration by nine-fold, you're probably going to increase the in-migration.</p> <p>I met with John Laird, met with the administration. We said before Jerry Brown goes for his</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>

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Ltr#	Cmt#	Comment	Response
		<p>last and fourth reelection campaign, you could see of a three-year cycle of increased salmon. Nobody wanted to touch it.</p> <p>So, if we're really going to have everything on the table, and isn't it interesting that PacifiCorp today has a mist incubation system in their possession in their shops in Northern California. Because if those Klamath dams have to be removed, they're going to utilize them to prove that dam removal does equal more fish. Why don't they do it before the dam removal? Because it's not going to accomplish their purposes.</p>	
985	7	<p>[WENGER:] What we do here is family farms. We're proud of what we do. We will show the way for folks. We do want healthy environmental systems and rivers. We can do it. But, unfortunately, it's kind of like we hear about the commitment, the chicken and the pig, they're in the yard scratching around, the chicken is scratching around for feed, and the pig says, "What are you doing?" It says, "I want to make sure that farmer John has the best eggs he can possibly have for his ham and cheese omelet. "How committed are you, Mr. Pig?" says farmer John's breakfast.</p> <p>I think those of us in agriculture feel like the pig. When we say we're committed, it's going to come out of our hide. It's going to come out of our future, not only ours, our kids and our grandkids. And when you start looking about this SED, I hate to use puns, but I'll use it in this, I think it's kind of an egg.</p> <p>CHAIR MARCUS: You know, it reminds me, though, there's a Chinese saying, "A chicken talking to a duck," and it's when folks are talking past each other. And, that, I do see a lot here. And figuring out how to translate I think is the real challenge. Believe it or not, in all of these hearings, I'm seeing the space for compromise and agreement.</p> <p>MR. WENGER: We do, but, you know, Chairman Marcus, with all due respect, there's been an awful lot of folks that have great ideas but they're not invested. And it really upsets them that, you know what, when you say that "It's going to be our future," it's going to be our ability to pay off our mortgages, it's going to be the Stanislaus County and Merced County and the property tax revenues that go to our police departments, our fire departments, our Sheriff's departments, our schools, our churches. We're the ones that are affected. And when you have people from out of the area say, "This is a great solution," then why don't you put your money on the table? Why don't you put your 401(k), why don't you put your mortgage or your house, the equity in your home, and then I'll listen to you.</p> <p>But when people are over here and they're outside of that, I mean, actions have to have consequences and other people's actions are unfortunately having undue consequences on us potentially. But we would love to visit with you.</p>	<p>Please see Master Response 1.1, General Comments, 1 acknowledging the concerns of elected representatives and other community members.</p>
985	8	<p>I would like to voice my opposition to your staff's proposal of 40 percent flow requirements.</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>
985	9	<p>The impact to this family farmer region of taking 40 percent would dramatically hit every one of those family farms. And this region is one of the most productive regions in the country.</p> <p>If Merced, Stanislaus, and San Joaquin County were a state by themselves, they would rank within the top 15 states of the nation. So, what you're asking is you're asking a region that's one of the most productive regions in the country to provide or give up their 40 percent of</p>	<p>Please see Master Response 1.1, General Comments, acknowledging the concerns of elected representatives and other community members. Please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, and Master Response 8.2, Regional Agricultural Economic Effects, for responses to comments regarding economic effects of the plan amendments.</p>

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Ltr#	Cmt#	Comment	Response
		<p>their water.</p>	
985	10	<p>One of the things that I've observed while sitting here yesterday and today is public elected assemblymen and women, senators, county board of supervisors, city councils, irrigation district directors complaining about the process and the lack of outreach and the flawed science.</p> <p>And, as a former public official, it really bothers me that you've got so many public officials complaining about the communication and outreach. And I think that's a question. And I don't want to preach to you, but as someone who used to be in an appointee, that's a question I think you have to really ask yourself and your staff why so many public elected officials have lost trust in this process. I'm very pleased to see you now providing some of this outreach. I do think there are opportunities to work together in collaboration.</p> <p>I just hope that these are just more than meetings, that they will be taken back, that staff will work with the experts from the irrigation districts and some of the other individuals that are stakeholders. I think you can come up with a fair and reasonable and balanced approach.</p>	<p>Please see Master Response 1.1, General Comments, regarding the public outreach process and voluntary agreements.</p> <p>The State Water Board used the best available science throughout the SED. A variety of data were obtained for the water quality planning process: 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 proposed project; unpublished quantitative data from within the plan area and from outside of the plan area; qualitative data or personal communication with topical experts; and expert opinion if no other sources were available.</p> <p>Please see Master Response 1.2, Water Quality Control Planning Process for a discussion regarding the consideration of beneficial uses.</p>
985	11	<p>MS. D'ADAMO: I've just got one question, and I don't know who to pose it to, so just jump in.</p> <p>I realize that, Wayne, you said that there's, on average, maybe your members about 200 acres on average, that if I look at, and I've been doing some research on this over a period of months, looking at Oakdale Irrigation District, South San Joaquin, Merced, et cetera, the average farm size in this territory that</p> <p>we're looking at is somewhere between about 20 acres and 50 acres. So, obviously, there are some farms that are much larger, but that means that there are some farms that are much smaller.</p> <p>So, could you speak to the issue of what do you do in situations where, you know, our staff is looking at averages. So, if it's a 14 percent reduction on average, but then if you look at the impact in certain year types, in wet years, there's virtually no impact at all, in critically dry years, as much as 38 percent. So, that would be a 38 percent hit in addition to the reduction that would already occur.</p> <p>How do you manage in those situations small farm versus large farm? Is it about the same or is it more difficult if you have a larger farm or a smaller farm?</p> <p>MR. ZIPSER: I would say it would be about the same, because under -- the TID put out a statistic that said that in these last two years of the drought there would have been zero allocation of surface water deliveries. Well, there's a lot of farms out there that don't have the ability to pump water. And when you take into consideration SGMA and what the impacts that's going to do and you look at the possible -- of getting these critical dry years, there's a lot of farms out there that don't have alternatives and they would have to fallow or their permanent crops would wither and die and their investments would go away.</p> <p>And, so, there's a lot of other impacts at what happened from that. But there's no saying that the big farmer has the advantage over the small farmer because everyone's situation would be different.</p>	<p>Please see Master Response 2.3, Presentation of Data and Results in SED and Responses to Comments, regarding the disclosure and use of averages. Also, please see Master Response 3.4, Groundwater and the Sustainable Groundwater Management Act, for discussion of SGMA. Please see discussion in section G.4.3.1 of Appendix G, Agricultural Economic Effects of the Lower San Joaquin River Flow Alternatives: Methodology and Modeling Results, for why the LSJR alternatives would not be expected to have a disproportionate effect based on farm size.</p> <p>For the analysis of impacts to agricultural resources using the SWAP model it was assumed that permanent crops would be maintained by following lower net revenue crops first. In addition, management options, such as deficit irrigation, could be applied to keep trees alive and avoid completely removing them. Please see Master Response 3.5, Agricultural Resources, regarding management options for permanent crops and potential impacts to permanent crops. Also, please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, for further discussion of the assumptions in the SWAP model.</p>

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		<p>MR. WENGER: The only difference is going to be if the -- last year, you know, with Jake being on the MID board, he said, "Dad, if we have a dry year, we're going to get six inches of water." They already knew that. Now, that's at a time when old Don Pedro hadn't even come out of the surface of the lake yet.</p> <p>We went through six dry years between '88 and '93. The worst allotment we ever had was 24 inches and could you buy -- I think you were on there then, Bill -- you could buy additional water for additional elevated prices. But we weren't cut back all that -- I mean, we could -- have to buy extra.</p> <p>But, here, with a shorter-term drought, we are going to be allotted six inches.</p> <p>We had to drill two wells. Somebody that's got 20 acres isn't going to be able to drill two wells. You know. We have 200 acres that we own, so we drilled two wells on our property, and then other ground that we lease, we could maybe move that water around.</p> <p>If you've got 20 or 30 acres, there's no way you're going to be able to drill a well. I mean, you can't even get it done because it's so long. So, the impacts are huge.</p> <p>But what we have here in Stanislaus, Merced, and San Joaquin counties is very, very unique. The size of the farms compared to the rest of the state is generally smaller. And you have folks that can make a living, and maybe it's augmented by a teaching job or some other job, but it's very unique what we have here in these areas and it's because of the water.</p> <p>MR. LYONS: Hi. I'd like to follow-up on Paul's comments. You know that the size of our farmers, the smaller farmers in our area would suffer under these regulations. And, you know, it's one thing where you may have a larger farming operation, that if they had to, they can maybe lay out some ground. Not that they'd want to, but they may be able to make some sacrifices.</p> <p>If you've got 20 acres of almonds and you're a small farmer and someone says, "You're only going to get 25 percent of your water and there's no other water available," you're done. You know. And, so, when people talk about, you know, large corporate farms, that's not the way it is here in Stanislaus, Merced, and San Joaquin County. Almost all primarily family farms.</p>	
986	1	<p>I think we need to look "outside the box" rather than the 40% water grab. Maybe the tabbing of Hetch Hetchy which supplies "cold" water from the highest Sierra Nevada would be a reasonable solution. Tapping these pipelines (3) at lower elevations than [sic] water could be piped and released to the Tuolumne and possibly the Merced Rivers. Replacement water to the Bay Area could be supplied with desalinization plants. Regional economic plight could be avoided. Tapping the Hetch Hetchy could be on a seasonal basis as suggested in the proposal. The Hetch Hetchy delivers a massive amount of 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>
986	2	<p>If the 40% grab goes forward, be sure everything possible will done [sic] in the courts and if necessary at the ballot box to repeal this decision. We remember what happened years ago to the town of Firebaugh when the rulers stopped pumping sufficient delta water to supply farms.</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>
987	1	<p>Prioritize cost-effective, scientifically sound options.</p>	<p>The State Water Board recognizes the importance of implementing non-flow measures to aid in the recovery of, as well as to support, salmon populations. Please refer to Master Response 5.2, Incorporation of Non-</p>

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		<p>Placing greatest emphasis on increasing flow requirements (Alternative 3) on the Lower San Joaquin River tributaries for addressing ecosystem concerns appears to underestimate the potential value generated from non-flow actions. Using data gathered from irrigation districts along the tributaries, approximately \$25 million was spent to assess actions on the Tuolumne to improve native fish species, including a 2012 predation study which found that greater than 90% of out-migrating juvenile salmon were negatively impacted by predatory fish before reaching the San Joaquin River. At present, the draft revised SED is solely convinced that a positive net result is predominately derived through additional flows yet stronger emphasis should be placed on non-flow actions and in assessing their role for improving ecosystem conditions while accounting for cost-effectiveness. If improvement in habitat conditions, improvements to spawning grounds, and a reduction in predation all significantly increase the likelihood of an improved ecosystem then non-flow options should garner at least equal consideration.</p> <p>Despite the reliance given to increasing flows for their modeled impacts onto ecosystem condition improvement (i.e. beneficial temperature and water quality effects) known data gaps should give pause to any direct advancement toward increased flows as the best solution. For instance, using the example of the Vernalis Adaptive Management Plan experiment, additional flows might not be the key to attaining restorative goals within the plan area (Figure 2-1a). As acknowledged within the SED, many factors are likely to blame for species decline nevertheless ecosystem improvement likewise is influenced by a multifactorial suite of management tools, of which non-flow options deserve stronger consideration.</p>	<p>Flow Measures regarding the role of non-flow measures in the plan amendments. The State Water Board recommends, but does not require, that non-flow measures be incorporated as part of a comprehensive effort to address Delta aquatic ecosystem needs, as set forth in Appendix K, Revised Water Quality Control Plan.</p> <p>Detailed descriptions of the recommended non-flow measures are provided in Chapter 16, Evaluation of Other Indirect and Additional Actions, Section 16.3, Lower San Joaquin River Alternatives – Non-Flow Measures. 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 regarding the State Water Board’s authority related to non-flow measures and incorporation of non-flow measures in the plan amendments, please see Master Response 5.2, Incorporation of Non-Flow Measures.</p> <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 the need for improved flow in protecting fish and wildlife, consideration of fish predation, and the approach of unimpaired flow as functional flow, please see Master Response 3.1, Fish Protection.</p>
987	2	<p>Negative impacts extend beyond plan area</p> <p>The SED will have impacts that expand well beyond the plan area. In addition to the added flows in the tributaries, export limits, as identified within the SED, placed on surface water deliveries from the Central Valley Project and State Water Project (SWP) operations will trigger agriculture surface water reductions in the Friant service area. For instance, if San Joaquin River "exchange contractors" faced a reduction in surface water delivered, a net water loss would result for surface water right holders within the Friant system as well as SWP contractors spanning as far south as Kern County and into Southern California. Therefore, while the tributaries serve as the core focus of Phase 1 decisions made to induce net surface water losses within the San Joaquin River basin will reduce water available elsewhere, a major factor which is unconsidered within the current draft SED.</p>	<p>Please see Master Response 1.1, General Comments, for responses to comments regarding the approach to SED analyses, program-level analyses, and watersheds considered. Please see Master Response 2.1, Amendments to the Water Quality Control Plan, for responses to comments regarding definition of the plan amendments. The plan amendments do not include export limits.</p>
987	3	<p>The SED underestimates the interconnection between net water losses and lost agricultural production. At issue is the net loss of surface water. The SED implies that its negative impact may translate current productive land to a non-ag purpose, while presupposing the existence of remaining value for the landowner. Urban development and resulting land conversion is a limited option. For most of the impacted acreage, the net reduction would undoubtedly lead to overreliance upon groundwater pumping or forced termination of production. Groundwater basins, as viewed through the lens of the Sustainable Groundwater Management Act, are not unending water accounts from which withdrawal is open-ended for the purpose of meeting a beneficial use. Thus, for farmers of permanent orchard and vine crops severe water limitations means crop loss. That narrative is one that concerns many farmers, their families, and farm communities which have come to rely upon surface water deliveries; together, they instead view the SED’s findings covering a range of options from no change to 20-60% unimpaired flows as imbalanced for not thoroughly</p>	<p>Please see Master Response 1.2, Water Quality Control Planning Process, for information on the consideration of beneficial uses. Please see Master Response 8.1, Local Agricultural Economic Effects and the SWAP Model, regarding the use of the SWAP model to analyze economic effects. As discussed in Master Response 8.1, the State Water Board used SWAP because it is peer reviewed and already widely used by state and federal agencies to model cropping decisions. SWAP reflects observed grower behavior in response to changing conditions, which is that in times when available water supplies are reduced, some water supplies will typically shift from lower net revenue crops (e.g., certain row crops) to ones with higher net revenue (e.g., certain tree crops). Also discussed in Master Response 8.1, and Master Response 3.5, Agricultural Resources, is water supply reliability and permanent crops. Please see Master Response 8.2, Regional Agricultural Economic Effects, regarding regional effects related to jobs. Please see Master Response 3.5 regarding the thresholds and criteria used to evaluate impacts on agricultural resources and the use of the State Water Board’s Environmental Checklist (Appendix B), which includes the potential conversion of designated farmland to nonagricultural uses. Please see Master Response 3.4, Groundwater</p>

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		<p>considering non-flow options, their cost- effectiveness, and foreseeable harm onto production agriculture. Forcing three Lower San Joaquin River tributaries (Merced, Tuolumne and Stanislaus) to increase unimpaired flows to 40% presents quite a concerning negative risk that merits a more concerted mitigating look for protecting beneficial uses in ways that work and are cost-effective.</p>	<p>and the Sustainable Groundwater Management Act, regarding the groundwater impact analysis and the relationship to SGMA. Finally, please see Master Response 5.2, Incorporation of Non-Flow Measures, regarding incorporation of non-flow measures into the plan amendments and their costs.</p>
988	1	<p>It is highly possible that the drought we are experiencing in California is a consequence of human induced global climate change and therefore may be a long-term condition despite the abundant precipitation we are currently experiencing. Consequently, agriculture is going to suffer some serious retrenchment and especially as aquifers are drained and not replenished. Surface water will be less available with warmer winters melting the snow needed to fill reservoirs gradually in the spring as has occurred in the past. While there are calls for more water to be developed, how can this happen if there is less precipitation? There are also few dam sites left with any capacity, but many ignorant among us, think more dams are the answer. Why, in light of water shortages, is there no moratorium on planting more orchards which require that trees have wet roots year around? During the drought, several thousand acres of walnuts and almonds were planted. These are orchards that mostly grow nuts for export, not local consumption. I submit that fish were here before agriculture and Homo sapiens and I ask, why do we have to cause their extinction by further usurping their already meagre water supply because we cannot intelligently manage ourselves and our greed?</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>
989	1	<p>Please remember what happened when Owens lake in Southern California was drained dry. The consequences have been catastrophic. The removal of increasing amounts of fresh water from the delta will also cause extreme environmental damage to the entire ecosystem. A lesson to be learned from the past.</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>
990	1	<p>Over the past three years I have notices a drastic change in the waters of the Tuolumne River. We have participated in canoeing activities before, but now we cannot participate because there is mostly sand and not enough water to canoe in the river.</p> <p>Every summer we have traveled near the river, but now, the water in the river is hotter than the land around it.</p> <p>I would like to see and agreement (from the Bay Delta Plan) of 50% water flows. Half and half, to have activities for the youth. Because if not, the gangs are going to increase and there will be more of our children in jail instead of graduating from high school.</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>
991	1	<p>Please explain yourselves, how can you call a drought at the same time as we are requesting flood relief funds? The only way that I can see it is under ground water levels are low, Rain and Snow are both above. The only way to refill that water is to give the farmers what they need as 26 to 40 percent will restock where we are low. The water is there. We will grow the food that we all need and disperse the water to the under ground storage.</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>
992	1	<p>Enough is enough. Farms have borne the brunt of the pain from the last five years of drought.</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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992	2	People and quality of life are more important than stopping nature from interfering with small numbers of declining species of unspecified value. Scientific studies prove that the years-long policy of allowing water to flow freely to the ocean, while well intended has not halted decline of targeted fish species, But it has devastated local communities, agriculture and quality of life throughout the state.	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.
992	3	We can, and should do better. Current science indicates struggling fish populations are better helped by such strategies as controlling predators, restoring habitats, and utilization of functional flows.	Please see Master Response 1.1, General Comments, for responses to comments that either make a general comment on the plan amendments or do not raise significant environmental issues.
992	4	Going forward, we need a comprehensive solution that goes beyond simply dumping water. Where this Board doesn't have the authority to do this, I respectfully request it work with the agencies that do, including unaffiliated local stakeholders.	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.
992	5	Direct dumping of 350,000 acre-feet of water out to sea - enough water to irrigate over 100,000 acres of farmland or meet the domestic needs of 2 million people for a year is simply outrageous and a flagrant waste of valuable resources.	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.
993	1	<p>Unimpaired flow standard is flawed.</p> <p>Establishing arbitrary unimpaired flow standards as a means of improving salmon recovery in the Delta is an unproven practice that even the most experienced of scientists cannot support as a means for habitat improvements. According to Board staff, the 40% unimpaired flow standard is a compromise that attempts to balance water supply reliability and salmon restoration.</p> <p>This method of regulation, while fairly simple to enforce by the Board, will produce an unknown impact on salmon coupled with the absolute negative impact on local water supplies with reduced water storage, especially in drought.</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 and Master Response 1.2, Water Quality Control Planning Process, regarding consideration of beneficial uses. Please see Appendix C, Technical Report on the Scientific Basis for Alternative San Joaquin River Flow and Southern Delta Salinity Objectives; Chapter 19, Analyses of Benefits to Native Fish Populations from Increased Flow between February 1 and June 30; and, Master Response 3.1, Fish Protection, regarding information about beneficial effects of unimpaired flow on salmon and habitat.</p> <p>Please see Master Response 3.2, Surface Water Analyses and Modeling, regarding water storage and water reliability.</p>
993	2	<p>Impact to regional drinking water systems.</p> <p>The vast majority of the Sierra Nevada foothill communities were able to develop as a result of development of surface water supplies. Most of these communities have water rights dating back over 100 years. These communities rely almost exclusively and many of which are self-sustaining on surface water supplies they have developed through investment of millions of local dollars. Groundwater is not an option to sustain these communities in the short or long term while lake levels drop drastically.</p>	This comment provides general information regarding the characteristics of drinking water supplies of Sierra Nevada foothill communities, but does not make a general comment regarding the plan amendments or raise significant environmental issues. 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 3.6, Service Providers, for information regarding alternative water supply sources to augment water supplies if supplies are reduced, and Chapter 5, Surface Hydrology and Water Quality, for information about reservoir levels.
993	3	<p>Impact to Lake Don Pedro CSD.</p> <p>The Lake Don Pedro Community Services District (LDPCSD) serves a population of 3,500 and derives the majority of its water supply under contract with the Merced Irrigation District, though a diversion on Lake McClure. LDPCSD diverts less than 600 acre-feet of water annually from a pumping system that can operate as the lake level drops down to an elevation of 710 feet above sea level (ASL). Below this elevation, emergency floating pumps are launched which pump to the lake's high water mark, where booster pumps transfer the water to a water treatment plant.</p> <p>The emergency pumps can operate down to an elevation of approximately 560 feet ASL, a low level nearly reached in early 2015 when the lake dropped to 588 ASL before filling</p>	The plan amendments do not require Lake McClure to be drawn any lower than under baseline conditions. As indicated in Chapter 5, Surface Hydrology and Water Quality, Table 5-22b, even with the highest unimpaired flow requirement (LSJR Alternative 4), the carryover storage would not be 25% lower, as noted by the commenter, but may be 73% higher than baseline conditions during critical years. The program of implementation of the plan amendments requires minimum reservoir carryover storage targets or other requirements to ensure that providing flows to meet the LSJR flow objectives will not have adverse temperature impacts on fish and wildlife. As such, the plan amendments do not allow extreme drawdown of Lake McClure. Furthermore, the program of implementation allows the State Water Board to take actions necessary to ensure supplies of water for minimum health and safety needs are not affected, particularly during drought periods. Please see Master Response 2.1, Amendments to the Water Quality Control Plan, regarding the carryover storage requirements.

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		<p>slightly with storm inflows. Below 560 ASL, the remaining Lake McClure water is miles away from the LDPCSD intake pumps. As a result in 2015 LDPCSD worked rapidly to secure an emergency grant funding to construct three groundwater wells to support the human consumption, sanitation, and firefighting water needs of the community. LDPCSD implemented drastic water conservation measures and customers responded with a consistent 50% reduction in water demand for over one year. Due to the hard rock environment in which LDPCSD is located, locating adequate groundwater is extremely problematic. Over 13 test holes had to be drilled to find two wells that produced a maximum of between 70 and 110 gallons per minute.</p> <p>Through this year-long, \$2 million effort to build wells, LDPCSD was able to develop adequate water supply to meet 50% of its average water demand for short emergency periods in which surface water was unavailable. Through extensive testing conducted by a Certified California Hydrogeologist, it was determined that the new emergency wells could perform for up to a maximum of six months before groundwater levels in the wells could no longer safely pump without water depletion. No aquifer exists and additional groundwater identification in our service area is unlikely. In this rock environment, deepening well or installing larger well pumps, as detailed in the SED as a solution to lack of access to surface water, is not an option in LDPCSD.</p> <p>According to Board staff, in critically dry years it is expected that Lake McClure will be up to 25% lower than it has in past years of similar water years. In years such as 2015, any level of mandatory increase in reservoir outflow from McClure would have outstripped any current or future groundwater capacity in LDPCSD and resulted in widespread local water outages not due to lack of water availability, but the result of water discharged under a mandate in hopes of supporting restoring 1,000 salmon to the river system.</p>	<p>In years such as 2015, the unimpaired flow requirement of the plan amendments would be reduced because unimpaired flow would be low. If the plan amendments had been in place in 2015, storage in Lake McClure would have been no lower than the actual 2015 levels.</p> <p>Please see Master Response 3.6, Service Providers, regarding water for minimum health and safety needs.</p> <p>Also see Master Response 2.1, regarding water available for public health and safety as identified by the program of implementation.</p>
993	4	<p>Impact to regional groundwater supplies.</p> <p>During the recent severe drought period, hundreds of local private and public groundwater wells went dry, leaving many relying on imported supplies trucked in and stored in plastic tanks. If local surface waters are less available due to lower lake levels caused by higher outflows, local groundwater pumping will certainly increase further exacerbating the local groundwater well failures. With no groundwater aquifer, and unknown quantities of water stored in the hard rock fissures, use of groundwater supplies by the local communities, including LDPCSD [Lake Don Pedro Community Services District], as the sole source of water supply is not a viable option.</p>	<p>Please see response to comment 993-3 for information regarding lake levels.</p> <p>Chapter 9, Groundwater Resources, and Chapter 13, Service Providers, both acknowledge the limited groundwater around the reservoirs and upstream in the extended plan area. As described in Chapter 13, Service Providers, Section 13.2.2, Extended Plan Area, and Section 13.4.4, Impacts and Mitigation Measures: Extended Plan Area, in general, consumptive surface water use around the reservoirs and in the extended plan area, is small. Specifically, as stated in Section 13.4.4, bypass flows could be required much more frequently and be larger than under baseline conditions, resulting in potentially less surface water to the 12 service providers identified in the extended plan area in Table 13-6. As such, a small fraction of the water supply effect in the plan area to those service providers relying wholly or in part on surface water to meet water supply needs could be shifted to junior water rights holders in the extended plan area. To the extent that this water supply effect is shifted from agriculture uses downstream in the plan area to consumptive domestic and municipal uses upstream in the extended plan area, the effects on service providers would increase slightly in the extended plan area from that described for the plan area., that is, the effects on service providers would increase slightly in the extended plan area from that described for the plan area.</p> <p>Please see Master Response 2.1, Amendments to the Water Quality Control Plan, for information regarding drinking water and public health and safety.</p>
993	5	<p>The SED must be rejected by the Board and a proper evaluation completed on the impacts of lower reservoir levels on the primary water supply for Sierra Nevada foothill communities. The evaluation must consider the lack of groundwater supply availability in communities well established using surface water rights and lacking the ability to deepen wells or install larger well pumps. The Board must approve solutions for the Delta that</p>	<p>Please see responses to comments 993-3 and 993-4 for information regarding reservoir levels.</p> <p>In addition, please see Master Response 3.2, Surface Water Analyses and Modeling, for information regarding modeling of water supply effects.</p>

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		balance all needs for surface water supply, and communities such as LDPCSD [Lake Don Pedro Community Services District], which has no adequate groundwater, must have access to surface water to survive.	Please see Master Response 1.2, Water Quality Control Planning Process regarding balancing between beneficial uses and please see Master Response 2.1, Amendments to the Water Quality Control Plan, for information regarding drinking water and public health and safety.
994	1	I am against flushing out our water for the fisheries, there must be a better way. Our valley is growing in population, which has been approved through the cities' planning and zoning committees and people have purchased or rented their homes in good faith. We need the water for our citizens and our businesses. We have had a rough couple of years, wondering what would happen if the drought continued, and changing our landscaping - and with many of us reducing the areas that required watering. I myself covered one of my side yard with pavers rather than having a landscaped area, and the other side yard was already paved, and my front yard is now quite patchy for lack of water in the past couple of years.	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.
994	2	Our community has been working to conserve water, but we still have our needs. Our agricultural industry provides wonderful produce; we have dairies here as well. We cannot make the sacrifice of flushing out our precious resource of water for any reason. I implore you to do the right thing for our citizens, taxpayers, hardworking families and preserve our water. We cannot withstand the unimpaired flows on these rivers to the Delta, if anything, more water storage should be a priority. You need to put the people first.	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.
995	1	I strongly support the efforts to increase the water flow in the Delta region to preserve the health of the habitat and ensure that the endangered salmon populations recover in the tributaries. This ecosystem desperately needs our help. With the increase of precipitation we can surely increase the in-stream flow to 60% for this worthy cause.	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.
996	1	The goal of the Phase 1 SED is to show that it's no big deal to for the state to require 30 to 50 percent of unimpaired flows on the Tuolumne, Stanislaus and Merced rivers to flow into the Delta. I respectfully disagree.	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.
996	2	There will be multiple negative impacts of this unimpaired flow proposal; a proposal that claims to benefit salmon by repurposing the water source historically used by me and others who call this region home. There are better ways to solve fishery and salinity problems without decimating our region's water supply.	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.
997	1	Beyond the significant impacts of the current proposal on the agricultural economy and groundwater sustainability, CMUA believes it is important to highlight the effects of the proposed Plan Amendment on municipal water supplies. Nearly all of the affected Irrigation Districts provide wholesale municipal drinking water to their surrounding communities. The proposal would disrupt these collaborative partnerships and leave cities scrambling for another water source to serve their citizens. In addition, the 2016 SED concludes that San Francisco would not have major impacts if the proposal were to move forward because San Francisco Public Utilities Commission could obtain water through other means. Such an expectation is an extreme oversimplification of the complex nature of water management in California and the requirements needed to secure an alternative water source. Options such as desalination, water transfers or an in-Delta diversion all have consequences for the environment and/or San Francisco ratepayers that need to be carefully considered when determining potential impacts.	<p>The State Water Board addresses and evaluates potential environmental impacts and economic considerations associated with municipal drinking water service providers. Please see Chapter 13, Service Providers, for a qualitative discussion of potential effects on service providers, including CCSF, under Impacts SP-1, SP-2a and SP-2b. Chapter 13 (Impact SP-1) discusses that the potential impacts due to surface water reductions are considered within the general context of water supply agreements and contracts, including those agreements or contracts with irrigation districts. Chapters 13 and 16, Evaluation of Other Indirect and Additional Actions, identify and disclose significant and unavoidable environmental impacts that could occur in response to the implementation of the LSJR alternatives, with respect to the City and County of San Francisco and specifically related to desalination, water transfers or an in-Delta diversion.</p> <p>Please see Chapter 20, Economic Analyses, Section 20.3.2, Effects on Municipal and Industrial Water Supplies and Affected Regional Economies, for a qualitative evaluation of the economic considerations, including ratepayer effects, on municipal providers in the plan area.</p> <p>Please see Master Response 8.5, Assessment of Potential Effects on the San Francisco Bay Area Regional Water System, regarding the State Water Board's evaluation of potential reductions in water supply and associated economic considerations and other impacts within the SFPUC Regional Water System (RWS)</p>

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			<p>service area with implementation of the plan amendments. The master response identifies the main points of disagreement or differing assumptions between the SED and the comments. As described in Master Response 8.5, the SED identified reasonably foreseeable actions that could be taken by affected entities to comply with the plan amendments and in response to reduced surface water supplies. These actions did not include the severe mandatory rationing described by SFPUC because it was not reasonably foreseeable that a water supplier would impose drastic mandatory water rationing on its customers without first attempting other actions to replace any reductions in water supplies with alternative sources of water, such as through water transfers. The analysis in the SED acknowledges that there could be economic effects on SFPUC as well as the ratepayers of the RWS service area depending on the other indirect action(s) implemented to accommodate a potential water supply reduction (see Appendix L, City and County of San Francisco, Chapter 20, Section 20.3.3, Effects on Municipal and Industrial Water Supplies and Affected Regional Economies, M&I Water Supply Conditions in the SFPUC Service Area and Potential Cost, Ratepayer and Regional Economic Effects, and Chapter 16, Evaluation of Other Indirect and Additional Actions).</p> <p>Finally, please see Master Response 3.6, Service Providers, for clarifying information regarding service providers and potential effects.</p> <p>To the extent that this comment raises issues raised by SFPUC or BAWSCA, please refer to letter 1166 or letter 1191 to review responses to those letters.</p>
997	2	<p>California is a leader in renewable energy and the long-standing practice of producing electricity through hydropower is a cornerstone of these efforts. In order to effectively utilize this resource, water must be stored and then released when utilities can maximize the resulting electricity. However, should the current proposal advance, the additional water released in February to June to meet the flow requirements would subsequently reduce the amount of water available for hydrogeneration during peak times throughout the summer. We urge the State Water Board to carefully consider the impacts of this reduction in hydropower and avoid proposals that negatively affect such an important part of achieving the state’s renewable energy goals.</p>	<p>Potential changes in average annual hydropower generation from baseline are presented in Chapter 14, Energy and Greenhouse Gases. Appendix J, Hydropower and Electric Grid Analysis of LSJR Flow Alternatives, presents the estimated change in hydropower generation based on a simulation period of 82 year for power plants located at and downstream of the rim dams. This timeframe includes average, drought, and non-drought years. As such, the analysis accounts for increased greenhouse gas (GHG) emissions related to reduction in hydropower generation at these facilities during dry years. As noted in Chapter 14, hydropower generation upstream of the rim dams was considered qualitatively as described in Chapter 14, Section 14.4.4, Impacts and Mitigation Measures: Extended Plan Area.</p>
997	3	<p>CMUA [CA Municipal Utilities Association] appreciates the previous extensions of the comment period, reflecting the State Water Board’s understanding and support for stakeholders that are working diligently on voluntary agreements to best serve both the environment and the communities that rely on water from the tributaries of the Lower San Joaquin River.</p> <p>Voluntary agreements are the most appropriate path forward. While stakeholders continue to actively pursue these agreements through constructive negotiations, it is not expected that discussions will be finalized by March 17. Because of the legitimate concerns raised by multiple parties regarding the process to develop the SED and the existing discussions, we ask that instead of moving forward in March, the State Water Board continue to engage with the Natural Resources Agency and other negotiating parties to advance voluntary agreements. If meaningful progress continues to be made, we urge the Board to forgo initiating regulatory actions until those agreements can be fully developed.</p>	<p>Please see Master Response 1.1, General Comments, and Master Response 2.1, Amendments to the Water Quality Control Plan, for responses to comments by the State Water Board supporting voluntary agreements. Please note that the public comment period was extended for a total duration of 6 months. Although the public comment period has ended, this does not preclude the continuation of the settlement process, nor would adoption of the plan amendments preclude voluntary agreements. The State Water Board oversees and regulates water right and water quality and, as such, holds the authority to approve voluntary agreements to implement the Bay-Delta Plan.</p>
998	1	<p>As a whitewater kayaker and outdoor enthusiast I have spent a large portion of my life enjoying the beauty of rivers around the world. Specifically I have boated on the Tuolumne many times, as well as spent several summers guiding teenagers throughout the upper Tuolumne watershed in Yosemite. However I feel that recreation is a secondary and far less important reason for keeping water in the river – my first concern is the health of our state</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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		ecosystems.	
998	2	I am aware of the 2010 report, which stated that 60% of unimpaired flow between February and June would be fully protective of fish and wildlife. This to me seems like a good target.	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.
998	3	An unhealthy population of fish and wildlife will have disastrous consequences for future generations. There may be politicians around the country choosing profit for business over health of the planet, but that should not happen in California.	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.
998	4	Rather than have a plan that calls for less water in the river, the state should focus on implementing conservation incentives and regulations for small and larger farms, cities, and industry.	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.
999	1	<p>So, look at the mess you folks have us in. You cannot take care of a dam, why do you think you are correct in taking more water out to save fish? Turn the water business over to the districts that have a handle on it; work with them in trying to solve the issue. The issue itself is in question.</p> <p>Fishbio has spent a lot of time on this and you folks do not even consider the results they came up with.</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.
999	2	Enough is enough. We will fight you every part of the way. But, as usual, the government likes to spend our money on lawyers instead of things that really matter: dam maintenance, levy erosion, stuff like 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.