

Table 4-1. Responses to Comments

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459	1	It is vital to the Delta area to UPDATE the plan with strong science-based standards to protect water quality and support endangered species. The current draft falls well short of being a beneficial update.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
460	1	SAVE trees for our future generations??	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
461	1	The task before you is an important one: how best to provide adequate, reliable water supplies to all beneficial uses in the state, including cities, rural communities, businesses, farms, and the environment. Our members strongly support adoption of the Voluntary Agreements, also known as Agreements to Support Healthy Rivers and Landscapes. These cooperative agreements represent the best path forward for many reasons. First, they provide a comprehensive approach to water management that considers the needs of the ecosystem as a whole. One thing science has taught us is that healthy rivers, streams, and fish populations depend on more than water alone. Under these agreements, the management structure will be able to measure the impact of both flow and non-flow measures and adapt accordingly.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
461	2	Second, adoption of these agreements will provide immediate benefits. Additional water will be guaranteed to the environment. Farmers and water agencies are already helping with habitat restoration, predator control, restoration of floodplains, and other measures to make the entire ecosystem healthier. Adoption of these agreements brings funding for even more environmental improvements, allowing the pace of those critical projects to accelerate. In return, farms, businesses, cities, and towns will have more reliability and water supply, which is critical to planning.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
461	3	In addition, these are collaborative agreements at the local level that allow the system to respond in real time to changes on the	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not

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		ground and continuously improve as science advances. Government agencies, farmers, conservationists, communities, urban users, and others have formed partnerships dedicated to making these agreements work properly. Clear goals and metrics to measure progress are embedded in the governing structure, allowing for periodic progress checks and providing the ability to adjust as we move forward. The system of adaptive management will allow us to always stay ahead of things rather than waiting years for the regulatory system to catch up. We've all learned that our unpredictable weather patterns are likely to continue, and it's critical that we make adjustments immediately. The Agreements to Support Healthy Rivers and Landscapes would bring much needed stability and adaptability to California's water management system. We thank the Board for examining this cooperative alternative, all the local partners who have worked so hard to make these agreements come together, and welcome new partners to join in this process to make it work for all Californians.	raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
462	1	I'm here today on behalf of the coalition to comment on the Staff Reports numerous issues under the California Environmental Quality Act or CEQA. First, the Staff Report lacks a stable and complete project description. Staff explicitly state throughout the report that all alternatives are equally on the table. Proposing a range of alternatives with no clearly proposed project is a violation of CEQA. Without an understanding of what the proposed project actually is, the public is effectively barred from meaningful comment and public participation, one of CEQA's basic tenets.	Section 7.1, Introduction, Project Description, and Approach to Environmental Analysis, of the 2023 draft Staff Report provides a basic project description, including a description of the project purpose and goals, and refers to Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, for a detailed description and discussion of the proposed Plan amendments. Please see Common Response 7.1, General CEQA and Approach to the Analysis, regarding the adequacy of the project description. See Common Response 7.24, Alternatives Analysis, regarding the range of feasible alternatives. See Common Response 1.1, General Comments, regarding the public process for the 2023 draft Staff Report.
462	2	Second, the Board splitting of the environmental analysis for the water quality standards from the analysis for the program of implementation amounts to unlawful piecemealing. Under the CEQA, a project is the whole of an action, and it must be considered together in an environmental review to allow	Please see Common Response 1.1, General Comments, regarding the adequacy of the public process. Also see Chapter 13 and Common Response 1.3, Revised Proposed Plan Amendments, for information on the project description regarding the program of implementation, and Common Response 7.1, General CEQA and

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		decision makers and the public to have a complete understanding of the project and its potential impacts. But here, staff assert that the program of implementation and regulatory text will be developed later, after the close of the public comment. How can the public be expected to comment on an incomplete document?	Approach to the Analysis, regarding the adequacy of the project description.
462	3	Third, the report fails to accurately identify the project area as required by CEQA. The report excludes the Trinity River from its analysis, despite the Trinity being classified as a Delta tributary and heavily relied upon for Delta inflows under all project alternatives. Additionally, the report fails to consider any environmental impacts in the Klamath River Basin from reliance on Trinity River flows, despite evidence that the diversion from the Trinity to the Sacramento is driving declines of native fish species on the Trinity and Klamath.	The Trinity River is not included in the plan area because the new flow requirements would not apply to the Trinity River. The Trinity River watershed was previously not included in the defined study area because it does not receive Sacramento/Delta supply, and therefore reductions in Sacramento/Delta supply would not affect the area. However, flows from the Trinity River to the Bay-Delta watershed are already incorporated into the existing analyses and as such, it is appropriate to explicitly acknowledge the inclusion of the Trinity River as part of the study area. See Common Response 1.5, Trinity River, regarding the consideration of impacts to the Trinity River watershed.
462	4	Fourth, the Staff Report inadequately addresses a significant environmental impact, harmful algal blooms, or HABs. The report considers potential for HABs to occur in upstream reservoirs with reduced storage, but does not give equal consideration to ample evidence that HABs are accelerating downstream with low flow conditions, like the conditions that would occur under the VA's or proposed plan amendments.	Many environmental factors affect the occurrence of cyanobacterial harmful algal blooms (HABs) in the Delta. HABs are affected both by tidal flows and net flows. Tidal back-and-forth flows would not be affected by the flow scenarios, but net flow in some Delta channels could be affected by the flow scenarios. Net flow is important because it controls water residence time and can move cyanobacteria out of an area. Possible effects associated with changes in net flow are discussed in the Staff Report. Environmental effects of a project are assessed by comparing baseline conditions to project conditions. If baseline environmental conditions are poor, but the project would have no effect, there would be no impact. The Staff Report Section 7.12.1.1, Environmental Setting (specifically the "Delta" subsection), discusses HABs within the context of the Delta and the environmental factors that influence bloom formation. In addition, Section 7.12.1.3, Impact Analysis ("Delta" subsection), discusses the potential impacts of changes in Delta flows on HABs in the Delta. As described in the section titled "Nutrients, Organic Material, Harmful Algal Blooms, Invasive Aquatic Plants, and Dissolved Oxygen," it is possible that reduced Delta inflows in summer and fall and reduced exports could lead to an incremental increase in the production of HABs

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			in some Delta channels at some times, particularly in Delta channels that convey Sacramento River water to Delta export pumps. The Staff Report, Appendix A2, Delta Simulation Modell II (DSM2) Methods and Results, provides a more detailed evaluation of potential hydrologic changes in the southern Delta (Victoria Canal and the San Joaquin River near Stockton) associated with the 35, 45, 55, 65, and 75 flow scenarios using DSM2 and how those potential changes may affect HABs at those locations. The proposed Plan amendments could cause reductions in Delta inflow during the summer and fall due to increases in flow earlier in the year. The higher flow scenarios, which have larger increases in spring flow, also have larger reductions in flow later in the year. For this reason, requiring higher percents of unimpaired flow would not increase flows at the time of year when HABs are most problematic. The project has been revised as described in Common Response 1.3, Revised Proposed Plan Amendments. The analysis in Section 13.7.12.1, Surface Water, demonstrates that those project revisions could reduce project-related HABs impacts in the Delta. As explained in the Staff Report Chapter 9, Proposed Voluntary Agreements, the VAs would not affect tidal and net flow in dead-end sloughs and other Delta channels with poor circulation where HABs are most likely to occur and, therefore, it is unlikely that HAB formation would be affected by the Voluntary Agreements. Please see Common Response 4.1, Harmful Algal Blooms, for responses to comments related to instream flow and HAB formation.
462	5	Fifth, the Board has violated CEQA by failing to engage in government-to-government consultation with tribes as required by AB 52 to identify and mitigate impacts to tribal cultural resources. Staff suggests the Board did not have to do AB 52 consultation because it issued the notice of preparation for the update before AB 52 went into effect. But the Board did not set	The State Water Board actively sought, and continues to seek, consultation with interested California Native American Tribes consistent with Executive Order (EO) B-10-11 and its Tribal Consultation Policy. The State Water Board proceeded with EO B-10-11 because the provisions of Assembly Bill (AB) 52 do not apply to a certified regulatory program or a project with a Notice

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		out a framework for the Phase 2 updates until 2017, and a decade and a half after issuing the NOP, the Board is still formulating its proposed updates. By failing to consult with tribes on tribal resource protection, the Board fails to acknowledge and engage tribes as the experts of their own cultural resources and histories.	of Preparation (NOP) filed before July 1, 2015. (The Revised Notice of Preparation for the Sacramento/Delta Update to the Bay-Delta Plan was issued in 2012.) Agencies and tribal governments consulting on projects with NOPs filed before July 1, 2015, can utilize the EO B-10-11 process and those with NOPs filed on or after July 1, 2015, can employ either AB 52 or EO B-10-11. Please see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to comments related to tribal outreach and engagement, and CEQA and AB 52. Also see Staff Report Chapter 11, Tribal Engagement, Traditional Ecological Knowledge and Tribal Beneficial Uses and Staff Report Chapter 13, Revised Proposed Plan Amendments, for additional information on the State Water Board's efforts to engage more robustly with California Native American Tribes.
462	6	Finally, we want to applaud staff for recommending a flow-based standard and elevating the importance of minimum in-stream flow requirements -- excuse me, regulations. But our concerns with the alternatives are twofold. First, if the Board adopts VAs, it will cast aside this necessary flow-based regime for eight years of experimentation, which will return little, if any, water to the Delta. Second, the proposed plan amendments, while an important start, are not sufficiently protective of beneficial uses and public trust resources. We ask the Board set 65 percent as a target rather than the ceiling. In sum, we urge the Board to adopt a standard that is protective of beneficial uses and the public trust and actively works to rectify past mistakes with an eye towards an improved and better future for the Bay-Delta.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project and Common Response 1.2, Water Quality Control Planning Process, for information on the reasonable protection of fish and wildlife beneficial uses and public trust.
463	1	But turning to the Staff Report, we know that there's not yet an implementation plan, and so we're just commenting on the documents provided. And we'd like to urge the Board to change its assumptions and characterizations of refuge water supply impacts. Beginning in 2016, we've repeatedly asked that the Board not adopt Delta flow requirements that would come at the expense of designated habitat, wetland habitat areas. And the Board responded with the scientific basis report and framework document stating that you would avoid redirected refuge impacts. What we're seeing in the Staff Report now is that for the unimpaired flow alternatives, the SacWAM modeling does not	Based on comments received, a Wildlife Refuge Provision has been added to the revised proposed Plan amendments. This provision allows for the Executive Director of the State Water Board to approve exceptions to curtailments for wildlife refuges. Updated SacWAM results presented in Chapter 13, Revised Proposed Plan Amendments, of the 2025 partially recirculated draft Staff Report reflects this provision and shows very small reductions to refuge supplies.

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		give refuges their proper priority, and the Staff Report doesn't recognize the refuge deliveries as mandatory mitigation under the law. So we're seeing estimates of 140,000-acre-foot reductions for refuges in water supply. And in some years, the modeling assumes much larger cuts than that. This can be changed and it should be changed. Just to contrast it quickly with the other water planning proposals, the Voluntary Agreement analysis indicates clearly that there will be no redirected impacts for refuges, and the Bureau of Reclamation's project description for its long-term operations plan also indicates that every effort will be made to provide those statutory minimum required refuge water supplies. So, you look at the modeling and the way it's translated in the text, we think it can be better tailored to support our public trust wetland resources. We're not concerned that the Board intended to override refuge water priorities or that it intends for wildlife beneficial uses in our wetlands to be dried up in support of unimpaired flows. I think our concern is that this modeling is giving life to a new narrative about refuge water supply, and we don't really want that to grow legs and take off on us before it's too late. Thank You. We'll be providing written comments as well.	
464	1	Hello. This is Mark Moulton calling. Thank you very much for your hearings and your endurance. It seems to me that you all have an amazing amount of attention for public comment, and I appreciate it.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
464	2	And I think this is a critical moment for our children, and children's children. And I think you at the dais have the ability to make a legacy decision, and I urge you to do it. It seems to me quite clear that since the Delta Reform Act was adopted 14 years ago, that the Voluntary Agreements are simply a method of big business trying to delay the appropriate use of water in our state. And I don't think you're fooled, and I'm certainly not fooled, and I hope that you will vote with your conscience and with your heart for your grandchildren.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
465	1	Yeah. Thank you for the opportunity to speak to the Board. I agree with the prior speaker's comment that this is an incredibly complex environment and challenge, resource sharing challenge.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not

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			raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
465	2	And I applaud the Voluntary Agreements motivation of speeding actions in water policy. I know personally that few startups succeed in the market through the legal system, so this makes sense to me. But I strongly urge more closely following the science and supporting beneficial uses if we want to share this world with any wildlife at all while preserving equitable quality of life for the state's citizens. In particular, I want to highlight the fact that the science shows we need higher flows for recovery of the Bay-Delta ecosystem, as prior speakers have noted, with a semblance of equity for humans and wildlife alike. The current plan is biased towards agricultural interests at the expense of other beneficial uses. Ag uses 80 percent of the state water supply while generating 2 percent of the state's economy. This effective privatization of the water supply is inconsistent with public trust and equitable beneficial uses. A root cause of this, of course, is that the price of ag water is too cheap and doesn't incentivize innovation. We need to both raise the price of water and increase the benefits of fallowing land that returns farmland to the ecosystem.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Also see Common Response 1.2, Water Quality Control Planning Process, for information on the consideration of beneficial uses and public trust.
465	3	The current plan releases less than 55 percent of the water supply to the ecosystem in good years, while the State Water Board's own 2010 Flow Criteria Report demonstrates that protecting the Bay-Delta ecosystem requires 75 percent of flows to maintain water quality and temperatures. We have to both increase water volumes for ecosystems and restore habitats. Compounding things we face together, an elephant already sitting on the water table, climate change, which as previously noted, has already started reshaping our understanding of normal. To survive, we must deeply rethink our expectations of each of our roles and contributions to the VA compacts, and in particular, legacy obligations. All VA participants will have to contribute to levels they will find uncomfortable as climate conditions worsen.	Please see Common Response 1.1, General Comments, for information on the Delta Flow Criteria Report and for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Also see Common Response 1.2, Water Quality Control Planning Process, for information on the reasonable protection of fish and wildlife beneficial uses and Common Response 1.3, Revised Proposed Plan Amendments, for information on the VA pathway.

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		To be successful, we have to follow the science and learn as we go, meet the needs of all the state citizens, including both farmers and underrepresented communities, and make room for wildlife and ecosystems while recharging groundwater and restoring the Delta. We'll have to stretch and expand our understanding of the requirements here to be bigger, better, and more inclusive than today. And that stretch has to include making more room for ecosystems and wildlife, being nimble and adaptive in responding to the science as we progress, and that starts with the State Water Board's own criteria report. I ask everyone involved in these agreements to dig deep and pitch in to make this work, and especially to release the 75 percent flows we need for healthy watersheds, tenable wildlife populations, and preservation of the Bay-Delta ecosystem, while also doing the extra work needed to restore habitat. There just isn't any time for Plan B, and we cannot fail.	
466	1	Today, I'd like to share our concerns regarding the inadequate flow standards proposed in the draft Staff Report. As we confront the uncertainties of future climate change and the increased likelihood of more frequent and severe drought events, adopting the 55 percent unimpaired flow framework is short-sighted. It fails to address the long-term needs of our ecosystems and the communities that depend on them. As we've observed in recent years, lower flows leading to a buildup of nutrients in the waterways creates the perfect conditions for harmful algal blooms that release toxins and threaten aquatic life and human health. With this in mind, we urge the Board to reconsider and raise the preferred flow framework to supply adequate flow. The best available scientific studies strongly support a minimum of 65 percent unimpaired flow to prevent adverse impacts on fisheries and to curb the proliferation of harmful algal blooms during drought years. Likewise, an upper limit of 75 percent unimpaired flow would act as a safeguard preventing negative impacts on upstream temperatures. This corrected framework would establish a low flow range of 65 percent during drought years, which aligns with the scientific imperative for fish health	Please see Common Response 1.2, Water Quality Control Planning Process, for information on the reasonable protection of fish and wildlife beneficial uses and Common Response 4.1, Harmful Algal Blooms, for information on harmful algal blooms.

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		and the protection of vulnerable species. A higher-flow alternative based on scientific evidence is not just a preference. It's a necessity for resilience in the face of evolving climate-related challenges. By adopting a protective unimpaired flow framework, we can strike a balance that not only considers the needs of our aquatic ecosystems during droughts, but also prioritizes the long-term health and sustainability of our fisheries. It is our responsibility to be stewards of these valuable resources, and we urge the Board to reconsider the preferred flow framework and raise the bar to a more environmentally responsible standard.	
466	2	Lastly, the Board needs to provide a comprehensive implementation plan for using adaptive range flow standards. This plan should be designed to strengthen the resilience of our water management strategies amid climate challenges. Given the fluctuation of flows across seasons, an effective implementation plan is imperative to ensure the optimal functioning of the adaptive flow framework within that system.	The 2023 draft Staff Report includes a sufficiently detailed description of the proposed program of implementation for the purposes of the analysis. Adaptive implementation of the inflow objective was described in Section 5.4.2.4, Implementation. However, drafts of the Bay-Delta Plan were subsequently released for public review and comment in October 2024, July 2025, and December 2025. Please see Common Response 1.3, Revised Proposed Plan Amendments, for additional information on regulatory pathway implementation of the inflow objective.
467	1	Over the past few years, I've been speaking out on behalf of the California Delta and river ecosystems as I've watched them be diminished and degraded by our current water policies. We've taken more and more water from our rivers and Delta over the years, which has led us to the environmental crisis point we are at today. Voluntary Agreements have failed to rein in our water use habits, and it will take decisive action by the State Water Board to insist on scientifically based policies that benefit people, fish, wildlife, and ensure sustainable high-quality water systems.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
467	2	I love being on the river, and I've done a number of rafting trips on the Tuolumne and the Trinity over the years, trips where we watched in amazement as thousands of huge salmon made their way past us towards their spawning grounds. Today, shallower, warmer waters are choking off and decimating runs of salmon and causing algae blooms that threaten the fish in the Delta waterways as well. Why do we think that our desire to siphon off even more water	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Please see Common Response 4.1, Harmful Algal Blooms, for a discussion on the concerns for harmful algal blooms (HABs) and the future development of water quality standards for HABs.

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		from these ecosystems is sustainable? If we lose these salmon runs and continue to degrade the rivers and estuaries, we not only harm the native species, but our families and future humans as well. Now is the time to ensure that there is more than adequate water flow to maintain vibrant, natural systems so our salmon season can once again be reopened.	
467	3	The State Water Board is charged with restoring the Bay-Delta ecosystem. Now is your opportunity to fulfill that mission. Please consider carefully this critical responsibility. Your decisions will determine the fate of these essential waterways. Will we have fresh, clean, cool water to maintain the glorious natural resources we are blessed with, or will we continue to exploit the ecosystem until these water resources are no longer viable? I thank you in advance for supporting scientific policies that guarantee a healthy future for our waterways and the species they support.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
468	1	I am a water protector and policy intern with Save California Salmon and a tribal member of the Round Valley Indian Tribes, also known as RVIT. RVIT is one of five California reservations established by the U.S. by executive order of 1852. Formerly the Nome Cult Farm, an administrative extension of the Nome Lackey Reservation, where six tribes are force-relocated into aboriginal Yuki territories in Mendocino County. Today, the ancestral territories of our seven tribes extend from the Pacific Coast to the border of California and Nevada, including the Sacramento River and its tributaries. Our seven confederated tribes have not relinquished the right to our ancestral land, our water rights, nor have we relinquished our hunting, fishing, and gathering rights in our ancestral and or aboriginal territories. I want to extend a thank you to Secretary Crowfoot and Board Member Firestone for emphasizing the need to access California's first indigenous peoples in the restoration of our lands and waters. To echo previous commentators, the need to	Please see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to comments related to tribal reserved water rights, Tribal Beneficial Uses, and Traditional Ecological Knowledge/tribal knowledge.

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		acknowledge tribal water rights, inclusion of tribal ecological knowledge, and Tribal Beneficial Uses, and upholding quantifiable use and benefits to tribes need to be included, prioritized, and regulated on our tribal waterways. The best hope moving forward is not to continue destroying natural flows for non-Native invasive agricultural needs that have proven over decades to not only deplete our ecosystem, but also are not sustainable to support the areas in which they grow -- their grows exist. In regulating Tribal Beneficial Uses, I ask that you recognize tribal communities and honor the governor's executive orders to acknowledge our ancestral territories. Please include appropriate approaches to provide adequate water supplies to the ancestral territories on and around the entire Sacramento and Bay-Delta watershed.	
468	2	In gratitude for the presentation on floodplains, I strongly agree that the levees and weirs unnecessarily reduce, minimize, critical rivers, landscapes, interactions, as well as groundwater supply. In consideration of our waterways and land, I encourage the Water Board to respectfully honor Secretary orders to work collectively with the Agriculture and Commerce Departments in regard to the use of unsafe water. Toxic algae bloom in result of excessive water pumping and agriculture are the same waters being stored and shared to our water users. Disadvantaged communities. Based on CalEPA's report, proclaim gaps exist in the documentation of tribal communities. Without true data of all water users, how can we justify the continued unreasonable use of our tribal waters? While Secretary Crowfoot champions the access to underserved areas, tribal reservations experience water rationing every year. We need to strengthen water systems for our resilient members while balancing beneficial uses. I thank you, thank the Board for the time to share my comments. And I want to exert that our rivers and Delta need more water to recover our broken ecological system.	The Division of Water Rights and the Water Boards are committed to protecting the water quality of waters of the State. The Sacramento/Delta updates to the Bay-Delta Plan are intended to enhance protections to ensure water quality within the Bay-Delta watershed is protected through flow-related actions. The Bay-Delta Plan is complementary to the other water quality control plans adopted by the State and Regional Water Quality Control Boards and state policies for water quality control adopted by the State Water Board. The Plan provides reasonable protection for the Bay-Delta watershed's beneficial uses that require control of salinity (caused by saltwater intrusion, municipal discharges, and agricultural drainage), instream flows and Delta outflows, and water project operations (limits on diversions and associated operations and management). The other plans and policies establish water quality objectives and requirements for parameters, such as toxic chemicals, bacterial contamination, and other parameters which have the potential to impair beneficial uses or cause nuisance. Please see Common Response 4.1, Harmful Algal Blooms, for responses to comments related to harmful algal bloom formation.

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469	1	Secretary Crowfoot: I appreciate the opportunity to share more information and perspective on what is before you, which is this proposed pathway to implement the Water Quality Plan update. It's been labeled the Voluntary Agreements, which I believe is a bit of a misnomer because ultimately if it came to pass, these would be enforceable commitments to improve environmental conditions in the rivers. But I think it's helpful for us to share some of the history, but also our current perspective from our agency, the Natural Resources Agency, and our departments, the Department of Fish and Wildlife and the Department of Water Resources, that helped develop the Voluntary Agreements. So, first of all, I think I hope we all agree on the problem statement, which is we have to improve environmental conditions in the Sacramento and San Joaquin River systems and the Bay-Delta. We all know that the last major update of the Water Quality Plan was almost 30 years ago, and we're past due to update this plan. We understand that improving environmental conditions means restoring environmental flows that have demonstrated clear correlation to the abundance of fish. We also recognize that improving environmental conditions includes a lot more than that, including expanding diverse habitat for these fish species, doing better scientific monitoring, and being able to adaptively manage the way that we move water and build habitat to be able to help recover these species. You all obviously have a set of challenges before you as you update this Water Quality Plan to protect beneficial uses. Clearly, one important beneficial use that we need to improve is the use for our fish and wildlife. And we balance that with the use of our water for our communities, for our economy. And we know that as we're challenged and our fish and wildlife are severely challenged with conditions in our rivers, so too are our communities. Keep in mind, as I know you do, 14 months ago we had 6 million Californians under water rationing. And had we not had the wet winter that we got last year, we anticipated and were planning for 20 million Californians under water rationing. And that even exists as we've made billions of dollars of	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		investments helping local communities do what they need to do to deepen efficiency and conservation, diversify water supplies. We continue to need to balance, how do we restore the environmental conditions in our rivers, and how do we maintain as much reliability as possible for the communities and the economy that depend on California water?	
469	2	So that brings us to one proposed pathway to implement the Water Quality Plan update, and that is what I'll refer to and what we're referring to as these agreements. As you know, the work to create these agreements is years in coming. This effort was started under the Brown administration and carried through into the administration of Governor Newsom. I've been involved in this for my full five years of work as Natural Resources Secretary, and along with then-Secretary Jared Blumenfeld of CalEPA, really convened a group that developed this proposed pathway before you. The genesis of the Voluntary Agreements, as I understand it and I experienced it, is recognizing that we can build a pathway to improve environmental conditions and to strengthen water certainty in California communities. But it looks different than simply utilizing the regulatory authorities that you have. Now, clearly, there is some significant concern among water agencies, agricultural users, about the regulatory approach that you have authority to implement, and that is the unimpaired flows. So that was one piece, is: could we help improve the environmental conditions of rivers in a way that just doesn't rely on that lever? We also recognized in developing these agreements that it would benefit the environment to bring in other authorities and resources that are not available through a strict regulatory process. So as you know better than I ever will, the Water Board has authority regarding the quality and quantity of water, but much less authority to compel habitat to be developed. It doesn't really have a regulatory construct to build a scientific monitoring program and adaptive management and governance so that water agencies can work together across these river systems to	Please see Common Response 1.2, Water Quality Control Planning Process, for information on the State Water Board's authority to impose non-flow measures. Also see Common Response 1.3, Revised Proposed Plan Amendments, for information on the habitat restoration, science, and monitoring provisions included in the revised proposed Plan amendments.

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		manage our systems over time as science tells us what we need to do. The Voluntary Agreements also sought to bring water users, government agencies together across this broad landscape stretching from almost Mount Shasta down towards Fresno, recognizing that while we can regulate the tributaries and the rivers themselves, it's really the cumulative total actions we take across these tributaries, across these river systems, that will impact the fish and wildlife that we're working to recover. So, for all of these reasons, several years ago the government and our agencies brought users together to identify what could be a pathway that we would propose to the Water Board to implement the Water Quality Plan that we all recognize you all need to update. So the process initially was really one that was meant to include a broad set of stakeholders, including conservation organizations, that came to the table open-minded but sometimes dubious about whether this alternative approach could actually meet the moment. And I would characterize that for the better part of two years, we had many conservation groups around the table, and the benefits, the contributions, that they made to the process has found its way, is evident in the proposal before you. Ultimately, though, to be clear, conservation groups dropped out of the process, as I understand it, because they felt like where we were narrowing in on as it relates to enhanced flows was insufficient, in their opinion, to recover the species. So I want to be clear that we built these Voluntary Agreements with the idea of bringing everybody together to find common ground and a consensus approach. To be clear, ultimately, that wasn't possible. So what you have before you is the cumulative product of dozens of water agencies, Natural Resources Agency, our Fish and Wildlife Department and Department of Water Resources. And we're really proud of what we have before you. From our perspective, it's very clearly beneficial that it includes elements of implementation that wouldn't be achieved by a regulatory pathway alone. We obviously know that restoring flows is critical, and the Voluntary Agreements propose to do that in all water year types. We have scientists that have made a	

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		clear case that those improved flows, in addition to habitat, scientific monitoring, adaptive management, will be sufficient to move toward recovery of the species. There are other scientists that work for organizations that you've heard from and will hear from that feel like that's insufficient. Your staff developed a scientific basis report that, as I understand it, gets peer-reviewed, blind scientifically peer-reviewed, from external independent scientists. And so, from my perspective, we have a strong scientific proposal on flows and other measures before you, and your staff will use independent science to determine whether that's adequate.	
469	3	But in addition to the flows, the Voluntary Agreements propose to restore and maintain tens of thousands of acres of habitat, and diverse habitat, in the Delta, in the mainstream rivers of the Sacramento, San Joaquin, in the tributaries. And we believe that's absolutely critical because while I think everyone agrees that there is a correlation between the amount of flow moving down the river and the abundance of the animals that live in the river, I would argue, and we should all agree, that the quality and location abundance of habitat is also critically important. Not only the recovery, but the resilience of those species.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
469	4	Additionally, I think we all would agree that improved scientific monitoring is essential, and under the Water Board's leadership, resourced by the governor and the legislature, you're improving scientific monitoring on California's rivers, totally outside of this consideration. But we think scientific monitoring has a role in how we manage water quality and balance for beneficial uses. And so this proposal before you has a robust scientific plan that's been developed by a range of scientists. It develops a scientific committee that continues to collect and interpret the information, and then recommend to what is a governance committee about how the assets that are being developed -- the flows, the habitat -- are actively managed. It's worth noting that while there are those groups that oppose this approach, we maintain an invitation for really those groups and anyone that brings scientific expertise to the table to join us in this scientific committee, as well as a governance committee	Please see Staff Report Chapter 13, Revised Proposed Plan Amendments, and Common Response 1.3, Revised Proposed Plan Amendments, for information on the science and monitoring provisions.

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		around how we adaptively manage the assets that we have. So scientific monitoring and then adaptive management. From my view, having worked on this a better part of two decades, California Water, we get locked into management that gets changed on a decadal scale, when we actually need to utilize changes to our management on an annual scale. So the proposal before you creates an adaptive management, a governance committee, that is taking that scientific monitoring that's provided real time but through an annual report, and then modifying the utilization of flows and habitat to better address how we can accelerate recovery of the fish and wildlife.	
469	5	This proposal was initially developed as a 15- year term and that got moved down to an eight-year term. One of the driving reasons of that is just the changes that we're experiencing from climate change are accelerating so quickly that eight years seems like a more reasonable time frame in which to pursue this alternative. Clearly, there is a backstop for the Water Board to act quickly if the Voluntary Agreements aren't working. And we've actually built in this proposal a so-called red, yellow, green stoplight approach, where if the proposal appears and the actions seem to be working: onward. Do they need to be modified? Yellow light. Or do we need a new approach? The red light. From our perspective, and I hope everybody agrees, time is not on our side to improving environmental conditions, nor to solidify water certainty for water users across California. So we, as the folks who put together the Voluntary Agreements, have submitted this, and admittedly it's taken a long time to develop. But at the same time, we're working to make these improvements now, what we call early implementation of the Voluntary Agreements. And that doesn't presuppose what you'll do on this proposal, but it does come from the reality that there are actions we need to take right now. So I can tell you there are a few dozen habitat projects in that list of VA priority projects that are either completed or on the verge of being completed that will have	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		environmental benefit, and there are dozens more that are being planned.	
469	6	The state government has identified over a billion dollars of improvements, habitat improvements, environmental flow purchases, that would be part of the Voluntary Agreements that will provide environmental benefit regardless of the Water Board's approach. And we're putting that money to work, including several hundred million dollars that our agency has out to purchase environmental flows. It's also worth noting that the water agencies that are part of this set of agreements have agreed to self-assess fees on their own water agencies to raise more than a billion dollars for environmental flow purchases and habitat restoration. In total, well over two billion dollars between state water agencies and the federal government is part of this proposal.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
469	7	So from our perspective, we believe we have a strong, adequate proposal before the Water Board, but also respect your regulatory authority and responsibility to assess this proposal given the best available science and the scientific basis report, ultimately to discharge your duty to update the Water Quality Plan. Chair, that's a thumbnail of how the Vas were developed, how I would explain what they achieve, and what we're hoping to accomplish if you do adopt this pathway of implementation. And I'd be glad to answer any questions you or your colleagues had.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
469	8	Board Member Firestone: You know, as you're able to pull together parties to put something before us for us to evaluate, but there's a lot of questions that are not fully fleshed out yet, and a lot of it is creating governance structure to be able to do adaptive management and to be able to develop habitat programs. And so I've heard from some of the folks that presented on the Vas that there's an interest in really making that inclusive and incorporating tribes and EJ and conservation groups more directly. And I know there's some work that we've learned as well, of just	This comment includes statements from a member of the State Water Board or State Water Board staff. Please refer to Common Response 1.1, General Comments, for the approach to responding to comments and for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		working through how to get to a place of trust and really productive work together. So I guess I'm just interested, is there something, given the leadership over at Natural Resources in particular, are there things that you all can or are already trying to do to help lead that sort of co- development around governance, around, you know, how -- of development and implementation of the VA proposal as it's developing from here? Secretary Crowfoot: Yes. Thank you so much for the question. It's a critically important question. And let me first say, you know, we are on a journey to do a much better job partnering with California Native American tribes to learn from and be led by California Native American tribes. You know, our agency, in short, has a responsibility to steward nature. And it's California tribal communities that have been stewarding nature for thousands of years, and we've disconnected ourselves from that leadership and that partnership. So I am proud of a lot of the progress that we're making. I'll observe that traditionally these discussions around flow typically involved a fairly limited, you know, silo of water users: those that are diverting flow, and the environmental and conservation groups that are representing the interests of the fish and wildlife and nature. There hasn't been the inclusion of environmental justice communities that are impacted by the water quality and environmental conditions of our rivers and the Delta, nor tribal communities, recognizing these are not only natural landscapes, these are cultural landscapes. So I think we're learning every month and every year about how we more proactively engage tribes, including more early, often, and meaningful government-to-government consultation.	
469	9	I think the genesis of these VAs, you know, almost seven years ago was stuck in that former paradigm of water users and environmental groups being the key stakeholders. And what we've recognized is there are a broader set of stakeholders, including environmental justice communities, tribes, but also	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		others. And so we are evolving our engagement, our decision making to recognize that.	
469	10	To your point about governance, we recognize that the Voluntary Agreements, if they become a pathway of implementation, need inclusive and transparent governance. That means that we have entities, leaders, groups from a diversity of perspectives figuring in on how we interpret the science to manage flow and habitat. That's the inclusivity. And then the transparency: it needs to be very clear that one, these assets, the flow and the habitat are materializing, but then two, that decisions that are being made are clearly understood among everybody that is interested in understanding them. So the Scientific Monitoring Committee, the Governance Committee, has been a work in progress, and we have sought interest and engagement from tribal communities, as well as environmental justice communities, other environmental conservation groups. So I want you to know that we are fully committed to that moving forward, both in the constructs of the Voluntary Agreements and more broadly, everything we do.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
469	11	Secretary Crowfoot: Yeah, and I just want to acknowledge that, you know, we collectively have to move faster to adapt to climate change on the natural resources side to protect communities. And so we recognize that it has been a long time in coming, both for the update of the plan and the Voluntary Agreements, which is why we're so focused on making improvements now, no-regrets improvements, recognizing we have to help fish and wildlife recover starting yesterday. I'll also mention something that I'm very excited about that I partnered with Chair Esquivel on, and that is cutting the green tape, helping beneficial environmental restoration projects happen more quickly. One unintended consequence of the many strong environmental standards California has is it can be very lengthy and very costly to get these, you know, sort of non-controversial environmental habitat projects in and operating. So that's another thing that we're working on is essentially cutting the red tape in green projects, hence cutting the green tape.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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469	12	Secretary Crowfoot: Yeah. Let me thank your Board, but maybe more importantly your staff, for moving on all things California water. I mean, it is a dizzying time as we try to become more resilient to drought and flood for nature and people. And so I know you all are moving so much forward at once. And so we appreciate all you do.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
469	13	Secretary Crowfoot: Yes. And I might just close, Chair, by saying, you know, this is tough work, the roles we find ourselves in, and you find yourself in, protecting beneficial uses for both nature and people. And it requires a level of balance that I think oftentimes leaders and groups across California don't necessarily acknowledge because of what we have to balance between, you know, all the many forms of life that depend on water. So thank you for your careful consideration. And it goes without saying, but we're available at any time to answer questions or provide more information.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
470	1	So I'm here today with three requests for the Water Board's Bay-Delta Planning process. First, the need for a more inclusive process with additional stakeholders at the negotiating table, along with the water agencies. Number two, that the Board should base its decision on the best available science, with the recognition that every watershed is different. And three, that for a plan to be effective, there needs to be measurable changes that are enforceable if not followed.	Please refer to Chapter 12, Public Participation, of the Staff Report and Common Response 1.1, General Comments, regarding public participation. Also see Common Response 3.1, Fish Protection, for information on the use of best available science, and Common Response 1.3, Revised Proposed Plan Amendments, for information on the monitoring, adaptive management, and annual and periodic review provisions.
470	2	Water agencies, as the managers of our water infrastructure, are of course necessary to ensure the health of the Delta. But for there to be buy-in, tribes, Delta communities, and environmental groups need to be part of discussions so that they can understand the modeling, the assumptions, and how the Board is weighing the competing demands on water as a limited resource, rather than just having the opportunity to respond to a lengthy written report. This is especially true for tribes whose traditional beneficial uses	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Additionally, see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to comments that raise concerns with Tribal beneficial uses.

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		must be fully considered, as well as the quantification and recognition of those water rights.	
470	3	The Board should use the best available science from the 2017 report to inform its decision. Leveraging that science and the current model, the Board should conduct further analysis to further develop or continue to develop those adaptive management plans. Each major tributary to the Sacramento River has its own distinct functions, features, and challenges. These differences demand watershed-specific considerations. Further analysis, including available storage capacity, operational flexibility, and carryover storage, will help create a suite of opportunities that are unique to the watersheds they target. This effort should then inform discussions on watershed-specific and water year type-specific allocation rules.	Please see Common Response 3.1, Fish Protection, on the use of best available science, the 2017 Scientific Basis Report, and the flow benefit analyses. In addition, the revised proposed Plan amendments include adaptive implementation measures that would allow for tributary-specific implementation. Please see Common Response 1.3, Revised Proposed Plan Amendments, for more information on the regulatory pathway implementation of the inflow objective and local cooperative solutions. In addition, please see Appendix A1c, Preliminary Assessment of Effect of Reservoir Storage on Reservoir Release Temperatures, regarding carryover storage targets.
470	4	And finally, ensuring that this process has a long-term impact on restoring Delta health is clearly paramount. Therefore, there need to be clear, quantifiable metrics for the additional water necessary to restore Delta health. This could include clearly defined changes in carryover storage and/or specific discharge thresholds at specific gauges. Further, the additional water must make it not only to the Delta, but through the Delta and all the way out to the ocean to ensure that this additional water is actually fulfilling the environmental need. Finally, to ensure that these flows are delivered, there must be enforceable consequences for failure to comply with the Voluntary Agreements this process is hoping to achieve.	Please see Staff Report Chapter 13, Revised Proposed Plan Amendments, and Common Response 1.3, Revised Proposed Plan Amendments, for information on the VA pathway, including monitoring and enforceability.
471	1	This evening, I'm participating to encourage your adoption of the Healthy Rivers and Landscapes proposal as the best alternative for meeting the technical and legal objectives of the Delta Plan update. As an organization born out of collaboration and partnership, the Southern California Water Coalition appreciates the truly unprecedented nature of the transformative change that is being	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		embraced through the Healthy Rivers and Landscapes proposal. For many decades, the regulatory process has focused on water flow to, quote, solve a wide variety or array of conflicts and problems in the Delta, but with no real success or continued inability to resolve those challenges as we've heard throughout the day. The Healthy Rivers and Landscapes proposal emphasizes transformative change by embracing new science and rethinking old assumptions. The transformative change will not occur if we continue on the same flow-only path.	
471	2	The unimpaired flow alternatives that remain at the core of the draft Staff Report for the Delta plan update would have significant negative impacts throughout California because it, one, focuses on in-stream flow for fish without balancing and protecting all beneficial uses of water; two, will deplete reservoir storage and end up creating greater risk for all beneficial uses during dry years; and three, results in less surface water recharging groundwater basins to help California comply with SGMA without significant economic impacts. California's recent dry years have shown how quickly we need to move and how much we can get done with a mutual, committed, additional flows, accelerated habitat restoration, and learning together what works best so we can do more of it into the future. Southern California's water resilience future depends on a statewide economy, and balances sensitivities associated with water affordability, requires a different approach, and a trajectory that is exemplified through the innovative Healthy Rivers and Landscapes agreements. In closing, the Healthy Rivers and Landscapes proposal we see as the best alternative and should be adopted by the State Water Board to fulfill the Board's obligation to reasonably balance the mutual factors and considerations when updating the Delta Plan.	Please see Common Response 1.2, Water Quality Control Planning Process, on the consideration of beneficial uses. The impacts of the proposed Plan amendments were analyzed in Chapter 7, Environmental Analysis, of the 2023 draft Staff Report.
472	1	I am descended from people who have lived here for hundreds, if not thousands of years. I hear them ask, are the fish well? Beneficial uses. Fish. Beneficial? Their world is at stake. How is it possible that our so-called advanced civilization creates one natural disaster after another? Multiple competing tribes	Please refer to Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		lived in these same locations for 10,000 years, or five, or say just 3,000 years even. They lived within the carrying capacity of the land by limiting population growth through cultural tradition. Ohlone did not devastate their environment. They took care of it. Patwin respected it. They didn't put garbage in the waterways. Miwok recognized how precious clean water is. Yurok recognized that humans are not the only beings on this planet. By their behavior, we know they respected their surroundings, animate and inanimate. They did not lay waste to everything they touched.	
472	2	I know we're supposed to testify because you're supposed to listen, but if the VAs worked, we wouldn't have to testify here today. I'm old enough to know about the Brown machine, and I can see decades later that the Brown machine is still very healthy and alive. In Richmond, where I live, I'm watching a local developer fill and irrigate a seasonal wetland while I used 12 gallons per diem during the drought. If Newsom wanted water for wildlife, it would be done already.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
473	1	And the science is really clear that what's caused the destruction of anadromous fish and the entire ecosystem of the Delta and Bay Area -- the degradation, I should say, not complete destruction -- has been the 50 percent of unimpaired flow that we've been averaging for a while. So, you know, the Voluntary Agreements, first of all, they haven't worked in the past. We've been trying them and the way that they're set up, they're sort of rigged from the start. They definitely benefit, you know, big ag, big corporate ag, and water agencies, and that's why there's not a single environmental group or a single native tribe that supports them. They've all seen how they don't work and they're not likely -- this version of it, it's not likely to work at all either. They start out with a terrible power imbalance and unfairness that's skewed, you know, towards those cash interests versus wildlife and environment and ecosystem interests.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
473	2	And so to get back to the flows, the way that it would be set up is, if we started out at 55 percent of unimpaired flows, like it talks	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not

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		about in the plan, then it could even be reduced to 45 percent. But as I said, 50 percent hasn't been working, and that's what's led to where we're at the brink of extinction for all of these anadromous fish and for the ecosystem. So, I highly recommend to follow what the science has said. The early reports were that we really need 75 percent of unimpaired flow, and I know it's going to hurt and take some sacrifice, but we might as well do it now and save the ecosystem, than let the ecosystem degrade even further to where it's even more expensive or possibly impossible to try to restore it, because the cost just goes up and up once you get a certain point of environmental degradation. And it's just the overwhelming majority and proof and science is behind restoration and doing the right thing for the environment. And then everybody else will learn to live within their means. Ag will learn to live with the water they have and conserve water. And maybe we won't export so much stuff, but we'll have plenty of food for us.	raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
473	3	So, I just thank you so much for your time. And I don't know how this project is likely to -- this process, I mean, of public comment is likely to play out. I fear that maybe you're -- or I've seen these processes in the past not work. I've also seen them occasionally work. So as so many other people have said, we're hoping and praying that you folks really, really take your job seriously. I know it's painful to listen to so many comments, but they've been so fantastic and no one has repeated each other.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
474	1	ACWA is asking the Board to identify the Agreements to Support Healthy Rivers and Landscapes as originally proposed to be the preferred pathway for updating the Bay-Delta Plan in the final Staff Report in the forthcoming program of implementation. The Agreements to Support Healthy Rivers and Landscapes are consistent with state water policy and advance the objectives of the California Water Action Plan. They also protect all beneficial uses of water by integrating functional flows and non-flow measures that would protect spawning and rearing habitat, protect reservoir storage and cold-water pools, and preserve the	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		ability to implement groundwater and surface water conjunctive use. These flow measures ensure that water users of all types can better predict water availability and plan accordingly.	
474	2	The agreements also include a comprehensive list of habitat enhancement projects. Some of these have already been implemented with assistance from Prop 68 in partnership with the Newsom administration. They have an established and stable funding sources for implementation, a structured science program that will include careful review of data and form the basis for adaptive management, and a robust governance structure that would oversee the implementation of the agreements while facilitating collaboration and effective decision making. I think it was at the end of the second public hearing, I remember a lot of the Board members highlighted the need for a collaborative approach, and I think the agreements do just that. They provide partnering opportunities with diverse parties that include state and federal agencies, tribes, public water agencies, and conservation groups.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
474	3	Finally, the agreements support the co-equal goals of the Delta, providing a more reliable water supply for California, and protecting, restoring, and enhancing the Delta ecosystem. For these reasons, ACWA supports the Agreements to Support Healthy Rivers and Landscapes as a path forward for Phase 2 of the Bay-Delta Plan update. Again, I'd like to thank Board staff for all their hard work on this incredibly complex issue and recognize Governor Newsom's leadership in advancing the agreements.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
475	1	I just want to say that a few years back, I fell in love with sturgeon when I became aware that they used to be 20 feet long and weigh thousands of pounds and that they are these incredibly ancient beings. And I did a project, an art project about them, which increased my absolute fascination with them and concern that they too are really vulnerable to water temperature and to adequate flows for their fry to be able to survive. And so I don't know I have anything new to say.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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475	2	There's been an incredible lot of beautiful speech and eloquence shared here today. And so many reasons why we need to have 55, 65, 75 percent of unimpaired flow going through our rivers. Rivers are living beings, and we don't have a right to reduce them to nothing. I mean, this is -- they're an essential part of the ecosystem and rivers have a right to flow. Not to mention the fact that the fish have a right to go upstream and the forest depends on all those nutrients coming in the fish bodies from the ocean as fertilizer to keep the forest healthy. So I just feel like we really have to focus now on how do we regenerate? How do we restore? How do we bring back the health of our forests, the health of our rivers, the health of our fisheries? And yes, of course, human beings want it all. Of course we do. We put ourselves first above everything else. Of course our farmers want it all, but everything is based on a healthy ecosystem. And so that's just my appeal to you, is to really, as people have said, feel into it with your hearts. We understand that you're going to have getting a lot of pressure from above. That can't be comfortable, but then that calls for courage to do what is really, really, really best for the future of California, and for the future of human beings who are going to be in California.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
475	3	So anyway. Please, please do not be swayed by these Voluntary Agreements. The argument that, you know, the unimpaired flows are just one thing, and there's all these other benefits that the Voluntary Agreements are going to provide -- you know, yes, we should be doing floodplain, creating floodplains, opening up areas to floodplains. But in order for floodplains to fill, they need to have enough flow in the rivers. So it was great to hear about floodplains. I'm excited about that. And yes. Please vote for unimpaired flow.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
476	1	Blue Diamond supports the Agreements to Support Healthy Rivers and Landscapes, also known as Voluntary Agreements. California's water landscape has long been a subject of intense debate and careful consideration. We believe the Voluntary Agreements alternative emerges as a more promising option for	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		achieving a balanced and sustainable water management strategy. First, these agreements prioritize collaboration over regulation. Unlike the rigid mandates in the staff proposal, these agreements encourage stakeholders to work together to find solutions that accommodate both environmental needs and the requirements of the agricultural sector. They promote a more inclusive and cooperative approach to water management.	
476	2	Second, these agreements promote innovation and investment in water infrastructure. Participants, including farmers and environmental advocates, are more likely to invest in modern and efficient water technologies when they are actively engaged in the decision-making process. This encourages the implementation of cutting-edge solutions that enhance water use efficiency and minimize environmental impact.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
476	3	Third, this path allows for adaptive management. California's water needs are dynamic and are influenced by various factors such as climate uncertainties and population growth. The state's weather patterns are likely to be even more unpredictable, and we must adjust for potentially wetter wet years and hotter dry years. The Voluntary Agreements help us get there much sooner. These agreements are designed to adjust strategies in response to evolving conditions, and adaptability is crucial for long-term resilience.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
476	4	Lastly, the Voluntary Agreements recognize the importance of local expertise. Communities and industries across California have unique insights into their water needs and challenges. By allowing local individuals and organizations to be active participants in crafting solutions, these agreements leverage this valuable knowledge to develop strategies that are tailored to specific regions. The Voluntary Agreements present a more promising and holistic option. Through collaboration, adaptability, innovation, and local engagement, this path respects the diverse needs of California's communities and ecosystems. We support the VA's collective approach to sustainable water management, ensuring a thriving future for the Golden State. We	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		appreciate the work that you've all done and we thank you for your time to make comments today.	
477	1	I support implementing a high-flow alternative and accepting the VA non-flow restoration offerings. The citizens of California affirmed with CEQA over half a century ago at Public Resources Code § 21,000(f) "the interrelationship of policies and practices in the management of natural resources and waste disposal requires systematic and concerted efforts by public and private interests to enhance environmental quality and to control environmental pollution." Enhance and control are key words. A paper published in the International Journal of Environmental Research and Public Health states, resource and environmental carrying capacity is "the maximum amount of resources that nature can provide for human activities and sustaining social development without causing irreversible damage to the ecosystem ... the carrying capacity of resources and environment face the risk of overload, and once the carrying capacity of resources and environment is overloaded, the resource-environment-society system will collapse." End quote. 5 years ago, The State of Bay-Delta Science Report stated "the capacity of the Sacramento-San Joaquin water system to deliver human, economic, and environmental services is likely at its limit. To fulfill more of one water-using service, we must accept less of another." We have a Code 3 lights-and-sirens ecological emergency in front of us. Emergency responders take the highest impact action first. It is often costly and inconvenient but must be done so the emergency yields to responder control. Once control is established, incremental actions become useful, but not before. The out-of-control collapse of the wild salmonid fishery is significantly driven by the exclusion of about 90 percent of its habitat behind dams. While every effort should be made to increase habitat, the habitat lost cannot actually be mitigated. Science shows that increased flow is the single highest impact forcing factor on the fecundity of the species, and, most importantly, flow is the only significant forcing factor that you	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project and Common Response 7.24, Alternatives Analysis, for a response to comments on the flow and VA alternatives.

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		can control quickly. Courageous emergency response is required now. Implement a high flow alternative and the VA non-flow enhancements. Implement the TBUs. After that we can deliberate about incremental actions in fine-tuning.	
477	2	I also support adoption of Tribal Beneficial Uses.	Please see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to comments related to Tribal Beneficial Uses.
478	1	So I wanted to talk about unimpaired flows. We've heard through the last three days of these hearings that they're supposed to more closely match natural hydrographic conditions. The problem is we don't have a natural system anymore. We haven't had a natural system for probably 150 years. We have a highly modified engineered river system with levees, riprap, invasive species, and it's been disconnected from the river. We have disconnected the river from the floodplains. We've actively created this current system, so we need to actively recreate an ecosystem with habitat, yes, flow, food, and floodplains.	Please see Staff Report Section 2.1.1, Natural and Unimpaired Flow, on the distinction between natural and unimpaired flows and the use of unimpaired flows for the proposed Plan amendments.
478	2	But the flow-only approach has really been tried for the past 15 years. We need a different approach to obtain a different result. We can't just release more cold, sterile, unproductive water down the river. Today's CVP SWP panel showed that releasing more water at the wrong time just won't work. It will definitely impact the cold water, the critical cold water pool behind Shasta Dam, because any water temperature in the river, in the Sacramento River, is directly dependent on that supply of cold water. So if at the end of May, storage behind Shasta Dam is reduced, then summer and fall water temperatures in the river are going to be higher and egg incubation will be negatively affected.	The impacts on water temperatures were analyzed in the impact analysis in Section 7.6.2, Aquatic Biological Resources, of the 2023 draft Staff Report. Please see Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations, Chapter 4, Other Aquatic Ecosystem Stressors, and Chapter 13, Revised Proposed Plan Amendments, of the Staff Report and Common Response 3.1, Fish Protection, for information on the benefits of the regulatory pathway implementation measures.
478	3	The unimpaired flows below Keswick Dam, shown on page 2-19, show more releases in the winter months when we should be storing water behind Shasta Dam, and then the releases drop off during the summer and the fall. How will that help water quality and HABs in the Delta? It just won't. So the Healthy Rivers and Landscapes, this flow and habitat, it	The 2023 draft Staff Report Section 7.12.1.3, Impact Analysis, presents an impact analysis which focuses on the water quality processes that are expected to occur as a result of changes in hydrology and changes in water supply due to implementation of the flow scenarios. Changes in hydrology are evaluated for water quality impacts, including concentration of contaminants, mobilization and methylation of mercury, water temperature, and HABs. Water quality in the Delta is assessed quantitatively

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		avoids adverse effects. We've really gone through them. I'll just skip ahead.	with results from the Delta Simulation Model II. Please note that the figures in Chapter 2, Hydrology and Water Supply, Section 2.2, Hydrology of the Sacramento River and Major Tributaries, compare current conditions to full unimpaired flow. The flow scenarios consider 45 to 65 percent of unimpaired flow and the modeled flows are presented in Chapter 6, Changes in Hydrology and Water Supply. Please see Common Response 4.1, Harmful Algal Blooms, for a response to comments on instream flow and cyanobacterial harmful algal blooms.
478	4	I do want to mention the hydroelectric generation. That's going to be a huge impact. Once again, if we don't have water behind the dam, what are we going to do in summer or fall when the state's electric grid is most susceptible to burnouts?	Changes in reservoir storage are described in Chapter 6, Changes in Hydrology and Water Supply, and Chapter 13, Revised Proposed Plan Amendments, of the Staff Report. Changes in storage during late summer and early fall, when demand for electricity is high, are not expected to be large, partly due to the cold water habitat objective, which includes protection of cold water releases from reservoirs. The hydropower analysis in Section 7.8, Energy, includes an evaluation of the effect of changes in storage on hydropower generation at the four largest reservoirs likely to be affected by changes in hydrology – Shasta, Oroville, New Bullards Bar, and Folsom. Section 7.8 includes a discussion of California grid reliability including under extreme circumstances that could cause California's electric grid to become unreliable due to inadequate electric supply, leading to the need for rotating power outages. Under the proposed Plan amendments (45 to 65 scenarios), incremental effects due to changes in hydrology on power outages would be rare and would represent a relatively small effect on the state. See also Common Response 7.8, Energy and Hydropower, regarding the evaluation of local effects, the continued ability of hydropower facilities to provide emergency power, and reliability of the California electrical grid.
478	5	So finally, for the city of Redding, we're a disadvantaged community. Water affordability is critical to us. So please know that any reduction in water supply will increase costs for the utility and therefore increase costs for our rate payers.	Municipal water supply economic effects were adequately disclosed in Section 8.5, Municipal Water Supply Economic Effects. Chapter 8, Economic Analysis and Other Considerations, and Chapter 10, Economically Disadvantaged Communities, also describe various financial and technical assistance programs available to assist public water systems serving economically

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			disadvantaged communities. The State Water Board is at the forefront of assisting DACs with obtaining clean, safe, and reliable water supplies. In addition, the project has been revised. Please see Staff Report Chapter 13 and Common Response 1.3, Revised Proposed Plan Amendments, for a description of the revised proposed Plan amendments. As discussed in Chapter 13 and Common Response 1.3, Revised Proposed Plan Amendments, the regulatory under the revised proposed Plan amendments includes new water supply adjustments that reduce water supply impacts and allow more water to be stored in reservoirs at the outset of Plan implementation. Please see Common Response 8.1, Economic Analysis and Other Considerations, for further discussion on municipal water rates and a discussion of potential funding sources for municipal water conservation and alternative water supplies.
479	1	Indigenous people need to be significantly engaged in the process of managing California's rivers. This is just simple justice. Our legal system recognizes the special rights of the first users of water, but that has been understood as rights for the first colonial settlers of river lands. For too long a time, the true first users have been effectively ignored. Also, and more importantly, Indigenous people have centuries of experience living on these rivers with the other species who live in and among them. I was very moved at a hearing of this Board a few months ago when a speaker from the Winnemem Wintu tribe spoke of his people's relationship with salmon, whom his people called Nur. It is a much more intimate relationship than most of us in the dominant culture have with non-humans here -- non-human beings here, though we might find such relationships in the places of our own indigenous beginnings. For instance, there are wonderful salmon stories among the ancient Irish, my own indigenous ancestors. In the few years that I've been following the activities of the State Water Board, there has been what appears to me to be a slow but	The State Water Board has conducted extensive public and tribal related outreach and appreciates the significant input from tribes and environmental justice communities related to the Sacramento/Delta Update to the Bay-Delta Plan. Please see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to comments related to tribal outreach and engagement. Also see Staff Report Chapter 11, Tribal Engagement, Traditional Ecological Knowledge and Tribal Beneficial Uses, and Staff Report Chapter 13, Revised Proposed Plan Amendments, for additional information on the State Water Board's efforts to engage more robustly with California Native American Tribes and integrate Traditional Ecological Knowledge/tribal knowledge into the State Water Board's Bay-Delta Plan update and implementation processes.

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		steady increase in recognition of the rights of indigenous people and in their involvement in water planning and management. I encourage you to keep that up and increase the pace.	
480	1	I have been an avid environmentalist since getting involved with the Sierra Clubs back in the 1980s, and I have adopted many of their perspectives and goals. To me, it makes sense to protect our natural environment for all of us since we share one planet. Another thing I learned from them is that the world is all interconnected. All the water in the world is endlessly recycled. We need to manage it accordingly. I'm also a supporter of the Tuolumne River Trust for many years for the same reasons.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
480	2	I have followed water issues in California for decades, and I care about how we manage state water since long before the Bay-Delta Plan. And all prior plans have failed miserably, which has us in the ecological crisis we face today. This is the first time I'm testifying before the State Water Board because we're running out of time to save the ecosystem of the Bay-Delta. I think this ecosystem is in crisis. For example, some populations are in such bad shape that commercial fishery season has been canceled this year and likely will be again next year. Six different species of fish are listed as endangered or threatened. The Bay-Delta Plan needs to protect all of them. Voluntary Agreements are likely to fail these species, in my opinion. The State Water Board is charged with restoring the Bay-Delta ecosystem, so decisions should be based on legitimate science, not wishful thinking. I think the Voluntary Agreements are more wishful thinking than an enforceable plan that will likely help the Delta.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
480	3	Non-flow measures such as habitat restoration and invasive predator management are helpful but cannot substitute for higher flows. The Delta needs both. Non-flow measures have little impact on critical issues such as water temperature, floodplain inundation necessary for baby fish and -- So I think the Bay-Delta needs both predator management and higher flows. Non-flow measures have little impact on critical issues such as water temperature, floodplain inundation, and harmful algae blooms and water quality.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. See also Common Response 1.2, Water Quality Control Planning Process, for information on public trust.

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		I think the Voluntary Agreements are just a giveaway of a public trust and public funding to water agencies.	
480	4	I like to whitewater raft. I like to kayak. Both are enjoyable ways to spend time on the water for many Californians. I think it's the Board's responsibility to protect the Bay- Delta for all beneficial uses related to our rivers and the Bay-Delta. I've gone salmon fishing and enjoy it. The plan fails to protect beneficial uses related to fisheries, including commercial, subsistence, tribal, and recreation. The plan should ensure both commercial and recreational uses are well protected. Please adopt the staff unimpaired flow alternative, not the Healthy Rivers alternative.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project and Common Response 1.2, Water Quality Control Planning Process, for information on the consideration of beneficial uses.
481	1	I'm sure you've already (indiscernible) so I won't make you listen to those again. But what I will tell you is that we need water and we need choices. I ask that you trust us to come up with effective solutions. Unimpaired water flows aren't a one-size-fits-all answer. We've shown our commitment to protect this valuable resource by personally setting aside 500 acres to focus on groundwater recharge. Anyway, my husband and I have shown our commitment to protecting this valuable resource by personally setting aside 500 acres to focus on groundwater recharge studies with the Water District, as well as habitat enhancements. They can both be done. Groundwater recharge will help mitigate habitat loss, subsidence, low water quality and economic dislocation due to loss of farming, but we need water to make this work. The lack of water hurts way too many people in our community. It hurts the farmers, and it really hurts Latinos who are already marginalized and are least capable of fighting back and (indiscernible).	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		Allow us this basic (indiscernible) of our water allotments to (indiscernible) those that are not being (indiscernible).	
482	1	I can safely say I know a healthy river when I see one, and sadly, a degraded one when that's the case. I can safely say I know a healthy river when I see one, and sadly, a degraded one when that's the case. We, as citizens of the state, have a sorry history of making poor use of our water. For example, the absurd practice of hydraulic mining was allowed to wash away mountainsides for 20 years before a federal judge ended the practice in 1874. Today, our water problems are much more complicated, and so are the solutions. But there is no doubt the call words for this decade are water reform. My concerns are more political than scientific. I worry that the big ag businesses will use the Vas to give back as little as possible over the longest period of time possible. Industrial ag has a long history of flexing its political muscle. Water reform will not be easy. Salmon counts are down. Algae blooms are up. The saltwater intrusion is ever present. Yet some reforms have begun. For example, the passage of SB 389 and statewide groundwater monitoring. But much more is needed. Better data collecting methods have to be built into the system, and water pirates have to be stopped.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
482	2	The big question remains: is there the political will to make overdue corrections? Uncommon political fortitude will be needed. We have the wherewithal to balance environmental needs with sustainable agricultural economy, but do we and political leaders have the courage to make those changes? I feel you have an obligation to report to the administration officials that your discovery in these hearings is a groundswell of objections to outdated water usage. The general public is upset with decades of over-allocation and abuse of their rivers. They know healthy rivers mean healthy communities. California has a magnificent network of rivers that feed into the Sacramento and San Joaquin and ultimately into the Delta. Respect must be given.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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483	1	I'm a long-time, definitely a senior resident of Pacific Grove in Monterey County, with an equally long history of the over-pumping and decimation of the Carmel River by privately owned California American Water Company and the loss of our wild salmon and steelhead. It took definitive action from the State Water Resources Control Board to stop this downward trajectory. As you consider this update to the Bay-Delta Plan, please keep in mind that Voluntary Agreements create wide open doors that invite and allow greedy players to walk right through. With no enforceable defined consequences, these are simply political --	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
483	2	Where is the meaningful inclusionary early discussion with tribal participation, and inclusion of Tribal Beneficial Uses in the Voluntary Agreements? Water agencies and irrigation districts do not have the best history of impartiality or accuracy in assessing what flow is needed to restore our fish populations, or keep saltwater intrusion out of our drinking water, along with harmful algal blooms. This Water Board's vote on the Bay-Delta Plan will define how history is written for California. Will natural resources, habitat, tribal rights finally benefit? Or is it more of the same preferred benefits to special interests, political, and commercial entities?	Please see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to comments related to tribal outreach and engagement, and responses to tribal comments on the VAs.
483	3	Please do not substitute Voluntary Agreements for truly beneficial updating of the Bay-Delta Plan. 75 percent flow is necessary. Groundwater recharge is actively happening in Monterey County and should be happening everywhere. And the Voluntary Agreements seem to be a large part of the red tape that's slowing down the process of updating the plan. And I'm not very trusting of the transparency on their formation. Yes, count me one of the skeptics, but I trust that all this listening will help inform your opinions.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
484	1	I will address four deeply held concerns for our clients.	At the time the 2023 draft Staff Report was released for public comment, an explicit public trust analysis was not included, as

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		First, the State Water Board has an affirmative duty to take the public trust into account in the planning and allocation of water resources and to protect public trust uses whenever feasible. As drafted, the Staff Report falls well short of meeting these obligations. For one thing, the report wholly omits any public trust analysis despite a 2020 settlement agreement and release of claims with California Sports Fishing Protection Alliance, and expressly requiring inclusion of this analysis in the Phase 2 Bay-Delta Plan update. And the report fails to engage with its own findings in the 2010 Delta Flow Criteria Report showing that flows well above 55 percent are necessary to ensure survival of native fisheries. As a consequence, neither of the proposed plan amendments, and certainly not the Voluntary Agreements, which would provide a marginal increase in flows at best, come anywhere close to protecting public trust resources.	the rulemaking process for the Sacramento/Delta update to the Bay-Delta Plan was still at a preliminary stage with numerous options being evaluated for potential inclusion in the plan update. Now that the State Water Board has identified a precise set of revised proposed Plan amendments as the proposed project, as part of the process to revise the 2023 draft Staff Report in response to input from the public, the State Water Board has added a section summarizing the State Water Board's public trust evaluation for the proposed amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Watershed. Please refer to final Staff Report Section 13.6.1, Public Trust Analysis, for the State Water Board's public trust analysis of the revised proposed Plan amendments. Please also see Common Response 1.2, Water Quality Control Planning Process, regarding the State Water Board's consideration of public trust resources when formulating or amending water quality control plans. The Delta Flow Criteria Report identified specific non-regulatory flow criteria in a scenario where fishery protection was the sole purpose for which waters were put to beneficial use. Thus, when the Delta Flow Criteria Report identified a Delta outflow criterion of 75 percent unimpaired Delta outflow from January through June as protective of public trust resources, the analysis was conducted without considering either the need for cold water reserves to aid in temperature management or the need to preserve supplies for other beneficial uses of water. For further discussion of the Delta Flow Criteria Report, please refer to Section 1.2.4, The Delta Reform Act and Delta Flow Criteria Report, of Staff Report Appendix B, Scientific Basis Report in Support of New and Modified Requirements for Inflows from the Sacramento River and its Tributaries and Eastside Tributaries to the Delta, Delta Outflows, Cold Water Habitat, and Interior Delta Flows. See also Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, regarding tribal concerns about the VAs process.

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484	2	Second, the report's tribal engagement chapter, while an important start, highlights how minimal the Board's engagement with tribal communities has been relative to the outsized impact its decisions will have on tribes. The handful of tribal meetings and listening sessions the Board conducted following our client's petition for rulemaking are a far cry from the meaningful government-to-government consultation required under both CEQA and the Board's own policies. By creating the Staff Report unilaterally, without tribal consultation, the Board has also made mistakes, and it has failed to capture the richness and depth of historical and present tribal relationships with Bay-Delta waterways.	The State Water Board has conducted extensive public and tribal related outreach and appreciates the significant input from tribes and environmental justice communities related to the Sacramento/Delta Update to the Bay-Delta Plan. Please see final Staff Report Section 11.3, Tribal Outreach and Engagement, for a description of State and State Water Board Policies on tribal outreach and engagement, the tribal outreach and engagement related to the Sacramento/Delta update to the Bay-Delta Plan, and additional efforts by State Water Board staff related to tribal outreach and engagement. Please see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to comments related to tribal outreach and engagement. Please see Staff Report Chapter 11, Tribal Engagement, Traditional Ecological Knowledge and Tribal Beneficial Uses, and Chapter 13, Revised Proposed Plan Amendments, for additional information on the State Water Board's efforts to engage more robustly with California Native American Tribes and integrate tribal and Traditional Ecological Knowledge into the State Water Board's Bay-Delta Plan update and implementation processes.
484	3	Third, while we appreciate that the Board is for the first time considering incorporating TBUs into the Bay- Delta Plan, consideration is not enough. Rather than hold fast to the commitments the Board made to tribes during the TBU hearing last summer, staff fall back on the refrain that TBU designation should occur on a place-by-place basis by regional boards. But as our clients have repeatedly explained, regional board designations are not happening in practice. And even if they were, they would be no substitute for the Watershed wide designation that only the Board can affect for the Bay-Delta through the Bay-Delta Plan. Watershed wide TBU's designation is consistent with tribal understandings of the Bay-Delta as one interconnected system, and a necessary step for the state to make real its commitments to centering tribal voices, and repairing the harm it has done to tribes in suppressing access to water rights. TBU designation through the Bay- Delta Plan is as simple as it is profound. We call	Please see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to comments related to Tribal Beneficial Uses. As discussed in Chapter 13, Revised Proposed Plan Amendments, the revised proposed Plan amendments incorporate Tribal Beneficial Uses (TBUs), would designate Tribal Tradition and Culture (CUL) beneficial use, and include provisions for tribal outreach and engagement and incorporation of tribal feedback and Traditional Ecological Knowledge (TEK) into the Bay-Delta Plan update and implementation processes. Please see Staff Report Chapter 13, Revised Proposed Plan Amendments, for additional information on incorporation and designation of Tribal Beneficial Uses.

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		on the Board to stop vacillating and make good on its promises to tribes.	
484	4	Fourth, while the Staff Report emphasizes the importance of TEK to inform the reasonable protection of TBUs, it provides no guidance for requesting, documenting, and incorporating Indigenous knowledge into governance of Bay-Delta water quality. Without guidelines in place, the Board runs the risk of extracting knowledge from tribes without ensuring that TEK is considered and applied in a manner that is respectful of tribal sovereignty and beneficial for tribal communities. The Board should co-create a policy for incorporation of TEK together with tribes to protect TBUs and inform decision-making across the Bay-Delta. California Native tribes have deep expertise critical for successful watershed management in the Bay- Delta. The Board should listen to and apply the knowledge offered by Native peoples by meaningfully consulting tribes and centering tribal perspectives and decision-making.	The revised proposed Plan amendments describes commitments related to tribal engagement actions and states that the State Water Board will consider and incorporate Traditional Ecological Knowledge (TEK), tribal feedback, and perspectives shared by California Native American Tribes to inform the State Water Board's efforts to update and implement the Bay-Delta Plan. TEK will be considered in a full and complementary way alongside non-Indigenous scientific approaches. As the State Water Board develops specific policies and guidelines regarding incorporation of TEK, those policies and guidelines will be adhered to. In addition, the State Water Board's consideration and incorporation of TEK and tribal feedback and perspectives will follow CARE principles. To ensure adherence to the CARE principles, the State Water Board will request tribal review by the Bay-Delta Tribal Advisory Group of any Bay-Delta Plan related documents incorporating TEK and will revise documentation of TEK based on that feedback, as appropriate. Please see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for more information on tribal outreach and engagement and, Traditional Ecological Knowledge/tribal knowledge. Please see Staff Report Chapter 13, Revised Proposed Plan Amendments, for additional information on the State Water Board's efforts to engage more robustly with California Native American Tribes and integrate Traditional Ecological Knowledge/tribal knowledge into the State Water Board's Bay-Delta Plan update and implementation processes.
485	1	I fell in love with the Stanislaus River back in the late 60s. My first encounter with your Water Board was in the early 70s before we had founded Friends of the River. And I was amazed to watch agency people buck the trend and really keep track of public trust. So, I'm very grateful that all of you have chosen to step up to hold California's sacred waters in long-term trust, not just the short-term we inherited. I will say that I, from that love affair with the river, I learned, not	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		verbally, but I learned embodiment- wise what Native people have been trying to tell us since they were conquered about learning to live with this sacred land and live in balance with it. I also had years of practice learning about the absurdity of, again, the old, outdated economics of the dam-building mentality.	
485	2	And so with that background, I think that, you know, challenge to me is that California's economy was based ever since the gold rush has been based on, I found it, I can take it, I can make money. And we are still paying billions of dollars for what the miners did including my ancestors, taken long, long ago. We all love farmers, because none of us don't vote for them every single day, unless we're fasting a day. And sadly to me agro-biz corporations based on Wall Street values copied the miners, and it's take, take, take. And we're at a time when we get to turn economics around. Would we need Voluntary Agreements if all of the water agencies -- for the last 50 years, since I have been more than 50 years been involved with water issues, the fisheries have declined every year. And so it appears that taking more does not produce more. And if you had Voluntary Agreements, like, if agro-biz companies were motivated by serving life, not by serving profits, the fisheries would not have been declining. But we inherited a mindset where we we're not caring, we don't have the farmers that take care of the seventh generation and take care of their soil, but we have farming that -- how quickly can we get as much money as we can, and water is the fastest way to be converted into money, treating it as a commodity rather than serving the long term. Huey Johnson, again, nearly 50 years ago, as Jerry Brown's resource secretary said, money does not grow on trees. Money comes from healthy soil, healthy water, healthy fisheries, healthy forests, et cetera, et cetera. And clearly, we have overcommitted the amount of water in California. And yes, it's been very profitable. And yet it's a small part of California's economy. And it's coming from a practice of agriculture that is stealing from the future. And --	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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485	3	I guess the last thought I'd say is that very few people have wanted to follow Truman's advice of the buck stops here. And, you know, Water Boards before you have, you know, it's the momentum of following economics has been very, very challenging. And so again, I invite all of you to step into your wisdom, your heart's knowing, and your intellectual knowledge. And again, look at what flows are doing and help stop the buck being passed so that future generations don't have to keep paying. I'm wishing you all the best with these challenging decisions and the momentum of the old norm and re-steering our direction towards one that serves life in the future. And future generations will be so proud of the turning that your courage has the ability to get California to do.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
486	1	We opened the meeting today about water temperature for our salmon. So I just want to open up if we've developed any new research, a new temperature control device, on Shasta Lake and other reservoirs. It's called solar shield technology. It will increase the cold water pool flows that we deliver to the rivers. You can answer that question a little bit later and get back to us on that. I haven't heard anything about it.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
486	2	Also, I agree with the 75 percent outflow for the fish in Delta water quality. It's also not a one-size- fits-all flow for all rivers. It should be based on fish populations and fish needs.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
486	3	And the other one was we talked about raw sewage being dumped into the bay and creating the algae blooms. So we're requiring the sewage treatment plants to update and expand treating volumes with no raw sewage releases and also address the funding issue for that.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
486	4	Another is lobby FERC to get DWR to comply with the new licensing agreement and to operate as required of that, which we've been asking for that for many, many years. Very important.	Please see Common Response 1.2, Water Quality Control Planning Process, for a discussion of how the State Water Board's efforts to update and implement the Bay-Delta Plan interacts with other regulatory schema, such as FERC requirements.
486	5	Also, I say no to Voluntary Agreements. I think that wording is just -- it's so misleading. It leaves too much up for discretion and other things. It's too mysterious. I think the wording should be there must be requirements, not Voluntary Agreements, these requirements that must be enforced with repercussions. Those	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Also see Common

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		Voluntary Agreements, it's so vague, and it leads society to believe that it's a one, you know, it's a one-way deal, which it's more or less leading me to believe that, you know, it's mainly benefiting the corporate ag, which doesn't sound very good.	Response 1.3, Revised Proposed Plan Amendments, for information on the VA pathway, including enforceability.
486	6	Also, this is super important, that we talked about before, is The Endangered Species Act, we've taken that into consideration of decisions that we're making because we have a new listing coming down the road, the white sturgeon, which depends on freshwater and things. So that's going to curtail water management issues. And in the near, near future, we could be listing the steelhead and all four runs of king salmon that are in our tributaries that go into the Sacramento River Valley which is, to give you an example of Deer Creek, we just got a bunch of juveniles from there to save the species. So those are going to go move to the endangered species list off of threatened, so there'll be other water regulations. So if we're not careful, within the next year or so, we could be looking at eight types of listings of salmon and steelhead into this water decision making process, which basically is going to just stop everything. Everything we do is going to be dictated by the judges and the Endangered Species Act. Do we want to get to that point? Because that's where we're at right now. It's very concerning.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. After release of the draft Staff Report in September 2023, the California Fish and Game Commission received a petition (dated November 29, 2023) and made white sturgeon a candidate for CESA listing. Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations, and Section 7.6.2, Aquatic Biological Resources, have been revised to indicate the recent listing of white sturgeon as a candidate species under CESA. These revisions do not change any impact conclusions in Section 7.6.2. See Common Response 3.1, Fish Protection, for a discussion on process for updates to literature in Chapters 3 and 4, Other Aquatic Ecosystem Stressors, of the Staff Report. The Staff Report likewise lists the current legal statuses and acknowledges the declines in all four runs of Chinook salmon and California Central Valley steelhead DPS in Chapter 3 and Section 7.6.2.
486	7	Okay. I just I want to mention to the people out there that are facing the first year of closure for salmon recently that they have not received any funding or help from the state or the federal governments and they're really hurting, and we want the Water Board to take that an example of we've lost our salmon fishery again and our people are hurting so we need your help.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
487	1	I am in support of the Voluntary Agreement alternative. If there is unimpaired flows, we would have to be forced to use groundwater, which is very expensive and puts an unneeded stress on my area's water table that will affect my community around me. My farm has made the investment to be as water efficient as possible, for micro irrigation systems, installing moisture sensor stations and pressure bombing my orchard to know what my trees need, when, and how much. We work so hard to make every drop stretch as far as it can.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		The almond industry has reduced water by 33 percent in the past 20 years, and we're on target to reduce another 30 percent in the next five to 10 years.	
487	2	Being that we are a multi-crop family owned farm, we also participate in flooding fallow fields and rice fields during early spring and late summer for migrating shorebirds. We're able to do this because of surface water. If we were only allowed to use groundwater, we would not be able to afford to do the conservation practices to protect the shorebirds. It is so important to know that our fields are not just growing crops, but are also habitat to so many shorebirds and other wildlife. The Sacramento Valley hosts tens of thousands of migrating shorebirds a year. Historical bi-weekly Landsat satellite images on the Valley reveals that the flooded habitat near these peak times of spring migration has shrunk by more than two times the size of Washington, D.C. over the last 30 years. On average, we lose an area about four times the size of Central Park each year. If we have unimpaired flows, I would not be able to afford to put water on my land, which would hurt the shorebird population. The loss of the area would explode, and the shorebird population can't handle that. By having Volunteer Agreements, it will only help my community and environment. Please help me help my community and my environment by supporting the Voluntary Agreement alternatives.	Please see Section 7.6.1, Terrestrial Biological Resources, of the 2023 draft Staff Report for an analysis of the impacts of the proposed Plan amendments on terrestrial biological resources, including shorebirds and other wildlife.
488	1	We are concerned that the unimpaired flows alternative will increase the calls on Friant, but it is hard to interpret from the modeling results. Despite its intent, the SacWAM modeling is not correctly implementing some water rights and contract priorities. For example, there are instances when the exchange contractors are shorted when lower priority water service contractors are receiving water. So despite this, the analysis in the draft Staff Report shows that the chance of a call on Friant is up to six times higher under the 65 percent unimpaired flows, or just 75 percent of the time. The report does estimate the water supply impact to the Friant Division of Water Users was more	Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, for responses concerning CVP allocations and obligations. Please see Section 7.4, Agriculture and Forest Resources, of the draft Staff Report for a discussion on calls on Friant water and groundwater pumping assumptions.

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		qualitative on potential impacts to surrounding communities that rely on groundwater for drinking water, groundwater quality, and subsidence. As you are well aware, the Valley is facing a reckoning to comply with Sustainable Groundwater Management Act. And we believe the impacts to our communities from unimpaired flows isn't fully evaluated.	
488	2	Aside from these impacts, calls on Friant have severe impacts to the reestablishment of Spring Run Chinook Salmon population below Friant Dam, which is part of a landmark 2006 settlement. In 2017, Spring Run returned to spawn in the river for the first time in nearly 70 years, which is pretty impressive considering the issues we've had in implementing that program. As with other tributaries, temperature management is a big challenge. And a call on Friant significantly reduces the cold-water pool heading into the fall, which leads to lethal temperatures for multiple life stages. This impact would have devastating effects to this burgeoning salmon population that federal and state governments, Friant contractors, and environmental groups have worked very hard to reestablish. The Staff Report needs to quantify these impacts to understand the ecological and beneficial use trade offs of the proposed alternatives.	A discussion of potential water temperature effects associated with Friant operations has been included in Chapter 13, Revised Proposed Plan Amendments.
488	3	As you're aware, Friant Water Authority is a signatory to the MOU, to the Voluntary Agreements, and we believe these agreements can be implemented, and are a better balance of beneficial uses while limiting the impacts on the Valley.	Please see Common Response 1.2, Water Quality Control Planning Process, for information on the consideration of beneficial uses.
489	1	Thank you for holding several hearings on this matter, for your patience with all the comments you've received, and for this opportunity to speak today on behalf of California's rivers and our thousands of members across the state.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
489	2	California rivers are suffering from decades of overuse and mismanagement, which is really easy to see. It's evidenced by endangered species crises, toxic algae blooms, rivers running dry, and the fact that many families in the Central Valley still do not have clean drinking water. We do not have to accept this reality. You do not have to accept this reality.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Staff Report Section 9.7.21, Cumulative Impacts, Growth-Inducing Effects, and Significant Irreversible Environmental Changes, includes an analysis of the cumulative impacts of the VAs with other projects.

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		The solution is relatively simple. Rivers need water. Communities need water. And people need healthy rivers. Restoration of flows are not just about preserving the Delta or any one endangered species. They are about securing the future of California's rivers and the myriad ecosystems they sustain. Flows are not a luxury. They are the lifeblood of rivers. Three major proposals currently threaten California's rivers. Sites Reservoir, the Delta Tunnel, and the Voluntary Agreements. They are all connected. The purpose of each is to take more water and maintain the status quo. But the status quo is not only failing, it's also inequitable. It favors the powerful over the interests of all Californians. The Board made a commitment to equity in 2021. A scientifically grounded Bay-Delta Plan is a way to achieve that. Sites Reservoir and the Delta Tunnel will negate any additional flows provided by the VAs, rendering decades of work, pain, and taxpayer dollars moot. This demonstrates the importance of a strong plan to protect the Delta and rivers in the face of these threats.	See Common Response 7.23, Cumulative Impact Analysis, for responses to comments related to the consideration and analysis of cumulative impacts associated with the Delta Conveyance Project and Sites Reservoir.
489	3	The Voluntary Agreements are not the Healthy Rivers alternative. That bears repeating. The Voluntary Agreements are not the Healthy Rivers alternative. The idea that habitat can substitute for flow is not supported by science. You've heard from many people on the merits of the VAs. So I'd like to ask the Board instead to be critical about who has the right alignment of expertise and organizational incentives to make these recommendations that can actually protect and improve the Delta. I know the Board is under extreme political pressure to approve the VAs or other status quo measures. However, the Board has no obligation to maintain unsustainable uses of our water. It will take incredible bravery to change course, but I'm here today to invite you to be brave. So please capitalize on this incredible opportunity, potentially the single most important opportunity to protect the Delta and its tributaries. The real Healthy Rivers alternative is protective and scientifically	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		supported flow standards in the Bay- Delta Plan. More than 55 percent is needed. California's rivers are counting on you.	
490	1	I am deeply troubled by the poor ecological state of the San Francisco Bay-Delta. The Delta has been starved of adequate in-stream flows, and populations of fish and wildlife have plummeted. There are toxic algae blooms in the Bay-Delta and invasive species clogging waterways. The fisheries are in collapse. These biological disasters would not be occurring if there was adequate stream flow into the Delta. We are at risk of losing the entire ecosystem of the river basins and Delta. The majority of my clients for over a decade have requested water-efficient landscape designs. The landscape industry has made great strides in designing and installing more efficient irrigation systems and landscapes for private, public, and commercial landscapes. Most jurisdictions in the Bay Area have reduced water use 15 to 25 percent. Citizens have stepped up and used less water in order to save more water for our beautiful and necessary river and Delta ecosystems. We are not saving water so that almond growers can flood their crops for crop export. If water is used wisely and not wastefully -- in other words, if Big Ag does not get such high volumes of cheap water -- the scientific studies that have been presented by staff, which build on the 2018 Bay-Delta Plan, have shown that there would be ample water for farmers that use their water wisely, urban centers, and a healthy environment.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
490	2	The Voluntary Agreements which have been introduced for political expediency have been shown to be based on discredited data. The flows required to restore and protect our rivers and the Delta are not reflected in the VAs. No fishing, conservation, tribal, or environmental justice groups support the VAs. Restoration projects which are currently in process or are proposed are good, but they must be accompanied by the restoration of stream flows that feed rivers and the Delta with cold, fast-moving water.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		Now the Board has the opportunity to do what is right for the long-term health of the San Francisco Bay- Delta and all the citizens of the Bay Area who depend on healthy environment. The lives and livelihoods of fisher people have already been harmed by the disasters caused by lack of adequate flows allowed into our rivers and the Delta. If the ecology of the Bay-Delta continues in this deteriorated state and deteriorates further, all human life in the Bay Area will be harmed. The governor is putting pressure on the Board and is backing the VAs. However, Governor Newsom's time as governor is limited, but your decision could affect our environment and our lives forever.	
490	3	And by the way, I was born and grew up in Salinas, so I'm not an anti-farming person, but I do not think that large agricultural corporations should be taking such a huge percent of our California water.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
491	1	Firstly, unimpaired flows relies on the assumption that we were returning the landscape back to the way it was before human impacts. In modern times, we have altered our environment far too much and for far too long to have any hope of returning it to its natural state. It is unrealistic. Going forward, our best hope is to work strategically, creatively, and collaboratively in combination with good science, which is outlined in the Volunteer Agreements for Healthy Rivers and Landscapes.	Please see Staff Report Section 2.1.1, Natural and Unimpaired Flow, on the distinction between natural and unimpaired flows and the use of unimpaired flows for the proposed Plan amendments.
491	2	Furthermore, severe drought and flood cycles produced by climate change will make the unimpaired flows plan volatile from year to year, while consistently devastating the communities who live and work in our agricultural valleys, not to mention impacting our nation's fresh food supply. The unimpaired flows plan is too simplistic. It is not enough.	Please see Common Response 4.2, Drought and Climate Change, for responses to climate change and for a discussion on the consideration of climate change within the impact analyses of the Staff Report.
491	3	I have documented firsthand, but the success of inundated lands used as nursery areas for juvenile salmon and the predation of Chinook smolts by invasive species. The fact that it took over 20 years does not make -- that it happened over 20 years ago does not make it less important, but rather sad that we let 20 years go by arguing in courts and effectively doing nothing. Where would we be if we had spent the last 20 years putting money into research, habitat development, and restoration instead of	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		lawyers and litigation? Going forward, the success of salmon will depend on adaptation of the species and rivers and collaboration of people. The solution should be as multidimensional as the intricate food web in which Chinook live, and it will require sacrifice and open minds by all sides, ag and environmental justice groups. For success, you will need support at all levels, but choosing unimpaired flows will only give you opposition, more fighting, less fixing. I ask you to please opt for the Volunteer Agreements for Healthy Rivers, and not allow another 20 years to go by before tackling this problem. Otherwise, you might have to add Central Valley farmers to the endangered species list.	
492	1	And thank you for recognizing the troubled overall health of the Bay-Delta and the need for expeditious action. Delta waters and its ecosystem are not healthy because of years of over-diversions and failure to provide sufficient flows. The Delta Reform Act of 2009 mandated flow criteria development within nine months. Appropriate Delta flow criteria work to precede any adaptive management programs. Now, 14 years later, adoption of appropriate flow criteria can finally satisfy those mandates and resolve the delays. Therefore, I urge the Board to adopt and implement strong standards that have received adequate scientific and public review in a transparent fashion. Such standards would include unimpaired flows substantially closer to 65 percent which the Board has identified, standards for control of harmful algal blooms, and quantifiable water quality objectives. Sufficient flows to and through the Bay-Delta could allow the Bay-Delta estuary to function as it should, to foster predation avoidance, pollution dilution, and flushing. And it would allow Bay-dependent economies to begin to recover.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. See Common Response 4.1, Harmful Algal Blooms for a discussion of water quality standards for cyanotoxins and State Water Board commitments to address HABs in the Delta.
492	2	The Bay-Delta Plan standards should be adopted before the VAs, the Voluntary Agreements, receive any more intense work. VAs have been negotiated in private without scientific review, without adequate input from tribes and Delta communities. The	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project and regarding

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		VAs do not provide implementation and enforcement of adequate water for fish or the environment, temperature controls, or flow protections. So I urge you again, please adopt and implement adequate science-based Bay-Delta flow standards as required in the Delta Reform Act. And thank you again for the opportunity to comment.	consistency with other laws, policies, and agreements. Also see Common Response 3.1, Fish Protection, on the use of best available science and Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for a discussion of tribal concerns with the VA pathway.
493	1	While there are other facets of the Phase 2 plan I'm concerned about, I do favor the staff plan for unimpaired flows. I want to address the idea of Voluntary Agreements here. A lot of time was spent on VAs for Phase 1, but ultimately the Water Board used its own science. Should all that time and effort be repeated for a VA for Phase 2? Letting organizations write the rules that regulate them is usually a losing proposition, and often used as a guise to postpone a real decision. The CalFed effort of the past, trying to govern by consensus, is an example of how a Voluntary Agreement process can be a waste of time and money. It's not a mystery that the staff calls their plan what it is for unimpaired flows, but the VA is called the Healthy Rivers. It sounds a little like greenwashing to me. As proof of the shortcomings in the current VA's being considered -- current VA -- not a single conservation, fishing, tribal, or environmental justice group supports it. They have dropped out of VA discussions. The VA process does not seem credible without participation of all affected parties. I urge the Board to use its mandated power to resolve the Delta water issues, including providing enough water for natural systems there to recover, and not leave it to the history of delaying tactics of those pushing for Voluntary Agreements. It will speed things up, and one thing I think everyone accepts is that the Delta plan implementation has been way too slow.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
494	1	As I look at the issue on a biological basis, however, I see the problem is the state's increasing the water flows and diversions beyond the natural ability for these fisheries to survive. And the environment, the ecology of the wildlife, the flora and fauna	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		entirely in the Delta, to really survive because it's evolved with its natural flow. And everyone has their different positions, but it's evolved with a natural flow. I also see how especially agriculture in the Central Valley and the Sacramento region, right there in the river, it's natural to grow right there on the river. By California, I feel planning and growing of the population for urban and agricultural needs beyond the natural ability to grow is disturbing. And we have to look clearly and understand, I feel, we're diverting water. And that's something we need to talk about. We're diverting water to sustain both urban and agricultural communities that have no water in some cases. So it's going to be at the sacrifice of the California Delta and the fisheries and the salmon, which is dear to me.	
494	2	I represent the charter boat operators in the San Francisco Bay Area and throughout California. They're absolutely out of business. The fleets are dead. They have no business. Guides are losing their boats. And it's really sad watching how this happens. And my colleagues that are in the fishing industry -- I am not in the fishing industry per se -- but they're depending on you to help keep them in business. And the hunters and fishermen and the businesses I work with, they're involved in all those ancillary activities along the restaurants, hotels, they're depending on you to keep all those entities thriving too.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
494	3	The public wants the salmon fisheries, and they're at a crossroads because we have so many competing social and societal uses for this water. But let's keep in mind that we are diverting the water from the natural resource we have. And it's not just, oh, the water is always there in the desert. We're diverting water to a desert to grow crops. Maybe we should rethink some of those concepts. And that uninhibited, unimpeded flow is important. But compromises have to be made. You're the ones in charge. We're just asking, please, we need to sustain the Delta and the	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		populations. The wildlife and the ecology for the state of California is important. The wildlife is important to California. So thank you, and just understand, we only can divert so much. We need to keep those natural resources growing.	
495	1	First, AGR, Agricultural Supply. Dollars of production in the Central Valley in 1995 were about 13 billion. In 2020, that number was about 30 billion. That's an increase of 230 percent. AGR certainly did very well. Much of that was driven by the highly water intensive and profitable almond production, which increased from 370 million pounds in 1995 to 3.1 billion in 2020. That's an increase of 837 percent.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
495	2	Now let's cover COMM, recreational and commercial fishing, as well as spawn and cold. As you probably know, this year's salmon season is closed, primarily due to lack of cold water flows from Oroville and Shasta dams and other dams, when salmon that should be in the ocean this year were spawning and out-migrating. That was a preventable disaster. While salmon fishing was not great in the 90s, the average number of salmon caught in the five-year period ending in 2022 was just 50 percent of the five-year average in the 90s. That's a decline of 50 percent, a dismal catch, especially in light of the 23 percent increase, 230 percent increase, in the AGR beneficial use. COMM salmon fishing is down 50 percent in 25 years. The main reason is lack of cold water flows during spawning and outmigration, as best available science will tell you. During that time, two of the four runs of salmon have been listed, and four other species have been listed since 1990, all due to poor flow.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
495	3	Bottom line, sustainable and equitable water management practices are crucial for ensuring the long-term well-being of all beneficial uses of our public trust resource and the communities that rely on them. When you, the Water Board, look objectively, you will see the gross imbalance among beneficial uses. You can right the injustice that has been happening and supported by California administrations for decades. The fact that this obvious imbalance has been going on for so long does not make it right. It does make it imperative to fix.	Please see Common Response 1.2, Water Quality Control Planning Process, for a discussion of the State Water Board's consideration of beneficial uses during the water quality control planning process.

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496	1	I'm here to push that you all adopt the high flow alternative and oppose the Voluntary Agreements that have been driving our water system as they're not beholden to the people, rather to big ag interests. The science, listening to the science, that says that 65 to 75 percent of water needs to stay in rivers and Delta watersheds for clean water and fisheries.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
496	2	I'm passionate about food sovereignty, and that means the people having the right to self-determine their food system in ecological and culturally sound ways. And we know that salmon are a keystone species here in California and on the West Coast, and through the Arctic Circle as well, and central to salmon people's way of life. Without salmon, the ecosystem is completely disrupted, and that has a global impact, truly. So we need cold water, and free flowing meandering rivers, and we need to take down more dams and restore natural river cycles and this all be led by indigenous communities.	Please refer to Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. See also Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to comments related to Tribal Beneficial Uses.
496	3	I want to second what Abigail Black was sharing about uplifting traditional ecological knowledge and tribal voices in water policy, including a tribal seat on the Water Board. And I hope that you all have truly listened to what is being said.	The State Water Board has conducted extensive public and tribal related outreach and appreciates the significant input from tribes and environmental justice communities related to the Sacramento/Delta Update to the Bay-Delta Plan. Please see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to comments related to tribal outreach and engagement and Traditional Ecological Knowledge/tribal knowledge.
497	1	The natural ecosystems of the Bay-Delta are in serious decline. Salmon populations aren't healthy. Toxic algae blooms due to warm, nutrient-rich water, partially due to agricultural influence, are harmful to people and wildlife. Streamside habitat and important salmon nesting gravel areas are degraded. The State Water Board's 2010 Flow Criteria Report states that 75 percent of unimpaired flow on the Sacramento River and its tributaries is needed for protection of the Bay-Delta ecosystem, the same for water reaching the bay from the Delta. On average, only 50 percent or less of natural flow of Central Valley Rivers reaches the bay, causing a perpetual drought.	Please see Common Response 1.1, General Comments, for information on the Delta Flow Criteria Report and for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
497	2	Non-flow measures are important, but increased flows are the keys to turning around this dire situation. Voluntary Agreements will not produce higher flows. It is a travesty that utilities are the	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not

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		beneficiaries of public trust water and public funding, yet fish populations and water quality continue to decline.	raise specific economic effects of the project. Please see Chapter 9, Proposed Voluntary Agreements, for an analysis of the flows expected to result from the Voluntary Agreements.
497	3	I am disheartened that Governor Newsom is pressuring the State Water Board to accept the Voluntary Agreements. This is not the direction that our state should be going. The State Water Board should be making decisions based on science, not political whims. These decisions have long lasting effects on the future of our state, its citizens, and wildlife. I strongly urge the State Water Board to do the right thing for all of us and to do the job of restoring the Bay-Delta ecosystem by rejecting Voluntary Agreements.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
498	1	My name is Malcolm. I'm living in the city of Sacramento on the lands of the Nisenan people. I am speaking for myself. I want to support the comments of Celia Gonzalez and Abigail Black. Respect traditional ecological knowledge. Respect tribal sovereignty. I'm not a water manager, but I will speak to what I know.	Please see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for information related to Traditional Ecological Knowledge/tribal knowledge.
498	2	California has a long and brutal colonial history and the most harmful tradition in this state is our habit of tampering with the natural flow of water. The state of California has no right to the water. The Central Valley Project has no right to the water. The State Water Project has no right to the water. You cannot own a river. California has deliberately drowned thriving communities under reservoirs. Dams block the arteries that carry the foundation of life up and down the waters in salmon, steelhead, invertebrates, and even sediments. Further mega projects such as the pipeline, the Sites Reservoir, and the Shasta Dam raise are digging us deeper into an ecological nightmare when we should be focusing on repairing the natural flows of the rivers.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, do not raise specific economic effects of the project, and comments about other projects.
498	3	For now, I support the tribes in advocating for the unimpaired flow plan. For future generations, I support the removal of every possible mega dam and the restoration of every possible floodplain.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		No dams, no diversions, no pipelines.	
499	1	I am a Bay Area native who has lived the majority of my life next to San Francisco Bay. Growing up in Palo Alto in the 1960s, a trip to the Bay meant going to the dump with my father. Now, 60 years later, it means walking or riding my bike on the Bay Trail. So much has improved in terms of how the Bay Area views its Bay. Our attitude towards the Bay has improved, but the actual health of the Bay, as you well know, has continued a steep decline in spite of our valuing it much more than we did in the 1960s. Dumping trash in the Bay is long over, but excessive diversion of the Bay's lifeblood, fresh water, continues.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
499	2	In 2010, we learned that 75 percent of unimpeded flow on the Sacramento River and its tributaries are needed to protect the Bay-Delta ecosystem. That is the science. Yet today, still only 50 percent of natural flow reaches the Bay in an average year. That is not adequate. It is still not adequate, 12 years later, 13 years later. This cannot continue if the Bay-Delta watershed is to not completely collapse. And I hope that you all know this. I strongly recommend that the alternative chosen by the Bay-Delta Plan is the highest flows consistent with the 2010 flow criteria report. This is what the science tells us is needed now.	Please see Common Response 1.1, General Comments, for information on the Delta Flow Criteria Report and for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
499	3	I strongly oppose reliance on Voluntary Agreements. I do not trust a voluntary process for such an important need to reconfigure how water is used and how flows are handled in the state of California. You, the State Board, have to make the right decision without the Voluntary Agreement with water agencies.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
499	4	Climate change means that California's outdated water system needs to be revamped now. We need more water making it to San Francisco Bay now, or we will lose the Delta and the Bay, the health of the Delta and the Bay. I urge you to reject Voluntary Agreements and proceed with a new approach that maximizes adequate flows, as the science tells us, to support the Bay-Delta system in a time of climate crisis when maximum protection of our water resources is called for.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
500	1	Yes, I'm Jane Wagner-Tyack and I'm representing the League of Women Voters of California.	Please see Section 2.8, Existing Water Supply, of the Staff Report for a discussion on the current state of water supply in California

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		The League has supported past Water Board efforts to increase flows to protect high water quality standards in the Bay-Delta and flows for salmon migration while maintaining municipal drinking water and economic viability for agriculture. But at this point, we cannot support either the Phase 2 Bay-Delta Plan or the Voluntary Agreements because both represent efforts to manage a system that is based on inadequate information about how much water Californians can sustainably store, move, and use.	and a presentation of information related to regional water supply in the corresponding subsections. Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
500	2	California water planners in 1960 understood that the state could not indefinitely provide water for the CVP, the SWP, and other export water users that was surplus to the needs of the watershed. But that didn't prevent development of an entire water storage and delivery system that is already unreliable for many users who depend on inter-basin water transfers, and that will be even less dependable under changing climate conditions. The Bay-Delta Plan itself recognizes that more water has been promised for diversions from the Bay-Delta watershed than is reliably available. Average regulatory minimum Delta flows are only about a third of current average outflows, and less than 20 percent of average unimpaired outflows. The League's water position discourages water contracting and marketing policies that build up demand and establish rigid patterns of distribution and use.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
500	3	Continued resistance to Water Board efforts to develop this realistic water quality control plan reflects the inflexibility of some user demands. Historically, when local human and environmental water needs in the Delta and estuary are weighed against the expectations of export interests elsewhere in the state, politics will ensure that the Bay-Delta estuary needs will be overruled. The League would like to see universal use of strategies to measure and manage actual consumption of both surface water and groundwater by urban and agricultural users. We need to be as firm about documenting water rights and water uses everywhere as the state has been in documenting water use in the Delta by using satellite-based measures of consumptive use	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		to determine unauthorized diversions and developing digitized places of use. We also need to ensure that users do not compensate for lower surface water deliveries by treating groundwater as an inexhaustible savings account, further over drafting the state's groundwater.	
500	4	The League has seen considerable progress in water conservation and reuse in many urban areas of the state that rely on water from the Bay-Delta. But urban use is just one-fifth of total use of developed water, and agriculture has not advanced as far as cities have in developing the kinds of conservation strategies that will reduce reliance on exports.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
500	5	Unfortunately, the current Phase 2 Bay-Delta Plan and the Voluntary Agreements being offered rely on incomplete knowledge of water rights and lack clear objectives for protection of ecosystems. We encourage the Water Board to focus on remedying this situation.	Please see Common Response 1.3, Revised Proposed Plan Amendments, for a response to comments contending that the proposed water quality objectives are unclear or that the proposed VAs lack sufficient detail.
501	1	I have lived near the bay most of my entire adult life and can see it still shows the effects of hydraulic gold mining, which took place when my grandfather's barn was being built. The gold is gone, the Bay is surviving, but I can now smell the algal blooms.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
501	2	I really fear that the Voluntary Agreements are ephemeral. I know the Bay, the Delta, and the rivers are not. Governors and projects have come and gone in my lifetime. The Bay, the Delta, and the rivers have not. They are the lifeblood of California and reducing flow is damaging. I believe given the changing climate that sustaining the system requires maximizing the unimpaired flow. I don't know enough to give you a number.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
501	3	The scientific data you have access to is more complete than it has ever been, and you need to make your decisions based on what it means for the future. I hope that you can discriminate between lobbyist spin and real data. You need to understand what is happening and monitor everything. Planning for sea level rise, which will push saline water into the Delta, impact water tables, aquifers, and supply lines is important. There is much that needs maintenance.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		Please think long-term benefit and don't waste water. I pray for your wisdom and thank you for taking responsibility for the future of California water.	
502	1	My name is David Schrom. I'm a value scientist at MAGIC, a Palo Alto-based public service organization. Salmon, like humans, live and die by nature's laws. For them to thrive and for us to thrive, we discover those laws and heed them. Science is the best set of best practices for learning by which we discover nature's laws and gain the ability to accurately predict the consequences of our behaviors. The Bay-Delta Plan is grounded in decades of peer-reviewed scientific research. Its authors describe with precision, and with provision for adaptation, the actions necessary to salmon recovery. If we want salmon, we'll implement this plan.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
502	2	I empathize with those who want to believe or want you to believe that they can keep taking water as they have while still restoring salmon populations. When nature's laws seem incompatible with our desires, we may rationalize and justify however we perceive necessary to deny them, and such a process may convince those who fail to understand the power of science. However, they're without capacity to alter the laws we find threatening.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
502	3	Nature runs a flawless law enforcement program. More than 100,000 of the US residents who died from COVID did so because they refused to heed nature's laws as described by science. 8 billion of us worldwide are bearing the rising costs of climate degradation for the same reason. We live in extraordinary times. For 99 percent of Homo sapiens' existence, our population was less than 1 percent and our energy use less than 1,000th of what these are today. We took hundreds of thousands of years to become 1 billion and only 200 more to become 8 billion. We supported those three doublings of population with five doublings of energy use, primarily by ever more rapidly depleting an irreplaceable fossil carbon dowry hundreds of millions of years in the making. In the process, we've	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		ravaged our lands, waters, and biota. This era is coming to an end. The fossil fuel peak lies a few years, and the human population peak a few decades, in the future. What we do in this final phase of unsustainable human endeavor will affect all who may live in the future. Eight billion of us alive today hold in our hands the fates of tens, perhaps hundreds of billions of our descendants. We can leave them a legacy of salmon or deny them that legacy. I trust that you will act with wisdom and courage to heed nature's laws and further long-term common good.	
503	1	I'm here today to echo what environmental groups and tribes say about the governor's plan to protect water supply for climate change. Voluntary water agreements won't protect our water supply. They will exacerbate the existing ecological devastation and irreversibly damage the Sacramento-San Joaquin River Delta, the central hub of our state's water system.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
503	2	Environmentalists, scientists, and everyday people like me are acutely concerned about the health of our rivers and Delta. We know that our ecosystems are intricately interwoven. There are delicate relationships that we can't see with our human eyes, but when they are threatened, then you and I are threatened. Our human health depends on freshwater flow that is sufficient to protect not just the salmon, but also the insects, the wildlife, the swamps, and all of nature that is supported by our rivers that feed the Delta. Our Native American communities and our commercial fishermen depend on sufficient water flow. There are more than enough signs that our ecosystems are endangered through poor water management. One clear and frightening example, the toxic algae blooms earlier this year. They are caused by slow moving, warm, nutrient-rich water. The Delta needs more freshwater flow. Voluntary Agreements are insufficient to protect our water supply. Listen to the scientists. You have the data. Forget the Voluntary Agreements.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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503	3	We need regulation that will provide minimum flows to protect our endangered fish from salmon and steelhead to green sturgeon and Delta smelt. In other words, you need to protect our fragile ecosystems that evolved over eons of time. I might start crying, sorry. You need to regulate water flow so that it is sufficient to maintain the needs mentioned above. The VAs do not include a backup plan if they fail. The Bay-Delta Plan, on the other hand, could increase or decrease flow requirements based on whether biological goals are being met. Please. Please. You must support the Bay-Delta Plan and protect our future.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. See also Common Response 1.3, Revised Proposed Plan Amendments, for a description of the VA pathway.
504	1	You know, Metropolitan and myself are committed to ensuring safe, reliable water for everyone with no one left behind, including the environment, including our communities, including our urban and ag communities. And that's the future: A holistic, integrated, inclusive approach, and we appreciate the hearing by the Chair and the Board and the staff. Updating the Bay-Delta Water Quality Control Plan is a very important and complex task that seeks to protect this watershed that is so integral to the health and livelihood of our entire state. Metropolitan appreciates the work of the State Water Board and the staff, and we are committed to the transparent, inclusive public process that we're seeing here today.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
504	2	We have been an active and interested participant for many years, providing technical input and information at every opportunity throughout the process. Our interest in the Bay-Delta includes our support for Governor Newsom and his administration during development of the Healthy Rivers and Landscapes Agreement. Metropolitan is encouraged by the inclusion of Healthy Rivers and Landscapes Alternative in the draft Staff Report. In March 2022, I signed a memorandum of understanding that includes possible terms for Healthy Rivers and Landscapes Agreement. In May 2022, Metropolitan's board expressed support for developing the Healthy Rivers and Landscapes Agreement as an alternative in the Bay-Delta Plan. Metropolitan's engagement in this process is guided by its Climate Adaptation Master Plan for Water called CAMP for Water. CAMP for Water calls for Metropolitan's support: efforts that	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		protect the environment, increase resiliency and reliability for all, build greater flexibility into regional water storage and delivery system, ensure all member agencies have more equitable access to Metropolitan's supplies, and support collaborative cost-sharing partnerships and promote affordability initiatives. It is through the lens of CAMP for Water that I provide these comments.	
504	3	The proposed Healthy Rivers and Landscapes agreements would expand on traditional ways of thinking and enable a more inclusive, innovative and adaptive -- I want to underline adaptive -- approach to implement the Bay-Delta Plan. Adaptive management is paramount for the adoption of the Water Quality Control Plan. The Agreements for Healthy Rivers and Landscape approach for adaptive management is unique in that it has the following: wide support from public water agencies, both state and federal agencies; is already defined through the MOU; is ready to implement, given several hours a month of work that has transpired since signing the MOU. The science plan and the Bay-Delta scientists are ready to begin this process, including early implementation for ecosystem response and benefits. We can't wait any longer.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
504	4	The proposed agreements offer actions that integrate flow and non-flow measures as part of a comprehensive watershed-wide approach, including more than \$2.5 billion in funding to support water purchases, crop idling, robust science programs, and construction of new habitat, including dedicated resources to monitor and ensure performance. In addition, the proposed Healthy Rivers and Landscape Agreements would foster collaboration with diverse parties, including state and federal agencies, public water agencies, and conservation groups support California's co-equal goals to provide a more equal, reliable water supply for California and protect, restore, enhance the Delta ecosystem. Metropolitan's member agencies continue to make significant investments in local water supply and programs that increase	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		Southern California's water resiliency and reliability. We are taking bold actions: investing in local water supply, such as Pure Water Southern California, the largest water recycling program in the world; building storage capacity with our recently completed High Desert Water Bank; investing in flexibility of our regional water delivery system; increasing the regional water conservation efforts and rebates, through recently the adopted legislation that will phase out watering of non-functional turf at commercial institutional properties. Nonetheless, supplies from the State Water Project remain an essential component of the region's water supply portfolio, especially during wet conditions that we can move and store away. State Water Project supplies provide important baseline supplies as well as wet year reserves that have helped the region withstand extended periods of drought.	
504	5	In addition, State Water Project supplies are critical to supporting existing and planned groundwater production in the region, including our disadvantaged communities. I want to talk about disadvantaged communities a little bit. Urban disadvantaged communities are- Disadvantaged communities are critical to everything that we do, both rural and urban communities. We have 6 million people in Southern California with that effort. With the climate change and extreme weathers threatening all of us, now is the time for new collaborative, innovative and adaptive solutions in the Bay-Delta that ensures we are protecting water users and the environment where no one is left behind. Our collective future depends on it. So we urge you to adopt the healthy rivers and landscape option in the plan.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
505	1	I strongly support the Healthy Rivers and Landscape Alternative. As the Board heard on November 17th and again today in some of the testimony, working California rice lands provide unique and much-needed wildlife habitat, not only for the millions of ducks and geese in the Pacific Flyway that are here in the winter, such as now, but also for the 225 species of biodiversity that use it throughout the year. 30 of those are special status species.	Please see Staff Report Section 7.4, Agriculture and Forest Resources, and Section 7.6.1, Terrestrial Biological Resources, for the analyses of impacts on agriculture and terrestrial biological resources, respectively.

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		You also heard about the commitment of the rice industry to develop and implement projects that benefit juvenile salmon. Well, we at Montna Farms have worked for decades on water bird projects with Audubon, The Nature Conservancy, Ducks Unlimited, just to name a few of our wonderful conservation partners. Many of you have visited and seen those projects on the ground. And in the past few years, we've been in partnership with UC Davis and Cal Trout to do the same thing for salmon. And while both the Unimpaired Flow and the Healthy River proposals envision fewer rice acres, we'd strongly believe that the Healthy Rivers approach will offer the state the ability to support the habitat now provided by rice and protect the ability to grow it and the habitat that it provides for these species even further into the future. The unimpaired flow option does not, and it would greatly reduce the valuable acreage, rice acreage that this habitat is provided for today.	
505	2	Several people testifying today commented that agriculture uses 80 percent of the water in the state. However, according to the California Water Plan, the average statewide water use of applied water is 50 percent for the aquatic environment, 41 percent for irrigated agriculture, and 9 percent for urban use.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
505	3	I would also like to say that as a rice grower myself, and the daughter of a longtime farmer and conservationist, that if the Unimpaired Flow Alternative is adopted, it would greatly set back decades of habitat efforts that would end up with less water for the fish, birds, and farms. The Healthy River Alternative will continue to grow these working farmland habitat efforts and really protect long-term sustainability for salmon, other species that currently utilize the rice fields, and the small farm communities of the Sacramento Valley.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
506	1	With that position in mind, I understand the State Water Board is in a very tough position trying to make decisions that impact the Bay-Delta, California overall, and the Western United States in terms of water needs and allocations. Clearly, there's just not enough water to satisfy all the constituent needs, agriculture, human usage requirements, as well as fish and wildlife. Bearing	Please see Common Response 1.1, General Comments, for information on the Delta Flow Criteria Report. An analysis of the impacts of the VA pathway was included in Chapter 9, Proposed Voluntary Agreements, of the 2023 draft Staff Report.

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		this in mind, the State Water Board 2010 flow criteria found that 75 percent of unimpaired flows on the Sacramento River and its tributaries, and 75 percent unimpaired Delta outflow, water reaching the SF Bay, would be needed to effectively protect the Bay-Delta ecosystem, recently amended to 55 percent flows minimum in 2018. However, in an average year, only 50 percent or less of the natural flow of our Central Valley rivers reach the Bay. The State Water Board, following the lead of Governor Gavin Newsom, has instituted Voluntary Agreements as solutions that will produce more fish with less water. Unfortunately, these Voluntary Agreements have resulted in greatly reduced and limited water flows, toxic algae blooms, horrific reductions to salmon, steelhead, and other aquatic species populations. These are the facts. So what is needed moving forward? Quite simply, more water to meet all the needs of people, agriculture, the Bay Area, and anadromous fish. How do we get more water? Much like Governor Newsom, who clearly has bigger political objectives beyond California, we need to look within and beyond California to find the best future solutions to our water issues and limitations.	
506	2	I suggest a three-fold approach. Water reclamation: institute that local municipalities especially Los Angeles, San Francisco, and Sacramento develop extensive water reclamation initiatives to reuse water currently wasted in sewage facilities and agricultural processing plants. Theoretically, California could find 35 to 50 percent more water this way.	Please see Section 6.6, Other Water Management Actions, of the Staff Report and Common Response 6.3, Water Supply and Other Water Management Actions, on alternative water supplies and strategies, including State efforts to promote water recycling, water use efficiency and conservation, and desalination. Please see Common Response 7.24, Alternatives Analysis, for responses to commenter-suggested proposals.
506	3	Desalinization: look to the Pacific Ocean and the ability to create fresh water to pump back into agriculture areas in the Central Valley. Currently a 140 million dollar desalinization project, the South Coast Doheny desalinization project, was approved to provide water to the local coastal communities of Dana Point and surrounding areas. More projects of this nature will ease the need for water from Northern California to be sent south. A larger desalinization project in the Central Coast could generate	Please refer to the response to comment 506-2.

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		Central Valley aquifer and regenerate and supply water for broad scale agriculture.	
506	4	Three: seek water sources from the east. This might seem like a pipe dream, but there's plenty of water in the United States, and too much in some areas and not enough in others. Much of the water for Southern California comes from the Colorado River system, and there are many demands on this water beyond California, including Arizona and Nevada and other states. This is where Governor Newsom can take the time – Tap into the water that the Great Lakes and the Mississippi River to create a tunnel to bring water west. These are my long-range ideas and I know that they'll take time, money, and funding. Hopefully, we can stretch our thinking to get to a long-term water solution.	Please refer to the response to comment 506-2.
507	1	I think the important thing that we want to convey, I think, is that we have been listening. We've been listening to the panels. We've been listening to the deliberations by the Board members. And so we're going to try to offer some kind of refinements today that kind of reflect the fact that we are hopefully listening. And if we're not, we're going to keep listening and we're going to keep having further conversations. So if we could, I'm going to offer three points if I could today to start. And we have a great panel here to join me as well. So if we could go to the first slide [see letter #330 for slides], that'd be great, thank you. I'm going to go through these fairly quickly. The first point obviously we've been talking a lot about is the Healthy River and Landscape Alternative is fully implementable and enforceable. And you've heard a lot about the timely implementation of flows and habitat through the collaborative model that we have built around that. You just heard a little bit of that from Secretary Crowfoot. And the bottom line is we had a panel with nine people on it that talked about all the early implementation that is already underway, and we want to just continue to build that. And this collaborative model, I think, is	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		really the best way to do that through the Healthy Rivers Agreement.	
507	2	Next please. [see letter #330 for slides] There is secured funding. There's a lot of details to this, obviously, but we've been very appreciative of the opportunities to provide a lot of different funding, including some of the water user funding that you've just heard about. And then I think the important thing is there's been a lot of folks saying that this is not enforceable. Obviously, we are going to have very strong, meaningful, enforceable agreements with the State Water Board through the government code section mentioned here. There's some work already being done under that that is going to state the specific obligations. So I think it's just really important to note that these agreements will be enforceable. I don't know -- the voluntary term kind of throws people in that. We understand that, but obviously we want to make this enforceable.	Please see Staff Report Chapter 13, Revised Proposed Plan Amendments, and Common Response 1.3, Revised Proposed Plan Amendments, for information on the VA pathway, including enforceability.
507	3	Next please [see letter #330 for slides]. So my second point, there's a lot of discussion around flows and, you know, enough and not enough. But the bottom line is, is what we have been trying to provide through these agreements, working with a lot of the leading scientists, a lot of the leading agencies, is these flows with function, and trying to make sure that we help the ecosystem function. We heard that the goal here is obviously to improve the environment. And we recognize that a healthy river ecosystem depends on a sufficient volume of water. That is for sure. And that's why we're offering a variety of water as part of this agreement. But it's really the way that that water operates within the healthy landscape that is really what we're trying to mimic. We're trying to mimic the patterns by which native flora and fauna were	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		adapted. And I think that's a really significant part of the agreement system.	
507	4	And then I think the second piece that I want to just emphasize here is that we have an opportunity through the agreements to not only have the flows and the habitat, but we also have an opportunity to kind of reimagine our infrastructure, much, I think, the way the governor has talked about things. And that includes nature-based solutions. It includes the floodplain things I think you're going to be hearing a little bit about later today. There's just a real opportunity here to reimagine our infrastructure kind of in combination with these flows. And that's at least what the leading scientists in the world are telling us we need if we're going to improve the ecosystem the way we all aspire to.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
507	5	Next, please. [see letter #330 for slides] The third point is obviously the charge of your Board, and that's this idea of protecting all beneficial uses. We obviously -- you've heard from the panels earlier that we believe that the Healthy River and Landscape Alternative provides more benefits and fewer impacts than the proposed plan amendments. And that's obviously what we're working towards. So more benefits, fewer impacts. Wanted to just emphasize that. And that's, again, building off of your work in the Staff Report. You heard that from a very detailed modeling panel of experts that have tried to pull all that information out and show that. And that's again where this panel I think showed that the better balance comes from this Healthy River and Landscape Agreement.	Please see Common Response 1.2, Water Quality Control Planning Process, on the consideration of beneficial uses.
507	6	If we could go to the next slide. [see letter #330 for slides] I won't go into the details of this. You heard about this at the last workshop. But this was the kind of the modeling kind of summation that people had put together on how we can reasonably balance beneficial uses. And obviously we think the agreement alternative, the VA alternative there on the far side, provides a lot of benefits and is neutral on some of the other elements and is really a strong path forward.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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507	7	[See letter #330 for slides]. So we understand there is skepticism. We want to acknowledge that that's been heard in the prior hearing days. And so after careful review of this approach that's found within the Staff Report, there is a lot of really great information. So we'll cover a little bit of that information. So, this approach, it really reflects a delicate balance between the species, reservoir operations, and economics. So, it has taken well-respected scientists that believe, of course, it will further the existing salmon narrative objective and the proposed fish viability objective. So, the result is an approach that was developed and is consistent with the best available science we know today, and we'll talk a little bit about those examples. Continued development and eventual implementation would continue to be guided by that science through an inclusive, as you've heard from Secretary Crowfoot, and transparent process. System-wide governance is actually a huge element of the actual plan, and in this approach specifically, and it talks about how it would bring in various voices such as tribal and NGO. So, from that perspective, we also want to keep the door open. We want to ensure other water users across the state and throughout the watershed have an opportunity to also join. So, Metropolitan is the landowner within the Delta, and so having the opportunity to also find solutions for in-Delta water users as well is something very important to the Water Quality Control Plan. So what happens next? Well, the State Board, of course, would have oversight in year six of implementation, and they would review progress and decide whether the Healthy Rivers and Landscapes approach is working. And that's important because we need to know if there's changes that need to be had. It's an adaptively managed approach, however, greater flows, or whether a new approach is needed, or even a regulatory approach. And so we just want to really emphasize the State Board would ultimately be the backstop and have significant	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		oversight and most certainly have enforcement authority over this program or process.	
507	8	Another important point we'd like to emphasize -- next slide, please, my apologies [see letter #330 for slides]-- is a path to harmonize multiple regulatory processes and authorities of multiple state and federal regulatory agencies is key to ensure both the effective and efficient management of the Bay-Delta Watershed. While there's so much debate on if further restrictions on exports would meaningfully contribute to meeting existing and proposed narrative standards, this shouldn't be taken to mean that those receiving water south of Delta should not do all they can do to reduce water consumption, be water efficient, and find innovative solutions to new and alternate water supplies. We are strong believers in this and have implemented several programs over the years on all fronts, including agricultural, water suppliers, and urban alike. For Metropolitan Water District specifically, we've invested over \$1.6 billion cumulatively in conservation, recycled water, and in groundwater recovery and reduced our demands from the 1960s from about a 208 GCPD down to 127. We are concerned that the projects' ability -- the water projects, both state and federal, which you heard from earlier -- will have troubles meeting their regulatory obligations if just an unimpaired hydrograph alternative were to be adopted or considered. And so efficiently managing water south of Delta throughout the Bay-Delta watersheds and those upstream reservoirs is critical, and it's the art of balancing the beneficial uses. In light of climate change, we are concerned about modular alternatives that may limit future flexibility in managing those precious resources upstream and across the watershed. It is critically important that beneficial uses be balanced as conditions and operations continue to change into the future with the wetter wets and the drier dries.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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507	9	[See letter #330 for slides]. So the public water agencies can appreciate the perspectives that some may have, that the proposed plan amendments are similar to the Healthy Rivers and Landscapes approach. As part of these proposed amendments, there are references to adjustments on the unimpaired flow approach and habitat that could be implemented. However, those references reflect a proposal that is very different in that it provides some unique elements. So a couple examples I'll provide, and I'll hand it over to others to provide additional examples. One, of course, is habitat. You've heard a lot about it. But it's important to note that in the unimpaired flow approach, you're looking at a consideration without examining the physical, biological, or chemical impacts of non-flow actions. That's really important. So flexibility would be available if approved by the State Board, but it's unclear exactly what that criterion would be or how the process would be implemented along with that flexibility. So a really key example that we're very excited about is on otoliths. If you haven't heard about them, they're fish ears. And what they do is they're able to actually identify where the salmon have actually traveled. And recent studies out of UC Davis have shown that these salmon have not only made their way through the Delta, they have grown significantly on the floodplain habitat and upstream locations, and they've had massive and wonderful returns. This is a great example of recent science that really shows the habitat investments that are happening in the upstream areas are critically important for their survival through the Delta and then being able to combat the various stressors and then eventually make their way back to their natural environment. Very exciting. Just one example. Another one is the expedient approach. The level of flow and investment in non-flow measures incorporated into the Healthy Rivers and Landscape approach was developed through an	The 2023 draft Staff Report acknowledges the benefits of non-flow actions, and this discussion can be found in Chapter 4, Other Aquatic Ecosystem Stressors. A description of complementary, non-flow actions that may help address the stressors described in Chapter 4 can be found in Section 5.5, Habitat Restoration and Other Complementary Ecosystem Measures. Please see Common Response 1.2, Water Quality Control Planning Process, for a discussion of non-flow measures and the State Water Board's authority to impose non-flow measures and Common Response 1.3, Revised Proposed Plan Amendments, for more information on the regulatory pathway provisions that were described as "proposed plan amendments" in the 2023 draft Staff Report.

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		iterative process as described by Secretary Crowfoot and others. And one evaluated primarily the physical and biological effects of the non-flow measures, which would complement, of course, those flow measures to further the existing salmon narrative objective and the proposed fish viability objective, so both. It is a fully described action that can be implemented today upon approval. That's huge to know that you have major consensus across major swaths of the watershed, different tributary agencies, various public water agencies, a number of scientists, a huge advantage to really help the Bay-Delta's ecosystem move forward in light of climate change.	
507	10	The survival of the community's farms and ecosystems provided water by our members creates a really deep connection to the health of the Bay-Delta ecosystem as impacts to water project operations to better protect fish species have decreased the reliability of water supplies to the region significantly over time. The Board is challenged with balancing the impacts to beneficial uses, and based on our analysis of the Staff Report, that on balance the UIF proposal fails to meet that charge, as it has unfortunately some pretty significant negative impacts to the communities, farms, and ecosystems that are reliant on the water delivered by the authority's members.	Please see Common Response 1.2, Water Quality Control Planning Process, on the consideration of beneficial uses.
507	11	I'd like to speak to the impacts of the unimpaired flow proposal on both the economy of the San Joaquin Valley and to the wildlife refuges that are so important to connecting the Valley's residents with California's natural bounty. On average, according to the information that's in the Staff Report, the unimpaired flow proposal results in an approximate 250,000-acre-foot reduction in diversions at Jones Pumping Plant across water years. As described in prior panels, our technical staff are still working through that modeling to verify the accuracy of the results, but our initial analysis indicates that the impacts on CVP exports are likely to be significantly underestimated, but even taking them on face value, the impacts are pretty drastic. As many of you know, agricultural production in the Central	The Staff Report uses a reasonable and conservative approach to evaluating the potential agricultural impacts and agricultural economic effects of the flow scenarios. As discussed in Chapter 6, Changes in Hydrology and Water Supply, SacWAM is a model that helps estimate the potential changes to hydrology and water supply that could occur as a result of the Plan amendments. SacWAM results for changes in Sacramento/Delta water supply to the San Joaquin Valley region are presented in Section 6.4.8, Sacramento/Delta Supply to the San Joaquin Valley. SacWAM assumptions and unimpaired flow scenario assumptions are described in detail in Chapter 6, Changes in Hydrology and Water Supply, and additional details are provided in Appendix A1, Sacramento Water Allocation Model Methods and Results. The analysis of potential changes in crop acreage presented in Section 7.4 and potential changes in crop revenue presented in Chapter 8, Economic Analysis and Other Considerations, include

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		Valley is critical to meeting the food supply and food security needs of the United States. In 2022, Dr. Shires of Pepperdine University conducted an updated economic analysis of Westlands Water District, which found that there's a striking correlation between water supply and poverty in Fresno and Kings counties. When the water district receives little to no water, poverty levels increase. When the district receives a higher water allocation, economic stability in that region improves. The communities in the San Joaquin Valley are more economically disadvantaged than the rest of California, and they're disproportionately impacted by water supply reductions. Fresno County is one of the poorer counties in the state, with almost one in six of its households finding themselves below the poverty level. That's more than twice the state average. For families with children, nearly one-fourth are in poverty. Again, twice the state average. For female single-parent households with children, that total rises to almost half, around 44 percent. It's critical to understand without a vibrant agricultural industry, communities like Huron, Avenal, Duff Palace, Firebaugh, and Mendota would have no economic base or activity from which to draw their livelihoods. The Shires Report draws a line between the overall trend of poverty levels in the San Joaquin Valley, specifically in Fresno and Kings counties, and reductions in water deliveries from the CVP to south-of-Delta agricultural districts. The unimpaired flow proposal would reduce supplies by 15 percent on average, increasing poverty in communities already experiencing significant economic hardship relative to the rest of California, and reducing surface supplies necessary to restore overdrafted groundwater basins for drinking water for those same communities.	estimates obtained from the SWAP model. SWAP is currently the best available tool for modeling agricultural economic responses to water supply shortage. It has been peer-reviewed and applied to numerous policy analyses and impact assessments over the last two decades. The assertion that reduced Sacramento/Delta water supplies to the San Joaquin Valley increase poverty rates is not substantiated by the information contained within the Shires (2022) report referenced by the commenter. Please refer to Common Response 8.1, Economic Analysis and Other Considerations, for responses to comments related to the Shires (2022) Report. Chapter 8, Economic Analysis and Other Considerations, discusses economic effects of the flow scenarios, including economic effects relevant to DACs. In addition, Chapter 10, Economically Disadvantaged Communities, discusses various financial and technical assistance programs available to assist public water systems serving DACs. These programs are designed to ensure access to safe, clean, and affordable water supplies and maintain compliance with all applicable water laws and regulations. The State Water Board is at the forefront of assisting DACs with obtaining clean, safe, and reliable water supplies. In doing so, the State Water Board is making its commitment to the human right to water through financial assistance, technical assistance, consolidations, SGMA oversight, and other means.
507	12	In addition to the agriculture and drinking water aspect that the Water Authority conveys, we have the responsibility to move Central Valley Project Improvement Act refuge supplies for the managed wetlands in the San Joaquin Valley. It's actually the largest contiguous wetlands in the West.	The 2023 draft Staff Report identified and disclosed potentially significant impacts on wildlife refuges (Section 7.6.1.4, Impact Analysis) because of decreases in water supply and proposed mitigation in Section 7.6.1.5, Mitigation Measures. The proposed flow range in the proposed Plan amendments is between 45 and 65 percent of unimpaired flow, which according to Table 7.6.1-5

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		The unimpaired flow proposal, as it's described in the Staff Report, would have some pretty significant negative impacts on wildlife refuges, with an estimated reduction in water deliveries to refuges of 140,000-acre-feet. That's predominantly to north-of-Delta wildlife refuges. While we do understand that there isn't a program of implementation, the proposal as described in the Staff Report could result in the loss of half of the remaining wetlands in the Central Valley in many years, creating increasingly significant pressure on species that are dependent on those lands for their survival. Even if the water supply availability is addressed through the program of implementation, the potential impacts to the timing in which that supply is available could negatively impact the needs of critical habitat. This means larger populations on a smaller landscape, leading to impacts like higher potential for avian disease outbreaks and reduced food availability. Wildlife refuges are an incredibly important part of what makes the Central Valley special, and for families and communities, it's a legacy that they very much want to protect.	in Section 7.6.1, Terrestrial Biological Resources, corresponds to reductions of 25 to 66 TAF/yr in annual average refuge water supplies. According to the analysis that was performed in Section 7.6.1, these reductions in water supplies to wildlife refuges translate to decreases in acreages from baseline of up to 22% depending on species (see Figures 7.6.1-2 to 7.6.1-5). Additionally, the proposed Plan amendments would include measures to reduce or minimize the unintended consequences to terrestrial species and refuges that rely on supplies from the Sacramento/Delta. For more information see Section 5.6.2.6, Refuge Water Supplies and Other Wildlife Protection Measures, in the 2023 draft Staff Report. The proposed program of implementation specifically addresses water supplies provided to refuges (including refuge supplies provided pursuant to the Central Valley Project Improvement Act (CVPIA)) by including measures to ensure the delivery of Level 2 water supply at the times needed to support refuges and to provide for full delivery of Level 4 supply. The project is revised as described in Common Response 1.3, Revised Proposed Plan Amendments. The proposed Plan amendments remain part of the project as the regulatory pathway; however, the regulatory pathway includes new water supply adjustments at the outset of Plan implementation that lower flow requirements under certain conditions to reduce water supply impacts and allow more water to be stored in reservoirs. The revised proposed Plan amendments also provide for a VA pathway for an eight-year term with the possibility of extension that reduces the required flow contributions for VA water rights. Also see Section 13.7.6.1, Terrestrial Biological Resources, of the final Staff Report for a discussion of terrestrial species impacts for both the regulatory and VA pathways. As discussed in Section 13.4, Agriculture and Forest Resources, refuge priorities were increased relative to other senior demands to reflect provisions of the December 2025 revised draft Bay-Delta Plan intended to prioritize refuge water supplies. However, while the SacWAM results suggest that changes in Sacramento/Delta water supply to wildlife refuges under the 55

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			w/WSAs scenario and flow scenarios could be negligible, the analysis of impacts resulting from changes in refuge water supplies is complicated by Reclamation's past practice of reducing water supplies to CVPIA wildlife refuges when it reduces allocations to Sacramento River settlement contractors; therefore, it is possible that reductions in Sacramento/Delta surface water supplies to wildlife refuges could at times be larger than indicated by the modeling.
507	13	In contrast to those impacts, the Agreements for Healthy Rivers and Landscapes reduce the negative impacts to one of the most economically underserved and racially diverse regions of California, and to the limited remaining wetlands, while establishing a governance framework that provides for collaborative decision-making, within and consistent with the Board's regulatory authority.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
507	14	And I guess my job today is to round out this panel, and on the last day of these hearings, is to reflect back as I watched prior Board days, and listened to public comment, and listened, Chairman Esquivel, to some of your comments, about the binary choice that seems to be in front of us but in my view is not really in front of us. What we were charged with as a group of public water agency managers -- and I think the word public is really important in that, because we report to a public back in our home areas -- as the science of the Bay-Delta began to become clear almost a decade ago of what was needed, right? A combination of flow and non-flow measures, and the Scientific Basis Report points that out. What we were charged with, really, going back to Secretary John Laird, was take that information, and go back to your communities and figure out a way to make a package work. A package that works for your economy, your social structures, your ecosystems, and for your areas of California. We're really good at doing that as local water managers, but what it does take is leadership at the state level to bring all of those entities together to form a package that we bring before you today. The Healthy Rivers and Landscapes Alternative really is a	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		combination of almost a decade's worth of work by individual tributaries in various areas of the state to put something together that rejects the binary approach and builds on the science that we know is needed, and the adaptive management that we know is going to be ahead of us. Let me use the American River as just an example of this. So 22 water agencies form the regional water authority. But our sister organization, the Water Forum, is really the environmental, social, and environmental justice and economic justice part of our region. And everything that we're doing that's in front of you today has gone through a combination of processes locally with the public water agencies as well as those groups that make up the Water Forum. And the reason is, is because we want to be sure that what we're offering this process isn't going to damage our region's ability to manage water and environmental and water resources within our region. That's that balance that we're seeking. And so, I just want to reassure you that every one of us sitting at this table and all the colleagues that you've seen on these panels prior have had to work with their local entities, their local stakeholders to make this the best possible package. And it's why we feel so confident bringing it to you, and why we're all sitting here today willing to answer any questions you may have. Thank you for the time. Thank you for giving three days to this process, because I think it's extremely important that we all understand that this is an evolution and we're all working towards the same thing as concerned Californians.	
507	15	There is no question that the State Board staff have invested significant time and effort to present a proposal that will provide benefit to the Bay-Delta ecosystem. This recommendation, however, is limited by the State Water Board's authorities. As the consensus of policymakers and scientists, we have recognized that it is possible to do more for the ecosystem with less water more efficiently than included in the proposed plan amendments. Indeed, that was one of the important takeaways identified in the State Water Board's 2010 Flow Criteria Report.	Please see Common Response 1.2, Water Quality Control Planning Process, on the consideration of non-flow measures. Also see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		To accomplish more with less, however, it does require significant investment in non-flow measures. And so we as public water agencies up and down the state acknowledge that and are committed to both the fiscal investments needed and helping to support and acquire those over time. The Healthy Rivers and Landscapes approach does just that and more, providing almost three billion in over eight years for habitat investments and non-flow measures. It establishes inclusive, transparent governance, including seats for tribal and or other conservation groups, and it demands the use of best available science, more fish ears, and all of this occurs with the State Board's oversight and enforcement authority.	
507	16	Chair Esquivel: I think for me, to, you know, your point, Mr. Peterson you know, the inequities we find in our communities are incredibly distressing, right? This Board, I think, has taken great care to treat that topic pretty fairly. And to your acknowledgement -- and I agree, you look at, you know, the main driver in our communities is agriculture and its investments. So when ag is not doing well, folks don't have jobs, you have economic consequences. And I think that the Staff Report does a good job of having very strong, conservative, real numbers there so as to not feel like we're hiding the ball in some of these difficult discussions. But I guess when you look at the CVP and prior to really, you know, the Endangered Species Act -- which is really the tool that was, you know, at this point, has created this outflow pressure, if you will, by limiting operations in the South Delta -- so prior to that, when the CVP got 100 percent for years, what was the poverty like in the communities then? To get a measure of, you know, what I know is a real issue and one that I take very close. But when we talk about the -- keeping more in rivers, the impact to ag proportionately, I mean have we seen -- what do we see? Because, you know, if the CVP were to get a hundred percent all the way through, something tells me we may still be in a boat	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		there. Peterson: Yes. So thank you for the question. Certainly the San Joaquin Valley relative to the rest of California has a depressed economic structure in essence, so -- but if you do turn back to those times, there was certainly less of an imbalance between that region of the state and other regions of the state. And so that's how I would respond. And I'm happy to provide some additional kind of direct data.	
507	17	Board Member Maguire: So I guess my question to you is, what are you most concerned about? What do you think the biggest challenges are going to be from your perspective here, from sitting where we're at today, and making sure, in your view, if the VAs move forward, that they'll be successful? Fecko: So, as you know, much of California's ecosystem is driven by a drought-flood cycle, right? And so what I worry about most in this next decade is what I was worried about in the last decade. Where are we going to be at the beginning of every year and the increasing uncertainty as we go from very, very wet years, like 17 and 2019, and then into another sequence of drought where the species are doing well and then they're not doing well, right? How do you manage around that? Which is precisely why we've tried to build in both the flexibility in the assets and the science and governance to be able to make real-time decisions that can move quickly. And I mean, like, sub-monthly timescales. It's March. It's April. What assets do we call on? What water do we want to put down the system? How do we want to coordinate the river systems so that a pulse flow reaches the Delta to do good things? That kind of nimbleness has not existed in California water management ever, in my view. And I've been doing this, I used to sit in the staff chair in this very building around the early 2000s, and we have not had that nimbleness. And I think that that is -- so, what am I most worried about?	This was a question from the Board Chair to one of the panelists and the panelist answered the Board Chair's question. Please refer to Common Response 1.1, General Comments, for the approach to responding to comments.

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		Hydrology overtaking us. What am I most hopeful about? We get to respond to it.	
507	18	Board Member Maguire: So I guess my question to you is, what are you most concerned about? What do you think the biggest challenges are going to be from your perspective here, from sitting where we're at today, and making sure, in your view, if the VAs move forward, that they'll be successful? Hawk: Can I also? Yeah, mine was going to be similar. In fact, I was going to use the hope as well. I think really it comes down to that climate change is before us right now, and the Delta is really in what we consider crises. Our scientists back at home are constantly telling me, you know, we can't get it in quick enough. Many of the different conservation groups we meet with and talk to and partner with, same thing. They don't have enough resources to even do the great work they're doing. So, to the degree that we have a way to implement those non-flow actions ASAP, is incredibly important. The early implementation portion of this program is something that it's quite impressive to see so many different users across the system really jumping in and saying, we're going to do this, but we're going to do this now, working on the green tape initiative with that. Going and working to get federal dollars together. There's a lot of coordination, collaboration you're not seeing at this table today and hearing about, but we're reaching across the state collectively to move as quickly as possible. So I would say time is our enemy, but our hope is a collaboration at the table and working with everybody across the state to get that habitat in ASAP.	This comment includes statements from a member of the State Water Board or State Water Board staff. Please refer to Common Response 1.1, General Comments, for the approach to responding to comments and for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
507	19	Board Member Maguire: So I guess my question to you is, what are you most concerned about? What do you think the biggest challenges are going to be from your perspective here, from sitting where we're at today, and making sure, in your view, if the VAs move forward, that they'll be successful?	This comment includes statements from a member of the State Water Board or State Water Board staff. Please refer to Common Response 1.1, General Comments, for the approach to responding to comments and for responses to comments that make general comments, do not raise specific environmental

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		Guy: Yeah. Boy, Sean, I think I would just say inertia. I think a lot of these things center around inertia. And I think that's something that we would like to see next year is just some real inertia to really start advancing this process forward. And I think when you get inertia, you get people working together. Right now we have people working from Lake Shasta to the Mexican border on this and the water supply community. We'd love to see the state team functioning as a one-state team in a kind of an inertia-type manner. And then for those who, you know, are critics right now, we'd love the critics to join. Roll up your sleeves, come to work with us. I think it's all about inertia and we think this is the best pathway forward for all the things that you have to do under Porter-Cologne and the other regulatory requirements you have, and we just would love to have some inertia next year to really carry this forward in a positive way.	impacts of the project, or do not raise specific economic effects of the project.
507	20	Board Member Maguire: So I guess my question to you is, what are you most concerned about? What do you think the biggest challenges are going to be from your perspective here, from sitting where we're at today, and making sure, in your view, if the VAs move forward, that they'll be successful? Peterson: Yeah. I'll just add, I think, kind of building on what Dave just said: trust in a lot of different ways. So the desires for this program to be an inclusive program that has the buy-in of stakeholders throughout the state and ensuring that there is sufficient trust for them to join the table is going to be a really key thing for us to do. A second thing that I have some pretty significant concerns about is just the length of the agreements themselves relative to the variability that Andy spoke of in our climate pattern. It's an eight-year term. Salmon have a three-year life cycle. We're not going to have a tremendous amount of data upon which to assess	A portion of this comment is from a member of the State Water Board or State Water Board staff. Please also see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		the efficacy of these if they're actually accepted as the program of implementation. And so that's something that we're going to have to figure out how to collectively address as well.	
508	1	I'm here today to request that the State Water Board adopt the Voluntary Agreements, also known as the Agreement to Support Healthy Rivers and Landscapes. The Voluntary Agreement is a new approach, a collaborative approach, supported by public and private water agencies from Red Bluff to the border with Mexico. North and south, urban and rural, cities and farms support Voluntary Agreements. The Voluntary Agreements integrate flow and non-flow. Hundreds of thousands of acre-feet of new water for the environment to support salmon recovery, hundreds of habitat projects to support salmon recovery. The Voluntary Agreement reactivates the floodplain, tens of thousands of acres of floodplain, a landscape-scale project. It develops a sound, shared, modern science program that is the basis for adaptive management decision-making. It provides for early implementation of projects to accelerate improvements for salmon and wildlife. The Voluntary Agreement fosters collaboration with diverse parties that includes participation from state and federal agencies, public water agencies, and conservation groups	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
508	2	I'm particularly thankful that Governor Newsom and Governor Brown collaborated to write a letter to the State Water Board in 2018 referencing their support for Voluntary Agreement. Not so with 55 percent unimpaired flow. 55 percent unimpaired flow is a product of old science that hasn't worked. I'm convinced that 55 percent unimpaired flow will develop conflict in the water community. It will redirect several million acre-feet of water, which will be devastating to cities and rural communities, farms, fish and wildlife, hydropower and recreation. Instead of collaboration, 55 percent unimpaired flow will generate turmoil that will lead to fighting instead of fixing.	Please see Chapters 3 and 7 of the 2023 draft Staff Report for an analysis of the benefits and impacts, respectively, of the proposed Plan amendments.
508	3	The funny but sad thing is the proponents of VA and 55 percent unimpaired flow want the same goal, to promote the recovery of California salmon. Which is the best approach? The answer is Voluntary Agreement, Agreements to support Healthy Rivers and Landscapes.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		In 1995, we heard from Lewis Bair and Carson Jeffres, an effort of farmers, conservation and government voluntarily implemented the Butte Creek Salmon Recovery Project. Almost immediately, salmon recovered from an average of 250 fish per year to over 5,000. The results of Butte Creek are the promise that Voluntary Agreements work, not just 2x salmon, but over 20x. A few years ago, I wrote a song about Voluntary Agreements inspired by Eric Clapton. I would like to recite the first verse. If you want fish to grow, it takes more than flow. Floodplain. If you want to grow fish, you have to get them food. Floodplain. Get it right, get it right, get it right, VA, floodplain.	
509	1	I'll say at the outset that this is not one of our usual policy areas, and I'm certainly not an expert in this by any means. But as I thought about how to address the questions before you today, I realized that there is a great deal of similarity to an issue that I and the Peace and Justice Center's 2,000 supporters are quite familiar with and attuned to: inequality. Inequality is one of the major issues confronting our society today and is one that people are keenly aware of. Inequality is at the heart of some of our most contentious political debates, most notably concerning tax policies. Who pays and who benefits? It seems to me that we should think of water policies in much the same way we think about tax policies. Water, like taxes, is a shared resource that belongs to all of us. So when decisions about how to distribute water are on the table, we should think about it as if we're deciding how to spend our tax dollars. Do we provide rebates to ordinary people so they can buy an electric vehicle? Or do we offer subsidies to fossil fuel producers? With water, the question is, do we ensure that individuals have access to water-related resources like boating and fishing and birdwatching? Do we protect our very special California environment? Or do we subsidize big agriculture so it can export nuts around the world? I urge you to choose your decisions – I	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		urge you to base your decisions on equality. People do not need to be experts on the science involved to know when things are not divvied up fairly. They'll just know. They always know. Just as people are aware that trickle-down economics is a sham, trickle-down water policy would be the same, would be seen the same way: as a sham. This is a definitive moment. I urge you to be fair. Choose equality.	
510	1	As you must be aware, California history is one of genocide, which not only to the indigenous people, but those values were brought over into the land management. And so that's where we find ourselves today. And that's why we have so much destruction of habitat. And so I just wanted to also echo what Nicole had mentioned about the unratified treaties and the fact that much of this land in California is unceded treaty lands. And so when we talk about, like, managing these lands, it's not about, you know, allowing indigenous voices to the table. It's about recognizing our positions and understanding that we are learning, and I speak from also a European ancestry.	Please see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to comments related to tribal outreach and engagement, and Traditional Ecological Knowledge/tribal knowledge. Please see Staff Report Chapter 13, Revised Proposed Plan Amendments, for additional information on the State Water Board's efforts to engage more robustly with California Native American Tribes and integrate Traditional Ecological Knowledge/tribal knowledge into the State Water Board's Bay-Delta Plan update and implementation processes.
510	2	You know, I've heard many people talk about how their family is, you know, six generations, but that is nothing in comparison to the knowledge that Indigenous people hold on this land. And so as much as we can do, and I implore you as the Water Board to use the power that you have to rebalance our relations both to this land and to the indigenous people as non-natives of all backgrounds from coming to this place.	Please refer to Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
510	3	And just in response to all of the growers, I really appreciate that you all are growing food and bringing up food, but I also consider the Water Board and also these growers to imagine a future that is still growing food, but it doesn't have to be almonds that are being exported across the country, or that people, as I've heard mentioned here, also can't even afford to buy here.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
510	4	So thank you for your time today. I support Tribal Beneficial Uses and I support the 75 percent water flow minimum. I don't stand	Please see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to comments related to Tribal Beneficial Uses. Please refer to Common Response 1.1,

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		for the Voluntary Agreements and I implore you to just make decisions with your heart and just do the right thing.	General Comments, for responses to comments that express support and opposition to the Plan amendments and VAs.
511	1	I've been following the Bay-Delta Plan starting with the early days of Phase 1, when I realized this process was my last best chance to save all the rivers that I love. In 2010, I worked with the Tuolumne River Trust and I was involved in early meetings that had a stated goal of coming up with Voluntary Agreements. Back then, we NGOs went in with good faith and had a lot of optimism about the idea of coming up with Voluntary Agreements. But it became pretty clear fast that the water users were not serious about negotiating or coming up with solutions. The whole idea of these Voluntary Agreements wasn't ever to meet in the middle. At best, it was a delaying tactic, a way to maintain the status quo for as long as possible and drag out any possible changes.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
511	2	And in more recent times, we've all had a master class in how this works from none other than Donald Trump. Just delay, delay, delay until you finally figure out a way to get what you want. This worked for Trump for decades until finally, finally, we're now starting to see courageous public servants stand up to him, stand up against a rich and powerful person for the sake of the public good.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
511	3	The purpose of this very Board is to protect the public trust for the public, not for a few rich guys who've been taking more than their share for a long time and think they can keep it that way forever. They think that because no one stands up to them, but this is the moment. The status quo is not in the public interest. Agriculture is important, absolutely, but we've all heard how it's 2 percent of the California economy, but uses 80 percent of the water we take from the river. Meanwhile, the writing is on the wall. No matter how much ag interests in this state want to maintain the status quo, climate change will assure that isn't going to happen. Change is hard, belt tightening is hard, but come on, the time to make hard decisions is now, now within this very process. We need to learn to live within our means, not just wait for disaster. If you want to do something good for farmers, this is the time to incentivize	Please see Common Response 1.2, Water Quality Control Planning Process, regarding the State Water Board's consideration of public trust resources and beneficial uses when formulating or amending water quality control plans. Please see Common Response 1.3, Revised Proposed Plan Amendments, regarding the VA process and the relationship between the State Water Board's regulatory pathway and the VA pathway.

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		further efficiency. And now we all suspect, or actually we know -- we know -- that Gavin Newsom has put inappropriate pressure on the members of this Board to go along with the Voluntary Agreements. We know this because former staffers of yours have said plainly that they quit because they said the governor is interfering in this process. And who would have guessed that our green governor is the bad guy in all this? But what the governor wants is not in the public interest. Protecting rich guys who will contribute to his campaign is not what this Board is charged with. This Board is charged with restoring the Bay-Delta ecosystem.	
511	4	The Voluntary Agreements are baloney. These rivers aren't for sale. The Voluntary Agreements are a giveaway of public trust water and public funding to water agencies that are legally obligated to keep fish populations in good condition and have failed to do so. Letting the water agencies propose the solution is letting the fox watch the hen house and we all know it. This is a legacy moment. What do you want your legacy to be? Do you want to let the rivers die on your watch just to, what, momentarily please your boss? Of course not. I'm sorry to be so passionate. I believe that everyone here wants to do what is right. I absolutely believe that. And I ask you to please listen to your own scientists and use the unimpeded flow plan. Have the courage to stand up to powerful men who would have you do their bidding for their own purposes. Your grandchildren and mine will thank you.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
512	1	I have been a fishing guide for 20 years. There is not a single person I know to exist that has accumulated the time spent on the Sacramento River that I have. Along the way, I've learned many things that agree with your data and many that do not. What I can tell you is the firsthand eyewitness accounts of real-time happenings. Yet as a professional in the salmon industry, our ideas and real-time	The 2023 draft Staff Report acknowledges existing temperature problems in the Bay-Delta watershed. See Section 7.6.2.2, Aquatic Biological Resources, Environmental Setting. Flow and water temperature conditions in many Sacramento/Delta tributaries are affected by diversions, hydropower operations, and reservoir water supply and flood control operations. Dams and reservoirs block access to upstream reaches for many native fish, including multiple special-status anadromous fish species

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		accounts of actions are never considered in any decision-making process. This needs to change. Who knows better than someone who spends their life living on the waterways that are in question? Instead of moving forward in the Bay-Delta Plan, I'd like to reflect on the damage done previously by the Bay-Delta Plan. I've personally watched, photographed, and documented the degradation and destruction of the Sacramento River salmon runs over the past two seasons. During 2022, water temperatures killed thousands of salmon as water temperatures rose from above the temperature thresholds for Chinook salmon survival. During the summer's hottest months, as fall Chinook salmon reached peak migration through the California Delta and the Sacramento River, during 2022, the months of August and part of September, I personally documented thousands of salmon drifting by me dead every day for over a month's time, killed by water management temperatures, leaving the Sacramento River flows at the minimum flow rate allowed. These flows in the Sacramento River at Verona will reach temperatures of 75 to 78 degrees when air temperatures in the Sacramento Valley remain above 105. Water temperatures will kill, disease, and stray everything salmon that spawns in it and swims in it. These management practices will never work as they're designed to supply senior water ag contractors with the water during those months. In a very critical year for our salmon in 2023, a year we needed every salmon to make it home to Coleman National Fish Hatchery, the majority returned, which had the worst return in history. Why? Because, again, in 2023, water management practices left water temperatures in the summer months on the Sacramento River at Verona over 75 degrees. So all these salmon strayed up the Feather River seeking thermal refuge in the much cooler 65-degree water temperatures, leaving Coleman again empty and without salmon.	that historically migrated into upper watershed streams. Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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512	2	Voluntary Agreements do not work. And I personally, as a salmon guy, disagree with moving forward the Voluntary Agreements.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
513	1	[See letter SDU-0103 for slides referenced] I have spent roughly the last 20 plus years of my life studying floodplains, and I know that it's part of this portfolio of options. And Secretary Crawford talked about this earlier in that it's flow and habitat. And I think that floodplains are one of these places where we really see this relationship between how water and the landscape function. And unlike dams that have a very stark, hard part to a river, that they divorce the lower river from the upper river, is a levee next to a river is functionally a dam that runs along it for its lower parts. In California, we have about 1,100 miles of levees. You can think of that as 1,100 miles of dams that run next to a river and divorce that river from its floodplain. And it wasn't really until the early 2000s that we began to appreciate the value of these habitats in really temperate landscapes in general. It was really focused on the tropics, particularly the Amazon, where we got this. And in this picture here, you see, this is a picture of the Cosumnes River. The Cosumnes River is the only river that flows out of the Sierras without any major impediments. And as such, when it rains, it flows. It's been the focus of restoration since the early 2000s, late 90s. And it's really where we learned the importance of these habitats to our salmon. That being said, the Cosumnes is really a postage stamp in that the lands that are adjacent to the Cosumnes are relatively uninhabited. They were focused for restoration of habitat, and it's not what we have throughout the rest of the state. It's a very unique spot. But at the same time, we were able to learn the importance of those physical processes, and the biological processes that happen from them, to get an understanding of our opportunities throughout the rest of the state. Can we -- how do we progress slides?	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Please also see Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations, and Chapter 4, Other Aquatic Ecosystem Stressors, of the Staff Report and Common Response 3.1, Fish Protection, for a discussion of the flow and non-flow stressors and benefits of the revised proposed Plan amendments.

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		Right now would be great. So when we started looking at this is thinking about where we can actually, you know translate that ecology and function at scale. We first went to the bypasses and what you see here is this is an aerial image of the Yolo Bypass. It's about 40,000 acres of floodplain. It's a really big, important flood infrastructure in the state. But it wasn't until we looked at it that we realized it's also a very important ecological component for how salmon use this landscape. You can see the picture of the fish there. Those fish are the same age. The difference is, is what they've had for an opportunity. And the difference is between being in the river and being on the floodplain. Fish on the floodplain, particularly juvenile salmon, grow about six to eight times faster than their counterparts in the river. As that water spreads out, slows down, it becomes productive. It's full of zooplankton. It's full of food. Those fish -- it's warmer. And oftentimes we think of salmon, we think of cold water being our friend. The thing that's different is that the winter, warmer water, not hot water, but water that's warmer than that cold river that's unproductive, is actually beneficial. And those conditions create opportunities. And I've heard reference already during these discussions of the otoliths and the eye lenses where we reconstruct their habitats. So my lab is the lab that does that. And we actually use the eye lenses of these fish, and we can look at the eye lenses for the fish that come back and spawn and are successful. Those are the fish that we count in our system. Those are the ones that dictate whether we have an open fishery in the ocean and in the freshwater or we close it. And right now we have a closed fishery, and it's a large impact on the communities on the coast as well as in the freshwater. But we can look into those eye lenses of those fish and realize the importance of these habitats by the isotopes in those eye lenses, and we're seeing	

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		upwards of 80 to 90 percent of the fish that come back are utilizing floodplain resources during their out-migration. And so we are beginning to quantify the importance of that. And the more we look at it, the more we realize how important that is. And in wet years, when these habitats are fully inundated, when we have uncontrolled release of water from the river into the bypasses, we see millions of fish out in these habitats, and we see fish that come back three years later, and so we know that benefit is realized. The challenge is that in non-wet years, there is no access for these fish to these habitats. And as such, we see very low recruitment from wild fish into the adult fishery. And those are the reasons why we see curtailments of fisheries. We see listings. We're about to see an uplisting of Chinook salmon, spring run. So we'll have two endangered species of salmon in the Valley, which we're going to be adding to our multiple constraints. And so I think it's worth looking at something like Butte Creek. Butte Creek was a place where there was lots of impediments in the system, particularly adult migration impediments to get fish from the Sacramento River up to their spawning habitats. When those impediments were minimized and mitigated, is all of the abundant floodplain that's available in Butte Creek that's currently there was able to be realized. And Butte Creek was really the stronghold, up to this point, has been the stronghold for spring-run Chinook salmon. And so because these fish have a very dynamic life cycle, is that any weak point in that cycle can limit their recruitment into adulthood, which are the fish that we count. And so we've realized that, you know, floodplains are really that weak link in the chain for them right now. We've spent millions of dollars working on spawning habitat. And now it's time we start thinking about how floodplains can benefit those fish into adulthood and, you know, as part of our water management system.	

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513	2	[See letter SDU-0103 for slides referenced] So my name is Julie Rentner and I'm the president of River Partners. River Partners is a not-for-profit organization founded 25 years ago in the Central Valley of California with a mission to create wildlife habitat for the benefit of people and the environment. And our outcomes in restoring rivers and floodplains for the benefit of this broad suite of critters that you see on the screen in front of you includes over 18,000 acres of reconnected and reforested floodplains, from Redding to Bakersfield. In doing that kind of work, and delivering over \$170 million worth of public investment to the landscape in the last 25 years, we've learned a lot of interesting lessons about how challenging it is to get actual species recovery, as well as how important it is for communities, the health of our Central Valley, and the health of our water system that we take action to restore habitat today. Next slide. So this is the problem statement that we all are working from, right? It's not just River Partners who works from this problem statement, but everybody who's here in the room, everybody who cares deeply about the recovery of our salmon fishery, is that in a very short amount of time for this planet and for this valley, we went from millions of acres of wetlands and marine and floodplain habitat areas across the Valley to almost none. And in that time, we didn't just lose our ability to host productive suites of wildlife from critters that live on the landscape and use river corridors as their pathways, to aquatic species that live only a part of their life in the bottom of the Valley here. Also, we lost a lot of human environmental quality issues. You know, we have real significant water quality, air quality challenges across the Valley as a result of this dramatic change. And even, you know, post-SGMA, we're starting to realize that this dramatic change where we've completely dried out the bottom of the Valley for a different value set, has really changed our entire watershed to the point that we're now trying desperately to get more water to go into the ground across a lot of the Valley. So next slide, please.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		And this kind of framing around how we manage our rivers, I just have to name that the decisions that are made in the Delta and in aquatic habitat conditions for the whole Central Valley are -- this is a high stakes game. And the water that's used in the Central Valley for all of its various purposes, including keeping environmental quality healthy for residents of the Valley, is also the exact same water that runs, you know, several billion dollar industries in California, supports millions of Californians, and needs to also support a productive salmon fishery, which it has not in recent years. So the decisions that have to be made about what we do with water have to be surgical. You heard from Carson the incredible science that we've been able to accumulate in just the last few years that supports a much deeper understanding of the system today than we had even five years ago or 10 years ago. And so I'm hopeful, you know, as we look at the landscape today, that what we've learned about reconnecting floodplains, and particularly reconnecting floodplains along the river in ways that can inundate frequently enough to support salmon in not just big flood years, but even in average water years, is something that's within our reach. Next slide. We all saw in 2023 what happens when a lot of water hits the bottom of the Valley, and we're still in a changing value set environment where that water is still a nuisance and causing problems for a lot of our infrastructure in our communities across the Valley. We can use that water for good, while also creating connected corridors that benefit the recovery of salmon. I get the pleasure of working on floodplain reconnection projects that are in the river channel itself, not the kind of broad bypasses that Carson just described. And when we're next to the river, floodplain restoration projects that that can be designed to provide salmon habitat and other habitat frequently, even with smaller flows, are very, very expensive. Really, we're talking about excavating huge amounts of material out in order to get targeted hydrology that benefits salmon.	

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		So, in order to make these projects, you know, bring them to scale, we've had to learn over the last 20 years or 30 years how important they are to people too. And so, I'm pleased to report that there's floodplain projects, floodplain reconnection projects, featured on the cover of the Central Valley Flood Protection Plan as a solution to giving our changing hydrology space to spread out and sink in. This is also a solution that can be managed in tandem with public access and recreation in ways that give, you know, residents and communities in the Valley access to open space they've never had before. So River Partners takes a really comprehensive view about why public investment in this kind of floodplain habitat restoration is so important, but I do want to say in this framework around the Bay-Delta and the health of our salmon fisheries that these are very, very important places where fish currently move and where fish currently don't have enough access to this kind of riparian-incident and floodplain habitat. Do fish live in a floodplain when there's no water around? Absolutely not. But can we design floodplain habitat projects that benefit fish in more years than they do today? Absolutely. So I look forward to working with visionary leaders like Lewis and others here to try to find places to put this multi-benefit floodplain restoration across our Valley for the benefit of the Delta and its ecosystems and its salmon fishery.	
513	3	So, a typical engineer, I've got words on my 24 slides [see letter SDU-0103 for slides] instead of pretty pictures. So I apologize for that. So I agree with you, President Esquivel. I don't think this is a binary choice. I think what we're talking about here with the Agreements to support Healthy Rivers and Landscapes, I honestly believe if your staff had the broad authorities, I frankly think they would have proposed the same thing. They would have proposed to fix broken rivers that we have today, physically changing them. I believe that would physically change our flow	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		abundance curves. Right now they're impeded by our levee systems, and you've heard that a lot. So I hope to be able to share with you also this the program that I'm leading called Floodplain Reimagined is likely to deliver the largest block of habitat through the Healthy Rivers and Landscapes program, and I hope that you'll see that it is a very open and transparent and -- in seeking, really, tribal actions, we've brought in folks to do that, and to help with that, and hopefully that helps you understand kind of detail. When we talk about habitat, or changing the landscape, I hope to be able to point to some of that so you can see what it means. And really it means our water being more effective for the environment. So the first point here, our flow abundance relationship, is really affected by our infrastructure, the levees that we've put in. The best example that I have, but it's really an example that works for most of our levee system and the weirs within it. The weirs that are there do not allow our river to connect with the landscape and create that habitat benefit until they're at about 80 percent of their capacity. Historically, the sloughs that used to connect these landscapes did that at about 20 percent of capacity. There is no reason that we need to leave those weirs so that they function the same way. We need to get in there and modify those structures so that they once again connect how they did historically. And at Tisdale Weir, which is the very first weir to overflow, there's a little over 15,000 acres of habitat behind that. Right now, with the existing weir structure, it's only activated about 45 days on average. A gated structure at the Tisdale weir, which was actually proposed by the Department of Water Resources for adult passage, that physical modification would change that to 90 days per year on average. And the most important thing to that, really, is that right now in really, really wet years, we overwhelm our flood control system, and we get that habitat activity, right? But that has created a really brittle fishery. And we see that. It's either boom or failure, right?	

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		When you have a weir that's modified like this, it connects in many more of those year types. So those boom years don't just happen in the wettest years possible. They can happen more frequently. You know, even below normal years can be very exciting behind Tisdale. And so when you think about infrastructure -- and that's with the exact same amount of water that's in our system right now today, right? So we double the effectiveness of those 15,000 acres. I think that's really important. And when we talk about efficient habitat generation or river function with the existing water supply, that's what we mean. We need to kind of untie the hands of our river systems so that they function again. One of the things that has allowed our program to deliver that habitat, and why -- really this is a lot of the same things that were proposed in the Yolo Bypass process -- but it's the fix-not-fight culture in the Sacramento Valley. Folks are wanting to take care of their own backyard. They're wanting to fix their fishery. The science that Carson mentioned, just giving a clear picture to folks. And it's also sort of the carrot on the stick right? Right now, there's this stick that's the threat of unimpaired flow that gets people pretty motivated to do things they wouldn't otherwise do. It's hard to get a full landscape, thousands of landowners, to do something in unison, and right now that's helpful. So then I would like to go -- well, I wanted to point out here, this is Butte Creek that Carson mentioned. And really, Butte Creek was slightly different. Butte Creek had floodplains all the time, but they didn't have some of the other life stages. And you can see the orange leading up to the green. When you get all of those things in place, our fish are incredibly resilient, and they can really rebound, and you can see here what happened when that was completed.	
513	4	So I'd like to talk about the Floodplains Reimagined program. And like I said, this is designed to deliver most of the habitat	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not

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		under the Healthy Rivers Program. We've spent \$10 million already in three years working on this program. It covers approximately 500,000 acres. So this is an enormous program. That's, you know, 10 plus times the size of Yolo Bypass. And we're using our trust and our relationships with existing landowners to build a ground-up program. So we're providing all of the information -- biological, modeling, engineering, legal -- to our landowners, and we're showing them what priorities there are for the state, right? And this includes the fishery priorities, but also includes groundwater recharge, it also includes tribal, you know, interests. There's a broad suite of those priorities. We respect existing uses. So there's some very important habitats already in these floodways. You know, for the Pacific Flyway, you've heard that story many times. But we're doing this from a ground-up perspective and asking those landowners that know their property better than anybody else, how can you also do these other things with their property? And it's frankly really been effective. So on the right side of the table [see letter SDU-0103 for slides with table] is a, illustration of the -- sort of the structure of the program. At the very bottom, we have ad hoc committees that cover all of our technical issues. The next group up is our advisory committee. Everybody is invited to both the advisory and the technical committees. And so we typically get 50-plus folks at those advisory committee meetings. The third layer from the bottom there is our actual decision-making body. So that includes landowners, state and federal agencies, NGOs, and a seat for tribal entities, and we were very fortunate to have tribal representation on that. And then the very top box is the team, and we brought a real	raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		first-class team. It's a lot of the folks that had experience from Yolo actually work on this now. So if you go to the next slide. So this slide illustrates the 500,000 acres that are included. This goes essentially from Yolo Bypass at the bottom all the way up to Chico on the Sacramento River and covers the east and west side of the Sacramento River. The Feather comes in about halfway up on the right side and that kind of part that's white that pushes in towards the Sacramento River is the Buttes, so that'll help orient you. The thing I wanted to highlight here is that we now have technical services that have been requested by groups of landowners all the way up to Sutter Bypass. In fact some folks have been working with the Sutter Refuge. I know Carson talked to them about different things that they can undertake. We have groups of landowners above the Sutter National Wildlife Refuge. Very exciting. You know, one of the real conflicts with this can be the different depths desired by waterfowl interests and fishery folks. But we had the Butte Sink Water Association, which is probably the most amazing waterfowl area, probably in the nation. They signed up for technical services and are now cooperating to tell their story and look at what they can do. So when you want to know if these things are real, can the habitat be real, in the Sutter Bypass there's the first proposals, 12,000 acres of landowners that have proposed to add a flowage easement to their property, work with the state, work with reoperating the Tisdale weir to create additional habitat. So these things are real. We're working really hard on the ground to make sure that they're real and they get delivered and to change our rivers. I think it's fixing our rivers that gives us the resilience in different year types for our fisheries. So with that, I think I'll close the panel, and I think we're all interested in questions if you have those.	

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513	5	Chair Esquivel: I guess my question would be on Butte, because again, you know, it is about the physical infrastructure, but also the amounts that may be on that system. Do we, you know -- how much does the Butte Creek have to work with, you know, compared to maybe some of our other more impaired rivers? Just kind of wondering how much is kept in the system. Because that is here that critical component of this discussion, is, you know, what is that balance? What are the physical infrastructure that you might have, but what is the wet water that you keep in the system as well? What's that right balance? I'm just kind of wondering if folks have any numbers -- numbers on Butte Creek for flow. Jeffres: I'll give it a try. For Butte, what's interesting is that while, you know, most of the lower river is managed for -- or particularly the sink is managed for wetlands for waterfowl. And what's interesting is that only that upper portion of the river holds fish in it, which is the adult, because most of them are spring-run. So they spend most of their time in the upper river. So they migrate up during the spring when there's actually more water. And then from the rest from the spring until the next winter is -- there's really not a lot of salmon in the lower river. There's almost no water in the lower river. So almost all of it is extracted out. But what I think the big difference is, is that those fish have an obligate floodplain during -- I mean, there is no other outlet. It's that Butte Creek is functionally being routed through the Butte Sink, and the Sutter Bypass is actually that channel, where the rest of the rivers in the Valley are within the leveed system until there's overtopping events that send them into those habitats. And so I think that's one of the things that makes Butte very different, is that there isn't necessarily a lot of water, but the habitat is always available in every water year. Bair: Yeah, if I could add a little bit to it. I think you'd be shocked at how small and little Butte Creek is for the number of adults that it produces. But they get 100 percent, like Carson said, of those fish onto the floodplain. Right now in the Sacramento, we're closer to like 20 percent of the fish that get benefit. And I	A portion of this comment is from a member of the State Water Board or State Water Board staff. Please refer to Common Response 1.1, General Comments, for the approach to responding to comments and for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		think that's what we've changed with our flood control system. You know, some of the numbers Carson didn't mention is, you know, the fish that -- you know, maybe the 20 percent that get on the floodplain, or 10 percent, end up producing more than half of our returning adults, even three quarters, because they're so much more likely to make it through the Delta and hit the ocean and be able to survive that. And so the goal with modifying or kind of unwinding the damage that we've done to our system with the flood control system is, let's try to get 30 percent or 40 percent. And let's try to produce the food on that landscape that can come back and drain into the river and feed the fish that are in the river, right? We're seeing -- you know, I'm also involved with the fish food program, as Carson is. And fish that are moving downriver past where we're putting food into the river, they stop. They're like, finally, some food in the system, right? And they stop and eat for a few days before they move on. And so it's really encouraging that these things, I think, can make a real difference. And I think it's definitely part of the solution that's extremely important.	
514	1	As many of you may know, the RWA is consisting of 22 public water suppliers in this region, and many of us are members of the Water Forum Agreement, which has established commitments for in-stream flows and setting appropriate cold water temperatures for fish in the lower American River. We have years of experience in implementing this regime, and we have more than 15 years of experience in implementing habitat projects for the salmon and steelhead trout in the river. The Vas will build on this successful work by the Water Forum. The water agencies participate in the Water Forum because in our experience a healthy river starts with a healthy river system. Our years of work on the river have confirmed the key driving factor for the health of the fishery is water temperature. Snowmelt is captured in Folsom in the spring, and if a sufficient	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		volume of water is stored through the summer, there will be an adequate amount of cold water available for fish spawning in the fall. But in those years when the reservoir has been drawn too low through the summer, the system may not have suitably cold water in the fall to support the fishery. This happens when water close to the surface of the reservoir is heated up by the sun, particularly during the long, hot days of Sacramento summers. The warm water stays on the top of the reservoir, the cold water stays closer to the bottom, and this is how a reservoir such as Folsom develops its cold-water pool.	
514	2	I believe this concept was raised by Board Member Maguire, actually, at a previous hearing. We actually have some experience with this, particularly in, say, 2021 with Folsom Reservoir. The flows were released in Folsom because forecasted inflows simply didn't appear. I think the Board is very aware of this period of time with Folsom Reservoir. As a result, in spring 2021, the volume of water released was about equal to the volume of 55 percent unimpaired flow. And because the reservoir was drawn down so low by those releases, the water in the reservoir was heated up to temperatures that exceeded 70 degrees at Hazel. The Staff Report acknowledges that releases of high volumes of spring flows will increase temperatures in the Lower American River in summer and fall, as would be expected when Folsom Reservoir is not maintained at a high enough level to preserve the cold-water pool. In table A6211 of the Staff Report, which summarizes the results of the effects of 55 percent unimpaired flow, it reflects the increased temperatures as I've already alluded to. The proposal would increase temperatures for Juvenile Steelhead and the American River in the summer months. In July for instance, dry, in dry years, the temperatures would average about 2.4 degrees higher with 55 percent unimpaired flow. The Staff Report indicates these higher temperatures would occur even with the proposed buffer pool that cut off certain type of Delta export	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Please see Common Response 1.3, Revised Proposed Plan Amendments, for information on the regulatory pathway implementation of the cold water habitat objective. Please also see Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, related to implementation of the cold water habitat objective.

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		deliveries from Folsom. So just in closing, we remain concerned with how the 55 percent unimpaired flow might affect the fisheries of the Lower American River, and we would urge the State Water Resources Control Board to take these concerns as it considers it's implementing the proposal, and I'm open to questions if there are any.	
515	1	Given the critical moment we are in, we felt it was necessary to join the chorus of the environmental community in advocating for a more robust and equitable Bay-Delta Plan that will give California's riparian biodiversity a fighting chance to do away with the Voluntary Agreements. So we know the Bay-Delta ecosystem is one of the most critical ecosystems in the state and home to six species of listed fish as endangered or threatened. We strongly urge that the Water Board follow its own 2010 flow criteria report and build on high-flow alternative by striving to dedicate 75 percent of the unimpaired flow on the Sacramento River and its tributaries, and 75 percent of unimpaired Delta outflow water, necessary to protect the Bay-Delta ecosystem.	Please see Common Response 1.1, General Comments, for information on the Delta Flow Criteria Report and for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
515	2	The Bay-Delta Plan must also consider all California stakeholders and protect benefit uses related to tribes, fisheries, and recreation. The Bay-Delta Plan acknowledges the need for TBUs but does not lay out an enforceable plan to protect them.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project; Common Response 1.2, Water Quality Control Planning Process, for information on the consideration of beneficial uses; and Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for information on TBUs.
515	3	Voluntary Agreements appear to be a giveaway of the Public Water Trust, and also give away funding for water agencies legally obligated to keep fish populations in livable conditions.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
515	4	The Bay-Delta Plan could allow for adaptive management that could increase or decrease flow requirements based on whether biological goals are being met. Please do the right thing. Californians are watching and we ask	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		that you vote for California's biodiversity and also for us as the future generation.	
516	1	I'm going to talk about the opportunity to recharge groundwater that is not being done in the Tuolumne Basin. It may well be not being done as well in many other basins as well, and because water is such a serious issue and there's not enough for flow, and not enough for consumptive use, then it's something that you all might think about. Next slide, please [see letter #108 for slides]. And I want to illustrate, I want to emphasize, that Restore Hetch Hetchy has no dog in this fight, so to speak. We're not taking a view on whether you should adopt the Bay-Delta Plan or the Voluntary Agreement or so forth. Our priorities are upstream in Yosemite National Park, which is sadly not the subject of this hearing. Next. So everybody's hurt in the very wet years, like last year, like 2019, 17, 2011, 2005, and 2006, when you're not recharging groundwater, and you've channelized your rivers, you've lost your floodplains. Everybody loses. And in the case of the Tuolumne, you could increase water for consumptive use, you could increase water supply for flows downstream, or you could obviate the need for Hetch Hetchy Reservoir, again, sadly not the subject of today's hearing. Next slide, please. I'm not going to go into this slide in any detail, because I've only got three minutes, but it compares the Tuolumne and Upper San Joaquin Rivers, very identical rivers in terms of hydrology and management in most years. But in wet years, the very wet years, the San Joaquin does a much better job of recharging groundwater. Something like one and a half million more acre-feet in two years alone were used for consumptive use because people were able to move that water to groundwater mostly in Kern County at other times of the year. It's a stark difference, a	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		very stark difference. And unfortunately, I didn't have the data. It's not really available for the other wet years that I mentioned. Next slide, please. This is the Eastside Water District. It's a place with a severe groundwater depression. It's been known for 30 years. San Francisco identified it 30 years ago, but says, "Well, it's complicated because we have these institutional barriers." Next slide, please. Skip this one, please. So on the Tuolumne and probably other rivers too, you've got the hydrology. You've got excess water in wet years. We've got depleted aquifers all over the place. We've got the right geography or geology to put water back into the ground. The conveyance to move the water is not that expensive. It's pretty cheap compared to other water supply options. What we're missing is cooperation between all the parties that manage water. And you, the State Board, is in a position to encourage people to cooperate better for everybody's benefit. ROSEKRANS: Okay. This is the last slide. Pennies on the dollar to develop this water supply. You've got to get people to work together, and it's a lost opportunity.	
517	1	I'm here today to comment on the draft Staff Report for the Phase 2 update of the Bay-Delta Plan. The proposed 55 percent unimpaired flow is not supported by the best available science to restore and support native fisheries. The baseline used is inadequate and has led us to the current state of the estuary. The Board has to adopt standards that will achieve the viability of the salmon doubling objective. Wildlife and fish species native to the Sacramento San Joaquin Delta	Please see Common Response 1.2, Water Quality Control Planning Process, for information on the reasonable protection of fish and wildlife beneficial uses; Common Response 3.1, Fish Protection, on use of best available science; and Common Response 6.2, Baseline and No Project Alternative, for information on the baseline used for the analysis.

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		support the Delta ecosystem. The establishment of this low flow rate will only continue to hurt these environments, especially the different fish species that are already listed as threatened or endangered.	
517	2	The recent petitions to list the California white sturgeon as threatened under the California Endangered Species Act, as well as to list the San Francisco Bay population of white sturgeon as threatened under the Federal Endangered Species Act from sport fishing and environmental groups, is evident that our Bay-Delta is suffering ecological decline from water mismanagement as well as how fisheries are crashing in the region. Any flow rate that is less than 65 percent is not going to be substantial enough to support the Bay-Delta's fisheries, let alone the communities that rely on them. If we do not do right by our fisheries, then we are in danger of doing irreparable damage to our state that could have lasting effects on not only these species, but on the overall quality of our waterways statewide. California is a beautiful and diverse state. We offer many natural resources and house a variety of native fisheries. The Board is approaching nearly 30 years since its last significant update to the Bay-Delta Plan. During that time, the Delta ecosystems have been negatively impacted due to the changing climate coupled with poor water management, resulting in high temperatures, low flow rates, decline in fish viability, and the closure of the 2023 salmon fishing season. Continuing business as usual, with the adoption of the proposed 55 percent unimpaired flow framework, or supporting the VA proposal, will deplete our fisheries and continue to cause disparate impacts amongst Delta's environmental justice communities. Thank you for the opportunity to comment, and I hope that you take this as an opportunity to reconsider the flow rates in this Staff Report.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project and Common Response 1.2, Water Quality Control Planning Process, for information on the reasonable protection of fish and wildlife beneficial uses; and Staff Report Chapter 10 and Common Response 10.1, Economically Disadvantaged Communities, for information on economically disadvantaged communities.
518	1	I've hiked in many places in our beautiful state and fished in its streams, rivers, the Delta, and coastal waters for trout, salmon, rockfish, and striped and largemouth bass. All these activities require unimpeded flows of clear water to nourish the natural	Please see Common Response 1.1, General Comments, regarding comments on other projects and for responses to comments that make general comments, do not raise specific environmental

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		environment. Over the last decade, I've seen the state, under the leadership of Governor Brown and then Governor Newsom, continue to sacrifice our natural environment in order to provide cheap water to the state's agribusiness. The peripheral canal, the twin tunnels, and now the Delta Conveyance were all intended to perpetuate the idea that there's plenty of water available to distribute, but we only need to manage the storage and canalization better. According to testimony from fish biologists, the measures contained in the Voluntary Agreements can only supplement the need for sufficient flows of fresh cold water during the cycles of fish lives. Considering the fact that agriculture uses 80 percent of the state's water and contributes just less than 2 percent of the state's GDP, there is no economic justification for this proposed water grab. The State Water Resources Control Board are direct appointees of Governor Newsom. Their actions will have severe negative repercussions for him if you, as his appointees, do not develop a strong water plan for the state, requiring 75 percent minimum unimpaired flow on the Sacramento and 75 percent unimpaired outflow from the Delta.	impacts of the project, or do not raise specific economic effects of the project.
519	1	The Water Forum is a collaborative organization of business, agricultural leaders, citizen groups, environmentalists, water managers, and local governments. We've been working together for nearly 25 years to implement the Water Forum Agreement, which is a Voluntary Agreement for the benefit of the Lower American River that balances the needs of the river and the needs of the region. The Water Forum uses best available science to support management decisions on the American River. I'm here today to emphasize the importance of two outcomes of that work, the Flow Management Standard and our Habitat Enhancement Program, and describe how they're integrated together to achieve our co-equal objectives. The Water Forum, in consultation with state and federal agencies, resources agencies, has developed the Flow	Please see Section 7.7.1.2 of the SacWAM documentation (^SacWAM 2023) for a description of the SacWAM modeling of the Flow Management Standard. The outputs of this SacWAM modeling were used as inputs for the water temperature modeling. The algorithm for Folsom Dam target temperatures is described in Appendix A6, Water Temperature Modeling and Fish Assessment for the Sacramento, Feather, and American Rivers, starting on page A6-7 of the 2023 draft Staff Report. The Folsom Dam target temperatures used for the draft Staff Report are very similar to those used recently for the 2023 Final EIR for the Delta Conveyance Project (DWR 2023b). The average difference in values between the Folsom Dam target temperatures used for the Staff Report and the Delta Conveyance Project EIR is 0.2 °F, and this difference would not affect temperature assessment conclusions.

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		Management Standard, which balances the water supply's needs of flow and temperature requirements for Steelhead and Fall Run Chinook. The Flow Management Standard was first released in 2006, but was updated following the 2013-2015 drought. An extensive scientific testimony was presented here to the Board during the WaterFix hearings in 2016-2017. The current version is referred to as the 2017 Modified Flow Management Standard, or MFMS for short. Say that 20 times. The MFMS is being implemented, with some exceptions, on the river through the NMFS 2019 Biological Opinion, and we're working currently with Reclamation on re-consultation to fine-tune and incorporate the latest science to implement the MFMS. I can't emphasize enough how much time and energy and resources that our region -- so not just the water users, but the collaborative group of water forum members, including the environmental community -- how much we have invested in the development of the flow management standard. It balances competing interests and avoids redirected impacts in a very precise manner. The Board is currently using the MFMS in most of the SacWAM modeling scenarios, but the draft Staff Report is unclear about which elements of the MFMS are being used for the alternatives analysis. We would just like to confirm that you're using the current version in both SacWAM and the associated water temperature modeling, and just to please provide a description of which elements are being included in both. Thank you.	
519	2	On December 1st, you heard a presentation from my colleague, Erica Bishop on the Water Forum's Habitat Enhancement Program. The Water Forum has been designing and implementing projects on the Lower American River for 15 years, and like the MFMS, we are implementing enhanced -- sorry, habitat enhancement work that is precise and fine-tuned to be effective based on the constraints associated with hydrology, CVP demands, critical infrastructure like Nimbus and Folsom Dam.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		As Erica indicated, our project sites go through extensive analysis, design, and monitoring to optimize conditions for spawning in rearing steelhead and fall-run chinook. The river-specific flow-habitat relationship we utilize to implement a successful habitat program optimizes flow conditions during the spawning period and seasonal channel margin habitat for juveniles over a range of flows. This work would not be possible without funding from the critically important Central Valley Program Improvement Act, Restoration Fund, and then most recently from Prop 68 early implementation funding from the state. Thank you for your time today. The Water Forum is committed to continue to work with the state and with federal agencies to support your decision making, and both the MFMS and the Habitat Program have provided quantifiable benefits to the region and the Lower American River over the past 20 years -- 25 years, excuse me. The combination of these programs along with the collaborative science-based support that we provide should be considered as the gold standard for adaptive management. In terms of continued integration, investment, and implementation of these programs, it is critical that the Water Forum, you know, continue these programs for the long-term health of the American River. I encourage you to reach out directly to me if you have any questions about the Modified Flow Management Standard or our Habitat Enhancement Program, or to Michelle Banonis at the Regional Water Authority for questions regarding the region's Voluntary Agreement proposal.	
520	1	I'm with the San Bernardino Valley Municipal Water District. We are an investor in the State Water Project, and I'm here to represent the beneficial use of water supply. California is really a tale of two different climates. The rainfall in the north part of the state above the Bay-Delta is about twice the rainfall we receive in the south. A drought lasting one year in the north part of the state makes national news. In contrast, the	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		south part of the state is prone to drought. Long droughts. We've had a 20-year drought from the mid-1940s, and we're currently in a 25-year drought and counting that began in 1998. Tree ring data from our own forests suggests that droughts have lasted for as long as two centuries, and who knows what the future holds. In an area that regularly experiences droughts lasting multiple decades and could experience droughts lasting centuries, we cannot dramatically reduce any of our water supply strategies. Indeed, some of the local water supply strategies in which we are investing, like recycled water and stormwater capture, rely on local rainfall. Since our local rainfall is not reliable, these strategies are not as reliable. We need every strategy in our water supply portfolio. The Water Board has two hypotheses before you. The first, the unimpaired flow concept, is that more water is the solution. The flow-only approach has been used in the Delta for decades without noticeable improvement in aquatic species. This approach would have devastating impacts on the beneficial use of water supply.	
520	2	The agency responsible for protecting California's environment, the Department of Fish and Wildlife, disagrees with the flow-only hypothesis. Their hypothesis is that this is a complex problem that requires a multifaceted approach, including more habitat in addition to more water, more scientific research, and a collaborative governance process to adapt to changing conditions and new science. Their hypothesis led to the Healthy Rivers and Landscapes alternative that is also before you. We strongly support the recommendation of the experts charged with protecting our state's environment, Cal Fish and Wildlife, and we urge the Board to select that recommendation to Healthy Rivers and Landscapes Alternative. Not only do we believe it will produce better results for the environment, we also believe it is the most reasonable solution to also protect the beneficial use of water supply.	Please see Common Response 1.2, Water Quality Control Planning Process, on the consideration of beneficial uses.

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		Thank you again for the opportunity to share our perspective with you this afternoon.	
521	1	I recently listened in shock and amazement as officials from the Department of Fish and Wildlife and the Department of Water Resources and The California Natural Resources Agency discussed the future of water in California as if they lived in a parallel universe. They talked of undifferentiated users and mentioned Southern California with no recognition that 80 percent of the managed water goes to agriculture, mainly in the Central Valley, not to residents, and primarily benefits a very small group of people. They talked of reduced exports being a problem due to economic impact, with no recognition that agriculture is only 2 percent of the state GDP. They talked of investment in habitat, meaning gravel and marshes, with no recognition that water is the habitat that fish live in, other habitat features being secondary. They talked of needing more time for scientific analysis, with no recognition that years of relying on Voluntary Agreements is clearly not working or that there is clearly scientific consensus that exports are two times or more of what has been established as sustainable. And they talked of the issue being enormously complicated. Well, in a way. But the main issues are quite simple. Namely, the rivers and Delta need a lot more water to be healthy. There is not and never has been enough water in the system to fulfill all water rights that exist. Water districts and corporate plantation owners pay a very tiny fraction per acre-foot of what residents pay, which encourages the planting of water-intensive crops on unsuitable, poorly drained land. It is as if a patient with appendicitis in need of immediate surgery lay dying while medical staff sat discussing how to improve their diet and exercise program. That is not the point. And you can do something about this or be remembered as the Board that let the Delta go literally down the tubes.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
522	1	We support the fisheries and water protection work of the local communities and advocate effective policy change for clean water, restored fisheries, and vibrant communities.	The State Water Board has conducted extensive public and tribal related outreach and appreciates the significant input from tribes and environmental justice communities related to the

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		Firstly, I would like to address the importance of tribal voices in this process. The Bay-Delta affects over 100 tribes and their traditional homelands. The incorporation of traditional ecological knowledge has been an effective scientific tool for tribes since time immemorial. Additionally, true engagement must be more meaningful than just sending an email or a phone call or a letter, and furthermore, consultation is the bare minimum requirement. The Board should also create a tribal seat to build trust and rapport.	Sacramento/Delta Update to the Bay-Delta Plan. Please see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to comments related to Traditional Ecological Knowledge/tribal knowledge, and tribal outreach and engagement. Also see Staff Report Chapter 11, Tribal Engagement, Traditional Ecological Knowledge and Tribal Beneficial Uses, and Staff Report Chapter 13, Revised Proposed Plan Amendments, for additional information on the State Water Board's efforts to engage more robustly with California Native American Tribes and integrate Traditional Ecological Knowledge/tribal knowledge into the State Water Board's Bay-Delta Plan update and implementation processes.
522	2	When it comes to Tribal Beneficial Uses, the Regional Board TBU process lacks guidance, has no clear timelines for implementation, and TBUs have not been prioritized. The draft Staff Report did not include a firm recommendation from the Board to implement TBUs, and TBUs and water quality standards needed to protect them must be adopted and implemented expeditiously. The State Board and Regional Board should not establish an unrealistic, unattainable, or overly burdensome process to ensure TBUs are protected. The Water Board can and should designate TBUs during the Phase 2 process.	Please see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to comments related to Tribal Beneficial Uses. As discussed in Chapter 13, Revised Proposed Plan Amendments, the revised proposed Plan amendments incorporate Tribal Beneficial Uses (TBUs), would designate Tribal Tradition and Culture (CUL) beneficial use, and include provisions for tribal outreach and engagement and incorporation of tribal feedback and Traditional Ecological Knowledge (TEK) into the Bay-Delta Plan update and implementation processes. Please see Staff Report Chapter 13, Revised Proposed Plan Amendments, for additional information on incorporation and designation of Tribal Beneficial Uses.
522	3	Finally, I would also like to address the Voluntary Agreements because they were negotiated through an exclusionary process and are stalling the Board's process to update the Bay-Delta Plan. The VAs are a backroom deal negotiated between water agencies and the state without input from tribes, Delta communities, or environmental justice communities or fishing groups. This deal has been driven by special interests and the Water Board should not legitimize it. The Voluntary Agreements fail to protect water quality, public health, and fish and wildlife. This proposal is not supported by science or common sense, rather it is driven by special interests.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. See also Common Response 1.2, Water Quality Control Planning Process, for information on the consideration of beneficial uses.
523	1	I spoke to the Water Board in 2019 during Phase 1. I'm political chair of the Sierra Club Yokuts Group in Stanislaus County, and on behalf of 900 members, our group supports a 75 percent	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not

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		freshwater flow for rivers that make up the northern section of the Bay-Delta. The Bay-Delta provides habitat for more than 500 species of wildlife and serves as a pathway for salmon and other fish traveling to and from their native waters to the Pacific. In recent years, the number of spawning salmon has plummeted significantly. Salmon require an adequate freshwater flow that provides fish the deep, cold water they require. As more than 100 species depend on salmon, this issue is not just about salmon. It's about restoring our salmon-based ecosystem.	raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
523	2	Two-thirds of California's developed water comes from one source, the Bay-Delta. 80 percent of that water is consumed by agriculture, despite agriculture being only 2 percent of the state's economy. 26 percent of these crops are exported overseas. We need to use more drip irrigation and incentivize shifting to lower water use crops.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
523	3	A lack of planning and vision for the future has led us on a path that is clearly unsustainable. There are too many demands on our rivers, too many diversions, too many almond trees. Without adequate vision and intervention, I'm afraid the rivers that flow into the Bay-Delta may someday look like the trickle that is the Colorado River. Voluntary Agreements are a failure. Environmental organizations cease participating in them out of frustration. They give the appearance of a backroom deal made by special interests. It's an honor speaking before you today, as you have a great responsibility. I know that Board members are required to protect the public trust, which includes stewardship of our rivers for future generations. I ask you rely on the experts who care deeply about our waters, who state a 75 percent freshwater flow is necessary for the health of our Northern Bay-Delta rivers. We must take adequate care of our rivers so that they can sustain us.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
524	1	And I'm here today to touch on the unimpaired flows impacts on generation for electricity in California. I think that's a big concern for us because, as we know, California as a state has a	Please see Common Response 7.8, Energy and Hydropower, regarding grid reliability and the future of California's electric

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		shortfall of energy resources for the foreseeable future. And I think taking hydro generation off in the summer would be a detriment to the grid and to Californians as well. And so I know, you know, looking at the California Energy Commission's quarterly assessments for reliability, one of the things they note is that shortfall that could grow, an energy shortfall that could grow, if we have wildfires taking out transmission lines, if some projects like solar and wind and storage don't come online at the certain time frames, and that also that we're going to have a growing demand due to electrification of people's homes and businesses through heat pump water heaters and also E/V, electric vehicles. So depriving the grid of much-needed power in the summer by shifting those water releases to the spring does a couple of things. First, it means you have less megawatts of generation in the summer that can be relied and called upon as needed. Unfortunately, solar and wind are intermittent resources. And so as the sun goes down, solar goes offline, wind picks up, but you don't have another resource like natural gas fire generation or hydro generation to meet that ramping demand. So what you'll end up having is having less power available at that time, which means you're going to become more reliant on natural gas power plants. Unfortunately, those types of resources in the event of a heat wave actually also become less reliable. So in the Staff Report, they cite replacing hydro generation with those natural gas resources. So you're going to be effectively moving hydro generation away from the summer and then be more reliant on a less reliable resource when temperatures start to spike. So the state has also invested billions in trying to close this energy shortfall that we're experiencing, whether you're talking about the extension of the Diablo Canyon nuclear power plant; demand response programs, the ones through cooling plants that have been extended; or even the establishment of a strategic reliability reserve to be called upon when a heat wave strikes. So	grid, including consideration of contingencies, which can be associated with heat waves.

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		by taking, again, taking those megawatts off the boards, we increased the likelihood of events that we saw in August of 2020 with the rotating outages, and then the near-miss we had in September of 2022. One of the things the State Water Project does really well is it's able to generate when we need the power and it's able to drop load when we need to also save megawatts. And so I'd like to conclude by just saying that, you know, we all are pushing for the electrification of the grid and of homes and businesses in California, but I think the unimpaired flow proposal, unfortunately, jeopardizes California's electricity grid, and if we are to continue to have public buyout in California meeting its clean energy goals, we need to ensure that we have a stable electric grid and one that can also deliver water on time.	
525	1	The science is clear, unimpaired higher flows are needed to prevent ecological collapse. Our primary big picture goal should be to focus on ensuring that we have a robust aquatic ecosystem that can survive the increasing climate extremes. One that is restoring its threatened populations versus just preventing them from going extinct. The Voluntary Agreements is a minimalist approach. It's basically like, what can we do to prevent species from going extinct? And the Voluntary Agreements are destined to fail, were so flawed that the few NGOs that were involved early on in this process dropped out. Not a single conservation, fishing, tribal, or environmental justice group supports the Voluntary Agreements. The Voluntary Agreements do not include an adequate adaptive management plan, backup plan if they fail. On the other hand, the Bay-Delta Plan with its range of flexibility is results-driven, and the unimpaired flow will start at 55 percent and if the biological goals can be achieved with less water, it can drop to 45 percent. So it's got flexibility. Now, the range incentivizes non-flow measures if they can meet biological goals with less water. So all in all, I appreciate the complexities you're balancing, but I urge you to listen with your hearts and reflect on the magnificent ecosystem that's in the balance as you make this legacy vote. We	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. See also Common Response 1.3, Revised Proposed Plan Amendments, for information on the VA pathway.

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		are counting on you. Again, I'm speaking for the future generations who couldn't make it today.	
526	1	Previous comments were provided on the Working Draft Scientific Basis Report Phase 2 update in December 2016. And we appreciate that the Staff Report has been responsive to some of those comments. Those key areas are that the Calaveras River is now described as a rain-fed flashing system, which is somewhat unique to rivers in the Central Valley. It's also identified now correctly as a steelhead stream. So steelhead in the Calaveras is really a driving factor for management of the Calaveras River. However, we remain concerned that these and some of the other unique factors to the Calaveras may not be adequately reflected in the Staff Report analysis and we plan to comment on that further in our written comments.	Please see Common Response 1.1, General Comments, regarding the address of previously submitted comments and for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
526	2	Today I'd like to focus the attention on pointing out that the Calaveras River has a habitat conservation plan that was developed that we do not see reference to in the Staff Report. So I just wanted to bring awareness to the habitat conservation plan and elements of that plan. If we can move to the next slide, please. So the Calaveras Habitat Conservation Plan is an agreement between Stockton East and NOAA Fisheries. It authorizes take of ESA listed species, namely steelhead, and provides operational guidelines for a period of 50 years through 2070. The main goals of the Habitat Conservation Plan were to maintain reliable water delivery to stakeholders by providing greater water security over that same time period through 2070, to provide compliance with ESA, and to obtain annual predictable take allotment for ESA-listed species, and to protect and manage fishery resources, particularly steelhead listed under the ESA. If we can go to the next slide. So this was developed through a long and thorough process spanning nearly 20 years with	Please see Common Response 1.1, General Comments, regarding consistency with other laws, policies, and agreements, including the Calaveras Habitat Conservation Plan.

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		involvement from the district, the biologists, and working closely with NOAA fisheries. The district engaged with other resources agencies and stakeholders while finalizing the written plan, which was approved in September of 2020. The district now operates to criteria described in the HCP and has been implementing voluntarily many elements of the HCP even prior to its approval.	
526	3	If we could go to the next slide please. [See letter #0034 for slides.] The HCP includes both flow and non-flow actions for the protection of steelhead. One of the elements is year-round guaranteed minimum flows in the Calaveras River. And under high reservoir storage conditions, such as this year, when we needed to get down to flood control storage in New Hogan Reservoir, storage was managed to increase the frequency of fish migration opportunities into and out of the spawning range. Flood control releases after December 1st are managed again to optimize fish migration opportunities into the system.	Please see Common Response 1.1, General Comments, regarding consistency with other laws, policies, and agreements, including the Calaveras Habitat Conservation Plan.
526	4	If we could go to the next slide. [See letter #0034 for slides.] Along with that, non-flow measures such as fish passage improvements. There's been many structures built in the lower Calaveras River that are currently the focus of remediation. Four of the most limiting structures have already been approved. One is in the planning phase. And that's not including the most concerning structure, largest structure, is Bellota Weir. And Bellota Weir is in the planning phase right now for creation of a rough-and-channel fishway and a permanent fish ladder. And once passage improvements are implemented in the lower river, this strategy is expected to result in an increased number of salmonids able to access the conservation area, which is above Bellota Weir.	Please see Common Response 1.1, General Comments, regarding consistency with other laws, policies, and agreements, including the Calaveras Habitat Conservation Plan.
526	5	If we could go to the next slide please. [See letter #0034 for slides.] The HCP includes both flow and non-flow actions for the protection of steelhead. If we could go to the next slide.	Please see Common Response 1.1, General Comments, regarding consistency with other laws, policies, and agreements, including the Calaveras Habitat Conservation Plan.

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		Along with this, Stockton East Water District has implemented a fisheries monitoring program that has been in place since 2001. It's a key compliance activity for the HCP looking at how fish populations are actually responding to management of the system, and to the flow and non-flow actions that are being taken. And so there's multiple activities that are being implemented from looking at the number of fish that are moving into the system, looking at numbers of fish moving out of the system, and also looking at more of the general health of the ecosystem, with looking at benthic macroinvertebrates that provide food resources for fish, et cetera. So if we could move to the next slide, please. So again, as I stated, the HCP is not referenced in the Staff Report. I wanted to bring awareness to the Board and Board staff that there is a resource to be consulted regarding the Calaveras River. There's a link there to Stockton East website that not only has access to the Habitat Conservation Plan, but other resources that may be of interest in understanding the Calaveras River.	
526	6	I thank you, Board, for your attention to my comments, and wanted to focus my comments today on basic Delta hydrology and project operation, as I see these elements are fundamental to evaluating and informing the draft SED in a great way. One, the draft SED relies on the historic study period of water year 1922 through 2015, and this is a surrogate to describe conditions expected into the future. And then it turns that, you know, hydrology set into identifying and quantifying impacts of the unimpaired flow scenarios. The historic record has significant limitations, if you will, on estimating future hydrologic conditions, and can lead to an incomplete evaluation. The approach used in the draft SED assumes that future hydrologic conditions will fall completely or 100 percent within historic hydrologic variability. And we know this is not the case as over time we have frequently experienced real-time hydrologic conditions that fall outside recorded history. This leads to underestimating or just flat missing project impacts. Also, the period 1922 through 2015 is not representative of what we would expect to see in the future.	As identified in Section 2.6, Climate Change and Drought, and Section 4.6, Climate Change, of the final Staff Report, climate change may result in increased year-to-year precipitation variations, but whether it is solely attributable to climate change versus the highly variable California climate remains unclear. The final Staff Report uses 99 years of hydrologic data to fully represent climatic variability in California, including extreme, multi-year droughts and large flood events. Please see Common Response 4.2, Drought and Climate Change, for further information on the consideration of climate change in the Staff Report.

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		For example, especially in snowmelt driven basins, tributary to the Delta, we see a significant shift of stream flow, the peak stream flow hydrograph, shifting from springtime back towards winter. We're seeing a change in hydrology over that time. And I don't see that represented in the draft STD at all.	
526	7	Additionally, relying on a study period for the analysis ending in 2015 I question, as it doesn't include more current years. Since 2015, we've experienced drought conditions, really wet years, and this valuable hydrologic information illustrates contemporary hydrologic conditions that are just absent in the draft SED.	Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, regarding the scope, scale, and application of SacWAM. Additionally, the SacWAM period of simulation has been extended to include 2016-2021. Please see Appendix H1, Sacramento Water Allocation Model Methods and Results for the Revised Proposed Plan Amendments, of the 2025 partially recirculated draft Staff Report for more information on SacWAM updates.
526	8	The SED also relies on a monthly timestep for its analysis. And it uses that to identify and quantify project impacts. And operational analysis relying on a monthly timestep is typically insufficient, you know, insufficiently coarse to adequately review project impacts. Relying on a monthly hydrologic and operational approach masks project impacts, especially those resources that are highly dependent on shorter-term hydrology and flow, such as project operations and water rights and DSOD requirements and water temperature control and flood control operations and Delta operations and recreation impacts and hydropower and pulse flows and so many things that we manage projects for just occur on a shorter time frame there than a monthly time step.	Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, for responses concerning SacWAM scope, scale, and application.
526	9	Also the draft SED that would result in the imposition of the unimpaired flow scenarios. So what it seems the SED is doing is that the analysis identifies and quantifies impacts resulting from these assumed project operations that would occur if the unimpaired flow scenarios -- when they move forward. And by doing that, the analysis relies on, you know, an assumption on how the local project operators would respond through their project operations in light of meeting the unimpaired flow scenario requirements. And what it -- looking at some of the SacWAM output, the individual project operational responses, I think, would be different than what the SacWAM modeling states, you know, leading to underestimating impacts. I don't know if I explained that well, but an example would be,	Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, for responses concerning SacWAM scope, scale and application.

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		you know, how the draft SED addresses what is referred to as "unmet demands." So, these unmet water demands are calculated based upon an assumed operation that doesn't seem realistic. And the project operators in reality would operate within the balance of all the regulatory conditions while meeting the unimpaired flow requirements and balancing local beneficial uses most effectively. And the modeling that I see in the SacWAM model doesn't do this.	
526	10	And another example is how the draft SED determines how water demand shortages are allocated between beneficial uses. So, the analysis makes assumptions on how water demand shortages would be allocated between beneficial uses, and based upon those assumptions, it calculates and identifies impacts on those resources. And the allocation of demand shortages seems to underestimate impacts as well. So, I think, you know, in general, the hydrologic and project operational underpinnings of the evaluation described in the draft SED can lead to certainly incomplete conclusions about the unimpaired flow scenario and their associated impacts.	Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, for responses concerning the SacWAM scope, scale and application. Also see Common Response 1.2, Water Quality Control Planning Process, for information on the consideration of beneficial uses. Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific analysis of environmental impacts of the project, or do not raise specific economic effects of the project.
526	11	[See letter #0034 for slides.] And just to close up. As Ms. Fuller mentioned, the greatest failure identified in the Staff Report is the failure to include the HCP. We hope we have an opportunity to do that, because the Calaveras River is a highly altered river and there's no scientific support suggesting that an unimpaired flow management regime would benefit the fishery, because this is so different than the remaining Sacramento River streams, and even the other eastern streams. Stockton East's current operations have created a vibrant steelhead population that would otherwise not exist under natural, unimpaired conditions. And the healthy population that we do have would be severely impacted by the proposed 55 percent unimpaired. So we believe that the one-size-fits-all approach in the SED and the proposed plan simply will not work for the Calaveras River.	Please see Common Response 1.1, General Comments, regarding consistency with other laws, policies, and agreements, including the Calaveras Habitat Conservation Plan.
526	12	[See letter #0034 for slides.] Our second concern that was brought up by Mr. Preszler is that, while the SID is not sufficient for various reasons, the two major are that the adverse impact to the district is not summarized or shown at all. Rather, it is simply shown as not much different in the amount of water being stored in the reservoir, and the reason is that they simply don't meet the	Water supply, including supplies from the Sacramento/Delta watershed, is evaluated extensively throughout the Staff Report. The Calaveras River is first described in Section 2.2.7.3, Calaveras River, including SEWD's operations. The Delta eastside tributaries region occupies the region east of the Delta, and comprises the watersheds of the Cosumnes, Mokelumne, and

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		demands of the Stockton East Water District and its customers, without showing that actual result as an adverse impact, which doesn't comply with SED requirements or CEQA requirements.	Calaveras Rivers. Section 2.8.2, Delta Eastside Tributaries, further describes SacWAM estimates that average annual Sacramento/Delta surface water supplies to the region are about 205 TAF (Table 2.8-5), and approximately 98 TAF of the total average annual supply is surface water delivered from the Stanislaus River, primarily to agricultural uses in SEWD. Chapter 6, Changes in Hydrology and Water Supply, is devoted entirely to describing the changes in hydrology and supply as a result of the proposed Plan amendments. For example, Table 6.4-1 details total annual average water supply to each region in the study area by type of use (agriculture, urban, and refuge). Chapter 6 provides further detail on each of the regions and uses and includes a detailed discussion of reservoir storage for major storage reservoirs in the Sacramento/Delta watershed, reservoirs in the upper watersheds, and reservoirs that receive Sacramento/Delta water supply. Reservoir effects are reflected in estimates of reduced Sacramento/Delta supply to agricultural and municipal use and well as hydropower. Chapter 6 also includes a discussion on the flexibility that water users have or could develop to continue to meet water supply needs with reductions of Sacramento/Delta surface water supplies, including other water management actions. Even though results for Sacramento/Delta supply to the Delta eastside tributaries region do not show large reductions in some scenarios, the Staff Report discloses that users in this region would experience reduced surface water supply. Section 7.20, Utilities and Service Systems, for example, concludes that it is likely that some municipalities may need to obtain new water supplies, that effects would be larger during dry years, and that implementation of the Lower San Joaquin River (LSJR)/Southern Delta update to the Bay-Delta Plan could be a further constraint on supplies for water users that receive water from the Lower San Joaquin River tributaries.
526	13	[See letter #0034 for slides.] And secondly, nowhere in the document does it discuss the cumulative impact from the impacts of Phase 2 adverse impacts and Phase 1 adverse impacts, because Stockton East Water Districts takes water from both the Calaveras River and the Stanislaus River, which is	The cumulative impacts of the 2018 LSJR/SD Plan Update were analyzed in Section 7.23, Cumulative Impact Analysis, Growth-Inducing Impacts, and Significant Irreversible Environmental Changes, of the 2023 draft Staff Report. The Staff Report discloses that implementation of the LSJR/southern Delta update

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		adversely impacted by Phase 1. So there's no analysis of that cumulative impact.	could be a further constraint on supplies for water users that receive water from both the lower San Joaquin River tributaries and the Delta and impacts are potentially cumulatively considerable. Agricultural lands on the east side of the San Joaquin Valley and municipal supplies to Stockton East Water District and the City and County of San Francisco are specifically identified.
526	14	[See letter #0034 for slides.] And finally, after it released the framework initially, recommending a flow of 45 to 65 percent of unimpaired flow, the staff recommended and encouraged these voluntary settlement agreements to be looked at, evaluated, and brought to the Board. But they also indicated at that time that such agreements must be within the range of 45 to 65 percent. So no less than 45 percent. Because we knew that that was not beneficial for the Calaveras River, Stockton East did not submit a Voluntary Agreement to the State Board. But now that we see that the majority of the Voluntary Agreements that have been submitted and are being studied do not meet this recommendation of a minimum of 45 percent, Stockton East is putting together a Voluntary Agreement proposal that we hope can still be evaluated, that builds on our recently adopted HCP and puts together on top of it some additional flow and habitat opportunities that the district is willing to pursue. We wish we would have known something like that would be allowed before, but we took the staff at its word that 45 percent would be required. So now we're going to be playing catch up.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
527	1	But before that, I did everything I possibly could to avoid the troubles in California and all of its problems because we have so many challenges here. And I lived a lot of different places, but I kept coming back because what we have in California is truly spectacular. We have incredible rivers. We have beautiful mountains. We have this wonderful ocean ecosystem. And of course, we have the Delta. And we have amazing people, too. We have incredible people in this state who do legendary things.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		So this is your opportunity to do a legendary legacy thing, which is to protect the beauty of this state. That is the reason I came back, to do the same thing, because we have to fight for the beauty that we have. It's so unique and it's so special.	
527	2	So my request of you is that you do unimpaired flows for fish and wildlife for the people of California and for the future of the state, and thank you for the work that you're doing and all your patience and listening to everyone all day.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
528	1	Reclamation and the Department of Water Resources operate the Central Valley Project and the State Water Project in close coordination as partners. As the two largest operators in the Central Valley, the intent of our presentation is to inform the Board, Board members on high level operational concepts to apply and consider in the evaluation of alternatives and really the real-world ability to achieve the stated objectives and goals.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
528	2a	Some of the key messages that we hope will resonate with this presentation is that within the overall California water management system, the Central Valley Project and State Water Project operations have limited flexibility to meet current authorized purposes and requirements. More specifically, when looking at allocations and south-of-Delta exports as part of a Central Valley Project and State Water Project operation, these functions are not able to offset the impacts to Central Valley Project and State Water Project reservoir storages with an unimpaired flow alternative. Further, the impacts to project upstream storage do align with impacts to temperature.	Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, which discusses SacWAM assumptions regarding CVP allocations among contractors. Also please see Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat regarding reservoir storage impact on SACWAM temperature modeling.
528	2b	Some of the key messages that we hope will resonate with this presentation is that within the overall California water management system, the Central Valley Project and State Water Project operations have limited flexibility to meet current authorized purposes and requirements. And finally, as it is true for all natural resource managers, the impacts of climate change are being felt and will further complicate and challenge Central Valley Project and State Water Project operations.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
528	3	Just a very quick overview of the Central Valley Project and State Water Project. Our projects include numerous facilities, both	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not

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		north and south of the Delta, that are authorized in the case of the federal facilities by Congress and operated for multi-beneficial uses. These facilities and their operations are founded on water service contracts and agreements, and really underpinned by the state water rights permits and the conditions on those water rights permits issued by the Board to meet those beneficial uses. Those beneficial uses include water deliveries to meet senior water right commitments, agricultural and M&I demands, refuge water supply deliveries, operations to ensure Delta water quality, fish and wildlife flows, drought response operations, flood control functions, and hydropower production.	raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Some of the uses associated with Central Valley Project (CVP) deliveries are described in Chapter 2, Hydrology and Water Supply.
528	4	Just want to take a quick conceptual look at Shasta Reservoir, looking at the modeled average annual release volumes from Shasta by water year type per our current long-term operations biological opinion. This is really during the wet season, so that October through April release period. I'll just point out a few things. The majority of releases, really regardless of water year type, you can see it really driven primarily by spill operations and what are shown here as Keswick releases. Those are the releases required for minimum flows on the Sacramento River in D1641 requirements. A bit of a misnomer there. Note that this is looking to demonstrate and capture the primary reasons for those Shasta releases. That does not mean they're not providing additional multi-beneficial uses like exports, for example. So that's the wet season.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Some of the uses associated with Central Valley Project (CVP) deliveries are described in Chapter 2, Hydrology and Water Supply.
528	5	What about May through September? Again, looking at the average annual release volumes by water year type per our current long-term operations biological opinions. Again, the primary drivers of these releases become pretty apparent, namely deliveries for senior water right holders, the water rights that existed prior to the Central Valley Project and State Water Project, and then also these Keswick releases. Again, the releases required for minimum flows in the Sacramento River and D1641 requirements. That's that lower block of water on those bars. And again, fairly consistent through all water year types.	See response to comment 528-4.
528	6	I think an important feature worth discussing here on Shasta specifically is the temperature control device, a very modern	The operations of the Temperature Control Device (TCD) in Shasta Reservoir are described in the Staff Report in various

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		schematic seen here on the backside of the dam. This serves as a selective withdrawal system that allows for some level of blending of water at different reservoir elevations, and therefore different temperatures, to control temperatures coming out of the dam really with the intent of affecting downstream water temperatures, impressing though that there are several limitations on operating the temperature control device, a critical one being that certain reservoir storage levels do need to be met to fully utilize this selective withdrawal system. I'll give you one example. In order to install, put in, and utilize the upper gates that you see on this figure, you need a reservoir elevation of around 1,045 feet. That translates to a storage of about 3.9 million 14 acre foot. This is a good illustration of that nexus between storage levels and temperatures. And, also, currently the TCD is operated to maximize the use of that cold water pool resource behind Shasta and to use that to manage downstream temperature objectives.	locations, including Section 13.7.12.1, Surface Water. The HEC-5Q represents this operation and is discussed in Attachment A1c and H1b.
528	7	Another way to conceptualize this storage temperature dynamic, we can look at the end of April storage at Shasta, so shown as thousands of acre-feet on the lower graph here -- on the x-axis of the lower figure, excuse me. And then we can trace the effects of downstream temperatures here, looking at temperature-dependent mortality estimates seen in the upper graph. Martin and Anderson models are tracked there. In both of these cases, the negative temperature impacts track with that decrease of end-of-April storage in Shasta. The operations that affect storage in Shasta will affect the downstream temperatures. These last slides use Shasta as an example, but these concepts are similar to other reservoirs, so just keep that in mind. And with that quick snapshot of some of the reservoir dynamics with temperature and storage, let me hand it to Aaron who can dive into some of these concepts and how they translate into the Delta.	Please see response to comment 528-6.
528	8	Alright. So as Levi just highlighted a number of challenges associated with managing the upstream reservoirs, let's move	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not

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		downstream, and here we have a diagram that shows the conceptual operations in the Delta. You should note here this diagram is not to scale, but generally shows those concepts of Delta operations. This orange reddish sort of shaded area, this is showing the period when the exports are operating to surplus -- exporting surplus flows, and guided by our biological opinions and our incidental take permits for the protection of fish species. Much of the water that is exported during this period of time goes into San Luis and is stored for future use. This is also the time period when our upstream reservoirs are storing water for future beneficial uses as well. And then the green shaded areas show the periods where the exports transition to relying on that stored water for managing Delta standards and supporting exports when there's enough storage available upstream. So essentially what we're doing is we're exporting and storing water during when it's wet and delivering that water when it's dry. But one thing to note here is we meet all other obligations, regulatory obligations, and contractual obligations first.	raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
528	9	So we have already started to experience the early effects of climate change, and the challenges are just going to grow from here. So this plot shows the expected shift and runoff patterns from the eight largest reservoirs and tributaries that flow into the Delta. The black line shows historical average monthly flows. The red shows the average monthly flows expected in 2040. The shift in runoff is largely due to the change in the type of precipitation, where with a warmer climate we expect more rain events that produce runoff directly and less precipitation of snow where we would have a longer sustained runoff period. Also with climate change, we expect sea levels to rise. This in turn will increase the burden of meeting water quality standards in the Delta, where more outflow will be needed to help repel the saltwater intrusion that tries to continue to push its way into the Delta.	Please refer to Common Response 4.2, Drought and Climate Change, regarding how climate change and multi-year droughts are included in the Staff Report.

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		With the shift in runoff pattern and the sea level rise, we will need to rely more heavily on stored water to meet outflow requirements in the future. Next slide, please.	
528	10	So this graph shows historical allocations for the CVP and the SWP starting about the time that we adopted the 1995 Water Quality Control Plan update. Blue line shows the State Water Project allocations, and the orange line shows the CVP south of Delta Ag allocations. And then we have two dashed lines there that show the declining trend. So I do want to note that there's been a lot of things going on in this time period. We've had a number of regulatory changes. We've had some pretty dramatic weather events where we've gone from extreme drought to extreme wet. And ultimately, these allocations reflect our reduced ability to export surplus flows and reduced availability of previously stored water, and this is because exports are essentially last in line. All other obligations are met first. And this graph really is starting to show that we are reaching the end of our ability to turn this knob to help to manage the system.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
528	11	Alright. So in closing, we have summarized here that the CVP and SWP have a lot of obligations to meet, and this limits our flexibility. Allocations have been trending downward, and further reducing those will likely not be enough to offset the storage reductions anticipated with an unimpaired approach.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
529	1	I'm the government relations officer for Western Municipal Water District. We are coming before you today with a strong support for the inclusion of Agreements to Support Healthy Rivers and Landscapes as an alternative for updating the Bay-Delta Plan. We'd first like to thank the Governor's leadership in advancing these agreements, and request that the agreements as originally proposed be identified in the final Staff Report and forthcoming program of implementation as the State Water Board's pathway for updating the Sacramento Delta portions of the Bay-Delta	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		Plan. We wanted to bring up a complementary movement that we've been a part of here called the California Water for All. It's an education campaign that brings together different folks from different parties with the overall objective of ensuring water supply reliability for the environment, agriculture, and the communities we all serve. We know as water agencies that we're a key member in making sure that we're restoring habitat and protecting wildlife, and that's growing as we have these discussions in the California Water for All movement. And that initiative, along with other initiatives that ACWA has been putting forward, and many of our other sister associations, have really brought forward the need for water agencies to come together and collaborate more and more and across those boundaries, and even NorCal to SoCal, supporting projects and policies that are going to benefit everyone, which we find that the Voluntary Agreements is one of those solutions, and is a part of that water supply portfolio and to effectively manage water supplies as they are now.	
529	2	A lot of my colleagues in the past hearings have brought up a lot of the many, many benefits of the Voluntary Agreements. You've heard them all today as well, so I'll go ahead and skip past that and move on for the sake of time, for my conclusion. Which I just want to say that, you know, there's been a lot of support for the Voluntary Agreements. And it's not just by water agencies, which I think is important. We want to reinforce the fact that we are partners in this. We want to be at the table. You heard from the previous panel, we want to be involved and be a part of the solution. But in addition to the Voluntary Agreements, that's not going to be enough to get us through this long-term water supply crisis that we face. We need the state to invest in water infrastructure that will ensure statewide benefits such as site reservoir and Delta conveyance, regional benefit projects, and local projects. Doing so will help lower demand on the Delta, which will obviously have its beneficial impacts, but for many agencies that	Please see Common Response 1.3, Revised Proposed Plan Amendments, regarding the VA process and the relationship between the State Water Board's regulatory pathway and the VA pathway. Also see Common Response 1.1, General Comments, regarding comments on other projects.

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		will rely on imported water supplies, doing local and regional investments will help to lower that demand.	
530	1	And I want to start off with a couple of basic points, but I think it makes sense. Number one, we do not exist separately and distinctly from the environment. The second one is that money does not grow on trees, but it does flow down rivers. And people that turn every unit of water into a unit of money will never want that supply of water to be mitigated in any way, shape, or form. Let's back way up from there and maybe close your eyes and take this ride with me if you want. But a thousand years ago, this greater Bay Area -- you know, what we call Sacramento, up from Mount Shasta, you know, the whole Delta, whole Delta watershed -- this was a biodiversity hotspot with six million salmon approximately swimming through the Bay every year. And it was a truly magical place with a biodiversity that I couldn't imagine. I've read about it, I've seen pictures, but I couldn't imagine it. You know, if we fast forward in the 19th and 20th centuries, the Europeans that came in, for lack of a better term, used assumptions and practices that were rapacious, to say the least. One of those assumptions was that there was an unlimited supply of water, and that was true based on the size and scale when these things started. But under those assumptions, many negative things took place. Beavers, gold, trees, fish, and now water quality have been completely decimated. In the 21st century, we are living through, it's not going to happen, it's happening now. This is an environmental collapse. If anyone asks you, what would you do in an environmental collapse? It's what you're doing right now. You know, we have a militarized industrial technological economy. And look, we've got 40 million people in California. Everybody walks around with a TV in their pocket. And that's great. But it does not separate -- it doesn't -- all that benefit, all that industrial, it doesn't mean anything if we're facing an environmental collapse.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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530	2	I'm advocating for 65 percent or higher flow. And looking at the Voluntary Agreements, they don't make sense. They're word salad. And they're taking the guardrails off this thing. You know, human ingenuity built this 40 million person economy. And the fact that we're still living is unbelievable. And water quality is in the name of your organization. And without water quality, we'll never get better. We'll just have one different version of the collapse moving forward. There has to be some guardrails put on this thing. Once the guardrails are there and people know they're in place, then we can start getting better. This is like rock bottom for someone who is an alcoholic or something like this. We must reach rock bottom and put an amount on the water that needs to flow through and then we can work on top of it. You know, restoring floodplains, restoring habitat, that's great. But it is not mutually exclusive to flows. Flow and habitat are both important. The fish need both. And one thing that I want to talk about is the benefit from these guardrails. We cannot contemplate how much benefit we're going to get from restoring this environment and restoring water quality. We understand the cost of what we've done to this point in time, but we don't understand the benefits of what are going to come when we start to build it back up. Keystone species, beavers, salmon, restoring habitats, wolves, elk, these sort of things. This matters.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
531	1	I am an advocate with the North State Building Industry Association. I'll do my best to keep my remarks brief. Our association represents more than 500 member companies in the home building industry. I'm grateful for the opportunity to be before you today, though I do not claim to be nearly as much an expert on the subject before us as many others in the room. What I do know is that the home building industry strives to be a partner in contributing to the solutions of numerous challenges facing the region and the state.	Please see Common Response 1.2, Water Quality Control Planning Process, for a discussion on the factors to be considered in establishing water quality objectives, including the need for developing housing. Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		California's housing crisis is not something that can be solved without the construction of new housing. This is especially true in our region where growth and demand for housing are a constant. Growth, however, does not equate to increased water use, as new homes are equipped with water-efficient appliances, fixtures, and landscaping. A new development will use less water than an older development, though we will always advocate for proper management and access of waterways. This supports our region's need for growth and economic stability. This is understood by our industry, the multiple partners we work with, including those with me today, and many others invested in the successful management of our waterways.	
531	2	The Voluntary Agreements are a critical tool to the successful balance of both the environmental and economic needs of our region, so much so that support of these agreements was one of the main focuses of our efforts earlier this year on the Metro Chamber of Commerce's annual Capitol-to-Capitol Advocacy Program in D.C. The Voluntary Agreements are part of our co-equal goals of increasing water supply and improving the Delta ecosystem, a true jewel of our region and the protection of which is in all of our interests here today. So with that I will simply say we are joining others in asking for the support of these Voluntary Agreements to protect the water supply and protect our ecosystem. Thank you	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
532	1	I've spent my career working on the construction of generally new homes and land development in this region that receive water from the American River, and reliable water supply is extremely important and inextricably linked to the ability to provide new opportunities to house our growing population. So without reliable and consistent water supply, it puts pressure on the construction of new homes and affects the affordability of housing, especially to those who can least afford it. A Staff Report indicates that on the American River, requiring a release of 55 percent of unimpaired flow would result in the loss	Please see Common Response 4.2, Drought and Climate Change, for responses to comments that raise issues with updated hydrologic modeling, impact analysis of multi-year droughts, and the combined impact of unimpaired flows and climate change. See also Common Response 1.2, Water Quality Control Planning, for responses to comments on new housing supply and consideration of other beneficial uses generally. It is unclear from the comment where the 2023 draft Staff Report may have suggested the loss of storage of 168,000 acre-feet in Folsom Reservoir. As identified in Tables 6.3-8 and 6.3-9, the

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		of 168,000 acre-feet in Folsom Reservoir, which is 17 percent of the capacity, a significant amount of water. And especially in the early months of March, April, and May, in an average year, that presents a challenge on the reliability of our water supply. The mitigation that's suggested is to shift to other sources. The Sacramento region has already shifted to other sources for water supply for over the past 20 years. In particular, there have been efforts to stabilize the groundwater basins with conjunctive use, and it's been a very successful program raising our water levels compared to other areas of the state. However, climate change is coming, and it will be accelerating and resulting in a projected loss of the snowpack, which is a third of our water supply. And this will demand further changes to our water management. With the loss of the snowpack, we cannot take a 17 percent cut in storage.	average changes in the end-of-April storage and average end-of-September carryover storage for the 55 percent flow scenario are 14,000-16,000 acre-feet, respectively. As discussed in Mitigation Measures MM-UT-d, the State Water Board will continue to work with municipal suppliers to develop and implement programs to increase water use efficiency and conservation to maximize the beneficial use of Sacramento/Delta supply, including a proposed program of implementation which prioritizes minimum health and safety water supplies and provides for possible minor exception to the strict rule of water right priority for these supplies in cases where no other options are available to ensure that minimum health and safety needs are met.
532	2	Further, to successfully manage our aquifers, we need recharge, and this can only come from available surface water. If we remove that capability, we jeopardize the long-term conjunctive and groundwater-banking success that we've had.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
532	3	We urge you to consider the alternative of the Voluntary Agreements rather than a prescribed unimpaired flow requirement. Additionally, the Water Forum, through collaboration with the U.S. Bureau of Reclamation and local water purveyors, flows on the American River are currently being managed to ensure water supply remains reliable while balancing through the Modified Flow Management Standard, and with Voluntary Agreements, we'll be adding additional water in a known quantity that can further enhance the river's ecosystem. And we do it in a way that is also sustainable to our water supplies. So thank you for listening to our comments. We want to express that we need to keep water reliable and affordable. Get it, and keep our communities housed, and ensure that innovative solutions like our Modified Flow Management Standard can stay workable into the future.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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533	1	Good afternoon, Mr. Chair and Board members, and thank you for hearing our comments. I'm Jack Blattner with the Sacramento Metro Chamber. We represent over 600 member businesses in the six-county region, the vast majority of which are small businesses, and we would also like to express concerns with the 55 percent unimpaired flow proposal and speak in favor of the Voluntary Agreement plan.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
533	2	Our members at the chamber come from across a broad swath of the business community, everything from healthcare to construction to agriculture to education. And we are all unified in being committed to the growth of the region. We've been very proud with how the Sacramento region has grown over the past few decades. In the past 20 years, we've gone from just under 1.5 million people in our six-county region to over 2.2 million, a 67 percent increase that has come with corresponding progress in our region's technology, culture, and economy. And we hope that continues. Unfortunately, the downside of this mighty growth that the region has seen is a massive now-unmet demand for housing. It is the single biggest problem that employers in the region are facing. And, you know, as you'll hear more from our home building colleagues, a bountiful water supply is absolutely necessary to meet this unmet housing demand. But even aside from more housing, we also need a reliable water supply to maintain the quality of even the growth that we have already seen. So some of the consequences of the binding 55 percent unimpaired flow regime that concern us, chief among these are a reduced supply of municipal and industrial water storage, and that could potentially cause a corresponding increase in water cost, and perhaps even more concerning, a potential threat to clean energy hydropower in dry years, as Jim mentioned, for example in our Folsom Dam, which the Staff Reports indicate may lose 17 percent of its total storage from the unimpaired flow	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		proposal, which could cause or worsen rolling blackouts, which would be a major concern to our member businesses.	
533	3	So again, we would just like to express our support for the Voluntary Agreement, which we believe is dynamic, flexible, able to adapt to any future changes in technology. And on behalf of the local business community, we would urge you to support that Voluntary Agreement and not the 55 percent unimpaired flow.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
534	1	Like my colleagues, I serve on the business caucus for the Water Forum and just feel it's important to state that the Water Forum, we seek to bring about two co-equal objectives: to provide a reliable and safe, healthy water supply for the Sacramento region's long-term economic growth, and to preserve the Lower American River's fishery, wildlife, recreational, and aesthetic values. So, as a lifelong Sacramento resident, I recognize the unique and valuable contribution that the Lower American River ecosystem and its inherent value for habitat and recreation and how it enhances our overall quality of life. However, the American River is also a critical regional economic driver for the water it provides for municipal supply and hydroelectric generation. My organization's primary concern is that unimpaired flows, those alternatives, significantly impact municipal and industrial water supply to meet the Sacramento Region's economic and housing needs, a key requirement of the Porter-Cologne Act. In addition, unimpaired flow would significantly be at odds with Cool Costa water supply assessment laws, which require municipalities to consider a 20-year window for water supply reliability while approving sizable subdivision projects.	The Staff Report provides extensive analysis and sufficient consideration of the economic effects that could occur as a result of the proposed Plan amendments. For example, Section 8.5, Municipal Water Supply Economic Effects, evaluates municipal water supply economic effects of the flow scenarios. Section 7.20, Utilities and Service Systems, considers municipal supply, including whether and how communities that rely in whole or in part on Sacramento/Delta supply would be able to meet municipal demand using other water management actions in response to changes in supply. Chapter 8, Economic Analysis and Other Considerations, includes details on population projections, socioeconomic profiles, and municipal water supply costs. Water supply assessments pursuant to Water Code sections 10610 et seq. will take into account any changes to water supply brought about by the Plan amendments. Please see also Common Response 1.2, Water Quality Control Planning Process, for a discussion on the factors to be considered in establishing water quality objectives, including the need for developing housing.
534	2	So, to further underline that concern under unimpaired flow, as has been said, staff estimates a 17 percent reduction in Folsom Lake storage, approximately 168,000 acre-feet of water. This water loss to our region would be harmful in several ways. First, our region has benefited from our own type of Voluntary Agreement, the Water Forum Agreement, to balance the consumption of surface and groundwater supplies for their conjunctive use. Our region's more than 20 years of enhancing our water banking capabilities play a crucial role in our ability to	As shown in Table 6.3-6 of the 2023 draft Staff Report, the average end-of-April storage difference from baseline under the 55 scenario is estimated to be -10% from baseline, or a reduction of 72,000 acre-feet.

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		meet climate resiliency objectives with the predictive loss of Sierra snowpack. Implementing unimpaired flow robs our region for water, for aquifer recharge, to meet the future needs in drier years.	
534	3	Second, as the state pursues decarbonization, we must preserve the hydro power generation Folsom and Nimbus dams provide in summer when greater power needs are common. Water is essentially stored energy in that format, which is why the report specifies unimpaired flow is having a significant impact on clean power generation, and acknowledges the likelihood that in rolling blackouts, there would be sources turned to that would be contributing to higher GHG levels.	Section 7.8, Energy, includes a discussion of California grid reliability including under extreme circumstances that could cause California's electric grid to become unreliable due to inadequate electric supply, leading to the need for rotating power outages. Under the proposed Plan amendments (45 to 65 scenarios), incremental effects due to changes in hydrology on power outages would be rare and would represent a relatively small effect on the state. See also Common Response 7.8, Energy and Hydropower, regarding the evaluation of local effects, the continued ability of hydropower facilities to provide emergency power, reliability of the California electrical grid, and future of the California electrical grid. See also Section 7.10, Greenhouse Gas Emissions, which evaluates greenhouse gas effects.
534	4	Third, the 17 percent reduction in Folsom Lake degrades cold water pool development, increasing temperatures in the Lower American River. UF would negatively impact some of that habitat in the Lower American River.	Tables 6.3-6 through Table 6.3-9 present the differences in average end of April and end of September storage in Folsom Lake for each scenario as compared to baseline. The Staff Report acknowledges potential temperature increases could occur in some streams under some circumstances and managing these factors to protect cold water habitat for fish is complex and challenging. However, the implementation of the narrative cold water habitat objective and the flexibility provided in the inflow requirements would be expected to improve water temperature conditions for native cold water fish. The cold water habitat objective is intended to bolster existing legal protections to ensure comprehensive temperature protection over time. Although approaches may differ among tributaries, the effectiveness of cold water management will require ongoing coordination, collaboration, and technical review among water managers, stakeholders, and technical experts to facilitate both short-term and long-term planning and decision-making efforts. Please see Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, regarding implementation of the cold water habitat objective.

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534	5	Volunteer Agreements are the good work of local water purveyors to balance water supply with river health. We have 20 years of demonstrated benefits that the Water Forum Agreement provides the Lower American River, with reliable higher flows in the spring while providing groundwater recharge to build our climate resilience. VA allows for our region to meet our co-equal objectives for long-term water quality reliability and environmental preservation of the Lower American River. My organization prefers the Voluntary Agreement route.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
535	1	When reviewing the draft Staff Report for Phase 2 of the Bay-Delta Plan update, it is clear that while flood is not a concern of the Water Board, analysis of drinking water systems have been left out. There are nearly 80 drinking water systems in the Delta and there is no analysis on how flooding and drought will impact water quality in these rural areas that either rely on groundwater as a whole or in part for their water supply. Meanwhile, disadvantaged communities struggle to respond to water quality emergencies due to insufficient infrastructure and funding. The Water Board's approach has been predominantly reactive rather than proactive in safeguarding the quality of drinking water systems. The State Water Board claims to be at the forefront of assisting disadvantaged communities with obtaining clean and reliable water supplies through financial and technical assistance. However, the Safe and Affordable Drinking Water Program has not met the goals here in the San Joaquin Valley. In creating more unimpaired flows, neglect of implementing the Bay-Delta Plan will further worsen drinking water conditions	The Staff Report adequately evaluates the environmental impacts of the Sacramento/Delta update to the Bay-Delta Plan in the analysis presented in Chapter 7, Environmental Analysis, Chapter 9, Proposed Voluntary Agreements, and Chapter 13, Revised Proposed Plan Agreements, including impacts to municipal water supplies and other impacts relevant to DACs. Please refer to Common Response 10.1, Economically Disadvantaged Communities, for responses to comments related to small drinking water systems in the Delta. Staff Report Section 10.5, Assistance Programs, discusses various financial and technical assistance programs available to assist public water systems serving DACs. These programs are designed to ensure access to safe, clean, and affordable water supplies and maintain compliance with all applicable water laws and regulations. The State Water Board is at the forefront of assisting DACs with obtaining clean, safe, and reliable water supplies. In doing so, the State Water Board is making its commitment to the human right to water through financial assistance, technical assistance, consolidations, SGMA oversight, and other means.
535	2	From 2020 to 2022, the Delta's water quality challenges intensified with a 30 percent rise in contaminant combinations, according to the updated 303(d) List. These issues pose threats to crucial activities like agriculture and municipal water supply, as well as the well-being of native habitats and wildlife.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
535	3	The Delta Tribal Environmental Coalition requested in the Civil Rights complaint filed by the US EPA that federal permits and approvals for major water export infrastructure, such as the	Please see Common Response 1.1, General Comments, regarding comments on other projects.

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		Delta Conveyance Project in the Bay-Delta and its headwaters, until the State Water Board achieves compliance with Title VI and the CWA. That includes the Bay-Delta Plan with flow-based and temperature and water quality criteria that is protective of beneficial uses. The current approach lacks a safeguard, especially without an analysis of drinking water systems. In conclusion, the imperative for the Water Board is clear; a steadfast commitment to enhancing water quality challenges faced by these communities rather than pursuing projects that may inadvertently exacerbate disparities. The Water Board must prioritize directly this by directly addressing and rectifying these existing water quality issues.	Please see 2023 draft Staff Report Section 7.20 and Section 13.7.20, both titled Utilities and Service Systems, and Section 7.22, New and Modified Facilities, for analysis of the revised proposed Plan amendments' potential drinking water-related impacts and mitigation measures to counteract those impacts. Please also see Common Response 10.1, Economically Disadvantaged Communities, for a response to comments asserting that the 2023 draft Staff Report did not analyze drinking water systems in the Delta.
536	1	Reading through the plan, we learned that the preferred framework is 55 percent unimpaired flow with an adaptive range. During drought, the lower range of the preferred framework is inadequate, and 55 percent is not supported by the best science to protect recreational fish and wildlife, municipal and tribal beneficial uses.	Staff Report Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations, provides a review and summary of the best available science on flow needs for the protection of fish and wildlife beneficial uses. Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations, of the Staff Report and the peer-reviewed 2017 Scientific Basis Report draw from a wealth of peer-reviewed scientific literature to describe the evidence supporting the use of unimpaired flow for improving environmental conditions for native fish species in the Sacramento/Delta. Please see Common Response 1.3, Revised Proposed Plan Amendments, on the purpose for the regulatory pathway requirements and for more information on the regulatory pathway inflow requirements. Also see Common Response 3.1, Fish Protection, on the use of best available science and the 2017 Scientific Basis Report. The Staff Report evaluates the environmental impacts of multiple alternatives for updating the Bay-Delta Plan, including in Chapter 7, Environmental Analysis, Chapter 9, Proposed Voluntary Agreements, and Chapter 13, Revised Proposed Plan Amendments. In addition, consistent with the consideration of factors under Water Code section 13241, the State Water Board included an extensive economic analysis in Chapter 8, Economic Analysis and Other Considerations, of the Staff Report. Section 7.24, Alternatives Analysis, provides additional information about project Alternatives 1 through 5, including the

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			environmental impacts and economic effects of each of these alternatives, and it describes how the environmental impacts and benefits of each alternative compare with the proposed Plan amendments evaluated in Section 7.3, Aesthetics, through Section 7.20, Utilities and Service Systems.
536	2	Additionally, it is evident that when looking at the economic effect, there are factors that are not being addressed. First and foremost, in Section 8.4.4, the agriculture economic effects on economically-disadvantaged communities have some of the worst impacts with these flow standards. On Table 8.4, page 27, Estimated Change in Agriculture Output, Incomes, and Jobs for Each Flow Scenario, it lays out that the flows with different rates of job losses following by statements that said, "Economic effects would occur primarily in the Sacramento/Delta watershed and San Joaquin Valley regions. And the change in agriculture employment would also be expected to occur primarily in these regions." However, this table fails to present which specific regions of agriculture laborers are at loss. Will they be in the Delta or specifically in the Valley? This is unacceptable because these communities are always the ones who suffer from these letdowns, from water, food, and air quality, and to put them through even more economical hardship is just too much.	The Staff Report adequately evaluates the regional economic effects of the proposed Plan amendments. In particular, the IMPLAN results presented in Section 8.4.4, Agricultural Economic Effects on Economically Disadvantaged Communities, of the Staff Report estimate the changes in total industry output (sales), income, and employment under the flow scenarios. Two regional models (a Sacramento/Delta regional model and a State of California model) were constructed to analyze regional economic effects. IMPLAN results are not available at a finer resolution. However, SWAP modeling results for changes in crop acreage are available in Appendix A3, Agricultural Economic Analysis: SWAP Methodology and Modeling Results, for each of the 28 production regions in the Sacramento/Delta watershed and San Joaquin Valley. Agricultural laborers that would likely be most affected are those associated with the crops that would experience the largest reductions, and those that reside in and near the SWAP production regions that would be most affected. Chapter 10, Economically Disadvantaged Communities, provides an overview of DACs and their water supplies. It incorporates information from several other sections and chapters to summarize possible effects of the Sacramento/Delta update to the Bay-Delta Plan on DACs under current regulatory conditions. The State Water Board is at the forefront of assisting DACs with obtaining clean, safe, and reliable water supplies; this chapter also discusses relevant State Water Board financial and technical assistance programs.
536	3	Also, the report does not attempt to qualify the cost of no projects in which massive diversions persist. There are quantifiable costs for HABs, fisheries, ecosystems, hospitals, recreational industries, tribal economics, and so on. Moreover, it is impossible to quantify the cost to tribal cultures, identities, religion, and sovereignty, as well as the communities that have been affected by and alienated by unhealthy waterways. The economic impacts of restoring flows, which may be positive,	Section 8.6.1, Recreational and Commercial Fisheries, in the 2023 draft Staff Report (Section 8.6, Fisheries Economic Analysis, in the final Staff Report) addresses potential economic effects concerning commercial and recreational sport fisheries, with an emphasis on Chinook salmon. Section 13.8.4, Fisheries Economic Effects, provides supplemental economic information relevant to recreational and commercial fisheries and discusses fisheries economic effects under the revised proposed Plan

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		cannot be evaluated without this baseline assessment of business as casual cost. My sincere thanks goes out to you for the consideration an opportunity to reconsider the economic effects of the Bay-Delta Plan Staff Report.	amendments. In addition, in response to comments received on the economic analysis presented in the Staff Report, Chapter 8, Economic Analysis and Other Considerations, has been updated to include a new Section 8.6, Fisheries Economic Analysis, that addresses potential economic benefits from implementation of the flow scenarios and subsequent aquatic ecosystem improvements and benefits for native fish species. Among other topics, Section 8.6, Fisheries Economic Analysis, in the final Staff Report includes discussion of subsistence fishing and tribal uses of fish. This new section provides additional context and information concerning beneficial fisheries and ecosystem economic effects, but does not change the conclusions of the Staff Report's economic analysis. The State Water Board used the best tools and information available to estimate economic effects, and it would be highly speculative to quantify the fisheries and other related beneficial economic effects of the project that are associated with aquatic ecosystem improvements. As discussed in Section 8.6, Fisheries Economic Analysis, of the final Staff Report, the economic analysis of flow scenario effects on aquatic ecosystems is largely qualitative due to the challenges with fish population modeling in the Sacramento/Delta watershed. For a discussion of challenges with fish population modeling, see Appendix G2, Final Scientific Basis Report Supplement in Support of Proposed Voluntary Agreements for the Sacramento River, Delta, and Tributaries Update to the San Francisco Bay/Sacramento-San Joaquin Delta Water Quality Control Plan.
537	1	My final thought for you is this, Yuba County remains one of the most disadvantaged counties in the state. By any measure that you look at, median household income, social vulnerability, CalEnviroScreen, Justice40, any of those, we are disadvantaged. But Yuba Water has an opportunity, and really I think it's an obligation, to act as a catalyst in our community to make a real positive difference.	Please refer to Common Response 10.1, Economically Disadvantaged Communities, for responses to water provider comments and DACs and Common Response 8.1, Economic Analysis and Other Considerations, for discussion of the economic effects from reduced revenue from hydropower production and water sales, and Yuba Water Agency.
537	2	Next slide, please [see letter #354 for slides]. So some of the greatest accomplishments that Yuba Water Agencies experience is through partnerships and collaboration. Partnerships and collaboration provide more tools and new	Please refer to Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		opportunities that aren't -- that you may not be aware of when you enter into a project or an effort. We have some recent successful projects that I'd like to talk about briefly. The North Yuba Forest Partnership. You know, forest restoration is not necessarily our core mission. However, we do get our water supply from the Sierra Nevada Forest, so we have an interest in restoring the forest, and we entered into that a few years ago. And now we're into a landscape scale partnership called the North Yuba Forest Partnership with NGOs, tribes, local government, nonprofits. And it's really a diverse partnership with a broad goal, landscape-scale goal of restoring the forest over the entire North Yuba watershed. And we started out with small investments, \$1.5 million from Yuba Water Agency. We now have \$160 million to invest in the North Yuba watershed. The second one is the Hallwood Habitat Enhancement Project, but I don't need to talk about that. 1 I'll talk about it a little bit later, and Adam already 2 briefed you on that today. It is an exciting project. But one I do want to talk about is the Daguerre Point Nature-Like Fishway. It's a recent development. We signed an MOU in May with CDFW and NMFS, and these are unique partners. We don't normally partner with our regulators, but we're working in a different way now. We're working with our regulators to achieve goals that we hadn't even thought of in the past. And this is an effort that we're implementing on a dam that Yuba Water Agency doesn't own, but we're providing unrestricted fish passage at Daguerre Point Dam for salmon, steelhead, and green sturgeon. It's super exciting, and again, it's a new way of doing things.	
537	3	So over the next several slides [see letter #354 for slides], I'm going to talk about statewide impacts that we see from the 55 percent unimpaired flow proposed plan, and also talk about Yuba Water Agency's voluntary agreement. But this, I want to note, that this is based on our initial review of the documents. And I heard earlier today that this is a draft. We understand that. I heard from Mr. Oppenheimer that this	Please see Section 7.8, Energy, and Common Response 7.8, Energy and Hydropower, regarding the effect of reductions in generation during the summer, grid reliability, emergency peaking, and effects at Colgate Powerhouse. Reductions in summer hydropower generation at Colgate Powerhouse were included in the power flow analysis. Response to the specific conditions that led to the electrical grid emergencies of 2020 and 2022 were not part of the power flow analysis, but as described

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		represents a worst case scenario. We understand that. But these are the words on the page and like we heard from EB MUD, this is what we have to comment on. But I'm sure that we can work together to get through this and make this a positive experience for all of us. Like all these other efforts I've mentioned, we're here to help. We want to collaborate with you all. Next slide, please. Okay, so this slide is taken from the draft Staff Report. And what this slide shows is generation impacts from the 55 percent unimpaired flow proposal. There's 40 hydro generators in this graph. And when I talk about this slide, I want to talk about the decrease in hydroelectric generation specific to Yuba Water Agency and Colgate Powerhouse. Lee Bergfeld earlier today in the hydrology group talked about this phenomenon, but I want to talk about how Colgate Powerhouse helps support grid reliability. We've heard about heat events, and we heard about heat events in 2020 and 2022. I personally received calls from the Cal ISO in August of 2020 and September of 2022 basically saying, are you maximizing your generation and are you ensuring that your units are going to stay online through this heat event? Not only did we ensure they stayed online and we did have a max schedule based on the Yuba Accord during those periods, we actually ramped up beyond the Yuba Accord schedule to increase our generation as much as possible, maintaining quality flows for the fish downstream. Well, what did that do? That was a benefit to the state but it also took away from our carryover that season, so that does have an impact on our irrigators the following season. We explain that to our irrigators. We explained to them that we are a resource in the state to keep the grid going, we need to play in this sphere, and we need to help this situation. This is just to tell you specifically the Colgate generators are important for grid reliability. And then this graph shows a significant decrease in overall generation from Colgate Powerhouse. And I don't need to get into the shifting from summer months to spring months as Lee did earlier, but that same phenomenon showed up in this graph.	in Common Response 7.8, it is expected that Colgate Powerhouse would continue to be able to increase power generation during emergencies.

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537	4	Next slide, please [see letter #354 for slides]. Okay, now we're on to water supply impacts. This image -- well, first off, some of the -- or one of the mitigation measures explained in the Staff Report are water transfers. Okay, so hey, if we have a decreased supply based on the unimpaired flow regime, there's decreased water availability. So water transfers may be able to help mitigate that. What I want to point out is on the table to the left, the Yuba River Accord provides a significant portion of those current water transfers, existing water transfers. And the way we interpret the unimpaired flow model is the Yuba Accord won't exist going forward in this unimpaired flow model, at least at the 55 percent regime. So how are we going to have water transfers in the future when existing water transfers aren't maintained? This is a significant concern to us. And also, in the modeling, we don't see a consideration of the existing benefits of the Yuba Accord on the lower Yuba River and the habitat in the lower Yuba River. That flow regime was designed for salmon and steelhead in the lower Yuba River for temperature effects and for flow conditions to benefit those species. And we don't see how with the unimpaired flow regime and the reservoir operations restrictions, proposing an unimpaired flow proposal, we don't see how we can maintain those flows. So it's a significant concern for Yuba Water Agency and also a statewide water supply to the Bay Area, to Southern California, and the San Joaquin Valley.	The State Water Board is considering the Plan amendments pursuant to its independent obligation and responsibility to protect the quality of the waters of the state to protect beneficial uses. This process is separate and distinct from any other program, plan, project, or proceedings within the State Water Board's jurisdiction, or that of any other state, federal, or local agency. Please see Common Response 1.1, General Comments, regarding consistency with other laws, policies, and agreements. The improved flow and operational requirements under the proposed Plan amendments are intended to ensure the reasonable protection of fish and wildlife beneficial uses and to address the significant species declines and ecosystem collapse that has occurred in the Bay-Delta and upstream watersheds. The proposed Plan amendments would result in the restoration of a more natural flow regime. For the lower Yuba River, modeling shows some increased inflow during early winter and through spring months which could benefit anadromous salmonids during key migration periods (see the 2023 draft Staff Report: Section 7.6.2, Aquatic Biological Resources, and Figure 7.6.2-8; and Appendix A1, Sacramento Water Allocation Model Methods and Results, Section A1.12.3, Streamflows, and Figure A.1.12.3-41). The Staff Report acknowledges the potential economic effects of reduced Sacramento/Delta water supply and that the overall supplies of water from the Sacramento/Delta will decline with the new instream flow and cold water habitat requirements, which may result in less water available for transfer. Please see Chapter 6, Changes in Hydrology and Water Supply. Also see Common Response 8.1, Economic Analysis and Other Considerations, regarding water transfers. In addition, the project is revised as described in Common Response 1.3, Revised Proposed Plan Amendments. The proposed Plan amendments remain part of the project as the regulatory pathway. The revised proposed Plan amendments include water supply adjustments and relaxations to carryover storage requirements for existing water right holders at the outset of plan implementation to reduce water supply impacts and allow more water to be stored in reservoirs. The revised

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			proposed Plan amendments also provide for a VA pathway for an eight-year term with the possibility of extension that reduces the required flow contributions for VA water rights. See Section 13.4, Changes in Hydrology and Water Supply, for modeled changes in hydrology and water supply that could occur from implementation of the revised proposed Plan amendments.
537	5	Next slide, please [see letter #354 for slides]. To summarize the statewide impacts, you have the generation impacts we've talked about, and you have the water supply impacts that we've talked about. You know, we got this Staff Report, you know, six, eight weeks ago, and we've been pouring through the 6,000 pages and identifying concerns and comments. These are the concerns and comments that my team brought to me last week and said, package these up in a presentation and talk about them next Friday. We have not gone through groundwater impacts. We have not gone through temperature impacts in the lower Yuba River, specifically, or impacts to our disadvantaged communities. So we will include those in our written comments, but I wanted to bring to you the most important statewide impacts. And that's what I showed you with the generation and the water supply.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
537	6	So next slide, please [see letter #354 for slides]. The 55 percent unimpaired flow schedule will also prevent us from achieving some of our major efforts we have underway. We own and operate New Bullards Bar Dam and has 170,000 acre-feet of dedicated flood storage. Following the floods that Terri described, we did reports and studies to identify how could we get more flood protection out of our existing infrastructure. We identified the Atmospheric River Control Spillway. It's a \$240 million project that is at 100 percent design now. We're looking for funding to build it. We're gathering funding to build it. Unfortunately, when you look at the 55 percent unimpaired flow proposal, we may not be able to operate our reservoir flexibly enough to implement forecast-informed reservoir operations as we've been planning and studying over the past several years. There's a reservoir carryover restriction that would limit our ability to use the	The carryover storage in New Bullards Bar was lowered such that the model attempts to meet a carryover of between 400 and 600 TAF (previously 550 TAF in the 2023 draft Staff Report) as frequently as occurs in baseline, by using a "reservoir buffer pool" that prioritizes storage over lower priority demands. The September buffer pool is set to 750 TAF in the 2023 draft Staff Report scenarios. The buffer pool assumptions for New Bullards Bar Reservoir were revised for the SacWAM version 2025.08.28 simulation of the 55w/WSAs scenario and baseline where it is set to 650 TAF. Specifically, based on updated temperature data and comments received, the buffer pool in New Bullards Bar Reservoir was lowered to allow the reservoir to be drawn down further throughout the summer. Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, for more discussion on the relationship between carryover storage targets and SacWAM reservoir buffer pools.

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		forecast from FIRO and implement those for flood control. That's our initial review, that's based on the current modeling, but that's a major concern.	Appendix A1 includes carryover targets assumed in the SacWAM modeling of the flow scenarios. Appendix A1 also refers readers to Appendix A1c for the analyses used to develop the carryover targets listed in Appendix A1. Based on comments received, some of the carryover targets have been revised for the revised proposed Plan amendments including the carryover target for New Bullards Bar Reservoir. Please see Chapter 13, Appendix H1, and Appendix H1a1 of the Staff Report for a description of the revised proposed Plan amendments, changes to SacWAM model, and the assessment of effect of reservoir storage on reservoir release temperatures. Additionally, please see common response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, related to implementation of the cold water habitat objective and long-term and annual temperature management plans that would allow flexibility in operating reservoirs to meet the flow and cold water habitat requirements. The development of temperature management plans is the proper venue for the State Water Board to consider factors such as flood control and other regulations.
537	7	Secondly, we don't know that we can continue these commitments we've made, like the forest restoration I've talked about, or even something that's new that I talked about, the Nature-Like Fishway at Daguerre. These are above and beyond our core mission. They are things we're able to do right now because of our regulatory foundation. We want to work with you all, maintain a long-term regulatory foundation, so we can continue to work on these watershed-wide efforts and, basically, see these commitments through.	Please refer to Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
537	8	Next slide, please [see letter #354 for slides]. Okay, here it is again. This is the generation slide. I want to point out another Yuba watershed-specific point with this slide. When we saw this slide at first and we extracted it from the 6,000 pages, we looked at the decrease in Colgate and we said, what is going on here? This looks like a disproportionate impact. You have generators on this slide. There's generators here that are larger than Colgate, but Colgate takes the biggest hit. So we	Please see the response to comment 537-3.

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		said, look, we got to dig into the modeling and figure out the how and why of what's going on.	
537	9	Next slide, please [see letter #354 for slides]. Okay, before I do that and get into what we found, I need to give you a quick explanation of the Yuba watershed and how it works. This is an image of the Yuba watershed. There are significant exports high up in the Yuba watershed that take place above our operations that go to three different counties, and two different watersheds. What we found -- well, also, those total 500,000 acre-feet, or almost 500,000 acre-feet. Because our name is Yuba Water Agency, I feel like outsiders look at us as the operator of the Yuba River Watershed. We're not. Our dam is on the North Yuba River. It is not a rim dam, and it is not the only source of water, and we're not the only diverter, and in fact, we're a minority diverter on the Yuba River. But we're seen as the operators of the Yuba River. We need you to be aware of how the Yuba River works. So what we found in the modeling is when you look at unimpaired flow and the unimpaired flow regime, and by the way, this is the first time we've seen how unimpaired flow would be imparted on the Yuba River. We've had this document for eight weeks or so. When you look at the gross unimpaired flow on the Yuba River, it's not accounting for these diversions. So basically, 500,000 acre-feet are being taken out and exported high upstream in the watershed, but it's not being taken out of the unimpaired flow calculation. But Yuba Water Agency is being required to meet all of the unimpaired flow objectives at the confluence of the Yuba and the Feather. We think this is a flaw in the modeling. We want to work with you to fix it, but that's what resulted in the disproportionate impacts that you see on the previous slide, and that's what we dug into and found. Here again, we understand that this is potentially worst-case scenario, but we also think there may be an error in the modeling or some way to fix it, and we're happy to work with you all on that to see that through.	Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, for response to comments about the Yuba River and operations.

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		Look, you can't take unimpaired flow out of the box. Unimpaired flow is out of the -- or you can't put it back in the box. It's out of the box now. We need to know how it's going to work. If we do move a voluntary agreement through, uncovered parties are going to have to adhere to some type of unimpaired flow matrix. So we need to make it accurate and know what it is long term, and we're willing to help.	
537	10	Next slide, please [see letter #354 for slides]. Okay, so now I'm going to talk about our voluntary agreement proposal. We think we have a really valid voluntary agreement proposal. It would maintain our flood control operations. It would allow us to build our ARC spillway and operate our Arc Spillway under FIRO. It would maintain the lower Yuba River Accord. Our flows -- I hear about this block of water -- our flows as proposed in our voluntary agreement are significant and they're based on real accounting and they're based on reservoir re-operation. We've talked with our irrigators. They understand there's going to be long-term water supply issues to them but we're trying to minimize them as much as possible. It's real water and it maintains the lower River Accord so it's building on top of it and it's a block of flow, as we've been asked for flow. As in April, May, and June, that's when we can deliver this. I've heard about flexibility. It's somewhat flexible, and we'll work with your staff to make it as most value as possible. We've already talked about hydro generation and grid reliability, but it maintains our ability to operate in the critical summer months. And it also maintains the environmental benefits of the Lower Yuba River Accord, maintains the ability to operate in the watershed-scale forest management we're doing, and also provides the water for the species in the Delta that we've been asked to provide. So I think it meets all the objectives. So here's -- look, our VA is ready to go. It's been ready to go since 2019. We packaged up our reservoir reoperation proposal coupled with habitat enhancement, science, funding, and collaboration.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Also see Common Response 1.2, Water Quality Control Planning Process, on the consideration of beneficial uses.

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		The graph on the left is what we would have delivered under our VA flow component in 2019. And the lower green line is what we did deliver because we didn't implement the VA. And the orange line is what our VA flow of contribution would be from reservoir re-op. It's significant, it's real, it's in the months we've been asked to deliver the water. The image on the right is the Hallwood Habitat Enhancement Project. I know we've heard a lot about that today. We're pretty proud of it, collaboration, success. The reason we jumped into the Hallwood Project was because of the 2018 order that this Board approved that kind of opened the door for voluntary agreements. And when you open the door for voluntary agreements, great things happen. The Hallwood project happened. It was being worked on since 2012 and we jumped in in 2019 following that order. Now it's complete. There's an image on the left of 2018. You can see the constrained conditions of the rearing habitat and look at how much area is covered in water in 2023. I'm going to show you a quick video. Can you hit next slide one more time? It should play the video. Okay, so this is a time-lapse video of the Hallwood project. Look at all that sediment that's being removed, 3.2 million cubic yards, partners with NGOs, other regulators, funding from federal and state sources. It's a landscape-scale project. It's for rearing habitat. People, you know, don't understand sometimes, why aren't we working on spawning habitat? We have adequate gravels. We have great spawning. This is rearing. But look at that. Do you see the bald eagles on the right there? How awesome is that? We staged that. At any rate, we're pretty proud of it. These are the things we need to keep doing. These are the things that your 2018 order were the catalyst for. Okay, recommendations and next steps. So what do we do now?	

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		I've already explained to you we're available to engage and collaborate. We want to work with the Board and staff to improve what we're seeing in the Staff Report. We also want to ensure that the process is proportionate and fair. And we talked about that in our watershed slide that looked about, looked at the upstream diversions. We need to make that accurate. Like I said, I don't think you can put the unimpaired flow back in the box, so we want to ensure that it's accurate. We're here to help with that. In addition, our recommendation is to advance Yuba Water Agency's voluntary agreement. There's been a lot of discussion about voluntary agreements here today. We're ready to go. We could implement the voluntary agreement any given year when you give us the green light. So that's what we think we should do. It balances, carefully balances, all of the beneficial uses of water, maintains the entire state's interest, and we're here to see that through.	
538	1	I'm a native Californian and for my whole life I've watched our state government put the water demands of industrial agriculture ahead of the health of our great West Coast Delta. State water policy needs to be based on sound science if we're to save our rich Delta and the great salmon fishery it once supported. For the present and future well-being of our state, we must curb the short-sighted excessive exploitation of the Sacramento River and its complex Delta and estuary. The State Water Board has the significant responsibility to restore the natural processes of the Bay- Delta ecosystem. It's clear that voluntary actions by the too many claimants of Sacramento River water are not sufficient to reduce the water they take. On average, only 50 percent of Central Valley rivers flow through the estuary to the bay. The consequence of this inadequate flow of water is causing the destruction of the salmon fishery that served residents of Northern California for eons. Another consequence of inadequate flow of river water through	Please see Common Response 1.1, General Comments, for information on the Delta Flow Criteria Report; Common Response 1.2, Water Quality Control Planning Process, for information on the consideration of beneficial uses; Common Response 4.1, Harmful Algal Blooms; Staff Report Chapter 8, Economic Analysis and Other Considerations, an analysis of the economic benefits and costs of the flow scenarios; Staff Report Chapter 11, Tribal Engagement, Traditional Ecological Knowledge and Tribal Beneficial Uses, and Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for information on tribal consultation; and Common Response 7.24, Alternatives Analysis, for a response to comments on the flow alternatives.

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		the Delta is the warming of the more shallow water and the consequent production of toxic algae blooms, which are becoming a constant. In 2010, the State Water Board concluded that 75 percent of unimpaired flow of the Sacramento River and its tributaries flowing on through the Delta would be needed to protect the Bay-Delta ecosystem, but on average only 50 percent reaches the Bay and, of course, even less during droughts. To save our fisheries and prevent algae blooms, we must have a commitment to a much higher flow-through, a standard to address algae blooms, and a program to implement this commitment now. We need the Board to acknowledge and protect not only our groundwater and drinking water needs, but the beneficial cultural, recreational, and agricultural uses. These beneficial uses of a healthy Delta and estuary must be a part of any staff cost-benefit analysis, as they have not been. Consultation with the tribes whose ancestors protected the Delta and the fisheries over centuries is essential.	
538	2	We know that agriculture uses 80 percent of our water, but represents just 2 percent of our economy. Industrial agriculture's demands on our water sources are hugely disproportionate. Instead of tolerating waste, the state needs to reward efficient water use. We need the governor to end his effort to direct even more water to the Central Valley, where it's squandered on water-needy products like almonds, and instead protect the health of our great San Francisco Bay-Delta ecosystem and its fisheries for future generations.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
539	1	One of the Delta's goals is to sustainably manage the region's freshwater resources and protect the ecosystem. Unfortunately, the plan as currently configured realistically can't achieve that goal due to some glaring deficiencies. Let me have the next. I see. There we go. Thank you. [see letter 351 for slides] First off, the current plan doesn't even address the Delta Conveyance Project. Now this is a project, this 45 mile-long	The Delta Conveyance Project and Sites Reservoir are discussed in Section 7.23.1.2, Cumulative Project List, of the 2023 draft Staff Report and potentially significant cumulative impacts are identified in the cumulative impact analysis that follows. Please refer to Common Response 7.23, Cumulative Impact Analysis, for responses to comments related to the consideration and analysis of cumulative impacts associated with the Delta Conveyance Project and Sites Reservoir.

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		tunnel, you know, 39 feet of diameter, will draw up to 6,000 cubic feet of water per second from the Sacramento River. The idea that the plan doesn't consider that impact, that massive impact on the amount of water entering the Delta is, well, a really unfortunate oversight. Let's put it that way. So, how do I? Yeah. Thank you. So the other project that isn't considered is the Sites Reservoir, and that will withdraw another additional 2,000 cubic feet of water per second for the Sacramento. This is upstream of the Delta project. But between those two, that's a massive amount of water removed from -- freshwater removed from the Delta. And the Delta Plan has to incorporate analysis, environmental analysis, of those projects. The fact that it doesn't, I think, is a major detriment.	
539	2	Could you go to the next slide? [see letter 351 for slides] So all I wanted to point out here is that the recent studies, and this has been alluded to in a previous speaker, but using acoustic tags on fish have shown that you can experimentally find the flow level that will ensure 50 percent survival of migrating salmon on any particular stretch of river. So this means that using this approach, it's a universal approach, you can apply that to any river to logically and rationally define what flow is required to allow 50 percent survival of the migrating salmon. So that, I haven't heard anybody talk about actually defining flows in that way, so I'd like to make that suggestion. The other thing was to point out that I absolutely believe 55 percent of the unimpaired flow is a great minimum. I have issues with a 45 to 65 percent, but in the absence of a lot of time, I won't go into why.	Please see Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations, Section 3.4, Chinook Salmon (<i>Oncorhynchus tshawytscha</i>) and Central Valley Steelhead (<i>Oncorhynchus mykiss</i>), for a discussion of the Chinook salmon population in the Bay-Delta. Several of the studies cited in this section use the methods described, where acoustic tagging studies of salmon are used to estimate survival in river reaches and the flows associated with higher survival during outmigration. Please also see Common Response 3.1, Fish Protection for flow-benefit analyses, and Common Response 1.3, Revised Proposed Plan Amendments, for a discussion of water quality objectives for fish and wildlife beneficial uses.
539	3	Go to the next slide. [see letter 351 for slides] So the next point is that the voluntary agreements really, they won't work. They lack the enforcements, I mean, and that right there is a killer. The enforcements have to be put in. They should be mandatory. No voluntary thing about it. The measures should be mandatory. There should be stiff penalties for noncompliance and they should be strictly enforceable. I do want to point out,	Please see Staff Report Chapter 13 and Common Response 1.3, Revised Proposed Plan Amendments, for information on the VA pathway, including enforceability. Please also see Common Response 1.2, Water Quality Control Planning Process, for information on the State Water Board's authority to require non-flow measures.

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		though, that habitat restoration and creation in the voluntary agreements is great, but there's nothing that limits the Delta Plan itself from incorporating habitat generation and creation and maintenance into the plan. That has nothing to do with voluntary agreements.	
539	4	Next slide. [see letter 351 for slides] So this is just to point out that with all these water diversions that you guys have not talked about, and rising sea levels, and removing water from the Delta, you're going to see an encroachment of salinity in the Delta. That's basic physics. The problem here is that as the salt gradient increases, you're going to see a loss of fish, all kinds of fish. And you've seen slides before about the broad spectrum of fish that are affected here. But the idea is that you need to control and specify both the Delta inflows and the outflows since together they sculpt the salt gradient. And I want to hear you talking about using those flows, defining those flows in such a way as to sculpt the gradient, so it's more like the 1983 gradient and a whole lot less, like the 2007.	The 2023 draft Staff Report evaluated both changes in Delta inflows and Delta outflows. Please refer to Section 6.3.1.3, Sacramento-San Joaquin Delta, for a discussion of changes to Delta inflows and Delta outflows. Also see the impact analysis in Section 7.6.2 for a discussion specific to how those changes affect fish species including through changes in X2, which is a measure of salinity. Changes in Delta inflows under the proposed Plan amendments would support improved migratory conditions for emigrating juvenile salmonids and other anadromous and estuarine fishes that migrate through the Delta and lower reaches of the Sacramento and San Joaquin Rivers, as well as provide improved attraction and homing cues for adult Chinook salmon, steelhead, sturgeon, and other species migrating upstream. Delta outflow generally would increase during all months, except for reductions during August and for the lowest flows in January, May, and June. These changes would more closely resemble a natural flow regime to which native species have adapted. See Figure 7.6.2-5, which shows the change in the position of X2 for the baseline and flow scenarios.
539	5	Can you go to the next slide? [see letter 351 for slides] So all I want to point out here is that the Delta Plan must more effectively address water pollution. Right now, it really isn't. It should mandate upgrades to water treatment plants and mandate limits on fertilizer use in the watersheds that drain into the Delta.	The 2023 draft Staff Report Sections 7.12.1, Surface Water; 7.22, New or Modified Facilities, and 7.20, Utilities and Service Systems, contain discussion of Plan impacts and mitigation measures related to water treatment plants and water pollution. Both the State and regional water boards will continue regulation of wastewater treatment plants under individual National Pollutant Discharge Elimination System and Waste Discharge Requirements permitting processes. The State Water Board also continues to provide loans and grants for capital improvements to wastewater treatment plants. Likewise, the Central Valley Regional Water Board will continue to implement the Irrigated Lands Regulatory Program, which regulates waste discharge, including fertilizers, from irrigated lands to prevent discharges from causing or contributing to exceedances of water quality objectives.

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539	6	Why? Well, this slide [see letter 351 for slides]here shows you that in the San Francisco Bay, it's heavily polluted with respect to nitrogen and phosphorus. Those are logarithmic scales, by the way, relative to almost any other bay you would examine, with the exception of maybe Tokyo Bay. And why is the pollution buy-in for nitrogen and phosphorus important? because they stimulate plant and microbial growth. And in the absence of controlling that, you're going to get harmful algal blooms. Can I go to the next slide? And this is just an example of what we get when we don't control nutrient loads and there's inadequate flows in the Delta. So I'm trying to graphically point out, these are the consequences. We need to decrease the nutrient load, you need to control how much nitrogen, phosphorus, and fertilizers are brought into the Bay, and you need to increase freshwater imports into Delta to both flush that out and to control temperature in the Delta.	Please see Common Response 4.1, Harmful Algal Blooms, for responses to comments related to nutrient discharge and cyanobacteria harmful algal blooms (HABs) in the Delta and Bay and flows and HABs in the Delta.
539	7	Okay, well, all I wanted to point out here is that to reiterate what people have said, that we need trigger temperatures so that cold water reserves are released when they're needed. Next slide. [see letter 351 for slides] This is just to point out that while there are a bunch of maps in the plan, the only map that even shows where salmon might be is this first one. And all it says is that salmon appear in the Sacramento. What we need are maps that show where the salmon are spawning, where they're rearing, where they're feeding, where they're holding over the floodplains and so on. Why? Because salmon are a key species and we need to map them.	Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations, includes detailed fisheries information, including species-specific analyses regarding flow needs of a suite of native Bay-Delta aquatic species including all four runs of Central Valley Chinook salmon, Central Valley steelhead, and multiple estuarine-dependent species. The estuarine-dependent species are Sacramento splittail, longfin smelt, Delta smelt, California bay shrimp, starry flounder, white and green sturgeon, and several zooplankton species. For each species, its life history, population abundance, and functional flow-abundance relationships are summarized. Table 3.14-1 provides an indication of the magnitude, duration, and seasonality of flow that may be required to support a healthy aquatic estuarine community, and Table 3.4-4 shows at least one run of salmon or steelhead migrates through the Delta or holds in the upper watershed during each month of the year. Section 3.14.2, Salmonid Tributary Habitat Analyses, provides additional detail and analysis on salmonid tributary habitat, including spawning and rearing and floodplain inundation.
539	8	Next slide. [see letter 351 for slides] And this is an example of a couple of maps that I think are a lot	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not

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		more informative. Here you see a little stretch of the Sacramento where they point out that this is the small region, the Sacramento, that supports salmon and spawning and rearing. And the other map shows that we should also consider the tributaries and map those same regions there, because if we don't map them, we don't know where they are, we can't preserve those areas and the salmon won't have a chance.	raise specific economic effects of the project. Figures 7.6.2-1a and 7.6.2-1b in the 2023 draft Staff Report are adequate for the purpose of representing critical habitat of salmonids, steelhead, green sturgeon, and Delta smelt populations within the Central Valley. Please also see Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations, for additional information on the life history of fish species.
539	9	Final slide is just some stating the obvious, that the amount of water being diverted from the Sacramento and Bay-Delta is not sustainable. We need to shift to water recycling, purification, reuse. Yes, it will be expensive, but so are the consequences of not doing that. We need to develop a statewide water purification plant system. We need gray water and stormwater capture, minimize desalinization impacts, because right now they're pretty bad, and we need to do this now. We're at a critical point. We don't have time to waste.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
540	1	As most of you know, California spent decades and millions of dollars determining how much water fish need. And basically, at the end of the day, we're deciding we don't like the results. The results say we need a high percent of unimpeded flows to stay in the stream. And I'm encouraging the Water Board to go along with the best available science. And when we say that it's important to recognize what goal we're talking about. Opening presentations by staff referred a lot to reasonably protect. We hear a lot about doubling. I would refer you to the California and Federal Endangered Species Acts, both of which have the goal of survival and recovery. I will refer to those as recovery flows. I would encourage you to support that. You had before you some of the best scientists in California, so I would encourage you to ask them what is needed for survival and recovery and then hang your hat on that and support it and advocate for it, advocate for it publicly. And I would ask the Water Board also advocate for it with the Governor.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. See also Common Response 3.1, Fish Protection, regarding the use of best available science.
540	2	Finally, the Water Board has recognized Tribal Beneficial Uses. I was part of that process at the time of developing that and helping collect input. It was a completely different Water Board,	As discussed in Chapter 13, Revised Proposed Plan Amendments, the revised proposed Plan amendments incorporate Tribal Beneficial Uses (TBUs), would designate Tribal Tradition and

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		but at that time the general agreement was flows needed to protect Tribal Beneficial Uses exceed ESA and CESA flows. So please keep that in mind when we're talking about racial equity, when the governor is posing with tribal representatives, those flows exceed ESA flows.	Culture (CUL) beneficial use, and include provisions for tribal outreach and engagement and incorporation of tribal feedback and Traditional Ecological Knowledge (TEK) into the Bay-Delta Plan update and implementation processes. Please see Chapter 13, Revised Proposed Plan Amendments, for additional information on incorporation and designation of Tribal Beneficial Uses. See Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to comments related to Tribal Beneficial Uses.
540	3	So in reference to the voluntary agreements, I would like to challenge some of the statements that were made that we have to choose between the percent of flow approach and habitat improvements. Per one of the quotes, "habitat improvements would not be possible if unpaired flows are implemented." This is a myth that Water Board -- this Water Board and the entire previous Water Board has been told, it is not true, we can have both, we can have habitat improvements and a percent of flow approach needed for recovery. Temperature and reservoir management, again, we don't have to choose between a percent of flow approach and managing reservoirs in such a way as to give cold water to fish.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
540	4	And then finally, harm to disadvantaged communities. I think it is shameful for municipalities to say that giving salmon what they need necessarily means we have to harm disadvantaged communities. We can fix that with rate structures. Human Right to Water provides a lot of ideas for rate structures that protect disadvantaged communities. We do not have to choose, nor do we have to choose between the Human Right to Water or tribal rights to water for fish and rivers.	Please refer to Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
540	5	For the last 20 years, I've worked with tribal reps and other allies who have testified before the Water Board, but at the end of the day, this is a political decision. So I think it behooves us to just acknowledge that elephant in the room. So I'm asking the Water Board, please make yourself advocates with the governor, take a stand publicly with Governor Newsom in support of endangered species recovery flows based on the best available science. That does not mean we have to give up all the good stuff talked about in the, all the habitat restoration talked about in the Voluntary Agreements. Taking this position	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Also see Common Response 3.1, Fish Protection, regarding the use of the best available science.

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		publicly and with the governor would not make you biased. It would put you on the right side of history, it would put you on the right side of existing law, the right side of future generations, non-humans, and indigenous people who've been here since before California existed. So please make yourself advocates because I know you're not the only ones making this decision.	
541	1	It's no secret that our Central Valley rivers, the Delta, and the vast array of fish and wildlife are on the brink of disaster. Salmon season has been closed and we're seeing extremely poor escapement numbers in most Central Valley rivers. Delta smelt are nearly extinct. The sturgeon, the grand fish of the Delta and CV rivers, are declining. The VA signatories assert that physical habitat can replace water flows. I can tell you that on the Tuolumne, we've been down this road before. In 1995, local irrigation districts, fish agencies, and conservation groups, including TRT, signed a voluntary agreement related to the Don Pedro Hydropower license, and that agreement provided very minor flow increases and a commitment to complete ten habitat restoration projects. What's happened on the river since then? The salmon populations continue to decline to the point where today, instead of over 100,000 salmon that the Tuolumne historically supported, we often only see a few hundred to maybe a few thousand fish. The Tuolumne 1995 V.A. did not work.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
541	2	But it's not just about fish. This is about people and about a legacy of dams, diversions, and water withdrawals that began with the gold rush and continues to this day. And throughout this 175-year history, the people who relied on these rivers, Native peoples, have been excluded from decisions about how to manage them, and these VAs represent a continuation of that terrible legacy. They're explicitly exclusionary. There's been no participation from tribal members and the Board should meaningfully engage the tribes and make sure that any approved plan meets tribal needs and protects tribal uses of water.	Please see Common Response 1.1, General Comments, for responses to comments expressing general support or opposition to the VAs. See also Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to tribal comments on the VAs.
541	3	The VAs are personal for me too. Like thousands of other people, I love to take my son fishing on these rivers and for salmon in the ocean and trout in the rivers. These fishing trips have been great a experience for the two of us to bond and create lasting	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		memories, but we can't do that this year because salmon numbers are so low, the season is closed, which is a travesty that the State Water Board can change this trajectory by refusing the VAs and moving ahead with implementing a plan that ensures more water will be released into the rivers and flows through and out of the Delta. I urge the Board to do so.	
542	1	[See letter #113 for slides] As many others have mentioned today, Central Valley Chinook salmon are in decline, as you can see in this figure. Despite commitments to double population numbers, in recent decades, numbers have continued to decline. Lots of physical habitat work has been completed over the years, including through CVPIA and CalFED. Habitat restoration is important for functioning rivers, and we see fish using habitat after it has been created. However, habitat restoration has not been empirically linked to changes in survival or abundance of salmon. Instead, the best available science suggests that habitat does not currently limit salmon populations. By contrast, in the past decade, numerous studies have been published confirming the strong link between flow and salmon survival, many by the NMFS Southwest Science Center Papers since 2017 are missing from the Staff Report. I will review some of these papers that can help can provide any of these on request. Next slide, please. We focus on flow because for fish, flow literally is the habitat in any moment. Water is what activates and allows access to restored habitat areas and maintains conditions necessary to fish survival. Non-flow actions can improve, can open habitat areas to inundation, it can temporarily improve the habitat template, but flow is a master variable that affects all aspects of fish habitat. In addition, there is strong evidence that existing river flows are inadequate to support ecosystem function, and that flow helps salmon use existing and restored habitat. By contrast, habitat restoration without meaningful flow improvements will not recover fish populations.	Please see Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations, for discussion of flow benefits for native fish species. Please see Common Response 3.1, Fish Protection, for a discussion of habitat benefit analyses, use of best available science, and process for updates to literature in Chapters 3 and 4.

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		To help managers better understand how flow effects function, the Nature Conservancy has been actively involved in creating the California Environmental Flows Framework. We identified five critical components of the annual hydrograph that provide a distinct geomorphic, ecological, or biogeochemical function, as shown here. All five components are required for river function, and each component must have the timing, duration, and magnitude that matches natural patterns. Flow must occur in these natural hydrologic patterns to support species survival. So there are the five components you can see there.	
542	2	[See letter #113 for slides] In the past decade, multiple studies in the Central Valley have refined our understanding of the importance of flow for Central Valley Chinook salmon. For example, Cyril Michel from NMFS analyzed the relationship between flow and survival during outmigration. He found that flow was a strong predictor of returning adults while ocean conditions were not. This chart shows the response of smolt-to-adult ratio to flow in the left two panels where you can see a positive slope for both winter run on the top and fall run on the bottom. A third to more than half of all variability in the smolt-to-adult ratio could be explained by flow during out-migration. By contrast, there is no response of the smolt-to-adult ratio to ocean conditions, as shown in the two panels on the right. Additional studies found that lower flows delayed juvenile migration timing and survival, and that increased flows benefit all migrant-sized classes.	See Common Response 3.1, Fish Protection, on the flow-benefit analyses and process for updates to literature in Chapters 3 and 4.
542	3	[See letter #113 for slides] Recent studies have also reinforced the understanding that flow is what allows habitat to function, a conclusion that is echoed in the Staff Report. Existing habitat is not well occupied at current population levels and flows, and there is no evidence that habitat is currently limiting population recovery. There is also no evidence that habitat without	See the response to comments 542-1 and 542-2.

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		meaningful flow improvements will benefit fish. For example, Munsch et al. in 2020 showed that pulse flows and more variable flows increased juvenile salmonid use of habitat. In the chart on the right, you can see the contrast between a good year shown in the left panel to a bad year. In the good year there's more, much higher and more variable flows and they saw much higher -- they were able to catch many more fry within the habitat areas that they surveyed as compared to the bad year when there were no fish to occupy that habitat. A series of additional studies compared the predictive power of reach-scale restoration and flow and survival. For example, Henderson et al. found that salmon survival was predicted by year-to-year variation in flow rather than reach-scale habitat conditions.	
542	4	[See letter #113 for slides] We appreciate that the proposed project of 55 percent unimpaired flow does include more flows than baseline for the environment and anticipate that this could have benefits. By contrast, the voluntary agreement proposal does not meaningfully increase flows. For example, recent research by Michel et al. in 2021 identified the important threshold of 10,700 CFS at Wilkins Slough on the Sacramento for out-migrant spring flows. The figure on the right from the Staff Report shows flows by scenario at Wilkins Slough and compares them to the 10,700 CFS threshold shown in pink. You can see that this threshold is met in some years by the 55 percent scenario, which is that teal middle bar. You can see it's meeting it fairly often in April, sometimes but less often in May. And it's met much more frequently by the 75 percent scenario in the light green. By contrast, flows under the baseline only rarely meet the threshold. Those are shown in the open box. And the Vas in this case are only providing an additional average of 700 CFS, which is not enough to meaningfully improve flows.	Please see Common Response 3.1, Fish Protection, for information on updates to the flow threshold analysis.

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542	5	[See letter #113 for slides] In conclusion, current conditions are not supporting salmon and multiple studies have documented that salmon are not able to occupy even the currently-existing habitat at current population numbers unless flows are high. The VA flow conditions are similar to the baseline, as shown in this figure and also from the Staff Report. The VA proposal provides about 1.5 percent additional water above baseline conditions, January to June on average, with corresponding decreases in July to December; 1.5 percent does not represent a meaningful improvement. By contrast, the proposed project of 55 percent unimpaired flow is an improvement from baseline and would likely benefit fish. However, improvement from baseline does not guarantee compatibility with objectives, and 55 percent of unimpaired flow will not consistently meet important flow thresholds documented in the recent literature. Higher flows and functional flows will be needed to support salmon recovery and these improvements and protections are needed year-round. We recommend updating the Staff Report to include the critical flow thresholds documented in the recent scientific literature and taking actions to get as close as possible to these important thresholds to support salmon recovery.	Please see Common Response 3.1, Fish Protection, for information on updates to the flow threshold analysis.
542	6	[See letter #348 for slides] The status quo for Bay-Delta fishes and fisheries is decline. As you can see here, I'm showing abundance trends for Delta smelt and longfin smelt up top, harvest trends for starry flounder, and abundance of harvestable adults for white sturgeon. This pattern is common across many other native species. Small changes in flow or habitat will not change this pattern. Substantial increases in freshwater flow into and through the Delta will be required. Next slide, please. Freshwater flow drives fish viability metrics. Here we're looking at abundance data for longfin smelt. On the left graph we're looking at longfin smelt abundance index from the fall midwater trawl graphed on a log scale as compared to flow, Delta outflow, also graphed on a log scale, and you can see a statistically significant log-log relationship between outflow and abundance. These are data from 1988 through 2022, so any	See the response to comments 542-1 and 542-2.

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		suggestion that this pattern has disappeared since the introduction of the Amur clam is incorrect. This pattern is still her, still strong, still statistically significant. And it arises from the pattern on the right where I'm looking at the intergeneration change in abundance for longfin smelt from one generation to the next. That's about two years separate, so the abundance in this year minus the abundance two years earlier. Negative numbers on this y-axis indicate a population decline. Positive numbers indicate population growth. And you can see that as flow increases and you move to the right, the frequency and magnitude of population growth for longfin smelt increases significantly.	
542	7	[See letter #348 for slides] Here we're looking at similar results for white sturgeon. White sturgeon are in severe decline, such that San Francisco Baykeeper, the Bay Institute, California Sport Fishing Protection Alliance, and Restore the Delta petitioned for listing of white sturgeon earlier this week under the State and Federal Endangered Species Act. On the left graph, you see what staff has already found, that the y-axis there is juvenile young of year white sturgeon and the x-axis is flow. And this shows that successful reproduction for white sturgeon does not occur at Delta outflows less than about 37,000 CFS. On the right graph, we see how that dependence on flow translates into the existence of cohorts of white sturgeon. As cohort formation has become less frequent and lower magnitude as the frequency and magnitude of peak flows, shown in the blue line graphed on the right axis, has also declined. Next slide, please. Here we're showing a similar pattern for starry flounder. On the left, you see that juvenile starry flounder rearing in our estuary, or age one starry flounder, also responds strongly to Delta outflow. On the right panel, we show that the number of rearing juvenile starry flounder in the estuary has a significant effect on the fishery for starry flounder in the next year. Again, statistically significant, long-term log-log result.	See Section 3.6.4, Flow Effects on Green and White Sturgeon, and Section 3.9.4, Flow Effects on Starry Flounder, of the Staff Report explains the relationship between Delta outflow and white sturgeon population and outflow and starry flounder, respectively. The 37,000 cfs outflow threshold indicates an outflow level at which there is a 50-percent probability of a strong year class index for white surgeon.

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542	8	[See letter #348 for slides] As Dr. Stanford began to tell you, and in some detail, the Staff Report flow thresholds for Chinook salmon must be updated to reflect the best available science. Many papers published since the 2017 Scientific Basis Report was finalized show a strong flow survival relationship for Chinook salmon. I'm showing just some of those papers here. The upshot of this research is that the Staff Report flow threshold of about 20,000 CFS at Rio Vista is not going to be protective.	See the response to comments 542-1 and 542-1. See also Common Response 1.2, Water Quality Control Planning Process, for a discussion on reasonable protection of fish and wildlife beneficial uses.
542	9	[See letter #348 for slides] The Staff Report flow thresholds for estuarine prey items must also be updated to reflect the best available science. The graphs I'm showing here are from California Department of Fish and Wildlife. They show three different zooplankton species, which represent estuarine habitat. Abundance of each of these prey species responds dramatically to increases in freshwater flow. For the center and left graph, that's eurytemera on the left and neo mysid shrimp in the middle, flows below about 30,000 CFS are not generating abundance of those prey species that is consistent with the need for a food web that they are the base of, and it's not consistent with protection of estuarine habitat, which they represent. For reference, 30,000 CFS is -- about corresponds to an X2 at Port Chicago. On the right, we see that another important prey species, Pseudodiaptomus, also responds strongly to flow, but that's flow in the summer months. So summer flows will also need to be protected in order to support the food web and estuarine habitat, but the Staff Report has no summer flow recommendation for estuarine habitat, so we recommend adding that to the analysis. In sum, the frequency of Delta outflows that support abundant zooplankton prey species must increase to restore the estuarine habitat, viable populations of imperiled fish, and resilient fisheries.	The graphs discussed in this portion of the presentation are from Hennessey and Burris 2017 and are included in the references reviewed for the Staff Report. Section 3.11.4.3, Nonnative Zooplankton, has been updated with additional information on P.forbesi abundance during the summer. In addition, Section 3.8, Delta smelt (Hypomesus transpacificus) of the final Staff Report has been updated to include a summer flow threshold protective of Delta smelt. See the response to comments 542-1, 542-2, and 542-8.

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542	10	[See letter #348 for slides] The staff have done us a favor by analyzing the frequency with which various flow thresholds, listed on the left, there are some locations and different species from the Staff Report, the critical flow thresholds to reach those, and how frequently those are attained as a function of the different flow alternatives that are analyzed, 35 through 75 percent as compared to the baseline. Next slide, please. So looking at this in a little bit more detail, I've mentioned that the Port Chicago X2 is roughly analogous to the flows needed to maintain estuarine habitat and the prey food web that our fishes and fisheries depend on. At a flow alternative of 55 percent, you get that flow rate, that habitat protection in less than half of years. At 65 percent unimpaired flow, you get that protection in more than half of years. And I would submit that at a minimum, estuarine habitat needs to be protected in more than half of years if you want to recover viable populations of fish and the fisheries that rely on them.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
542	11	[See letter #348 for slides] We can also look at green and white sturgeon. I've told you about the white sturgeon flow threshold. At the 55 percent unimpaired flow alternative, you would get flows that support their reproduction less than one in five years. These fish are capable of spawning every three to four years. Each female can reproduce on the order of every three to four years. And so in order to maintain a stable population or recover that population, we would need flows that support reproductive success, at least one every four years. The 65 percent flow alternative comes close to providing that.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
542	12	[See letter #348 for slides] So we don't have enough time for me to describe all of the problems with the voluntary agreements that are before you. They are really, I wish we didn't have to discuss them. They're not really worth any of our time, but they're in the plan, so let's talk about them briefly. The flow resources promised in the VA are meager and they're not reasonably certain to occur. This is a table from the Staff Report. The analysis shows that in wet years, flows would actually decrease under the voluntary agreements, that means less of the flows necessary to support and maintain white sturgeon, longfin smelt, starry flounder, and other species.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		On average, as Dr. Stanford mentioned, flows would increase under the Vas by about one and a half percent. One and a half percent is not the magnitude of improvement that's needed to counteract the vast decline across numerous species, orders of magnitude declines that we started this presentation with.	
542	13	[See letter #348 for slides] I know that the VAs depend on or rely on habitat instead of flows. But the VA habitat resources are also meager, even if they actually materialize and perform as intended, which I sincerely doubt. Looking, for instance, at Longfin Smelt, the projection is that they could see no change in habitat whatsoever, up to maybe a seven percent change in habitat. I'll emphasize that I'm not sure that Longfin Smelt juvenile habitat, as measured here, is limiting this population, but there you have it, a zero to seven percent increase. For Delta smelt under the Vas, habitat could decrease as much as 11 percent. That's certainly not good for Delta smelt. Salmonid rearing, 2 to 3 percent projected change in salmonid rearing habitat. I can't imagine thinking that a 1.5 percent increase in flow and a 2 to 3 percent increase in salmonid rearing habitat is going to halt the decline of our salmon, much less restore them to viability, much less achieve the narrative objective of salmon doubling.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Please also see Common Response 1.3, Revised Proposed Plan Amendments, for a description of the proposed objectives and the proposed program of implementation and Common Response 3.1, Fish Protection, for a discussion of the benefit analyses.
542	14	[See letter #349 for slides] You know, I want to take a step back and emphasize that the reason we're talking about the need for flow augmentation on a large scale is not just because that's what the science tells us, but because we're in a situation where the alteration of flow has been so radical that it is one of the major drivers, if not the single biggest driver of the ecosystem collapse of the San Francisco Bay-Delta estuary. Go to the next slide, please. There are multiple beneficial uses. Almost every fish and wildlife beneficial use that the Board is obligated to protect is being degraded and actually might be extinguished if we do not make large-scale changes in the way we manage the system.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		Let's go to the next slide. Numerous species that have different life histories, spatial temporal distribution, food web roles have depressed populations or increasing risk of extinction, which means that the beneficial use for rare and endangered species could be severely reduced or even lost -- next slide -- as evidenced by the population trends of very different species like Delta smelt and Chinook salmon.	
542	15	[See letter #349 for slides] The numerous commercial and recreational fisheries are closed or severely constrained. The commercial beneficial use is, again, being degraded and potentially could be completely lost -- next slide -- as evidenced by the decline in the harvestable population of white sturgeon, which we've recently petitioned to have listed -- next slide -- as evidenced by the reduced commercial catch of starry flounder, which has been occurring for quite a long time and is closely tied to conditions in the Bay-Delta.	Please see response to Comment 542-7 for a discussion of how Delta outflow relates to white sturgeon and starry flounder populations.
542	16	[See letter #349 for slides] It's not just these individual species, but the beneficial uses that represent the underlying ecological conditions, the ecological processes that actually support a healthy ecosystem and healthy populations of native fish and wildlife are being degraded themselves and could be permanently impaired. We've seen food web declines. We've seen temperature impacts. We've seen HABs and other water quality issues. Again, multiple beneficial uses that could be lost or permanently impaired. The scale of the problem we're dealing with is incredible.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
542	17	[See letter #349 for slides] I'll note, also, that salmon production, which is an objective set by this Board in 1995, has still not been attained, although you'll note that in years when nature overcomes our poor water management, salmon do manage to rebound, which gives us a clue about what they need.	This PowerPoint presentation was submitted to accompany oral comments presented during the public hearing held in November and December 2023. Refer to Comment Letter 542 for responses to oral comments related to this PowerPoint.
542	18	[See letter #349 for slides] As I mentioned, it's the radical attenuation of flows that is driving the ecosystem collapse. You know, obviously there are a lot of nuances and complexities that you can make to this statement, but it's nonetheless true that this panel and the overwhelming scientific record reflects the scientific evidence that flow drives ecological conditions and biological response. And until you have a proportionate	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		magnitude and scale of response, you will not protect fish and wildlife beneficial uses. We will lose them.	
542	19	[See letter #349 for slides] Finally, in conclusion, I'd just like to say that, you know, in listening to the presentations about voluntary agreements this morning, I'm thrilled that people are doing habitat projects. I think it's great. And there are undoubtedly benefits to species, particular species that benefit from those types of habitats, to local regional ecosystems, and to the life history of species that we care about that occur in the estuarine watershed. But there's no evidence that those actions are on a scale, are related to a population response, you know, are really the most relevant attribute in terms of protecting the fish and wildlife beneficial uses of the Bay-Delta estuary. The overwhelming evidence is that you have to do it with flow and that flow, in fact, is going to drive the benefits that you're going to get from investments in habitat and other actions. You just can't get around that. You can try, but you can't get around it. In terms of impacts, you know, I think the next panel is going to touch in part on, you know, how some of the impacts of doing the flow augmentations that we need to do, you know, may be overstated in some cases, may be mitigated more easily than we think in others.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
543	1	This slide [see letter #337 for slides] is from the 2016 Freshwater Starved Estuary Report we produced. Water temperatures in the Delta and Bay-ocean direct flow connections are important and largely unaddressed in this Staff Report. Flow is the master variable in the estuary and drives many ecological processes, including salinity, sediment transport, which maintains beaches and marshes, South Bay stratification and productivity, and controls habitat extent and quality, pollution, and invasive species. These in turn provide public benefits the Board has a duty to protect. Next slide, please. Yet Bay inflow conditions are getting worse, threatening all these functions and values. These graphs from slide 12 of the Water Board staff's October 13th presentation show that outside of July	Please see Staff Report Section 3.2.3, San Francisco Bay and Nearshore Coastal Ocean, and Section 2.4.6, Delta Outflow and X2, for further discussion of the importance of Delta outflow. Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		and August, baseline Delta outflow, the black line, is significantly wetter in wetter years than the recent past, 2000 to 2016, the red line. Median February to June and above median November to June flows, above median being on the left side of the graph, are worse, where the red line is below the black line. July to August flows have already bottomed out at minimum required Delta outflow, MRDO, the orange line, in most years. Note that the September to October red line is lower than MRDO because there is no fall X2 in the red line prior to 2009. The next slide shows what's happened since 2016, so February to June, Delta outflow or Bay inflow.	
543	2	Next slide, yeah, that one [see letter #337 for slides]. The situation is urgent for estuarine species dependent on freshwater flows. San Francisco Bay inflow conditions keep getting worse. The upper graph on the upper right shows the proportion of flow reaching the Bay has declined. The lower right graph shows decadal average, max, and min. And we have a horizontal dashed line at 75 percent of unimpaired flow. It shows that since 1995, the minimum years have temporarily stabilized. But in 2022, the Bay only received 28 percent of unimpaired flow, the lowest since 1991. The 2020s only have four years in them so far, but for the first time since the 1970s, the maximum year has fallen below the 75 percent healthy threshold identified in the 2010 Flow Criteria Report. This reminds me of the movie Office Space, a 1999 movie where the main character said, "Every day you see me is the worst day of my life." The Bay could be saying the same thing. The lower you get below that line, the worse the health of the Bay-Delta. The graph on the left shows that 2023, the maximum year in the current decade, had 58 percent of unimpaired runoff, 5.5 million feet short of the 75 percent threshold where your public trust balancing starts, if it's feasible to achieve. 2023 was the third ranked year for the most water captured between February and June, 13.5 million acre-feet, after only 1993 and 2005.	Please see the response to comment 543-2 regarding the Staff Report's discussion of Delta outflow and its link to conditions in the San Francisco Bay.

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543	3	Next slide, please [see letter #337 for slides]. The water supply -- water demand is unlimited if we allow it to be. We can't allow that. Water supply impacts are overstated on page 6-57 of the Staff Report. For example, 14 percent of Bay-Delta supply is really only 4 percent total supply. The analysis assumes the worst case scenario, impacts will be less, and in that frame, the water supply impacts of the 65 percent scenario appear reasonable. The San Francisco Bay region is the most impacted region, yet it also has the most to gain, as we saw from all the ecological benefits on the earlier slide. People can and do adjust to water supply limitations through conservation, different crops, but fish, wildlife, and water quality cannot adapt to the extreme changes to the hydrograph and the status quo, as evidenced by degraded conditions and continued species listings.	As stated on page 6-57 of the 2023 draft Staff Report, in the 65 scenario, results show about 1,945 TAF/yr (15 percent of wet year Sacramento/Delta supply) decrease in wet years and the largest reductions in dry years of about 3,886 TAF/yr (34 percent of dry year Sacramento/Delta supply). Page 6-57 of the Staff Report presents expected decreases in Sacramento/Delta water supply levels across different flow scenarios in different water year types. These impacts accurately reflect SacWAM results and are not overstated. However, the commenter is correct that water supply portfolios in the study area contain sources aside from Sacramento/Delta supply, and as a result, any reductions in Sacramento/Delta supply have a smaller overall effect on total supply. See Table 6.4-1 in the Staff Report for the estimated water supply impacts, both to Sacramento/Delta supply and total supply, associated with each of the flow scenarios.
543	4	Next slide, please [see letter #337 for slides]. And the Board must do better than the status quo, which means better than 55 percent. The previous panel showed abundant evidence of declining fisheries status quo flows. Modeling results show little change at and below 55 percent. For example, the graph shows data from Tables 3.14-7 and 6.44-1. The colored dots show modeled longfin abundance for each year type with the top dot of each color wet and the lowest dot critical and the other year types in between. A below normal year under the 65 percent scenario achieves what would take a wet year under the 55 percent scenario. Two-thirds of year types under 65 percent would perform better than the wettest years under 55 percent. The Board must select a preferred alternative greater than 55 percent if it wants to improve the health of the estuary.	As discussed in Staff Report Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, evaluations presented in the Staff Report show that inflows in the 55 scenario (and corresponding outflows) would be expected to provide marked improvements in protection of fish and wildlife beneficial uses. While the 65 scenario would be expected to provide greater protection of fish and wildlife beneficial uses, it would also create cold water storage challenges and increased water supply costs, discussed further in Chapter 6, Changes in Hydrology and Water Supply, Chapter 7, Environmental Analysis, and Chapter 8, Economic Analysis and Other Considerations of the Staff Report. Please also see Common Response 1.2, Water Quality Control Planning Process, on the consideration of beneficial uses. See also Section 13.5, Beneficial Environmental Effects, of the 2025 partially recirculated draft Staff Report, for an analysis of the revised proposed Plan amendments.
543	5	Next slide, please [see letter #337 for slides]. So the SacWAM model ignores important flows. The Freeport instream flow requirement does not include flow in the Yolo Bypass. Table 2.4-4 shows on average 20 percent of the flow in the Sacramento River is in the Yolo Bypass, but the peak	The comment is correct in that there were no unimpaired flow requirements placed in the Yolo Bypass. However, as described in Section A1.2.2, Locations of New Instream Flow Requirements in Each Scenario, of Staff Report Appendix A1, Sacramento Water Allocation Model Methods and Results, there are unimpaired flow requirements assumed at the bottom of Putah and Cache

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		Sacramento Valley inflow in February 1986 had 62 percent of the flow in the Yolo Bypass. These graphs show that protecting only the flow in the Sacramento River Channel, the top graph, which is the current SacWAM approach, at times leaves the majority of the Delta inflow from the Sacramento Valley unprotected. I'm not sure about the effect beyond this control point, and I'm still looking at the model investigating how this might affect Delta outflow.	Creeks above Yolo Bypass; on the Sacramento River at Bend Bridge and at Freeport; as well as the inflow-based Delta outflow requirement, so including an unimpaired flow requirement in the Yolo Bypass would not provide any benefit and it may cause model instability issues because the model cannot force more water over the weirs than would spill over. Moreover, the Delta outflow requirement already ensures that flows required from the entire watershed is protected through the Delta.
543	6	Next slide, please [see letter #337 for slides]. So the VA modeling also has problems, especially in trying to compare it with the flow alternatives. The failure to include the 2018 updates to the Water Quality Control Plan in the flow alternatives inflates the VA flows comparing the two. The VA is clearly inadequate regardless of the accuracy of the modeling of the small changes in flow that are proposed. It takes water to make a difference.	State Water Board staff are aware of this incongruity and have split the effects of added flows from the Lower San Joaquin River (LSJR) out from the rest of the analysis, allowing the reader to apply the range of LSJR flows to both the regulatory and VA pathways. Section 13.4.2.6, Lower San Joaquin River Watershed Contributions to Delta Outflow, of the 2025 partially recirculated draft Staff Report explains how flow contributions from implementation of LSJR flow objectives and from the proposed Tuolumne River HRL commitments are factored into Delta outflow. Section 13.5, Beneficial Environmental Effects, evaluates beneficial environmental effects of the regulatory pathway and VA pathway, factoring in additional Delta outflows from the LSJR that could occur from implementation of either the 2018 LSJR flow objectives or the Tuolumne River HRL commitments.
543	7	Next slide, please [see letter #337 for slides]. So the Board can't stop climate change, but you can make year types climate resilient. So unimpaired flow approach avoids the problems of year type, using year types, relying on year types of forecasting, but adaptive management might continue to rely on these tools. The Sac Valley and San Joaquin indexes should be updated. Null and Viers 2013 stated, quote, "If current water year type thresholds are maintained, then the burden of climate-driven water scarcity falls entirely on environmental outflow through the Bay-Delta. The water year type framework and how it can be altered to reflect climate change directly affects water winners and losers in the state."	The revised proposed Plan amendments include text that state that, in consultation with DWR, Reclamation, and other appropriate entities, the State Water Board will evaluate methods for improving Delta outflow calculations, including the methodology for calculating the Net Delta Outflow Index. As necessary to account for climate change, changes to the Sacramento Valley and San Joaquin Valley indices for classifying water years could be made through the State Water Board's periodic review process. Additionally, the unimpaired flow approach moves away from using water year types and instead bases the environmental flows directly on the hydrologic conditions observed.
543	8	Next slide, please [see letter #337 for slides].	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not

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		So I'll leave you with a quote, another quote, from Julia Cordero-Lamb, a member of the Coastal Band of the Chumash Nation, who I believe was talking about us as a culture, so this is directed directly at the Board, quote, "Humanity's entire relationship to nature and the nature of economic health is in need of a complete overhaul. But what does this actually look like in practice? Are we truly fated to continue our relationship with the land in this abusive and narcissistic vein?" "We take what we want and we give nothing back. We treat nature as an object, literally a resource that needs nothing in return. And when nature pushes back, we are infuriated to seek to control the narrative about what it's doing. Not only do we not learn from the natural consequences, we lie about them. We continue to say that what we are doing is working, This is an abusive relationship. The evidence is all around us and inescapable."	raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
543	9	I want to thank the Board for its hybrid meeting formats that it's held in the past and then continues to hold. It offers the opportunity for me and others to participate when otherwise we might not be able to.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
543	10	I have two caveats this afternoon. First, the opinions I express are those of CSPA alone and not necessarily those of the colleagues from other groups, though I believe that mostly we're in alignment. Second, the Staff Report is a large and complex document, and my remarks are limited to a tiny fraction of what I might say and what I will say in written comments. My goal today is to encourage good use of the document.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
543	11	Next slide, please [see letter #347 for slides]. It is good that the Board has its own model and modelers. I don't think that should be overlooked. It's something CSPA has been asking for for many years. It is independent of water user models and modelers and their objectives and their biases. Unlike CalSim, it is designed to look at the entire watershed on an equal footing.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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543	12	Next slide, please [see letter #347 for slides]. In Chapter 7-1, the Staff Report describes the overarching purpose, the underlying fundamental purpose of the update. It is to provide the reasonable protection of fish and wildlife beneficial uses in the Sacramento and Delta. I would add that there are other beneficial uses that are important, including commercial and recreational fishing. There have to be enough fish to catch. My colleague, Mr. Bobker, I think went into some of those other uses.	The update of the Bay-Delta Plan and the water quality objectives for fish and wildlife beneficial uses is expected to also have benefits for both commercial and recreational fishing. However, as described in Section 7.1.3, Purpose and Goals of the Sacramento/Delta Update to the Bay-Delta Plan, of the Staff Report, the fundamental purpose of the project is to establish water quality objectives, a program of implementation, and monitoring and special study measures for the reasonable protection of fish and wildlife beneficial uses in the Sacramento/Delta.
543	13	Next slide, please [see letter #347 for slides]. The previous panel discussed many of the reasons higher flow are needed for the proposed project, and the Staff Report acknowledges the benefits of a high-flow alternative. Next slide, please. The report calls out two major issues with the high-flow alternative. One, carryover storage and associated water temperature impact, and two, water supply. Based on summary analysis, the report draws a conclusion that the benefits are outweighed by carryover and water supply problems. Next slide, please. I'd like to talk about how the Board should use the modeling done to date and additional necessary modeling and analysis. You need to determine how to manage carryover storage and water supply impacts. You need to do that to achieve the project purpose of protecting fish and wildlife use. And you need to manage them so that the needed flow of protection is reasonable. Next slide, please. The Staff Report and its alternatives are not a take-it-or-leave-it menu. The task is not to simply choose among what's been placed in front of you. The task is to refine the alternatives to	The analyses in the Staff Report have been used to inform the State Water Board in its efforts to update the Bay-Delta Plan and the project has been refined throughout the process. The revised proposed Plan amendments include a regulatory pathway based on the proposed Plan amendments with modifications and a voluntary agreement pathway (VA pathway) that would provide a pathway for implementation of Healthy Rivers and Landscapes (HRL) commitments. The pathways incorporate aspects of the other alternatives that were evaluated in the 2023 draft Staff Report. Additional specificity in the modeling of the cold water habitat objective implementation is not required and would not be appropriate to move forward with Plan adoption. The cold water habitat objective is narrative to provide sufficient flexibility for implementation options. The State Water Board provides these flexibilities with the intent that water diverters and reservoir owner/operators utilize these provisions because they often have a good understanding of their unique circumstances on a specific tributary. Please refer to Common Response 1.2, Water Quality Control Planning Process, for a discussion on reasonable protection of fish and wildlife and consideration of other beneficial uses. Also see Common Response 7.1, General CEQA and Approach to the Analysis, for a discussion of the reasonable range of alternatives. Because implementation of the cold water habitat objective is complex, methodology for individual tributary implementation

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		develop a decision that starts from but doesn't end at the analysis that the Staff Report has done to date. Next slide, please. The slides that follow are a partial list of further modeling and or policy and legal analysis that the Board needs to do. They focus on the high-flow alternative. I would point out that CSPA called out the need for a specific analysis of each affected watershed in its comments in 2016. And I think you heard a lot of a similar kind of discussion this morning regarding that kind of need for specificity. The Staff Report has not got there yet, but it has a tool and it has started a higher level analysis.	will take time. Please see Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, regarding implementation of the cold water habitat objective.
543	14	Next slide, please [see letter #347 for slides]. The high-flow alternative as given in the Staff Report is what I call framed to lose. The actual flow amounts are not clear. It has no flexibility for reservoir management and carryover storage. The Staff Report does start an analysis of carryover storage, and that's good. But the carryover storage and temperature values are crude, and they are set to not exceed historical levels, which is an unreasonable methodology. The concept of buffer pools for CVP reservoirs shows promise, but it needs work.	Please see response to comment 543-13.
543	15	Next slide, please [see letter #347 for slides]. There's an underlying theme in the Staff Report that if it brackets the water supply impacts, that's sufficient. It's not. More specificity is necessary. CEQA also requires the analysis of impacts to evaluate alternatives. You can't overstate the impacts in order to dismiss alternatives as infeasible. You also need to analyze mitigation of impacts. That requires specificity. Above all, the purpose of CEQA is to support informed decision making.	Please see Common Response 7.1, General CEQA and Approach to the Analysis, regarding the approach to the analyses and mitigation measures. See Common Response 7.24, Alternatives Analysis, regarding the analysis of alternatives and the range of feasible alternatives.
543	16	Next slide, please [see letter #347 for slides]. This may be the most important slide in my presentation. You cannot defer further analysis of water supply impacts to the Program of Implementation or anything else. What is reasonable protection and reasonable use of water depends on particulars. The Board has said this many times and so have the courts.	Water supply impacts of the flow scenarios, which ranged from 35 through 75 percent of unimpaired flow, were analyzed in Chapter 6, Changes in Hydrology and Water Supply; Chapter 7, Environmental Analysis; and Chapter 8, Economic Analysis and Other Considerations, of the 2023 draft Staff Report. Please see Common Response 1.2, Water Quality Control Planning Process, for information on the consideration of beneficial uses.

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		The danger of deferral is that the Board will never get to analyzing the particulars of water supply impacts as it will be determined based on a high-level summary analysis alone that water supply impacts make a 65 percent of unimpaired approach or more unreasonable. You need to break this vicious circle by doing the needed in- depth analysis. Next slide, please. You cannot rely on water users to analyze the water supply impacts or to collaborate in optimizing a percent of unimpaired approach. They have shown over and over again that their goal is to make a percent of unimpaired flow approach look unreasonable. In this task, the Board and Board staff must stand alone.	
543	17	Next slide, please [see letter #347 for slides]. You need serious consideration of different rules for allocations and responsibility -- of responsibility for implementing the new flow objectives upstream of rim dams, among watersheds to achieve aggregate flow, Delta inflow and outflow, between agricultural and M&I users and in viewing watersheds in combination. All of these things are variables that may allow you to achieve the objectives of the plan. The every-entity-has-equal-responsibility approach that, broadly speaking, characterizes the modeling in the Staff Report is only one way of looking at allocating responsibility. You need to consider others with these other variables.	As described in Section 5.4.2.4, Implementation, of the 2023 draft Staff Report, subject to possible modifications for drought, public health and safety, public trust obligations for wildlife refuges, or alternative arrangement in a voluntary implementation plan, implementation of the flow objective on a tributary would be required to be met in order of water right priority. Water provided to meet the Plan amendments by reduced diversions of an upstream water user would be protected from diversion downstream and thus provide benefits in the more downstream reaches of the tributary below rim dams. Please see Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations, and Chapter 4, Other Aquatic Ecosystem Stressors, of the 2023 draft Staff Report for information on the benefits of increased tributary flows. Please see Common Response 1.3, Revised Proposed Plan Amendments, for more information on regulatory pathway implementation of the inflow objective. In addition, local cooperative solutions (previously referred to as voluntary implementation plans) may offer a more efficient way to meet Bay-Delta Plan objectives while remaining consistent with the water rights priority system. Generally, the State Water Board must administer water rights according to established priority rules unless specific exemptions apply. In addition, Alternative 5b would specify that all water users have the same obligation to contribute toward meeting water quality and flow objectives during droughts.

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543	18	Next slide, please [see letter #347 for slides]. If the past two drought sequences have shown anything, it is that allocation rules for settlement and exchange contractors must change. The modeling in the Staff Report largely leaves their existing allocations intact, not entirely, but largely. Some of my colleagues have suggested a different approach and will soon be released as Alternative 3 in the EIS for the long-term operations of the state and federal water projects and the biological opinion that will govern them. So you may want to look at that particular alternative. Stated broadly, you need a proactive drought strategy that limits deliveries in the first dry year when there is water to manage before there is a declared emergency.	Please see Common Response 1.1, General Comments, regarding consistency with other laws, policies, and agreements, including the long-term operations of the State Water Project and Central Valley Project.
543	19	Next slide, please [see letter #347 for slides]. You need a more granular analysis of water supply impacts in the Bay Area. You need analysis by water source in order to evaluate potential mitigation. As organized now, it's simply organized by impacts in the Bay Area and analyzed with figures and percentages and so forth based on that geographic locale. You need to disaggregate impacts among water users such as East Bay MUD, the CVP and SWP contractors, Contra Costa and so forth. And I'll add that disaggregation is also an important part of the next step for all of the watersheds. Just simply saying there will be so much a percentage of water supply reduction in a watershed for agriculture overall for M&I users overall is a start, but it is not anywhere near an adequate finishing point for an analysis.	Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, for response to comments regarding the scope, scale and application of SacWAM. Additionally, please see Common Response 7.1, General CEQA and Approach to the Analysis, for a discussion on level and scope of the CEQA analysis performed by the State Water Board throughout the water quality control planning process.
543	20	Next slide, please [see letter #347 for slides]. In conclusion, the Board needs to refine the analyses in the Staff Report, particularly of carryover storage and water supply impacts.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. To the extent that this comment summarizes other comments, please see the substantive responses to those comments.
543	21	The Board needs to make hard and complex decisions to implement a high-flow alternative that will reasonably protect fish and wildlife beneficial uses and meet the plan's objective. The question you should seek to answer is, how can we make this work?	Please see Common Response 1.2, Water Quality Control Planning Process, for information on the reasonable protection of fish and wildlife beneficial uses.

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544	1	I've been a resident of the Tuolumne River watershed for the past 19 years. I've spent time exploring by foot most parts of the river's journey from the headwaters in the immigrant wilderness in Yosemite to her confluence with the San Joaquin River and have come to love this important artery of California's freshwater systems as well as the complex ecosystems that depend on it. Now I'm lucky enough that I get to experience these special places through the eyes of my son as we explore together.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
544	2	I try to explain to him issues such as the Bay-Delta Water Plan, and to kids the answer is simple, protect nature because we're part of it. The State Water Board's Flow Criteria Report demonstrated that 75 percent of unimpaired flows of the Sacramento and 75 percent of the Delta outflow are what was needed for protection of the Bay-Delta ecosystem. I'm very aware of the importance and value of habitat and river restoration as a component of improving the system's health. But these projects are only part of what is needed to truly steward our river systems. A river ecosystem can have habitat improvement work all down its length, but the system can't thrive without the water flow and pulses that the system has evolved with over millions of years. The time is now to step in and do what is right and what is needed for our systems to survive into the future. Is this the legacy that members of the Water Board want to leave for future generations? A hundred years from now, people will look back and judge the decisions that come out of this process. What do you want them to see? Please take the time to reflect on what is truly important for our piece of the planet. The science is there. Don't let today's political pressures sway you away from what's right.	Please see Common Response 1.1, General Comments, for information on the Delta Flow Criteria Report and for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
545	1	We're here today because over a decade ago, this Board determined that the status quo wasn't working and we need to do better in order to prevent the collapse of the Bay-Delta. In 2010, the Board found that a 75 percent unimpaired flow standard was needed to protect imperiled fish. But the draft Staff	Please see Common Response 1.1, General Comments, for information on the Delta Flow Criteria Report and for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		Report suggests a mere 55 percent unimpaired flow standard in the voluntary agreements offer less.	
545	2	The premise, process, goals, and science that form the foundation of the voluntary agreements are problematic and exclusionary, and I urge the Board to reject them. The agreements rely on a faulty baseline, the 2019 biological opinions, which are not consistent with the baseline of the draft Staff Report and don't reflect current conditions. After adjusting for the degraded baseline, I struggle to see what meaningful increases to instream flows would be provided by the voluntary agreements.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
545	3	Moreover, the non-flow habitat component of the VAs includes projects that were completed prior to the finalization of the MOU in 2022 and projects pursuant to existing requirements that would occur in the absence of the voluntary agreements. The narrative that the voluntary agreements provide new flows or new habitat is misleading.	As described in Chapter 9, Proposed Voluntary Agreements, of the 2023 draft Staff Report, all VA habitat should be additive to the physical conditions and regulatory requirements existing as of December 2018. Please refer to Common Response 1.3, Revised Proposed Plan Amendments, for more information on VA habitat accounting.
545	4	Rather than following the objectives that the Board has proposed, the voluntary agreements also propose alternative narrative standards, which will delay the salmon doubling objective to 2050 and create a new viability objective. The VA parties say that they will contribute to meeting a portion of the salmon doubling goal on a delayed timeline, which won't kick in until long after the eight-year program has ended. This proposal lacks accountability and is unacceptable.	Please see Common Response 1.3, Revised Proposed Plan Amendments, for information on the VA pathway, including enforceability.
545	5	Delta fish populations have experienced significant declines in recent history as water diversions and exports from the Delta increase. This situation has become so dire that last year the Fish and Wildlife Service proposed to list the longfin smelt as endangered under the ESA. The main threat identified was reduced and altered freshwater flows from human activities exacerbated by climate change. This year, the salmon fishery closed for the third time in California history, again because of population decline related to insufficient instream flows. The science is clear, native fish need flows to survive. Yes, there are other factors that will help, including habitat, but they cannot replace the demonstrated need to increase instream flows.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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545	6	Also unaddressed in the VA presentations today have been the additional importance of flows to meet salinity requirements, address the persistence of harmful algal blooms, and implement tribal beneficial uses as discussed in the panels that presented at the November 17th hearing. The slide in the first panel that compared the impacts to beneficial uses notably did not include how the proposals would affect harmful algal blooms and related impacts to recreation, tribal beneficial uses, and air quality. The HABs expert panel proposed a 75 percent minimum flow standard as necessary to prevent toxic algal bloom proliferation and protect recreation, fish, and air quality in the Delta.	This comment refers to other panel presentations that were not presented by State Water Board staff and did not fully represent the 2023 draft Staff Report analysis. Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. See also Common Response 4.1, Harmful Algal Blooms, regarding instream flows and cyanobacteria harmful algal blooms (HABs), potential HABs effects on California Native American Tribes, and air quality, and CEQA thresholds for recreation impacts. See also Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, regarding tribal beneficial uses.
545	7	The voluntary agreements perpetuate an unequitable status quo. They're a recipe for extinction and they shouldn't be considered in this process. Finally, I urge the Board to adopt an unimpaired flow standard that is higher than the proposed 55 percent.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
545	8	I also urge the Board to listen to and meaningfully engage with tribes throughout the process to establish and implement Tribal Beneficial Uses	The State Water Board has conducted extensive public and tribal related outreach and appreciates the significant input from tribes and environmental justice communities related to the Sacramento/Delta Update to the Bay-Delta Plan. Please see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to comments related to tribal outreach and engagement and Tribal Beneficial Uses. Also see Staff Report Chapter 11, Tribal Engagement, Traditional Ecological Knowledge and Tribal Beneficial Uses, and Chapter 13, Revised Proposed Plan Amendments, for additional information on the State Water Board's efforts to engage more robustly with California Native American Tribes and integrate Traditional Ecological Knowledge/tribal knowledge into the State Water Board's Bay-Delta Plan update and implementation processes.
545	9	adopt HABs standards that are protective of recreation in addition to drinking water uses.	Please see Common Response 4.1, Harmful Algal Blooms, for responses to comments related to water quality standards for cyanotoxins.

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546	1	Firstly, I'd like to address the importance of including tribal voices in this process. The Bay-Delta Plan affects over 100 tribes and their traditional homelands, and the incorporation of traditional ecological knowledge has been an effective scientific tool for tribes since time immemorial. So the continuous engagement from tribes and cultural stewards is necessary to create an effective Bay-Delta Plan that seriously considers all forms of science.	The State Water Board has conducted extensive public and tribal related outreach and appreciates the significant input from tribes and environmental justice communities related to the Sacramento/Delta Update to the Bay-Delta Plan. Please see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to comments related to Traditional Ecological Knowledge/tribal knowledge and tribal outreach and engagement. Also see Staff Report Chapter 11, Tribal Engagement, Traditional Ecological Knowledge and Tribal Beneficial Uses, and Staff Report Chapter 13, Revised Proposed Plan Amendments, for additional information on the State Water Board's efforts to engage more robustly with California Native American Tribes and integrate Traditional Ecological Knowledge/tribal knowledge into the State Water Board's Bay-Delta Plan update and implementation processes.
546	2	Next, I'd like to comment on Tribal Beneficial Uses. After the Tribal Beneficial Use Panel this summer, there was a lot of hope for myself and many participants from the public and Water Board staff that Tribal Beneficial Uses would be included in the Staff Report. The consideration of Tribal Beneficial Uses is a great first step, but the State Water Board has the authority to provide a guidepost for all Regional Water Boards, which are slowly going through the Tribal Beneficial Use implementation process, which has no deadline. Since the State Water Board and Regional Water Boards are supposed to work together to provide comprehensive protections, as stated in the Staff Report, there should be no issue with the State Water Board taking the lead on protecting TBUs for the Bay-Delta. We encourage the Board to recognize that Tribal Beneficial Use designations should apply to the entire watershed. This would greatly relieve tribes which already have limited resources of the burden of having to go through each aspect of the watershed to request designations for two different Regional Boards which have different timelines.	Please see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to comments related to Tribal Beneficial Uses. As discussed in Chapter 13, Revised Proposed Plan Amendments, the revised proposed Plan amendments incorporate Tribal Beneficial Uses (TBUs), would designate Tribal Tradition and Culture (CUL) beneficial use, and include provisions for tribal outreach and engagement and incorporation of tribal feedback and Traditional Ecological Knowledge (TEK) into the Bay-Delta Plan update and implementation processes. Please see Staff Report Chapter 13, Revised Proposed Plan Amendments, for additional information on incorporation and designation of Tribal Beneficial Uses.
546	3	Next, I'd like to address the voluntary agreements. As you know and have heard many times, the creation of the VAs was exclusionary as it left out tribes, people of color, and environmental justice communities. The late-in-the-game	Please refer to Common Response 10.1, Economically Disadvantaged Communities, for responses to comments related to the VAs and Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to tribal comments on the VAs.

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		consultations have resulted in proposals that bypass the public-friendly regulatory process.	
546	4	Additionally, the Staff Report fails to directly name the parties to the VAs, and for full transparency, the names of each of the state and federal agencies, local water agencies, private companies, the nonprofit mutual benefit corporations and additional parties should be included in the Staff Report.	The parties to the VAs at the time the 2023 draft Staff Report was released were identified in Appendix G1 of that report. Please see Common Response 1.3, Revised Proposed Plan Amendments, for further information on the VA pathway.
546	5	And to go off of what Reginacommented on prior related to flows and restoration, I do have some questions from the second VA presentation on habitat and restoration. It seems like a lot of the restoration work is already being completed, which makes it seem like there will be backfilling of restoration projects. It seems like there's already restoration projects happening without the VA, so why would there need to be -- why would they need to be adopted for ecological restoration purposes when that restoration is already being done and flows are clearly needed?	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Also see Common Response 1.3, Revised Proposed Plan Amendments, regarding non-flow habitat restoration measures in the voluntary agreement pathway.
547	1	First, I'd like to acknowledge Governor Newsom's leadership in keeping the voluntary agreements at the forefront of our discussions on California's water future. Santa Margarita Water District supports the inclusion of the agreements in the draft Staff Report as an alternative for updating the Bay-Delta Plan. We urge that the agreements as originally proposed be identified in the final Staff Report and Program of Implementation. Santa Margarita imports the majority of its water supplies from the Bay-Delta and Colorado River. They don't have any native groundwater. And for us and our 200,000 customers, the health of the Bay-Delta is crucially important. We believe the agreements benefit the Bay-Delta by supporting the co-equal goals of the Delta, providing a more reliable water supply for California, and protecting, restoring, and enhancing the Delta ecosystem. They'll also be instrumental in developing a sound, shared, modern science program that would be the basis for adaptive management decision making.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
547	2	The agreements would also help build a robust governance program, we think, that would oversee the implementation of the agreements and establish stable funding sources for implementation. It will also provide important partnering	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		opportunities with participation from state and federal agencies, the tribes, public water agencies, and conservation groups. In short, again, we urge that the voluntary agreements be included in the draft Staff Report as an alternative for updating the plan.	
548	1	I wanted to highlight a couple of things from the early panels this morning. I realized that they were based on the modeling presented in the Staff Report, so if the technique to define the unimpaired flows changes, we'll work with your staff and our colleagues to update our assessment. I did want to note in response to the panels this afternoon that in the review of the Scientific Basis Report, the Delta Independent Science Board did comment that regressions from past data may not be predictive into the uncertain future, especially in the face of regime changes like the pelagic organism decline and the consequences of climate change. Some correlations are spurious and some statistical analyses have led policies astray. And that's why we and others have proposed the voluntary agreement Healthy Rivers alternative to connect habitat and flows and improve biological productivity at the base of the food chain, which is the fundamental environmental problem in the Delta. And to assure the commenters that think that they're just voluntary, as you know, we will have agreements. The commitments that we're proposing are going to be built into those agreements and those agreements will be enforceable by the Board.	Please see Common Response 3.1, Fish Protection, for information on the flow benefit analyses and Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
548	2	One impact that the unimpaired flows alternative has clearly been shown in the Staff Report to have is reduced reservoir storage levels and water supplies. It's a significant issue for our water district and for our neighbors because we all rely on infrastructure in Folsom Dam that runs the risk of being unable to deliver any of our surface water supplies when storage levels drop too low, even though we would still have water available under our water rights and entitlements.	Evaluating the proper balance between water supply and water quality and determining what is reasonable requires balancing competing public interests, an analysis that the State Water Board "is uniquely qualified to make in view of its special knowledge and expertise and its combined statewide responsibility to allocate the rights to, and to control the quality of, state water resources (United States v. State Water Resources Control Bd. (1982) 182 Cal.App.3d 82, 130; Wat. Code, §174.) Throughout this Staff Report, the State Water Board has conducted a robust set of analyses to reach a set of revised proposed Plan amendments that balance competing public

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			interests. For additional discussion on the consideration of beneficial uses throughout the planning process, please see Common Response 1.2, Water Quality Control Planning Process. As discussed in Section 5.4.3.3, Proposed Cold Water Habitat Objective, of the Staff Report, the project includes a cold water habitat objective and associated provisions requiring reservoir operators to maintain reservoir storage levels at high enough levels to help avoid temperature impacts to fish later in the year. While this objective is designed to avoid negative effects to fish and wildlife beneficial uses, it may also help avoid the infrastructure problem referenced by this commenter by ensuring that Folsom Dam storage levels remain above a certain level. Further, please note that the project has been revised as described in Common Response 1.3, Revised Proposed Plan Amendments. In addition to the proposed Plan amendments, which remain part of the project as the regulatory pathway, the revised proposed Plan amendments include water supply adjustments for existing water right holders at the outset of plan implementation to reduce water supply impacts and allow more water to be stored in reservoirs. The revised proposed Plan amendments also allow reservoir owner/operators, as part of their development of long-term temperature management strategies, to propose carryover storage levels within an appropriate range tailored to each reservoir, with lower requirements during drought years.
548	3	So in addition to this water supply impact, the unimpaired flows alternative, as shown in the Staff Report, would dramatically increase temperatures in the American River and other tributaries to the Delta, and those would jeopardize the ability of DWR and the Bureau of Reclamation to meet their temperature management obligations in the biological opinions. The Healthy Rivers alternative does not create these impacts. So for these reasons and for the reasons presented by the panels today, we strongly recommend the Board adopt the Healthy Rivers option.	Please see Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, for information on the scope of the water temperature analysis and constraints that would result from the combination of carryover storage and higher flow requirement.

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549	1	Nine months ago, I spoke to convey our opposition to the voluntary agreements. Nothing has changed since then. There are now six endangered fish species. The salmon fishing season was closed this year. Algae blooms around Stockton are toxic and dangerous to people, pets, and wildlife, and they are becoming more frequent and more severe. Even Board staff's analysis shows that the voluntary agreements will not, quote, "reasonably protect the water or achieve plan objectives." We support farmers, but we don't support the right to take so much water that it destroys fish, wildlife, and the Bay-Delta ecosystem. We don't support their right to grow anything they want without regard to what the local climate can support. We do not support privatizing the profits and socializing the losses at the expense of all the other stakeholders who depend on the Bay-Delta. The solution is well documented. Leave more water in the rivers.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Also see Common Response 1.2, Water Quality Control Planning Process, on the consideration of beneficial uses.
549	2	We heard today how the closure of the salmon fishing season has affected fishers. Their stories are heartbreaking. You seem to think that this isn't a direct result of your decisions and policies, but it is entirely predictable. And, in fact, the environmental community has been pleading with you for decades. And I'm not exaggerating. You've been working on this for decades. We need your leadership, even if it's difficult to go against the Newsom administration. If you can't make the decision, you shouldn't serve in a role that requires you to represent the interests of all beneficiaries. Please stop wasting time on the voluntary agreements and focus on the Bay-Delta Plan in collaboration with all stakeholders so that it actually provides reasonable protection for all beneficial uses and accomplishes plan objectives, like salmon doubling.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Also see Common Response 1.2, Water Quality Control Planning Process, on the consideration of beneficial uses.
550	1	I'd like to thank the Board for moving forward on the Bay-Delta Water Quality Control Plan. We recognize that striking a reasonable and appropriate balance between beneficial uses is a challenging task, and we appreciate you listening to our perspective. From a period from the 1950s to the 1990s, our groundwater	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Additionally, see Common Response 4.2, Drought and Climate Change, for responses to comments regarding drought response measures.

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		basin was in a state of decline. Storage was continuously declining in the groundwater basin, and the region was deeply concerned about the future of the Sacramento metropolitan region's groundwater health. The water providers of the region came to the realization that a healthy community needs a healthy balance between surface water and groundwater and it sprang into action. It created programs to make sure that we manage groundwater sustainably, and also built the infrastructure in order to have a sustainable groundwater basin, but also a light impact on the environment. Water providers, NGOs, and the business community and the public came together for the common good under the Water Forum Agreement and worked hard to manage the American River region's precious water resources. This included creating a well-known and respected program of conjunctive use which allows for water providers to shift from surface water to groundwater supplies interchangeably, depending on the hydrologic conditions. As a result of this program, which includes the development of the Sacramento Regional Groundwater Bank, we are the only groundwater -- we are one of the few groundwater basins in the region that -- where not only has groundwater levels continued, the decline has stopped, but they're starting to increase. Through dedication, study, and informed practice, we have been able to achieve a sustainable balance in the American River region, including in the Lower American River ecosystem for our water supply and communities. This work is making us more resilient with the looming threat of climate change, allowing us to recharge our aquifers during wetter times, using surface water supplies, and then shifting to groundwater in drier times. The unimpaired inflow approach considered in the Staff Report has the potential to upend this carefully achieved balance. The Staff Report acknowledges that responses to unimpaired inflow would likely include increased groundwater pumping that would substantially deplete groundwater supplies or interfere substantially with groundwater recharge, such that there would be a net deficit in aquifer volume or a lowering of the	

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		groundwater table. For the American River region, this would be unacceptable and would counter to everything that we have worked so hard to achieve in the last 25 years. It would interfere with this region being climate resilient and set our community's water supplies back with tenuous uncertainty, like reflected in the last -- well, beyond a quarter century ago. In comparison, the Agreements to Support Healthy Rivers and Landscapes approach in the Staff Report allows the region to complement sustainably, sustainably increase outflow for the Lower American River in the spring with improved groundwater infrastructure and recharge that can support that outflow. After 25 years of experience, we're pretty confident that our groundwater basin will be able to handle that. We know that with the VA alternative, environmental flows can be provided hand-in-hand with a sustainable yield to the groundwater basin.	
551	1	I first got to come and see the Bay-Delta area in 1988 and, unfortunately, I've watched the degradation of it since. I've been a fisheries biologist. I've done projects for stream restoration mitigation. I've been a commercial fisherman. I'm just going to echo a few points that people have said before. You know, you may have all these great mitigation projects for habitat and everything else, but without a proper river flow, it doesn't work. And we've seen it. And so just saying let's do more mitigation projects without the flow you need is not going to work. We know it's not going to work. I mean, if we continue on this path, in eight years, four years, we'll be sitting here with let's do more plans, let's have more hearings, and the salmon will continue on their downward slope and some of them into extinction. I mean, I think of California, when I think of California, I think of the flag with the bear and there are no more bears. We're heading that way with salmon. I mean, a lot of places I go from 30 years ago where there's salmon, people aren't, you know,	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Also see Common Response 1.3, Revised Proposed Plan Amendments, for information on the VA pathway, including enforceability.

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		people -- salmon aren't there. People don't really think of salmon anymore. And, you know, we can see it, also, what's happening with the stoppage of the commercial fisheries this year. The voluntary agreements are worthless for the salmon. You know, they're adaptive management, but they really don't work the way it's set up. They've been, as people have talked about, exclusionary, extremely exclusionary. They failed, so why do it again? And there's no mechanism for enforcement. We're eight years out, and we've seen, you know, things are worsening with climate change. We don't have that time. So I'm speaking, hoping you don't go forward with the voluntary agreements. And, you know, I don't know, I've gotten older, so I'm not really sure, but I think it was Einstein, you know, who was talking about doing the same thing over is insanity and I see us just doing that again, and there's no reason to.	
552	1	As you can see, my passion is at the intersection of agriculture and the environment. It is an important point to make that us in agriculture are stewards of this land and we want to preserve land for future generations. Here in California, we are held to some of the highest environmental standards in the world. Displacing agriculture from this great state only pushes it to area without these standards. I fully support the Agreements to Support Healthy Rivers and Landscapes, also known as the voluntary agreements. This is the best alternative to update the Bay-Delta Plan. We need a balanced approach to have all stakeholders come together and collaborate on solutions. The voluntary agreements are an excellent way we can accomplish this together. We know that food is a limiting factor for the recovery of salmon in our watershed. We in agriculture can help. We need to activate our floodplains and rice fields in the Sacramento Valley. We can grow fish in rice patties and release these back into the rivers. We can strategically inundate fields in the floodplain to provide food-rich waters in the rivers to benefit migratory juvenile salmon.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Also see Common Response 10.1, Economically Disadvantaged Communities, for more information on the benefits of increased flows for economically disadvantaged communities and municipal water supplies.

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		The unimpaired flow approach that was proposed would be absolutely devastating to the Sacramento Valley. Single species management has had devastating consequences for the community that I work in. These are disadvantaged communities and they have suffered greatly during the significant water curtailments of 2022. These communities still suffer today. We need to collaborate. We need a balanced approach that involves the entire watershed and involves all stakeholders. Agriculture needs to be part of the solution. Moving ahead with the voluntary agreements are exactly what we can do to create lasting solutions for future generations of Californians.	
553	1	I'm here today to comment on the draft Staff Report for phase two update of the Bay-Delta Plan. Low instream flows facilitate the growth of cyanotoxins, allowing them to reproduce at a more efficient rate in stagnant conditions. In Chapter 7, the Staff Report states that whereas water temperatures exceeding 66 degrees Fahrenheit are generally considered the primary driver of bloom formation, low instream flow may be the most important factor for maintaining HABs. While we agree that low stream flow is the most important factor for bloom proliferation, we would argue that low stream flow is the primary driver of bloom formation as well. Over the summer, I interned for the University of North Carolina and Restore the Delta, monitoring water and air quality impacts of HABs. Recently published research from UNC established a link between HABs and air quality that must be incorporated into the Staff Report. Public health risks from exposure to compounds originating from HABs blooms need to be further researched to protect the community. While conducting fieldwork, many local and community members would take interest and express their concern for not being aware of the negative impacts HABs impose to water and air quality. Working on these studies made the importance of adopting rigorous HAB standards evident for the protection of the community, fisheries, and wildlife. Objective targets and adequate flow standards for HABs must be established.	Please see Common Response 4.1, Harmful Algal Blooms, for responses to comments related to cyanobacteria harmful algal bloom (HAB) formation, instream flows and HABs in the Delta, potential effects of HABs on air quality and public health, and water quality standards for cyanotoxins.

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		Cyanotoxins are detrimental to public health as exposure does not only occur during recreation, but through utilizing impacted tap waters in residential homes as well. Exposure to HABs toxins have proven to result in adverse health reactions such as sickness, skin irritation, respiratory issues and more. Public health is strongly correlated with water quality, and since HABs is proven to be detrimental, it is imperative that the Board adopt a HABs standard in the updated Bay-Delta Plan. I thank you for the opportunity to comment, and I hope you take this opportunity to adopt HABs standards to ensure the protection of public health.	
554	1	In speaking about your Phase 2 Bay-Delta Plan, let me remind you that your brief is to preserve, enhance, and restore the quality of California's water resources for the protection of the environment, public health, and all beneficial uses for the protection of the present and future generations. This is an important task, but your Phase 2 Bay-Delta Plan is, by your own accounts, destined to fail. Your 2010 Water Flow Criteria Report found that 75 percent of unimpaired flow on the Sacramento River and its tributaries and 75 percent of the unimpaired Delta outflow to the Bay would be needed to protect the Bay-Delta ecosystem, but your proposed plan falls significantly short of that, leaving the Bay-Delta ecosystem in a state of permanent environmental crisis. Non-flow measures can't substitute for higher flows. You can't have more fish with less water. So how does your plan hope to guarantee an even inadequate unimpaired flow? With voluntary agreements.	Please see Common Response 1.1, General Comments, for information on the Delta Flow Criteria Report and for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
554	2	Now as my grandfather used to say, you can wish in one hand and poop in the other and see which one fills up the fastest. Not a single conservation, fishing, tribal or environmental justice group supports these voluntary agreements. So who does? Governor Newsom, a man I normally admire, but here I think he's got his eye on big ag. What on earth is Water Stretch (phonetic) California doing in	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		supporting what amounts of the export of California water in the form of nuts and cattle fodder? I don't have to tell you, but it takes a minimum of one gallon to grow a single almond, five gallons for a single walnut, and it's even worse for alfalfa, some of it shipped to Saudi Arabia because they can't grow fodder there, alfalfa there, it's against the law. They import it from places like California. Who benefits? Not the Bay-Delta. As you've heard from others, agriculture uses something like 80 percent of California's developed water, but contributes only 2 percent to our economy.	
554	3	Now, I've sailed in the Bay, I've rafted on the American River, I've waterskied in the Delta, although not recently, as you can imagine why, and I've watched salmon do their miraculous thing. But salmon populations are in such bad shape that, as you know, commercial fishing had to be cancelled this year and may again next. Salmon are the canary in the coal mine. And then there's the toxic algae blooms in the Delta, which get worse each year, fed by slow-moving, warm, nutrient-rich water. The Delta needs more freshwater flow, and that in turn will feed the bay. As a professor of theater and classics, let me conclude with a quotation from Shakespeare's Julius Caesar, where Brutus urges Cassius to act. He says, "There is a tide in the affairs of men which, taken at the flood, leads on to fortune. Omitted, all the voyage of their life is bound in shallows and in miseries." Please, don't leave the Delta and Bay bound in shallows and miseries. And the same for your legacy. Don't give that away with your current Phase 2 plan, trusting in voluntary agreements and pseudoscience that pretends that the problem isn't more water. Please listen to yourselves -- I'm almost done -- and think about the future.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
555	1	I've lived in Fresno, I've lived in Stockton, and now I live in Palo Alto. And I've testified in Sacramento, I think it was 2018, 2017, I	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not

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		can't remember. It seems so long ago and we've gotten worse in regard to salmon and the water conditions. I think you've heard today scientifically, environmentally, economically, but I think politically is what I urge you guys to think about. We need a checks and balance. We need leadership from you. We need our country -- I mean, fish can't speak, but we've heard from farmers and we've also heard from fishermen that its bad news for the river and it's bad news for our society in regards to salmon. And selfishly, I love salmon and I don't like going to the store and seeing that I have to get it way far away. And I think that we need not a voluntary, this is crucial, and I think that voluntary agreements are great when things are going well. But as we've heard, things aren't going well. And we need your leadership to say, look, this is what needs to be done. And I know it's a hard decision, but tough love is needed. And we need to protect our environment. I'm going to be a new grandma. And I don't want to have my grandchildren wonder, what did I do? What did we all do? How do we let this happen? And voluntary agreements are not working, they haven't worked, and we need you guys to make a hard decision. But it's actually an easy one, because scientists and environmentalists have told you what needs to be done.	raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
556	1	My first job was sport fishing, involved in sport fishing. I was tying flies and working at Johnson's Bait and Tackle in Yuba City. And all my days off I was fishing for salmon, steelhead, sturgeon, and other fish. This was a time when there were more than twice as many salmon than there are now. And sometimes they sustained me and my family when I brought them home to our single-wide. My older brother was a commercial salmon fisherman out of Bodega Bay, a job which barely exists in California anymore.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
556	2	There was a fair, open, democratic process leading to the Water Board's acceptance of a Bay-Delta Plan based on unimpeded flow that culminated in your body's vote in 2018. Somehow that's been thrown out the window in favor of giving the irrigation concerns a special seat at the table and a shot at writing their	Please see Common Response 1.3, Revised Proposed Plan Amendments, regarding the VA process and the relationship between the State Water Board's regulatory pathway and the VA pathway.

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		own rules to the detriment of tribal interests and other local interests. The job of irrigation districts is an essential one. It is to gather water and power and to sustain and grow themselves on the revenue from that water and power. However, it is completely antithetical to the goal of saving a salmon. An irrigation district stands to make billions by ruining habitat and doesn't make a dime from saving a salmon. If you think an irrigation district can be a good steward of rivers, I'd like to sell you some land on the Kern River in Bakersfield.	
556	3	The VAs are not going to work. The science is in, and the debt that the power and irrigation concerns owe the people for taking most of the valley's water and most of the migratory fish habitat has been catastrophic. As I mentioned, I was a poor kid in a trailer park along a relatively healthier Feather River. What about the kids adjacent to a similarly degraded river in places all over the state? If we wait the eight- to ten- year trial periods for these VAs to fail, kids will grow through middle school and high school looking elsewhere to spend their idle time. Every time you move a natural resource from where it belongs, you create social injustice. And every time you send it back where it belongs, that injustice starts to heal immediately. Board staff provided a graph of expected loss of crop acreage versus percent of unimpeded flow, and I spent a lot of time with that graph. To reach 55 percent of unimpeded flow, staff estimated a median value of about 50,000 acres fallowed in the Sacramento drainage. For scale, that's 0.2 percent or two one-thousandths of the acreage in California under the till, and my point is that we're really not asking for very much.	Please refer to Common Response 1.1, General Comments, for responses to comments expressing support and opposition to the Plan amendments and VAs.
557	1	I'm the Watershed Conservation Director of the Pacific Coast Federation of Fishermen's Associations, a coast-wide commercial fishing group, and the nonprofit Institute for Fisheries Resources. I'm also from a fishing family and a displaced fishing family, commercial fishing. I live up by Eureka and we have fished the	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		entire coast for decades from Monterey to Oregon and relied substantially on Sacramento River fish. The State of California had a goal to double the salmon population by the year 2000. Well, that didn't happen. Now the date's been moved out to when most of us won't even be here. And since 2000, there have been drastic crashes in the Sacramento River populations of salmon, as you know. So the temperatures have been too high. And we weren't involved in the voluntary agreements process. We've participated in all the hearings on water quality in the Sacramento for years. Fish are going down. We already lost world markets, infrastructure. And we support conservative fisheries management, leaving enough fish to make more fish for the future. However, when there's no season, you cannot sell your boat on your permit and you still have your fixed costs. We provide healthy, heart-healthy local food, highest quality protein to our communities when we have salmon fishing. And instead, they're flown in from Alaska and we don't get to eat fish very often anymore. So we're counting on you, the Board, to resist political pressure and use the authority that's given to you to protect these public trust resources and the Delta. My family also fished herring in San Francisco Bay, what herring, not there anymore to fish on. This ecosystem collapse is happening as we watch, and the voluntary agreements are taking too much time. If they have some good restoration projects and conservation, that's wonderful, please include them, but make sure that you put enough cold water in the river to support the ecosystem of the Delta and the salmon that we rely on up and down the coast. These coastal fishing-dependent communities have collapsed in many ways from the lack of these fisheries, and the harbors are somewhat of ghost towns to what they were when we were fishing salmon.	
557	2	So we're relying on you to do your best. And the temperature standards are still too high. Science has shown that they need to be lowered. We'd like you to try to get the funding to change the 90.5 outdated temperature standards for salmon in the Sacramento River.	See Common Response 3.1, Fish Protection, regarding the adequacy of modeling to support the benefit analyses. See also Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat.

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558	1	So the first, my first time, I've submitted some comments, but they're really just government documents and historical documents. My first comment is that the map of the Bay-Delta doesn't represent the Colusa Basin, the Colusa Trough. It's actually a big white spot right there. It's 1,036,000 acres, 17 ephemeral streams. And probably more importantly, three of those streams, two are called salt, one's called petroleum. You know, it has really unique geology, unique topography. Historically, the Upper Sycamore Slough is where my family was connected to the river at Sycamore, and the Lower Sycamore Slough connected at Knight's Landing. That is really important because that's actually the confluence of the Sacramento, American, and Feather Rivers, and so it took all that water in. Historically, we settled on lands of the Patwin people, so it was native. It was important to the ecosystem of the Native people, and I believe that also needs to be respected here. Fish have been found. It was a great place for fish and for the wildlife. Fish have been found all the way up to Delevan as late as 2013. It also is not consistent with your regulatory regime. The Sites application has two references to the Colusa Basin and it's not on the map. There's 74,000 acres of refuges that you talk about in the voluntary agreements that are not on the map.	Please see Figure 1-1a for a map of the Sacramento/Delta area. All areas within the Sacramento/Delta outline are considered within the Sacramento/Delta watershed, regardless of whether the specific waterways are depicted in the map. Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
558	2	I want to also suggest that one of the issues you might consider is how the Colusa Basin is interconnected with the Yolo Bypass and the Sacramento River and the potential for natural contaminants, in addition to fertilizer and pesticides, actually moving into the Lower Sacramento River and the Sutter Bypass. There was a research article by Timothy Mussen regarding the lower phytoplankton populations in the lower Sacramento River, potential alkali shock. You look at the water quality that's very high TDS in the Colusa Basin. You have a 303 site and Yolo Bypass. The Colusa, as I reported before, the Colusa Refuge actually has	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		mercury contamination. The Sacramento Refuge has both mercury and hexavalent chromium contamination. They're probably 303 sites. The Colusa Trough was intended to be a bypass. The Colusa Basin was intended to be a bypass, the Colusa Basin and Port. It was never done. Drainage was never fixed. We support the voluntary agreements, but you need to fix the problem first, the drainage problem, the redox problem.	
558	3	The groundwater substitution is also a gigantic issue because of the natural contaminants in the groundwater interconnected between the groundwater is actually being put in conveyance systems and spread. And the economic incentive to over pump is just going to be greater and greater, \$500 an acre foot to \$1,000 an acre foot. People have a lot of incentive to sell fresh water and pump contaminated water.	Assessment of the risks involved with groundwater substitution transfers is outside the scope of analysis for the Sacramento/Delta Bay Delta Plan update. However, groundwater substitution transfers must comply with Wat. Code section 1745.10 et seq., the rate and season terms set in the water right, county and regional requirements (if any), and any applicable groundwater sustainability plans. All transfer petitions are evaluated for their suitability prior to approval, and the Board must find that the transfer will not unreasonably affect the environment, fish, wildlife, other instream beneficial uses; have significant unmitigated environmental effects; or injure other legal users of water. Approved transfer proposals will usually include monitoring to ensure that these objectives are met. Groundwater Sustainability Agencies also provide a layer of protection since their role includes monitoring and management of groundwater quality and changes in surface water quality caused by groundwater extraction in the basin. Please see Common Response 7.12.2, Groundwater and Sustainable Groundwater Management Act, for more information related to groundwater quality and groundwater substitution transfers.
559	1	We appreciate this opportunity to be before you this morning to provide an overview of the work towards early implementation to support the Agreements to Support Healthy Rivers and Landscapes. It is our goal with this panel to help reassure you and others that these agreements will be implemented. Next slide, please [see letter #353 for slides].	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		So just to start off, the alternatives that you're considering have been incorrectly characterized by some as a choice between flows or habitat. But scientists are telling us we need both flows and physical landscape to improve conditions for fish and wildlife. Thus, our proposal are the Agreements to Support Healthy Rivers and Landscapes.	
559	2	Next slide [see letter #353 for slides]. The addition of these habitat projects in concert with flows creates habitat values that do not currently exist when these flows alone move rapidly through channels. The additional flows that are proposed in the agreements are targeted to increase further the habitat value and functions of these projects. Next slide. This holistic approach works to achieve the balancing of beneficial water uses as required by the Water Quality Control Plan process. This avoids adverse impacts, some of which you heard in the earlier panel, that are created by unimpaired flow alternatives, to drinking water, sanitation, groundwater supplies, fire suppression, farms, salmon and other fish species, birds and wildlife along the Pacific Flyway, hydroelectric generation, and recreation. In short, this approach provides more benefits and less impacts than proposed plan amendments.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
559	3	Next slide, please [see letter #353 for slides]. The agreements will contribute to a holistic approach to improve freshwater conditions for all four runs of Chinook salmon and other native species that we have in this region. As you will hear in greater detail from my fellow panelists, early implementation is already underway. And this is important because we are working hard with state and federal agencies and conservation organizations to create momentum on project implementation to ensure that the environmental targets in the agreements are achievable during the term of the agreement. Next slide, please. So to that point, since December of 2018, 33 projects have been	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		completed in the region as part of this early implementation effort. The projects are being implemented by collaborative partnerships that include local water management entities, conservation organizations, and state and federal fisheries and water management agencies. These partnerships are very inclusive and we welcome additional parties to help advance this work. This collaboration is expediting project completion and we are working through the Cutting the Green Tape initiative and with many partners to accelerate restoration. Next slide. So just to give this a visual here of this holistic approach, and as you can see in the map, we're looking to implement projects throughout the regions. And these projects are going to benefit all four, and are benefiting for the ones that are completed, all four runs of Chinook salmon, they are targeted to provide specific benefits to the specific lifecycle stages that occur in freshwater in our region.	
559	4	Next slide [see letter #353 for slides]. I'm Charlotte Biggs with the California Department of Water Resources. I'm going to highlight some of DWR's recent habitat restoration efforts, both on the Feather River and in the Delta region. So some of our recent efforts were done to comply with existing mitigation requirements, as was mentioned on the last panel, and so they would not be eligible for inclusion in the new VA program. However, in all of DWR's pursuits, regardless of the obligation, DWR and our partners have gained invaluable lessons learned, significant monitoring data opportunities, and a blueprint for project implementation. So building on past success and these lessons learned, I think is key for two reasons. First, the fish just need the habitat. They're not aware of the driver for the projects. And the best thing that we can do for fish is create landscape-scale habitats, so larger-scale habitats. And so connecting our new projects with our existing projects can actually help us target the areas that we	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		know will have the most impact. The second reason that building on momentum is so key is that these habitat restoration projects that we'll all speak of about today are so complex to implement. These types of projects require a lot of trust and balancing what can often be conflicting interests on one site. Our collective experience here building on lessons learned can really help us establish more trust and provide more opportunities, such as the Vas or the Healthy Rivers and Landscapes approach, to work in a concerted effort to really maximize their benefits. So starting here on the Feather River, just some examples of recent and ongoing projects that we're able to learn from. Earlier this year, in 2023, DWR added spawning gravel to historic Chinook salmon spawning sites, so these are sites that have been degraded and are no longer viable. Our preliminary monitoring results just from this year already indicate that salmon are using this newly placed gravel for spawning. DWR plans to continue this project into the next year with even more gravel being placed in other historic spawning locations on the Feather. So that's one example of a project where we would be able to leverage those lessons learned for ongoing and new projects, such as the Sunset Weirs -- sorry, Sunset Weirs and Pump Restoration Project, which could count towards the Vas. So this is a project where DWR is partnering with the local water agency to remove an existing rock weir that spans the river. By removing this weir, we will restore active flows to about ten miles of riverine habitat, and also remove a migratory barrier for salmon, steelhead, and sturgeon. This is also a hot spot for predation. And to further protect juvenile salmonids, the existing Sunset Pump would be outfitted with new state-of-the-art fish screens.	
559	5	[see letter #353 for slides] Over the last 25 years, we at EBMUD have been working diligently to restore the natural function of the aquatic ecosystem of the Mokelumne River. A recent assessment used to develop the Scientific Basis Report Supplement and intended to identify habitat limiting the natural-origin Chinook salmon from reaching the CVPIA doubling goal	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		has demonstrated that Chinook salmon in the Mokelumne River are currently constrained by a lack of sufficient off-channel floodplain rearing habitat. Given the importance of floodplain habitat to the growth and survival of juvenile salmonids, EBMUD has made it a priority to restore floodplain habitat along the Mokelumne River. For instance, during the early implementation phase, we at EBMUD have already restored 3.67 acres of floodplain habitat towards our 25-acre goal for the VA eight-year term. EBMUD, in collaboration with U.S. Fish and Wildlife Service, has further created a model to rank the unscreened water diversions that pose the greatest risk to rearing and migrating juvenile salmonids in the Mokelumne River. During the early implementation phase, we at EBMUD have screened three water diversions that ranked as Priorities 3, 4, and 7. And we are currently in the design phase of another three water diversions, including the two top priority-ranked first and second, and one that was not initially ranked. Next slide, please. As a result of 25 years of habitat restoration projects by EBMUD, in collaboration with our state and federal partners, the habitat assessment described earlier further demonstrated that spawning habitat is not a limiting factor for the natural-origin Chinook salmon in the Mokelumne River. While spawning habitat is no longer limiting to counteract the natural habitat degradation, we at EBMUD plan to continue annual spawning habitat maintenance and further restoration where possible. During the early implementation phase, we at EBMUD have restored 1.27 acres and maintained another -- or 1.27 acres and maintained another 2.04 acres of spawning habitat. We acknowledge that the VA commitment our minimum required acreage to meet a short-term eight-year goal, and we continue to plan for long-term success. We believe that a combination of targeted flow and non-flow habitat restoration actions, which are currently being planned and implemented, will ultimately	

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		lead to the improved survival and resiliency of the salmonid populations within the Mokelumne River.	
559	6	[see letter #353 for slides] Since 2018, Yuba Water Agency has invested considerable agency effort, time, resources into advancing three early implementation habitat projects on the Lower Yuba River. Those three projects have been completed as of today. They are the Hallwood Floodplain and Side Channel Restoration Project, the Upper Rose Bar Habitat Enhancement Project, and the Lower Long Bar Restoration Project. The total combined footprint of those three projects is over 200 acres. A significant portion of that total project footprint contributes floodplain inside channel -- excuse me, instream and floodplain rearing habitat. What I really want to emphasize is that when we're considering these projects, it's important to keep in mind the highly modified nature of the Lower Yuba River, which was devastated by the effects of hydraulic mining during the late gold rush, erasing effectively the historic river channel and significantly elevating our region's already high flood risk. A project like Hallwood represents a monumental effort to undo some of that damage, removing over 3.2 million cubic yards of hydraulic mining debris piled in, essentially, little hills 40 to 80 feet tall along two miles of the river. It took four years, it took millions of dollars, but you can see the difference in the prior condition and that completion cross-sections before you. Across 157 acres, the project created nearly two miles of restored side channels and alcoves and more than six miles of seasonally flooded side channels. In a setting like the Yuba River, projects like Hallwood are giving the river room to be a river again and restoring ecosystem functions that have been lost. In closing, I'd really like to emphasize that each of the three projects, including Hallwood, is the result of partnerships, partnerships between the state and federal agencies, partnerships with conservation organizations, willing landowners, and Yuba Water Agency. Those partnerships were	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		key to project success in each of these cases, and they provide a model for our future efforts.	
559	7	[see letter #353 for slides] Today I'm going to be talking to you about the work that we've done between Keswick Dam and about Red Bluff on the Sacramento River. In December of 2021, we received \$40 million of funding from the CVPIA \$20 million of that went to settlement contractors, another \$10 million each to our partners at Chico State Foundation and River Partners. We've been able to have good collaboration with regulatory agencies. CDFW, DWR, National Marine Fisheries, U.S. Fish and Wildlife Service, have all participated in our designs and project implementation. You can see the photos. These are projects that are done. Since February of 2022, when we were able to implement our first project with that funding, we've completed seven projects. This has been a valley-wide effort. For the settlement contractors, we've sent staff up there from our own districts to conduct the work on these, and that's from Natomas Mutual Water Company all the way up to the City of Redding. Chico State Foundation and River Partners collaborate with the Yurok Tribe to implement their project, so it's valley-wide. What the photos don't capture is the work that we've been doing to collaborate and share on our pre- and post-project monitoring, where we're able to intelligently customize the designs of these projects as they go along, and we see what works and what does not work.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
559	8	[see letter #353 for slides] I'm the Putah Creek Streamkeeper. I'm an employee of the Solano County Water Agency, and I'll be talking a little bit previous to 2018. Hopefully this information can help the Board with their difficult decisions ahead. Putah Creek is nearby. It terminates in the Delta a few miles away near West Sacramento and heads 30 miles upstream through Davis, through the UC Davis campus and up towards Winters, and the water flows from Lake Berryessa from the Solano Project.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		In 2000, Putah Creek actually got its extra environmental flows due to a lawsuit that ended in the Putah Creek Accords, and that's what this upper left-hand chart shows. It's an annual chart showing the months of the year from January to December. The dashed and dotted lines below show the minimum base flows, but the higher lines on the left is cubic feet per second, it's not labeled, but up to 160 CFS there. Those are the pulse flows. These are functional flows, simulating natural flows, but using a fraction of what the unimpaired flows would be. And during that February-March line, that would be the spring runoff. And then that red line, actually it's variable, it could be October through December, that's our salmon fall attraction flows. And we actually have a salmon run right now in Little Putah Creek. They're swimming up right now and spawning. But that didn't start until about 2014. That's the lowest graph there. It took 14 years after we got our environmental flows for the salmon to come back. Why did it take that long? Well, the idea that we've been talking about today is that the flow-only approach isn't everything you need. You need more. You need that habitat. That's what we did. We spent about \$20 million over those 14 years, half from the state, half from local water agency funds, and worked on habitat projects, restoration projects, you know, filling in the whole life cycle for the salmon. And that's the first point, that it does take time and the flow-only approach is that we need more than that. The second point I wanted to make was the modest amount of these flows. The little dotted line you can see from April to June and the little dotted line from November to December, that represents a 5 CFS minimum flow requirement in Putah Creek. 5 CFS can pass through a 16-inch pipe by gravity feed. It's very modest. Of course, we use more water than that. But the idea is that with very small amounts of water that are timed well, that mimic the environment, we can get 90 percent of the benefit with 5 percent of the flows, and we've been showing that on Putah Creek, but you need this other component, the restoration component, to fill in the non-flow measures.	

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559	9	[see letter #353 for slides] On the American River, we have constructed five early implementation projects during -- you know, in the last several years. And that's yielded over 30 acres of spawning habitat and over 20 acres of instream rearing habitat for our fall-run Chinook and steelhead. And the sites constructed during the early implementation period are shown on the map in the upper right-hand portion of the screen. And these areas were chosen and selected because they were -- we were very far along in design and we were ready to go. These are part of an existing ongoing successful habitat program on the American. We've been working in the river to improve conditions for all salmonids since 2008, so we don't plan on stopping anytime soon. We know that these habitats, both types, are limited and construction and maintenance of previously constructed habitats would definitely continue well beyond the VA term to ensure that the river remains effective for our multiple life stages. And we use best available tributary-specific hydraulic and biologic information in our project design, and that helps us to design suitable and effective projects that take into account our widely variable hydrology, our unique geomorphic context in our river, and also the operational constraints that we're affected by. And our work has been reviewed by numerous respected scientists and highlighted, and our methods have been highlighted in peer-reviewed journals. And the work, the habitat construction work that we do dovetails and is in complement with our modified flow management standard. That flow management standard is in action on the river and is broadly supported by stakeholders, operators, and our regulatory agencies and dovetails well with the flow actions proposed under the voluntary agreements. Next slide. So our habitat project sites actually support between 30 percent and 50 percent of all of the natural spawning that occurs on the American River. And highlighting that success here with our	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		2021 Ancil Hoffman Project site. Prior to construction in this area, we saw very low utilization for our Chinook salmon spawning in the fall. Maybe, you know, one to three percent of the total in-river reds were recorded at this particular site. And post-construction, that jumped to up to 14 percent of the total Chinook reds that were measured in the river. And those are illustrated actually on the ground. These were recorded during on-the-ground and aerial surveys by our crews. You can see our Chinook reds in '21 and '22 are shown with the blue and light blue dots. You can see how they distribute themselves along the constructed habitat. And those are two different water years. Our steelhead reds are shown in the yellow dots. And prior to construction, we didn't see any activity by our steelhead in this part of the river. And post-construction, this site supported around 30 percent of all of the steelhead reds in the river. You know, our steelhead population is much less abundant than our Chinook. And seeing, you know, a single early implementation site that could support the species in this way was really gratifying and helps to prove out the way that we're building the projects.	
559	10	Next slide [see letter #353 for slides]. And our rearing habitat utilization example here at Nimbus Basin, recently constructed in 2022. And we strive with our rearing habitat to construct habitat that is not only suitable, but effective and utilized by our juvenile salmonids over a broad range of flows, working with that geomorphic context. You know, we've had a lot of alterations in the American as have many other Central Valley tributary streams, from the results of hydraulic and gravel mining, and also we are working with the hydrology that we know to expect. And the utilization and suitability of these habitats is illustrated in the graphics that are along the bottom of the screen. Without getting too far in the details, the areas that represent suitable depth and velocities for juvenile rearing are shown in green. Unsuitable areas are shown in red. And on-the-ground juvenile	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		observations are the blue dots. And the take home here is that although suitable areas increase, the total acreage increases and decreases over, you know, a range of flows shown here from 1100 to over -- to around 10,000 CFS, that you see the juvenile observations not going away, they're just moving around, so that our fish are able to utilize different parts of the habitat that activate at different flows. And that shows us, you know, on the ground that we're meeting our goal to provide habitat giving our juveniles something they can work with no matter how variable flows may be over the course of a season or between different water year types.	
559	11	[see letter #353 for slides] I'm here this morning to talk about floodplain reactivation and the projects that have been occurring. Overall, the process is focused on increasing connectivity between the main rivers, stems, and their historic floodplains, also increase the frequency and duration of shallow inundation in the winter months, improving juvenile salmon migration and access to productive rearing habitat, growing fish food for migrating juveniles remaining in the main stems, and this is primarily done in rice fields, reduce adult passage impediments improving Pacific Flyway bird populations, and improving groundwater recharge. Next slide, please. More specifically, over 500,000 acres of historic floodplain is currently being evaluated for reactivation feasibility. And specifically, I chair the Sutter Bypass Water Users Association, and we're working with a group of landowners who are voluntarily looking at ways to increase shallow inundation during the winter months on their property within the Sutter Bypass. This is looking at finding practices that work in concert with the farming to allow better habitat in the wintertime for fish and other species. This may include installing new infrastructure to allow water to get on the land sooner, also growing fish food on those lands, or possibly even rearing fish within the lands in the Sutter Bypass.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		For 2023, almost 70,000 flood-drained acres of fish food are already under contract throughout the valley. Montna Farms were a big part of this process and participating in this as we drain our fields during the winter months for the fish food. And essentially what that means is about three weeks after flood up the fish food peaks out in a rice field or in a wetland and you can drain that field off into the river system and then re-flood it back up and do it again in another three to four weeks. So we're participating in that, and over 70,000 acres is under contract for 2023. And 2022, 50,000 acres of flood-drain acres was delivered as well. In addition, there's other efforts to find better adult fish passage, and primarily in the bypass system, and that's specifically a Weir 1 and the Guisti Weir that's being evaluated as well.	
559	12	[see letter #353 for slides] So switching locations now to the Delta, this is an area where DWR has invested significantly since 2018 on tidal wetland and floodplain restoration. The Delta region is a critical location for habitat and food production to benefit multiple fish species, Delta smelt, longfin smelt, steelhead, and sturgeon. DWR's recent habitat restoration projects in the Delta span from the Yolo Bypass to the Suisun Marsh. DWR and our partners are learning valuable lessons with these efforts, both to inform project design, our robust monitoring and adaptive management program, and more effective project delivery methods. For example, a project that DWR currently has under construction in the Delta, it's over 3,000 acres of tidal wetland habitat restoration, I think the largest project in the Delta to date. With strong partnerships and active engagement with our regulatory agencies, we were able to work through planning and permitting for that project in less than five years, which is a much faster pace than we've been able to achieve in the past, and we're really trying to build on that momentum going forward. So we can switch to our next slide.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		So I'm still in the Delta, but looking forward under the Healthy Rivers and Landscape approach or the VAs, we would aim to restore over 5,000 acres of tidal wetland and floodplain habitat restoration, much within the Delta, North Delta Arc, an area between the Yolo Bypass and the Suisun Marsh that UC Davis has identified as a critical location for targeting and connecting habitats. I had talked previously about the importance of connecting habitats, so I was going to highlight three early implementation VA Healthy Rivers and Landscapes projects that DWR is currently pursuing that would be connected and help to advance more landscape level habitat restoration in the Delta. So the first is the proposed Tides End project, which would restore over 2,000 acres of tidal and floodplain habitat. This is a great example because it would connect directly to an existing project that's right next door within an area of the Yolo Bypass and Cache Slough region that has 16,000 acres of contiguous habitat that we've done over the past 20 years. If this project were to move forward, we would plan to start construction in 2026. Second is Prospect Island, which is another project in the Southern Yolo Bypass and Cache Slough region that would connect with existing habitats. This effort will restore 1,600 acres of tidal habitat, and we are planning to move this to construction this June 2024. Lastly is the Lower Elkhorn Levee Setback Project, which is currently under construction to set back approximately seven miles of levee along the east side of the Yolo Bypass and the north side of the Sacramento Bypass. This is creating floodplain habitat for fish rearing. Beyond this initial 5,000-acre target, DWR will continue to implement additional habitat restoration projects beyond the eight-year term of the VA.	
559	13	[see letter #353 for slides] So thanks. And just to wrap up, as we stated earlier, this is a holistic approach, as you've seen from the	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not

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		other presentations. This work is occurring throughout the region on every one of the major rivers and creeks in the region, as well as down into the Delta and in the floodplain areas. These projects are designed specifically to address specific freshwater lifecycle stages in the region, and also can benefit all four runs of Chinook salmon that we have here in the region. Next slide, please. So just some closing thoughts here. You know, water agencies have been the leading implementation -- have been leading implementation of habitat improvements using the best available science. This would not be possible if unimpaired flows are implemented. The Agreements to Support Healthy Rivers and Landscapes include secured funding from state, federal, and local sources. And lastly, the Agreements to Support Healthy Rivers and Landscapes provide a clear path to the timely implementation of flows and habitat that promotes species recovery.	raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
560	1	I love fish, I like looking at them, and I like eating them. And you have an impossible task of trying to sort out how to take care of an over-allocated system of water resource for agriculture and for industry and for public drinking. It's like trying to provide a loaf of bread to feed a thousand people. You need a miracle. And I really appreciate you folks investigating all of the possibilities to resolve this problem that is nearly impossible to fix. But, as has been said, 100 years from now, we'll look back and hopefully they'll be proud of what you guys have done to do a better job of dividing up the resources. I live in Solano County, right on the edge of the Suisun Marshes. It's the 55,000 acres of California protected marshland. And I've watched the water quality deteriorate over the last 20 years and it's sad to see the environment take such hard hits with the water being diverted for other purposes. Certainly, agriculture could do a better job. I watched for many	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project, and Common Response 8.1, Economic Analysis and Other Considerations, for information on the recent development of agricultural resources and water use.

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		years as the water resource control -- or the water resources were sold for really next to nothing, highly subsidized. The fed water was sold for \$3.00 an acre foot. The state was selling it for \$75.00 or \$150 an acre foot. So that does not encourage drip irrigation or water conservation. That just results in a lot of flood irrigation. And so I'm willing to pay more for food. I know that it's hard to survive in this country, but we enjoy some of the best resources in the world. And I think people need -- the public needs to step up to the plate and pay more for it. I don't want my tax dollars to subsidize international agriculture to send almonds to -- almonds and rice and whatnot to other countries. It's for large corporate gains. I think we need to look out, I think, globally but act locally.	
560	2	So in my whitewater rafting business, I've seen two rivers shortened quite a bit by reservoirs that were filled. You know, so be it. But what remains is a significant resource for folks to enjoy whitewater rafting, both privately and commercially. This is an industry that needs to be protected, and I hope that more rivers are not eliminated for boating.	Section 7.18, Recreation, evaluates impacts on whitewater rafting from changes in hydrology under the flow scenarios. This analysis uses methods and criteria consistent with the State Water Board's CEQA requirements, as described in Section 7.1, Introduction, Project Description, and Approach to Environmental Analysis. The analysis in Section 7.18 concluded less-than-significant impacts on whitewater rafting because although some tributaries could have lower flows during summer months, which could increase or decrease the boating difficulty of rapids for rafting, opportunities would still be available in existing locations in the Sacramento River watershed and Delta eastside tributaries regions. Further, higher flows in Sacramento/Delta tributaries could increase the number of popular locations for whitewater rafting and could expand the length of the season for those activities compared with baseline conditions.
561	1	[See letter #111 for slides] Our presentation this morning will illustrate the following key points, that the agreements to support Healthy Rivers and Landscapes provide significant tributary and Delta flows. They address specific habitat needs and they provide these benefits without the significant adverse impacts of the unimpaired flow alternatives. By contrast, the unimpaired flow alternatives do not create any new habitat within the system. They do cause significant impacts	Please see Common Response 1.3, Revised Proposed Plan Amendments, for information on the habitat restoration activities included in the regulatory pathway and the general provisions of the revised proposed Plan amendments. Also see Common Response 1.2, Water Quality Control Planning Process, on the consideration of beneficial uses.

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		to beneficial uses, and we will demonstrate the four beneficial uses illustrated here with some of the information that we present. Our analysis of the draft Staff Report, it leads us to the opinion that the agreements provide a better balance that reasonably protect the beneficial uses. And our goal here this morning is to demonstrate that with information that we pulled directly from the draft Staff Report. Our slides will annotate the sources of the information so that the information can be verified. In summary, the theme of our presentation this morning is that the voluntary agreements provide more benefits with less impacts.	
561	2	[See letter #111 for slides.] Let's start with a high-level assessment of the modeling and the technical analysis. The VA alternatives are well-defined. In general, the Staff Report modeling reflects the alternative, and this is the alternative, and this is particularly true on the tributaries. The analysis is not perfect. Our written comments will detail some of the areas where we have concerns and some of the options for improving the analysis, but the benefits that are demonstrated within the Staff Report are still present, they're there. And while they're understated, our written comments will also provide more details on why we have that opinion. The unimpaired flow alternatives are more conceptual in nature. And I think that modeling reflects more of that. And there's no clear implementation plan identified and that makes it a little bit harder. Chair: I'm sorry to interrupt. It's because implementation plan is coming after the Staff Report; right? So just to make sure we're accurate on why you don't see that, because it's not the implementation plan. Bergfeld: I understand, but thank you for the clarification. Without the implementation plan, it is difficult to understand	This comment is a discussion between a Board Member and a panelist. Please refer to Common Response 1.1, General Comments, for the approach to responding to comments.

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		whether the effects on the system are accurate and what we may see, and that makes it difficult to interpret the results. And finally, the draft Staff Report does include some descriptions of modular alternatives that are also a little bit hard to understand in terms of how they may be implemented and what the effects of those might be.	
561	3	[See letter #111 for slides.] So as you have already heard, VAs are a package of flows, habitat, and funding to contribute towards the native species viability. VAs will increase upstream and tributary flows, Delta inflows and outflows. Using the graphs and data from the draft Staff Report, the plot that you're seeing on the slide here shows that VAs provide a significant new Delta outflow over and above the existing Decision 1641 and biological opinion requirements. A couple of things I want to point out. One, the biological opinions that the VA flows are built on top of already include significant interior flow protections, fall Delta outflow, which the Board is proposing as one of their modular alternatives. Also, please note that the flow contributions are really high in the middle water year types, dry, below normal, and above normal. That was by design. The wet years, we believe that there is significant flow in the system where you could -- you need to use that supply -- those supplies, too, for other critical needs such as addressing SGMA issues or, you know, saving water for using in the dry, dry conditions.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Additionally, please see Common Response 6.2, Baseline and No Project Alternative, for a discussion about the baseline used in the Staff Report.
561	4	[See letter #111 for slides.] All right, this slide illustrates the simulated end of May storages in four major reservoirs in the Sacramento Valley, and it compares the baseline, the VA alternative, and 55 percent of unimpaired alternatives. The key point here is that the unimpaired flow alternative pulls the spring storage lower in these reservoirs compared to both the baseline and the VA the majority of the time, and this is particularly true in Folsom in the bottom left and Oroville in the upper right figures. This operation has significant impacts to the ability to manage temperature later in the season and to hydropower generation,	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. See also Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat.

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		which Mr. Weaver will cover later. But additionally, these lower spring storages and at times lower carryover storages, really affect the water resiliency and the flexibility within our system to meet the existing regulations and obligations, as well as respond to changes in the system.	
561	5	[See letter #111 for slides.] This slide illustrates the water supply impacts of the voluntary agreements as well as the 55 percent unimpaired alternative. As you can see with the blue bars for the voluntary agreements, there are less water supply impacts than 55 percent of unimpaired. The unimpaired alternative includes impacts to M and I, ag, and the refuge -- refuge water supplies, excuse me. It is our opinion that these impacts are understated in the analysis for both of the alternatives illustrated here. For example, these blue bars do not include the export cuts, which are part of the VA alternatives. And for the 55 percent alternative, there are some technical details in terms of how the analysis and the change in the deliveries are reflected. It's important as we look at these and we think about anywhere from 2 million to 2.5 million acre-feet of supply reduction in the driest of the three year types, that it's our opinion, these can't be fully mitigated. I do understand that the Staff Report identifies mitigation strategies, but I'm not sure that those are feasible.	Reduction in water supply is not itself an environmental impact under CEQA. Changes in water supply are evaluated extensively throughout the Staff Report for consideration of factors under Water Code section 13241 and to inform the environmental and economic analyses. Reductions of Sacramento/Delta supply to agricultural use is considered a potentially significant impact if the changes result in conversion of important farmland. The Staff Report uses threshold UT-d in Section 7.20, Utilities and Service Systems, to assess impact of changes in supply for municipal use although it is not a direct impact on the environment. Water agencies' response to reduced municipal supply can lead to other actions, including the construction or expansion of new water treatment facilities or water supply infrastructure, which could have environmental impacts under CEQA. See Common Response 6.3, Water Supply and Other Water Management Actions, for more discussion on water supply impacts. The State Water Board took a conservative approach when considering the impacts of the unimpaired flow scenarios and the VA scenario. Please refer to Common Response 6.2, Baseline and No Project Alternative, for a discussion about the baseline used in the Staff Report. Please see Common Response 7.1, General CEQA and Approach to the Analysis, regarding mitigation measures. In addition, the project is revised as described in Common Response 1.3, Revised Proposed Plan Amendments. The proposed Plan amendments remain part of the project as the regulatory pathway; however, the regulatory pathway includes new water supply adjustments at the outset of Plan implementation that lower flow requirements under certain conditions to reduce water supply impacts and allow more water to be stored in reservoirs. Water supply adjustments greatly reduce the impacts to users in the study area. Please see Chapter 13, Revised Proposed Plan Amendments, of the 2025 partially recirculated draft Staff Report for an analysis of the revised proposed plan amendments.

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561	6	[See letter #111 for slides.] Continuing on the water supply theme, the proposed unimpaired flow alternatives significantly reduce the State Water Projects south of Delta deliveries, as shown in the figure on the right. That's a figure from the -- directly from the draft Staff Report. I added the red lines on that just to illustrate that under the 55 percent unimpaired flow scenario, the State Water Project deliveries could reduce by over a million acre-feet under median conditions. And a less known fact is that about three quarters of the disadvantaged communities in California actually are dependent on the State Water Project supplies. And this, such a reduction in supply, it will likely increase their supply risk to those communities and the affordability rate. This reduction translates to roughly half a million acre-feet to the Southern California region. And again, we did a back-of-envelope calculations and this translates to roughly eight Carlsbad sites desalination plants, or 80 small desal plants, which you know are really difficult to permit and very expensive to construct.	The Staff Report appropriately evaluates the potential municipal water supply economic effects of the flow scenarios. Section 8.5, Municipal Water Supply Economic Effects, acknowledges that implementation of the flow scenarios could result in surface water and groundwater supply reductions to municipal users. Chapter 8, Economic Analysis and Other Considerations, and Chapter 10, Economically Disadvantaged Communities, describe various financial and technical assistance programs available to assist public water systems serving economically disadvantaged communities. The State Water Board is at the forefront of assisting economically disadvantaged communities with obtaining clean, safe, and reliable water supplies. Please see Common Response 8.1, Economic Analysis and Other Considerations, for further discussion on municipal water rates and discussion of potential funding sources for municipal water conservation and alternative water supplies.
561	7	[See letter #111 for slides.] Bergfeld: All right, this slide focuses on how the Vas could provide more benefits. Remember, our theme is more benefits with less impacts under the voluntary agreements. Here, we're looking at tributary fish habitat. The figure on the left shows blue bars, which represent the VA alternative, and red bars, which represent the percent of unimpaired at 55 percent alternative. And you can see that the blue bars across most of the tributaries provide more rearing and spawning habitat. As we switch to the figures, rainbow colored, on the right side of the slide, these are comparing the percent change in the median habitat for just the VA alternatives, looking at the different tributaries, across the five different water year types, with spawning in the top and rearing in the bottom figure. I wanted to talk about two key points for this figure on the right. The first is that the Vas and habitat projects are strategic. You'll notice that there's no increase in spawning habitat on the Yuba	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		River. It's because that has been identified to not be a limiting factor for salmon production on the Yuba so, therefore, we focus on rearing habitat. The second key point is that the Vas provide benefits across all the water year types. This is important because, as you know, Vas propose flow contributions in the middle three but not the other two. What this essentially means is that the Vas and the habitat projects that are going to be constructed provide a more efficient use of our existing water and our flows for our ecosystem purposes.	
561	8	[See letter #111 for slides.] Now I want to talk a little bit about the effects to terrestrial wildlife within the Sacramento Valley. So I know you heard on the 17th from the panel on the value of irrigated rice acreage within the Sacramento Valley. The upper right figure illustrates the expected changes in rice acres under the VA in the blue bar and the 55 percent unimpaired alternative in the red bar. The VA proposes to idle up to 35,000 acre-feet of rice acres within those three year types. By comparison, the changes in deliveries to rice areas within the Sac Valley from the SacWAM modeling would indicate that we would need to fallow between 200,000 and 300,000 acres of rice acres based on that change in delivery. This is the expected fallowing in each year, and directly below it are the changes in the refuge water supply. And what you can see is that the refuge water supply changes occur in the same years of significant fallowing. So, again, the bottom line here is that the Vas don't have an impact to refuge water supply, and they have considerably less impact to rice acres.	Based on public comments received on the draft Staff Report, the proposed project has been revised as described in Common Response 1.3, Revised Proposed Plan Amendments, and analyzed in Chapter 13, Revised Proposed Plan Amendments, of the 2025 partially recirculated draft Staff Report. The regulatory pathway of the proposed Plan amendments shows much smaller impacts to wildlife refuges because of the inclusion of a wildlife refuge provision described in 4.4.2.2 of the December 2025 Revised Draft Updates to the Bay-Delta Plan.
561	9	[See letter #111 for slides.] Dr. Chilmakuri: Continuing on this theme of the species benefits, so the Staff Report relies on the flows to demonstrate the potential benefits to the species. However, we believe that the benefits of increased Delta outflow are highly uncertain. For example, the graphic on the left is a figure from the Scientific	As described in the 2017 Scientific Basis Report, the January through June outflow value of 42,800 cfs was identified as protective of longfin smelt precisely because it was expected to result in a 50% probability of population growth. Higher values of outflow would be expected to result in a greater probability of population growth.

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		Basis Report from the State Board, and you can notice that even at high flows, about 40,000 CFS, the probability of population growth in longfin smelt is 50-50. This is actually directly from the Scientific Basis Report. The graphic on the right is from the CDFW, and what it's showing is various colors show the relationship between the Delta outflow and longfin smelt abundance over the last few decades. And the reddish or the pinkish envelope you see is the latest decade since 2013, and the relationship between Delta outflow and the longfin smelt abundances is far less certain, and the slope, as you can see, is much flatter, and which just indicates that outflow is not the only variable, that is there are other factors that we need to consider to understand why the longfin smelt abundance is changing.	The 2023 draft Staff Report describes the effects of non-flow stressors on native species such as longfin smelt, and this discussion can be found in Chapter 4, Other Aquatic Ecosystem Stressors. A description of complementary, non-flow actions that may help address the stressors described in Chapter 4 can be found in Section 5.5, Habitat Restoration and Other Complementary Ecosystem Measures. Please see Common Response 1.2, Water Quality Control Planning Process, for a discussion of non-flow measures and the State Water Board's authority to impose non-flow measures. Please also see Common Response 3.1, Fish Protection, for a response to comments about the relationship between longfin smelt and Delta outflow.
561	10	[See letter #111 for slides.] So while we disagree with staff's reliance on just flow, I mean, you know, computing the benefits or assessing the benefits of each alternative, even if you use staff's methodology, the VAs demonstrate significant benefits to various key estuarine species, as shown in this figure. Especially in the drier years, you can see double-digit increases across all species.	The 2023 draft Staff Report acknowledges the benefits of non-flow actions, and this discussion can be found in Chapter 4, Other Aquatic Ecosystem Stressors. A description of complementary, non-flow actions that may help address the stressors described in Chapter 4 can be found in Section 5.5, Habitat Restoration and Other Complementary Ecosystem Measures. Please see Common Response 1.2, Water Quality Control Planning Process, for a discussion of non-flow measures and the State Water Board's authority to impose non-flow measures. Please also see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
561	11	[See letter #111 for slides.] The draft Staff Report is also showing that the VA alternative would increase estuarine habitat for all the key focal species included there. For example, you can see for Delta smelt, for Delta smelt larvae, the VAs are expecting to increase the habitat by anywhere between 4 percent and 13 percent about, approximately. While we believe that the definition used for the suitable habitat for species is very narrow in the draft Staff Report, clearly the VA is increasing, even under that definition, the habitat available for those species.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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561	12	[See letter #111 for slides.] So as Lee showed on slide five, we do see a decrease in expected end-of-May storage. And as probably you all know, storage is highly related to the cold-water pool development. This is a figure here from 2023 from Shasta from Bureau of Reclamation. And we see that the cold-water pool peaks and grows as storage grows in the spring, and then it's released later on in the year. This is the major source of water, cold water, to provide habitat for fisheries and downstream reaches. So one of the challenges with that end of -- that reduced end-of-May storage that we saw previously is that we're not going to get the same cold-water pool development, and that's going to have an effect on our summer temperatures.	In Shasta Reservoir, temperature management is an ongoing concern under existing conditions. With the construction and operation of Shasta and Keswick Dams, winter-run Chinook salmon no longer have access to historical cold water habitat above Shasta Reservoir. Their only remaining habitat is limited to a small stretch of the Sacramento River below Keswick Dam, where cooler temperatures are dependent on reservoir releases. During the temperature management season (May 15 to October 31), the Shasta Dam temperature control device (TCD) is operated to selectively withdraw colder water from deeper depths of the reservoir to meet instream temperature requirements for winter-run Chinook salmon in the upper Sacramento River. Spring-run Chinook salmon and fall-run Chinook salmon also inhabit the upper Sacramento River and are similarly affected by Shasta Reservoir operations. Shasta Reservoir on the Sacramento River is currently operated in accordance with Water Right Order 90-5. CEQA impact determinations are the most conservative but in many instances can be reduced or avoided with tailored operations. The State Water Board provides flexibilities with the intent that water diverters and reservoir owner/operators utilize Plan provisions because they often have a good understanding of their unique circumstances on a specific tributary. The Staff Report acknowledges potential temperature increases could occur in some streams under some circumstances and managing these factors to protect cold water habitat for fish is complex and challenging. However, the implementation of the narrative cold water habitat objective and the flexibility provided in the inflow requirements would be expected to improve water temperature conditions for native cold water fish. The cold water habitat objective is intended to bolster existing legal protections to ensure comprehensive temperature protection over time. The cold water habitat objective is narrative in order to provide sufficient flexibility for implementation options that are tailored to the unique circumstances of each tributary. Reservoir owners and operators may need to meet the proposed cold water habitat requirements by implementing some combination of cold water releases, TCDs including reservoir outlet shutters and thermal curtains, and fish passage improvements. Section 7.21, Habitat Restoration and

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			Other Ecosystem Projects, discusses and evaluates the potential environmental impacts, including construction impacts, of habitat restoration and other ecosystem projects (e.g., use of TCDs and fish passage improvement projects) that entities may undertake toward achieving the overall goal of improving conditions for fish and wildlife in the Sacramento/Delta. While it is expected that many parties would take advantage of the provided flexibility to optimize operations and avoid environmental impacts, the analysis considers and incorporates the most conservative assumptions to ensure comprehensive impact conclusions. Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Please see Common Response 1.3, Revised Proposed Plan Amendments, for a discussion of the revised proposed Plan amendments. Please also see Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, regarding implementation of the cold water habitat objective.
561	13	[See letter #111 for slides.] So these are some tables from the Staff Report and for the Sacramento, American, and Feather Rivers. And it's a little bit small here, but you can see the red bars are where there's increases. Blue is indicating a decrease in temperatures. And what we see here is that -- and all three of these tributaries are temperature constrained, where temperature is a major limiting factor for production. And what we see is that the unimpaired flow scenarios are making the stressful conditions even more stressful. That lower line, that 90 percent exceedance, I think it really means 10 percent exceedance. But I think that those times is when we already have under baseline the highest temperatures and it's making them worse. So we're expecting to see that this would indicate an increase in challenging temperatures during the summer months on these three tributaries.	Please see response to comment 561-12.

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		We see the Vas on the bottom. We don't see nearly that same effect. We see essentially no effect on temperatures in all three tributaries.	
561	14	[See letter #111 for slides.] So a little bit about hydropower generation. So the Staff Report understandably focused on the monthly effects of the changes and flows on hydropower. But one of the important values of water and hydropower is to balance out the inter-daily effects of renewable resources. So as solar comes on in the middle of the day, usually we drop out hydropower. And then as solar drops off in the evening, we increase our solar -- or, excuse me, increase hydropower generation. And so with higher spring flows, we would expect to see that there's less flexibility to respond to those changes in solar generation. That would need to be offset by some resource, and unfortunately, it would likely be greenhouse gas-emitting generation. Next slide, please. Conversely, we see a decrease in our summer generation as a result of both lower flows and lower storages. So during the summer months, we actually have an inverse effect where we have inadequate generation on the grid. And in particular, I got some slides here from some heat storm events in September of 2022, where we saw record high loads on the grid. And in fact, that the CAISO was able to avoid any sort of outages only by shedding load, particularly through the State Water Project. So decreasing flows would decrease the flexibility for hydropower generation to help supplement and meet some of these demands, particularly as solar comes offline in the evenings. And again, this would either lead to outages or increased use of greenhouse gas-emitting generation.	Please see Section 7.8, Energy, and Common Response 7.8, Energy and Hydropower, for evaluations of reliability of the electrical grid, and see Section 7.10, Greenhouse Gas Emissions.
561	15	[See letter #111 for slides.] All right, I want to talk briefly about implementation. As I mentioned before, the VA alternative is well-defined. The methods for making the water available are proven, and we know how to implement them. We talked about the habitat being strategic to address specific needs so the	Implementation actions for the cold water habitat objective were described in Section 5.4.3.4, Implementation, of the 2023 draft Staff Report. Section 5.3, Reason for the Proposed Plan Amendments, of the 2023 draft Staff Report describes how, since the last update and implementation of the Bay-Delta Plan,

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		implementation can occur after the Board adopts them. And you'll hear in the following panel about how some of the projects are already being implemented. By comparison, the flow alternatives are conceptual, and they include a range of flow anywhere from 40 to 60 -- 45 to 65 percent in the proposed plan amendment, which can equate to about 5 million acre-feet with California's hydrology as it relates to Delta inflow. There's a narrative cold-water pool objective and there's no specific actions or creation of new habitat. Based on a review in the Staff Report, it seems that a lot of the implementation may come down to annual discretionary decision making by the Board staff. Next slide, please. I want to talk briefly about a reflection on a flow-only approach. And the figures on the right are from a presentation that my colleague, Mr. Bourez, made to the State Board 11 years ago. And it illustrates the expected change in Delta outflow when we went to the 2008-2009 biological opinions as compared to what would occur under D-1641. We've operated under those requirements, requirements that are very similar to them, for the past 15 years. This has essentially been a flow-only approach. It has not worked. That's why the Vas are offering both flow and habitat, as well as other benefits and funding, to strategically address the specific needs of the system.	populations of native aquatic species in the Bay-Delta watershed have shown significant signs of decline due to a combination of factors, including hydrologic modifications, non-flow physical habitat degradation, water quality impairments, and climate change. Please see Common Response 1.3, Revised Proposed Plan Amendments, for more information on implementation of the cold water habitat objective and State Water Board oversight.
561	16	[See letter #111 for slides.] Okay, so to close it off, we have demonstrated to you using the information in the draft Staff Report that the VA alternative provides the benefits to all the fisheries, not just Delta fisheries, without the devastating impacts to the other beneficial uses. So we touched on the benefits to upstream fisheries from the habitat restoration and cold-water pool management. We demonstrated to you the Delta fishery benefits from both habitat and abundance perspective, terrestrial species. We showed you that the water supply impacts are not as high with the Vas compared to the unimpaired flow scenarios. We demonstrated to you the operational flexibility is critical for hydropower and	Please see Common Response 1.1, General Comments, regarding consistency with other laws, policies, and agreements; Common Response 1.2, Water Quality Control Planning Process, for information on the consideration of beneficial uses; Common Response 1.3, Revised Proposed Plan Amendments, for information on the regulatory pathway and VA pathway; and Common Response 1.2, Water Quality Control Planning Process, for information on housing.

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		meeting other regulatory obligations on the projects. However, in this modified landscape where 90 percent of the historical habitat is lost, the Vas are a carefully-designed package based on our best scientific understanding that use the flow and habitat to provide the most beneficial use to the fisheries and terrestrial species in the watershed. Our next panel will demonstrate to you the real-life successes of this approach. From our read of the draft Staff Report, VA is the only alternative that reasonably balances all the beneficial uses and does not conflict with other state's goals, such as the green energy and affordable housing. Therefore, the proposed plan amendment alternative cannot be path forward, neither as the update nor as a backstop to the VA alternative.	
561	17	Board Member: And maybe this will be better asked at future panels, so feel free, but since we have you here, so can you -- I'm just trying to follow on your analysis on the habitat benefits. So is your analysis on the flow habitat that benefits suggesting there's no habitat generated from flows without and only what can be counted as the habitat projects that the VAs are putting on the table as habitat? I guess I just want to understand how you're looking at habitat benefits with the staff alternatives. Mr. Bergfeld: Sure. I think maybe both Chandra and I might best answer this because, of course, it's a little different between the tributaries and within the Delta. So I don't know if it's possible to pull our slides back up or not? Bergfeld: If we could pull slide eight [see letter #111 for slides] back up just to make sure that I'm addressing your question? Okay, so there was an assessment that was done by staff, right, in the Staff Report that looked at the existing flow to suitable habitat relationships within the tributary systems, and then they simulate the flows and then look at what suitable habitat exists. And that's the direct comparison on the left. So it's a percent change in the median habitat that we would expect for salmonid rearing and spawning in the different tributaries. And so you see this percent change with the voluntary agreements.	Please see Common Response 3.1, Fish Protection, for instructions on interpreting the results of the habitat analyses. A portion of this comment is from a member of the State Water Board or State Water Board staff. Please also see Common Response 1.1, General Comments, for the approach to responding to comments and for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		The driver behind why there is a different change in the voluntary agreements than the unimpaired flow is because that flow to suitable habitat relationship is different because we create suitable habitat that activates at a wide range of flows, and that's kind of what the rainbow figures on the right side illustrate. Across the range of flows we're still seeing an increase in the habitat on the tributary system by the creation of that. So it's not that the unimpaired flows don't have some effect on habitat by increasing the flow, but it's less than what we see with the voluntary agreement by the creation of those habitat projects. Did that address your question? Board Member: Yeah, and this is specifically for salmon and for rearing and spawning? Bergfeld: Correct. Board Member: But I would assume that's different for the estuary species? Dr. Chilmakuri: Right. So again, as I said, there is actually over 5,000 acres of restoration as part of the package. And we expect that to add -- continue to add benefits on top of all the existing restoration that's already underway. Again, the next panel will touch a little bit on that. But even with that, the Staff Report assessed the creation of suitable habitat for the estuarine species and they found that with the additional tidal marsh restoration that's on the -- that's being proposed and considering the additional flows on top of the biological opinions, the Vas do add additional benefits and habitat benefits in the estuary as well.	
561	18	Board Member: Okay. And another just clarification question on your presentation. So you mentioned that the VA -- that our analysis of the VA impacts don't include export reductions. And can you just spell that out for me a little bit more? Bergfeld: Certainly. So that slide [see letter #111 for slides] illustrates these changes in deliveries, and they come from the	A portion of this comment is from a member of the State Water Board or State Water Board staff. Please see Common Response 1.1, General Comments, for the approach to responding to comments and for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		reference tables in the Staff Report. And so for a change, you have to compare it to a particular baseline. And this is where I know you will see additional written comments on if I don't do an adequate job explaining it. But essentially by that comparison, it eliminated the export reductions that are going to occur under the voluntary agreements. So that's why the magnitude of those blue bars is understated in terms of the water supply.	
561	19	Board Member Maguire: So this is a panel on hydraulic modeling and the analysis there. So I'm just asking the question, do you think that the modeling, the analysis that was done, and the Staff Report from what you've seen so far, admittedly it's a very large document, I know there's a lot in there, but do you think it adequately represents the flexibility that's envisioned with the voluntary agreements? And I was, in particular, looking at slide four [see letter #111 for slides], which is the one that shows the voluntary agreement anticipated increases in outflow from January through June. Do you think that, you know, those flows are ones that we should expect in those year types, or do you think that the flexibility and different provisions in the Vas might pull on some of those flows a bit to, you know, push them into the summer or fall if conditions warrant? Dr. Chilmakuri: Yeah, thank you for that question. Very important to understand. So the VA Strategic Plan, which is part of the document, identifies the bands of flexibility, if you will. The flexibility is mainly across the months. As you rightfully identified, that the biggest challenge will be between the spring releases and the cold-water pool development, especially in those drier years, so there may be some -- a need in really difficult, dry conditions to, you know, wait until the cold-water pool is developed and then the releases could be coming down later. But that is already identified and analyzed. On an annual basis, if you look at it, there will be, and the flows that I am showing here, those would be the additional flows that will show up on top of the current biological opinions.	This comment is a discussion between a Board Member and a panelist. Please refer to Common Response 1.1, General Comments, for the approach to responding to comments.

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561	20	Vice Chair D'Adamo: And I see that -- let's just take a look at slide five, [see letter #111 for slides] end-of-May storage under unimpaired flow. So did you analyze, in light of the fact that I know you called out that we don't yet have a Program of Implementation, so we don't really know how it would be implemented, but I know that this would not be our intention. And so I just want to give you an opportunity, because I suspect staff would be, you know, responding to this at some point any way that, you know, there actually is some embedded flexibility. So did you look at different scenarios of unimpaired in terms of management actions that could be taken in order to mitigate impacts on cold-water pool and hydropower? Bergfeld: Yes. I think this gets to the questions of implementation and some of the uncertainty that surrounds that. So well aware that the proposed plan amendment includes a narrative cold-water pool objective that would look to avoid the types of impacts that we see to water temperature, particularly on the American and on the Feather Rivers. We know that that's part of the objective. That just means that there is another impact somewhere else that must occur because right now the water is being released from the reservoirs in order to meet the flow. If that water is going to remain within the reservoirs, then the water to meet the flow must come from a reduction in a diversion somewhere else in the system. So the system is, as you all know, very complex, and it involves tradeoffs in these situations, and it comes to balancing what that right tradeoff is. So would it be possible to keep the storages higher in Folsom and Oroville than shown here? Yes, if we reduce diversions or don't meet flows downstream.	This question is from a member of the State Water Board or State Water Board staff. The question was answered by one of the panelists. Please refer to Common Response 1.1, General Comments, for the approach to responding to comments.
561	21	Chair Esquivel: [See letter #111 for slides] Because I think this touches on fundamental misunderstanding, I guess, of what the Board's, you know, unimpaired flow standard, and which is a standard and isn't in the implementation, and there's articulated plenty of flexibility; right? You don't have to run your reservoir like a two-week unimpaired flow running average. It's just a	This comment is from a member of the State Water Board or State Water Board staff and includes a response from a panelist. Please refer to Common Response 1.1, General Comments, for the approach to responding to comments.

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		matter of how do you articulate what your budget is that you're using and here, you know, percentage of what's hydrologically available? That doesn't stop you from holding on the water, using it in the fall, because you've identified, you know, that's what you need to do. I think it's important, you know, that we really create not straw men around the Board's proposal, which at this point is environmental modeling, isn't operational modeling, and infer things like, you know, carryover and others. But I, you know, appreciate the attempts. Bergfeld: I agree that the Staff Report and the Board staff proposal describes that flexibility. My point is just that to exercise that flexibility, you must create an impact or a change somewhere else in the system. If we would like to keep the reservoirs higher, that water has to come from somewhere. Dr. Chilmakuri: Can I just add one more thing? And especially if you are trying to get the water out on natural pattern, then that is the storage response you will see.	
561	22	[See letter #111 for slides] Vice Chair D'Adamo: I know that there's a lot going on in Southern California with water resilience and diversity of supplies, so this is something that I think that you're looking at anyway, but just looking for your thoughts on how we could really tease out impacts here on disadvantaged communities, because even though you're showing this impact, I know that the region is doing a lot to address these issues anyway. Dr. Chilmakuri: Right. And my only point there was, you know, yes, there are efforts underway. By the way, it's not just Southern California, it's actually all the SWP service area, starting from Northern California all the way down there. But what this does is it's only going to make it harder for those water agencies to ensure that the affordable supplies are provided to disadvantaged communities; right? If you're looking at more than a third of the supply going down for this region, then they would have to replace that supply with some other way.	Please see Common Response 8.1, Economic Analysis and Other Considerations, for responses to comments on municipal water rates and discussion of potential funding sources for municipal water conservation and alternative water supplies.

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		By the way, this is another -- there are -- the supply changes are shown mostly on an annual basis. But if you look at the drought sequences -- and this is only going to make it harder and harder if you have --if you don't have those supplies in those wetter conditions. So that's my point about it, that if you are trying to find some replacement, are forced to find replacement supplies, it's going to be really expensive and it will become unaffordable.	
561	23	[See letter #111 for slides] Board Member Morgan: Through the modeling, you know, you were looking at the different flows and, you know, you spoke to temperature. Did you look at other water quality impacts as you were doing your modeling? Weaver: I think that the Staff Report did present some other water quality constituents. I'm sorry, I can't answer questions, anything specific about that. Dr. Chilmakuri: So this is based on the review of the information presented in the draft Staff Report. We didn't do any additional modeling per se. But I did review the staff's analysis around the HABs, for example. They rightfully identify that there needs to be a comprehensive approach. And clearly we need to understand better what the -- how the -- what are the driving factors and what are the mitigation measures we need to avoid those HAB-related impacts in the Delta. And there is no detailed analysis for that, rightfully, and whereas I don't think there are any other, or at least I didn't notice any other quantitative analysis for the water quality, other water quality concerns.	A portion of this comment is from a member of the State Water Board. Please refer to Common Response 1.1, General Comments, for the approach to responding to comments and for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
561	24	[See letter #111 for slides] Board Member Firestone: Just on the discussion around temperature and trade-offs, on the voluntary agreement, though, there isn't a temperature component, and so how do we reconcile that there's going to be trade-offs as we deal with temperature without fleshing out what we -- how we make those trade-offs with the VA? And is that just something no matter, you know, however we do it, we need to be able to flesh	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		out more explicitly how those trade-offs are going to be made so it's clear in general where that's being pulled from? Bergfeld: I know specifically on the Sacramento River where temperature management on the Upper Sac and the operation of Shasta is a significant concern, the voluntary agreement looks at that and thinks about whether in the timing of that water as it gets released out of Shasta to avoid making big springtime releases when it would affect the cold-water pool. So there is some flexibility associated with that. This gets a little bit into the governance and the administration of the Voluntary Agreements and I am not a person to answer those questions. Dr. Chilmakuri: I can just add a little bit. The conflict that we are looking at between the outflow needs versus the cold-water pool needs, it's much more narrow in the VAs because we are building on top of the biological opinions where NMFS and CDFW staff are significantly weighing on how best to operate the Shasta Reservoir, and the Folsom Reservoir for that matter, so I'll just leave it at that. It's much narrow.	
562	1	We wholeheartedly endorse the voluntary agreements, which are the Agreements to Support Healthy Rivers and Landscapes. This is a balanced approach. It brings people together to work in collaboration to update the Bay-Delta Plan. This is by far and away the superior plan to achieve common needs for all water users in Northern California. This plan is very similar to the Senate Bill 1086, 1986 Sacramento River Conservation Area Plan, if any of you remember that. I was heavily involved in that plan starting in 1986. It was a Senator Jim Nielsen plan to bring property owners, agency people, and other interested parties along the Sacramento River from Redding all the way down to Woodland to come up with some common plans and to conserve the habitat and flora and fauna along the Sacramento River. And it worked and it is still working. You may know Jane Dolan. She was in	Please see Staff Report Section 7.6.1, Terrestrial Biological Resources, for an analysis of the impacts of the flow scenarios on terrestrial biological resources, including wildlife refuges. In addition, the project has been revised. See Common Response 1.3, Revised Proposed Plan Amendments, for information on the regulatory pathway implementation of the inflow objective.

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		charge of the Sacramento River Conservation Area Forum and has done a great job. The unimpaired flow approach proposed by the State Water Resource Conservation, Sacramento River, SWRCB would be devastating not only to our ranch, but also the wildlife refuges we partner with and provide water to.	
563	1	In the recent draft Staff Report for the Phase 2 update to the Bay-Delta Plan, the report (indiscernible) significant effects on water quality and hydrology (indiscernible), as well as global water systems and aquifers. And disadvantaged communities with incomes falling below 80 percent of the state's average are uncalculated expenses due to the decline in water quality. Sorry about that. As rivers use more fresh water to release through the (indiscernible) replenishing the groundwater (indiscernible) that many communities rely on for clean water. Adequate aquifer recharge is crucial for the preventing of saltwater intrusions and ensuring a sustainable supply of clean water with the increased challenges identified by climate change. Maintaining robust rivers becomes more critical. Changes in precipitation patterns and rising temperatures can impact our estuarine ecosystem. Adequate freshwater flows act as a buffer, helping our estuary adapt to changing conditions, ensuring the long-term sustainability of groundwater resources. Our estuary is a biodiversity hotspot providing critical habitats for various species. Sufficient river flow and animal -- sorry. Sufficient river flow is essential for maintaining the ecological balance within the estuary, supporting the diverse array of plants and animals that contribute to the health of the entire ecosystem. Preserving the biodiversity indirectly safeguards the quality of our groundwater by maintaining the resilience of the estuarine environment. Firstly, recharging the groundwater helps sustain the estuarine habitat by maintaining a stable water supply. This is crucial for	Please see Common Response 1.2, Water Quality Control Planning Process, for information on the consideration of beneficial uses; Common Response 4.1, Harmful Algal Blooms, for a discussion of water quality standards for cyanotoxins and State Water Board commitments to address HABs in the Delta.

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		the survival and breeding of numerous plants and animal species that have adapted. The species are conditions of our estuary. Many commercially important fish species, such as salmon and shrimp, rely on the estuary for their early life stages. Additionally, recharging groundwater contributes to the water quality improvement in the estuary. As freshwater percolates into the ground, it filters out all those impurities and pollutants, preventing them from directly entering that system. This natural filtration process helps maintain the integrity of the estuarine environment, protecting both aquatic life and the communities that depend on the estuary site. Increased river flows can help combat harmful algal blooms by diluting the nutrient concentrations such as phosphorus and nitrogen, which have always been a problem, that fuel their growth. Higher water volumes can flush out excess nutrients, reducing the likelihood of algal blooms. Additionally, swift flows can disrupt algal colonies, preventing them from establishing and proliferating. This natural flow regulation supports ecosystem health and water quality, mitigating the adverse effects of harmful algal blooms on aquatic environments. My points are that we need HAB standards and more flowing -- more water flowing into our rivers that are above the 65 to preserve what's left of our community.	
564	1	My name is Lee Kishler, a resident and taxpayer of the Water District in Silicon Valley, formerly known as the Valley of the Heart's Delight before unsustainable growth took hold. I've backpacked in the high Sierras for 40 years, often in the headwaters areas of several of the rivers such as the Tuolumne and the Stanislaus that flow towards the SF Bay and Delta. My wife and I drove to Sacramento a few years ago to speak to the Water Board when it seemed at that time to be moving towards better protection of the Bay and Delta. It's important that the Water Board does what it can to oppose the voluntary agreements. The voluntary agreements suffer from inadequate science. Also, the voluntary agreements are designed to avoid the kind of input that environmental law otherwise encourages. The	Please see Common Response 1.1, General Comments, regarding comments about other projects and for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		voluntary agreements would encourage unsustainable diversions and exports from the SF Bay and Delta. The other example of avoiding adequate public and scientific review is what developers have called a mega-tunnel that would promote unsustainable water diversions from the Bay and Delta. The water tunnel is a recent iteration of the peripheral canal the taxpayers were actually allowed to vote on and defeated. California population numbers appear to be plateauing. Calls by water districts and government agencies to prepare and therefore encourage population growth are unwise. The State Water Board has a mandate to protect the Bay and Delta. It is important that the Water Board exercise its independent judgment and avoid undoing things and stay true to its mission by not approving the voluntary agreements.	
565	1	Kern County Water Agency is the largest agricultural and third largest urban water supplier within the State Water Contractors family. We're deeply interested in the health of the Delta. It directly relates to our water supply. We also are interested in regulatory certainty such that resilient water supply projects can be planned and executed within a timely and economic manner. Water supplies would be reduced significantly if the State Water Resources Control Board were to adopt and implement some of the proposed amendments to the Bay-Delta Plan, which would impact our county's agricultural operations, as well as the extensive disadvantaged communities we serve. The draft unimpaired flow alternative would significantly impact reservoir operations and storage, particularly in wet and dry years.	The Staff Report adequately discloses the environmental impacts of the flow scenarios. Please see Chapter 7, Environmental Analysis, of the Staff Report for an analysis of the impacts of the flow scenarios including Section 7.4, Agriculture and Forest Resources, for an analysis of impacts to agriculture. Also see Chapter 10, Economically Disadvantaged Communities, for discussion of several issues of concern relevant to disadvantaged communities.
565	2	Kern County is ground zero for groundwater banking for the state of California, again, supporting agencies throughout California, not just Kern County, really from the Bay Area to the border. The proposed storage operation and management during wet years would be in really direct conflict with groundwater banking as outlined in the Governor's Water Resilience Portfolio, as well as the 2018 and draft 2023 California Water Plans. Groundwater banking and the principle of conservation of high flows in wet years for use during dry years is really the single	In Section 7.12.2, Groundwater, the Staff Report analyzes the potentially significant impacts to groundwater supplies and recharge as Impact GW-b. Section 7.12.2.4, Mitigation Measures, discusses measures to mitigate this impact, including SGMA implementation and oversight, water supply diversification, groundwater banking, water recycling, water transfers, and voluntary implementation plans to provide equivalent protection of fish and wildlife habitat. The draft Staff Report acknowledges that groundwater recharge and groundwater banking projects are crucial for conjunctive uses throughout the state and for

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		greatest mitigation effort to address the Sustainable Groundwater Management Act and reductions in groundwater pumping throughout the state. Modeling indicates that there would be over a 1 million acre-foot reduction in median Table A deliveries under the unimpaired flow. This change in supply and reservoir operation limitations as a result of the draft unimpaired flow alternative would really just devastate current and proposed water management practices that depend on groundwater banking for municipal and agricultural supply reliability. And again, just to reiterate, we're kind of a hub for groundwater banking. And so this devastation, it wouldn't really just be for Kern County, it would be really throughout the state of California. And so we think this is a very big deal when you're looking at flows under the 55 percent unimpaired alternative. It, again, would really devastate a lot of operations that help California as a whole be resilient.	water resiliency, as discussed in Section 7.12.2 Groundwater. The State Water Board developed a streamlined permitting process for diversions of water from high-flow events to underground storage, and continues to streamline permitting as discussed in Common Response 7.12.2, Groundwater and Sustainable Groundwater Management Act. Please see Common Response 7.12.2, Groundwater and Sustainable Groundwater Management Act, for more information on the state's advancement in groundwater recharge and the State Water Board's consideration of SGMA.
565	3	We do support the voluntary agreement alternative. It's not perfect. You know, no alternative would be, but we're very happy to see this alternative based on science with funding for additional science, water for environmental flows, as well as the potential to evolve from lessons learned throughout it. So thank you for the opportunity to provide comments, as well as the effort put forth by the Board and its staff on the voluntary agreements. Thank you.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
566	1	But once a month, my husband and I drive to Lee Vining, California, and we pass almond growers that are flooding fields. And this is a contradiction because our town has told us to cut back on water. So at age 82, the two of us carry buckets of water, warm-up water, outside to irrigate our vegetable garden, and yet we see this waste of water in the valley. So today I had all these things I wanted to say and I wrote things out. As I heard and listened to all of you, I kept tearing up page after page. And now I'm left with just a head full of contradicting facts and it's more confusing than ever. I mean, are we talking about farmers versus fish? Are we talking about the Staff Report	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Also see Common Response 1.3, Revised Proposed Plan Amendments, for information on the VA pathway.

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		versus voluntary agreements? Are we talking about large farmers and small farmers? It's confusing for the average person. But one word that I did hear today over and over was about voluntary agreements. And in my business of fighting commercial development, we call that self-regulation and it never works, it just doesn't work. We need the state and you, the Board, and the staff to come up with a plan that updates the Bay-Delta Plan in a way that it's enforceable and it has real goals. And we have, at the end, we have a protection of these rivers that we are asking way too much of. I am lucky enough to be drinking Hetch Hetchy water, and I appreciate the work that the state's done to protect that water. But now from everything I've heard today, there's a lot to be worried about. So I look to you. You guys have the power. I don't have the power. And everyone who spoke today seemed more in a supplicant roles than they did in a powerful role. But along with your power, you've got something hard, you've got your legacy, and I wish you well. And I really, truly want to thank you for the time that you all put in trying to sort this out. And I'm just going to keep my fingers crossed. And thank you so much.	
567	1	I'm a longtime resident of Sacramento, who loves the Delta, and I've been very concerned and saddened to watch its ongoing deterioration with worse and worse water quality, increasing HABs, and increasing species decline. To save time, I don't want to repeat comments that others have made that I agree with. So I strongly second the comments made by Erin Woolley this morning and by Regina Chichizola. And I also second the comments made by Ms. Woodcock about big ag and the overuse of water for that as opposed to other uses, overuse that's used for unsustainable crops because they have such heavy water needs, and also for huge numbers of dairies	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		that are consuming water at a very rapid pace. Those kinds of uses are not sustainable and we have to start planning for California to live within its more limited-water future.	
567	2	I think that decisions about the Delta, which is just such a critical part of our entire state, have to be made on the basis of the best science available. My understanding is that that science says that the minimum flow that is needed through the Delta is at least 65 percent, and more would be better. I appreciate that many of the Vas have included very interesting, helpful things that they are doing, but I don't think that our water policy can be based, our water policy for the Delta can be based on solely on the Vas. So I'm asking you to not adopt the VA plan but to include some of the best of that in a larger, overarching plan based on, as I said before, the best environmental science possible.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
567	3	The process was politicized by the fact that the governor negotiated with some groups, not others. Tribal members were not present at those VA negotiations, nor were environmental justice communities, like Restore the Delta of which I'm a member. And all voices need to be heard to come up with the best overarching plan that we possibly can.	Please see Common Response 1.1, General Comments, for a response to comments about the process to develop the VA pathway.
568	1	And basically, my comments today relate very much to what I said before in that I think your staff does a great job, and I would urge you to accept the proposed plan amendments as proposed by the staff. Frankly, I am both disheartened and somewhat dismayed by the whole concept of the voluntary agreements, which to my mind are not voluntary at all. It was a very exclusionary process and it's almost as if the powers that be in the agricultural community got together and gave the Board an ultimatum and then just couched it in terms of an agreement. It seems to me that every time we have a major water event, three years later, the salmon returns are better. So clearly, the fish benefit from an increased water flow. Historically now, for more than 40, 50 years, all of the efforts to	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		try and save the salmon have been directed to habitat improvements and, to a certain extent, predator control. And while those may be legitimate attempts, they have not been successful. What we have not tried is to release more water and give the Board the water rights and the powers to release it at appropriate times. I had occasion to be on the Upper Sacramento, I think it was October 23rd of this year, trout fishing and went by a channel, a side channel, which would normally be occupied by spawning Chinooks and there was absolutely no fish, so the situation is dire. This procedure is taking literally years and I would encourage you to speed it up to the extent that you can and come up with a plan.	
569	1	In my opinion, a flow-only approach does not work for today or tomorrow's California. The unimpaired flow approach, if implemented, would have significant negative impacts throughout California because it focuses on one beneficial use of water, instream flow for fish, without balancing and protecting all beneficial water uses, including water for drinking, sanitation for cities and rural communities, fire suppression, farms, salmon, birds, and wildlife along the Pacific Flyway, as well as hydroelectric generation and recreational opportunities. It also provides the opportunity of depleting our reservoir storage and losing the benefit of water storage, including carryover storage, in such ways that it will create greater risk for all beneficial uses during dry years, such as in 2014, 15, and most recently, 21 and 22.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
569	2	It also undermines the fishery efforts and success stories in areas upstream from the Delta, which have benefited from integrating functional flows with habitat improvements and partnerships among various agencies. Plus, it does not provide reliable water required for Henle Family's growth -- growing of irrigated seasonal row crops. Note the key is reliable. The flow-only approach is a continuation of efforts over the past several decades to manage water in the Bay-Delta which has not worked as planned as both important species and water supply reliability have declined in the Delta and throughout the state.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		We support the Agreements to Support Healthy Rivers and Landscapes, formerly known as voluntary agreements, and the associated benefits to the environment, the public, and the communities, many of which are disadvantaged, and for farms and businesses. The program for Healthy Rivers and Landscapes, a transformational program, will provide substantial additional flows for the environment to help recover salmon and other native fish, create new and restored habitat for fish and wildlife, and provides significant funding for habitat improvements and water purchases. The terms also include a governance and habitat monitoring framework with clear metrics and goals to allow state, federal, and local partners, the tribes, and NGOs to analyze progress and manage adaptively to ensure the program is effective. CHAIR ESQUIVEL: Thank you. HENLE: I'm going to close my comments there because we've heard a lot of others. I want to thank you for your attention, for your thoughtful consideration of alternatives, and what I hope will be support for the agreements. I'd also like to thank -- give thanks to our governor for his leadership and support in developing Agreements to Support Healthy Rivers and Landscapes.	
570	1	The last time I spoke in support of the Bay-Delta Plan was seven years ago at the Merced hearing. It was a contentious environment with many politicians speaking out of anger and frustration. One mayor, councilman, loudly threatened to unleash the dogs of war if the plan was passed. Felicia Marcus calmly responded to the implied threat by stating she did not appreciate being used as a prop. She was a cool-headed and courageous leader. Today, I wonder what has happened to that leadership? Who is there to make decisions needed to provide a better balance between the beneficial use of a public trust resource, especially between agriculture and environmental needs? If 80 percent of	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		developed water is used by agriculture, representing 2 percent of our economy, and one river that I know of received less than 12 percent of unimpaired flow in a bad year; does this not cry out for rebalancing and equitable management now? Will the governor's legacy on this project be that he helped run out the clock on the salmon and steelhead by relying on politically expedient voluntary agreements? I'm glad I withheld my vote for governor during the last election cycle for the first time in 50 years of voting. I'm extremely skeptical of the morning presentations on Vas and unimpaired flow. Vas have been used as a delaying strategy and as backroom deals to avoid accountability. Antiquated water rights make Vas inherently inadequate and time-consuming to implement, largely due to the power dynamics of ownership rights. Unimpaired flow is how the river has existed before you all arrived, and rivers were healthy according to historical records. So I'm highly skeptical of any conclusions on lower salmonid survival rates from increased flow. California deserves a restored and interconnected salmon-based ecosystem and time is running short. I urge you to approve the proposed plan amendments at the high flow level as that will drive the best and most protective solutions. We need hard deadlines with real commitments and accountability for success. Instream measures like habitat restoration are destined to fail without floodplain inundation and adequate flow within the riverbanks. I hope we all agree on that. Anyway, again, thank you for your time and commitment to getting this right before it's too late.	
571	1	My comments are really going to be pretty narrowly focused on the details of the document, especially the analysis of the voluntary agreements. We're really pleased to have a chance to finally review the Board's draft analysis of the voluntary agreements. And I want to start with an opening observation. I'm going to raise a lot of concerns about the VA analysis where we think more work is needed. But the document makes it very clear that the draft, that the current VA proposal does not even come close to adequately addressing the critical flow issues, the	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Also see Common Response 1.2, Water Quality Control Planning Process, on the consideration of beneficial uses.

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		flow issues you just heard about on the last couple of panels. There are many examples of that, virtually no dry-year water, lower flows on the Sacramento River in critical years. Delta exports would increase in many years. Under the VAs, in critical years, Delta inflows could increase, but by as little as eight-tenths of one percent. Those and many other examples show that the VA proposal, frankly, right now, is not a serious, not a credible proposal when it comes to adequately protecting beneficial uses, particularly fish and wildlife and recreational and commercial fishing.	
571	2	I want to raise concerns about the VA analysis in the document in six areas. First of those is the overall analytical approach. And there are three issues there. The first is the draft analysis is largely focused on whether the VA would improve the status quo. That's not the legal standard. The legal standard is adequately protecting beneficial uses. The ecosystem is collapsing. Our fishery is shut down. Slowing the rate of disaster is not the legal standard. Second, in this area, the document doesn't synthesize the benefits of the voluntary agreement. There would be some habitat restoration in that program, and very, very little in terms of flow improvements, especially in some of the more critical years. The document doesn't crosswalk between the Scientific Basis Report, which explains the critical drivers in the estuary, and the benefits of the VA. We think that synthesis and that crosswalk between the science and the VAs program is critical to allow the Board to weigh the VAs benefits and reach an overall conclusion about its credibility.	The analysis of VA benefits quantified the degree of benefits over current conditions. The same benefit quantification methods were applied to the proposed VAs and the flow scenarios. These quantified benefits, in addition to the other information in the Staff Report, provide the information necessary to decide on the preferred alternative. The benefits of the VAs are synthesized in the executive summary of Appendix G2, Final Draft Scientific Basis Report Supplement in Support of Proposed Voluntary Agreements for the Sacramento River, Delta, and Tributaries Update to the San Francisco Bay/Sacramento-San Joaquin Delta Water Quality Control Plan, of the 2023 draft Staff Report. The flow-abundance and flow threshold methods from the 2017 Scientific Basis Report were applied to the VAs to quantify the expected flow benefits. Please see Common Response 1.2, Water Quality Control Planning Process, for information on the reasonable protection of beneficial uses.
571	3	And then finally, the document with regard to analytical approach, the document doesn't include an easy-to-understand summary of all of the alternatives and either their relative benefits or their relative scientific credibility. And the gap, we believe, in both of those areas is enormous comparing, for example, the VA approach to the 65 percent unimpaired flow approach.	The benefits of the proposed Plan amendments are described in Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations, of the Staff Report. The benefits of the voluntary agreement pathway are described in Chapter 9, Proposed Voluntary Agreements. Section 7.24, Alternatives Analysis, describes how the environmental impacts and benefits of Alternatives 1 through 5 compare with the proposed Plan amendments. Also, Appendix F, Impact Summary Tables for Alternatives 1, 2, and 3, compares impacts of the Low and High

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			Flow Alternatives with the proposed Plan amendments. The benefits of the revised proposed Plan amendments are presented in Chapter 13, Revised Proposed Plan Amendments, of the final Staff Report. Impacts were narratively compared within the impact analyses in Chapter 13 of the 2025 partially recirculated draft Staff Report. Also see the alternatives discussion in Section 13.7.1, Approach, and the tabulated comparison of impacts in Appendix H4, Impact Summary Table for Alternatives, of the final Staff Report.
571	4	The second area I'd like to talk about briefly is the salmon objectives in the voluntary agreement. The VA proposal would extend the existing salmon doubling objective deadline until 2050. That would make it essentially irrelevant in this Bay-Delta Plan update given the proposed VA timeline. VA also offers a poorly defined salmon viability objectives. It's not clear exactly what viability means, but if it means something like minimum self-sustaining populations, then it sounds like just shy of extinction risk and causing listing. That approach could devastate commercial and recreational fishing. And frankly, it reads like a plan to end commercial and recreational fishing, and we're on our way in that direction. The State Board, we don't believe, can adopt objectives that would essentially abandon protected designated beneficial uses.	Please see Common Response 1.3, Revised Proposed Plan Amendments, for information on objectives and the definition of viability. Also see Common Response 1.2, Water Quality Control Planning Process, for information on the consideration of beneficial uses.
571	5	The third approach is one I don't think we've heard enough discussion of in this forum, and that is the risks of the voluntary agreement approach overall. We've been talking about the benefits of the approach, but there are huge risks in the assumed benefits of the VA approach. There are enormous risks, for example, that the VA doesn't provide the anticipated water transfers. We've seen many examples of that in areas like level four refuge supplies. Enormous risks that the accounting rules, which you don't have yet, have not been provided to you, the Delta accounting rules that would determine whether the environmental water is frankly real water not. Those accounting rules could, if they're not the right ones, if they're not done right, mean that the environmental water that the VA program is promising simply evaporates. We've seen that with the environmental water account, the CVPIA B2 program.	The purpose of an analysis pursuant to the California Environmental Quality Act (CEQA) is to disclose potential environmental effects of proposed project and to minimize significant, avoidable environmental damage. Please see Common Response 7.1, General CEQA and Approach to the Analysis, regarding the use of the Staff Report to meet CEQA requirements. Also, see Common Response 1.3, Revised Proposed Plan Amendments, regarding the VA pathway including flow accounting and HRL non-flow habitat restoration actions.

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		These risks aren't speculative. The Defenders of Wildlife report from last year called Building Blocks examined 18 different efforts to create environmental blocks of water. This is not a new idea. We've seen many efforts in California to create environmental blocks of water. All of them have encountered significant implementation challenges. We think in addition to the analysis you've seen, you've been hearing from your staff, you also need to ask your staff to analyze the inherent risks in the VA approach through things like accounting and the risk of whether that anticipated water supply will show up or not. We think you need analysis of those risks as well. The unimpaired flow approach, we believe, is inherently less risky. Fourth, delays. We think it's important that the document really highlight the delays we've seen in habitat restoration in places like the Yolo Bypass. Those habitat delays could easily extend beyond the life of the proposed voluntary agreement.	
571	6	Finally, overall, TUCPs. The document, we don't believe adequately discusses how TUCPs will be addressed in the future and how they could undermine the potential benefits of the VA approach, and frankly, the unimpaired flow approach as well..	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. To the extent that this comment summarizes other comments, please see the substantive responses to those comments.
571	7	And then last, this is not strictly an environmental analysis issue, but the VA proposal would move a lot of money from public coffers to a very small set of senior water users who have helped to shape the voluntary agreements. We don't see it as a credible environmental proposal, but it very clearly is a proposal to move a lot of public money into a very few pockets. We believe that's a policy analysis that the Board should reveal to the public if you're going to seriously consider this approach.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
571	8	I'd like to close with two very quick comments about the fishing community and how it's addressed in the draft document. First, we don't believe that the economic analysis adequately assesses the potential impacts and benefits to the fishing community. The document simply, the economic analysis simply assumes that things will get better and that will benefit the	Section 8.6.1, Recreational and Commercial Fisheries, in the 2023 draft Staff Report, (Section 8.6, Fisheries Economic Analysis, in the final Staff Report), addresses potential economic effects concerning commercial and recreational sport fisheries, with an emphasis on Chinook salmon. Section 13.8.4, Fisheries Economic Effects, provides supplemental economic information relevant to recreational and commercial fisheries and discusses

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		fishing community. The VA approach, as I've mentioned, shows very clearly that that's far from certain. We think that the Board needs to analyze potential impacts to the fishing industry if an inadequate approach is adopted. And then finally, we think the document understates the economic and job benefits of the fishing community, and we'll forward some detail on that when we submit our written comments.	fisheries economic effects under the revised proposed Plan amendments. In addition, in response to comments received on the economic analysis presented in the Staff Report, Chapter 8, Economic Analysis and Other Considerations, has been updated to include a new Section 8.6, Fisheries Economic Analysis, that addresses potential economic benefits from implementation of the flow scenarios and subsequent aquatic ecosystem improvements and benefits for native fish species. This new section provides additional context and information concerning beneficial fisheries and ecosystem economic effects, but does not change the conclusions of the Staff Report's economic analysis.
571	9	And I'm here to talk about some of the kind of the big picture ideas that are happening and the sentiments that we're hearing from our fellow fishermen and women in the industry and those that are connected to it. There's really an injustice that's happening right before our very eyes. It's on the watch and control of Governor Newsom, who is allowing an environmental travesty to unfold that is interconnected to coastal towns, families, the fishing industry, and tens of thousands who are directly, indirectly, and historically linked to the state's salmon and the habitats that support our native fisheries. Right now, East Bay MUD is continuing to announce, as we heard earlier, that the Mokelumne River is seeing a record return of salmon this year. In contrast, current estimates of the number of adult fall run Chinook returning to the Sacramento Valley are not likely to be enough to allow fishing in 2024. Returns of adult fall run spawning fish to the Upper Sacramento Valley are dismal, very dismal, far below the target of 180,000 fish that was set for the 2022 fishing season. Estimates at this time put the number of total returning fall run to the Sacramento, about 70,000 to maybe 90,000 range. That's a slap in the face to every Californian and a punch to the gut for every commercial fisherman and woman, every charter boat operator, every river guide, and on and on.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		Spring run are also in the hundreds at this point. And there's a simple explanation for this in this contrast that we're seeing with record numbers versus the dismal numbers. Mokelumne River salmon are not exposed to the failed water policies that have led to the collapse of salmon runs elsewhere. This contrast should lead the Newsom administration to change direction on water issues. It's a giant bat signal lighting up the sky. It's a call for help that continues to go unanswered. Except we don't need a dark knight superhero. We need a leader that cares about the people and the people's natural resources, those jobs. Baby salmon from the Mokelumne River Hatchery were not affected by the disastrous temperatures and flow conditions on the Sacramento River and were trucked around the death trap in the Delta and released near or in the ocean. As a result, they were relatively unaffected by the failed Newsom-Trump water policies that continue to be in effect today. That's directly led to record returns this year on the Mokelumne, but California salmon fishery cannot survive on those fish alone. We need healthy Sacramento River runs, including wild runs for a healthy fishing industry. In the fall, winter, and spring of 2020 and 2021, salmon suffered from three disastrous state water management decisions that dramatically increased the impact of drought. First, salmon eggs faced overheated water because of a failure of the State Water Resources Control Board to adequately control temperature pollution from Shasta Dam. Lethally-high temperatures in the Sacramento River were caused by excessive deliveries to Bureau of Reclamation agricultural customers, draining cold water from Shasta Dam prior to the spawning season. Second, the few juvenile salmon that survived faced dangerously low flows during their out-migration down the Sacramento River. To date, the Water Board has failed to set any spring out-migration flow requirements to protect those juvenile salmon. And third, any surviving salmon faced extraordinarily hostile	

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		conditions in the Delta. What we are now seeing is incredibly disheartening to many people. A closed salmon season, emergency rescue efforts that captured spring run salmon and are transported to UC Davis to protect their genetic diversity, protect them from, quote, "blinking out," transfer of salmon eggs from state hatcheries to the Coleman National Fish Hatchery because returns in egg harvests are far below targets. The Upper Sacramento has witnessed disastrous numbers this year. Only hundreds of fall run adult are returned so far, which is fewer than the number of federally-protected endangered winter run Chinook salmon that also call that Upper Sacramento home. And there's whispers of an uplisting of spring run salmon from threatened to endangered, and that's just in 2023.	
571	10	I'm just tired of the continued bad news for salmon. I'm heartbroken from the stories I hear from parents and business owners about their struggling children and spouses who are fishermen and women, or industry employees who are out of work and struggling. A multi-billion dollar industry with many tens of thousands of jobs are being put on notice and it didn't need to happen.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
571	11	Instead, there's a continued push for voluntary agreement process that has no organization support and does not include any adequate adaptive management plan. What is needed are temperature and flow protections for salmon and additional water in critically dry years. We support the claims of our tribal and environmental justice partners who continue to point out that the voluntary agreements were developed through an exclusionary process and violate the Board and the state's policies regarding tribal consultation and environmental justice. We stand behind their civil rights complaint and petition to the EPA that the Bay-Delta ecological crisis harms our state's tribes and Delta communities. Now is not the time for a poorly defined salmon viability objective that the VA offers. So I'm asking Governor Newsom, now is not the time for a don't	Please see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for a response to comments about the process to develop the VAs and for information about tribal engagement related to this Bay-Delta Plan Update.

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		look up moment. The signal is still shining. It's brighter than ever and unanswered. Reach out to me. As per our request over a year ago, please meet with us. Meet with our coalition to make sure salmon, the fishing industry, and healthy rivers in the Bay-Delta are part of California's future. This is an opportunity for the Water Board and the governor to be leaders, to be those heroes for the restoration of salmon and everyone who relies on them.	
571	12	I own and operate a commercial fishing vessel in San Francisco. I've been fishing salmon commercially for about 15 years, with the glaring exception, of course, of this 2023 season, during which all salmon fishing in California was completely closed. Our commercial and recreational fleets were pretty unprepared last fall for the devastatingly small returns of adult salmon to the Sacramento River system. Last fall, we had only 62,000 adults returning to spawn in the Sacramento and preseason estimates were closer to 200,000 adults that we expected to see. And we were caught off guard, but in retrospect, we actually should not have been that surprised for all of the reasons that Scott just outlined. The fish that were supposed to return to the river, the fish that we were supposed to be catching, never made it out of the river as juveniles in the spring of 2021. And, yes, California was in a massive drought during that time, but these fish have survived drought before. What they cannot survive are the state and federal water policies that are dooming the vast majority of juveniles before they even exit the Sacramento system. And there's been a whole bunch of positive press lately about this year's huge return to the Mokelumne Hatchery, over 25,000 fish as of this week, and it looks like there's about another 10,000 fish still in the creek. And this is a bright spot for us, no doubt. We are extremely grateful for all of the work that's being done at the hatchery and in the Mokelumne River itself. And we're really starting to understand that this hatchery has been supporting our ocean fisheries for years. And it has been masking the slow motion disaster that's occurring in Sacramento. And, historically, it's the naturally spawning fall run	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		Sacramento River fish that produce enough fish for the California ocean and river fisheries, for the Oregon river fisheries, and for killer whales as far north as Alaska. These are a keystone species that support ecosystems both in the river and in the ocean and coastal community. And as one of the 1,000 commercial salmon permit holders in California, I absolutely rely on these fish to feed my family and pay my bills. And I know I'm just one small fishing operation, but I'm also a California small business. I support other California small businesses. I am a beneficial use. I am coastal communities from Morro Bay to Crescent City. I am local food security. And right now I am just deeply sad to be witnessing what I think are the final days of this species that has been moving through the Golden Gate and the Sacramento Bay-Delta system since about the time human beings started walking on two legs. And natural production of Chinook in the Upper Sacramento right now is almost zero. And we've all heard these apocryphal stories about rivers so thick with salmon you can walk on their backs, and gold miners and prisoners rioting because they've only been fed salmon for weeks. And this year in the Upper Sac, the unofficial count of fall run salmon reds is 109, 109 breeding pairs of adult fall run Chinook. This is a mighty population that once fed the entire West Coast. And it's a little too early to have exact numbers for the entire Sacramento system, but we are not optimistic. This is what we're looking at, a complete collapse here. And this Board, the State Water Board, is the only agency with the legal authority to set the flow and temperature protections for the Sacramento fall run. The winter run and the spring run have ESA protections, but the fall run has no federal protections, at least not yet, because despite not catching a single fish this year, despite all the financial hardship in our fleets, we're still really unlikely to meet the conservation minimum that are going to sustain the fall run at all. And the Water Board current water standards are inadequate to meet the conservation goals absent any harvest. This is without us killing fish. You know, this is our job to kill fish. It's just, it's	

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		like all these policies are doing it for fun. At least we're doing it to eat them. At least we're doing it to feed people. And these standards do not support fisheries. And water is a public resource in California. Fish are a public resource in California and these policies are failing California residents who are losing our access to clean water and thriving fisheries and healthy ecosystems.	
571	13	And this voluntary agreement process is deeply flawed, it's exclusionary, and it doesn't really offer any credible path to reverse the decline that we're seeing in the Bay-Delta system right now. And if we don't adopt new standards, standards supported by the science that we've heard a lot of today, I have no doubt that I am going to see salmon extinction in my lifetime. We lost the natural stocks of Delta smelt, the green sturgeon, and the steelhead, our ESA listing. This week, the state and federal petitions were filed to list the white sturgeon. The winter run is critically endangered. CDFW is using captive breeding to maintain their genetics. We just heard about the spring run that are being captured and held at UC Davis. It's on its way to being uplisted to endangered. There are only a couple dozen breeding pairs of spring run this year. And I'm not being hyperbolic. This is not some theoretical doomsday scenario. This is happening right now. And California is a huge success story in so many ways, but salmon extinction is not a California success story. This is not a legacy that we should be proud of. And this is happening. This is happening on our watch and it's time to do something different or it's going to be gone because we can't say, you know, it's trite, but it's true, extinction really is forever. We can't take it back. We can't do better the next time we don't get a do over on this one. So I would like you to consider that reality when you're making your -- when you're making this set of policy decisions.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
571	14	All right. Thank you for the opportunity to make a comment. My wife and I own and operate a charter fishing boat in Sausalito, Salty Lady Sport Fishing. My business has a long history, a reputation, and a clientele that is nearly wholly specific to salmon fishing.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		While there are other fish in the sea, nothing really compares to salmon, and neither as table fare, nor as a fish that might attract customers to my boat. Nothing compares to salmon as far as the fishing tourism industry and the coastal towns and businesses that desperately rely upon it. The focus of my comment today is on the devastating effects of current water policy on the charter fishing community. All sectors of this industry have been negatively impacted by a failed water policy, in particular the voluntary agreement process, but I can personally attest to the disastrous impact of these policies on myself and my business. While charter fishing has never been a get-rich-quick scheme and is subject to the same ebb and flow of any business, it has provided a good, honest living for myself and my counterparts in the industry. This year's federally-declared disaster is different. A complete closure of our salmon season has directly hobbled my ability to maintain a viable business. Trips, customers carried, and revenue are down 80 percent for me overall, and obviously 100 percent for the salmon fishing. It is painfully obvious that this closure is a direct result of inadequate temperature and flows in our rivers to support the life cycle of the iconic salmon. The irony of an administration that touts its focus on the green agenda and environmental policy, being behind water policy that is killing salmon, along with our rivers and the whole San Francisco Bay-Delta estuary ecosystem, is quite frankly staggering. In the search for balance in allocation of our water resources between corporate agriculture, residential use, and environmental needs, it is pretty clear that there is a finger on the scale. And it's pretty obvious which way it is being tipped. The environment, the salmon, and the charter fishing industry are being failed by our elected representatives and their appointed boards.	
571	15	As the only entity with the ability to modify policies, which to date have been catastrophic to myself, my business, the charter	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not

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		fishing community, and the environment, I implore the Water Resources Board to consider the implications of continuing business as usual, to set flow and temperature protections for the Sacramento fall run Chinook, the life-hood -- the lifeblood of salmon, fellow fishermen and women in my family. Repeating the same failed policies is all but guaranteed to put a nail in the coffin on your watch for myself, the entire salmon fishing industry, the River/Bay-Delta ecosystem, and the salmon.	raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
572	1	As a 22-year resident of San Francisco, I care deeply about an equitable, balanced, and long-term sustainable Bay-Delta Plan. Before coming to the Bay Area, I learned on Wall Street that voluntary agreements just simply don't work. Wide-ranging deregulation, like the tearing down of protections of the Glass-Steagall Act, for example, brought us the financial crisis in 2008. Other voluntary regulations and their associated, I'll say regulations, quote, regulations, and their associated lack of accountability brought us the 2023 failure of the Silicon Valley Bank and other mid-sized financial institutions. We cannot afford similar failures in our natural ecosystems and we cannot afford to squander our precious water resources and public trust. We've all watched our Bay-Delta get sicker and our fish populations in increasing peril. We know, both intuitively and based on science, that the proposed Vas will not, quote, "produce more fish with less water."	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Also see Common Response 1.2, Water Quality Control Planning Process, for information on public trust.
572	2	I spoke with a neighbor recently on the coast who was enraged that he couldn't use his commercial salmon boat or take his son out fishing due to the cancellation of this fishing season again this year. He blames the government. Likewise, many friends and neighbors are distraught that they can't safely kayak or swim due to the increasingly frequent toxic algae blooms caused by low water flows.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Also refer to Common Response 4.1, Harmful Algal Blooms, regarding HABs-related effects on recreation.
572	3	We desperately need the Water Board to recognize the gravity of their mandate to protect our public trust and ensure equitable access to and multi-beneficial uses for our California water resources. We cannot succumb to the pressures of privatizing profits while socializing losses, especially in this case from our precious ecosystems and high-value ecosystem services and the	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. Also see Common Response 1.2, Water Quality Control Planning Process, for

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		industries that are associated, like fishing, for example. We all know that California water belongs to all of us. Thus, I respectfully ask every member of this State Water Board to follow through on their legal mandate to restore the Bay-Delta ecosystem for all of us. Thank you to each and every Board member for protecting your California residents, and please act to ensure a long-lasting legacy of clean water, healthy fish, and equitable access for all of us.	information on the consideration of beneficial uses and public trust.
573	1	Next slide, please [see letter SDU-350 for slides]. This is the Mokelumne River, the source of about 90 percent of East Bay MUD's water supply. We are proud and protective of the river. With our leadership, the Mokelumne River was designated a California Wild and Scenic River in 2018. The Mokelumne is also important to the state's overall fishery. Although we only contribute about 2.5 percent of the total Delta outflow, last year Mokelumne River fish represented 51 percent of the commercial and 44 percent of the recreational catch off the coast of California. In recent drought years, the Mokelumne River Hatchery was able to be a temperature refuge over the summer for the American River steelhead. This is another example of the importance of the Mokelumne River to statewide fisheries management and points to the importance of temperature management on the Mokelumne River.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
573	2	Next slide, please. [see letter SDU-0350 for slides] Our assessment of the potential impacts of the unimpaired flow alternatives is based on the analysis and modeling presented in the Staff Report. We've heard today some of the flexibility you described. And if the State Board has further clarification of how	Please see Common Response 1.3, Revised Proposed Plan Amendments, for information on the regulatory pathway.

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		this percent unimpaired flow will be implemented, we would appreciate that clarification.	
573	3	However, based on the information in the Staff Report, we'll share with you our concerns about how unimpaired flow could affect the Mokelumne River and the East Bay community, including threatening our ability to manage temperatures on the lower Mokelumne River, drastically reducing our water supply, causing broad economic impacts throughout our region, disproportionately impacting urban disadvantaged communities, and jeopardizing the state's housing goals.	Please see Chapter 7, Environmental Analysis, of the 2023 draft Staff Report for an analysis of the impacts of the flow scenarios.
573	4	[See letter SDU-0350 for slides being referenced] What I want to talk about today are current conditions on the river and the lower Mokelumne River and some of the actions that have led to some of the successes we've seen over the past 25 years. There's been a lot of talk about the experimental nature of the VAs and how the experimental nature would delay beneficial outcomes even further. But I would argue that we've been operating under a Mokelumne-specific VA of sorts for the past 25 years, and we've had good success. And that success has been based on good science, collaboration with the fish agencies, and management of flow and non-flow measures combined. And so this gives us confidence that the same can be true for the VAs moving forward. Next slide. So the Mokelumne River has been operating under a Joint Settlement Agreement, or JSA, since 1998. The JSA committed East Bay MUD to work collaboratively with the state and federal fish agencies and provide flow and habitat measures that were conditions-based and tied to fish life histories and water year types, all to improve fisheries conditions in the lower Mokelumne River. And as you can see from this graphic, the flows are a big jump from previous agreements. Additionally, the State Board required the JSA flows as part of D-1641, so these flows became an integral part of our water right, codifying our contribution to the needs of the Delta. In fact, the State Board's finding in D-1641 states, and I quote, "It would not	Please see Section 5.3, Reason for the Proposed Plan Amendments, of the 2023 draft Staff Report and Common Response 1.3, Revised Proposed Plan Amendments, for a discussion of the reason for the regulatory pathway requirements.

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		be in the public interest to require more water from the Mokelumne River system then will be provided under the JSA," noting, "It would not only lead to more consumptive use shortages, but also more instances of elevated water temperatures that would ultimately affect fish." Our modeling of the unimpaired flow alternative supports the state's finding in D-1641. In addition to flows, the JSA also provided for habitat restoration, which we've been doing for 30 years, so before signing of the JSA. It provided for an adaptive management clause, and we've worked with State Board staff to do adaptive management to put water in the river at the times when fish need it most. And most importantly, it developed a partnership between East Bay MUD and the fish agencies, which has now grown to include State Board staff, NGO participants, and most recently, we've invited tribal interests to join our partnership. And we've nurtured this collaboration, and we've seen many successes from it.	
573	5	Next slide, please [see letter SDU-0350 for slides]. But even given the successes we've had, we still face limiting factors on our river. And one of those is fall temperature management to support cold-water species. And I know you've heard a lot about it, and I apologize, but it's a big theme in my presentation as well. Under current operations and with active management to address temperature needs, temperature thresholds under our existing agreements can be hard to reach, and they continue to challenge us operationally and in our goals to meet fisheries needs. Under the JSA, we're required to maintain 28,000 acre-feet of cold water in Camanche through October 30th. And one of the ways we accomplish that is by maximizing delivery of cold water from Pardee into Camanche. And carryover storage plays a huge role in our ability to do that. In this graphic, if you look at the bottom right corner, in an	Please see Common Response 1.1, General Comments, regarding consistency with other laws, policies, and agreements. See also Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, regarding implementation of the cold water habitat objective. Additionally, the project is revised as described in Common Response 1.3, Revised Proposed Plan Amendments. In addition to the proposed Plan amendments, which remain part of the project as the regulatory pathway, the revised proposed Plan amendments include water supply adjustments and relaxations to carryover storage requirements for existing water right holders at the outset of plan implementation to reduce water supply impacts and allow more water to be stored in reservoirs. See Section 13.4, Changes in Hydrology and Water Supply, for modeled changes in hydrology and water supply that could occur as a result of the revised proposed Plan amendments.

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		unimpaired flow scenario, we're left with very little cold water in either reservoir and cannot support the spawning and incubation needs sufficiently and we may very well not be able to meet our regulatory requirement under the JSA. So, for me, given the trade-offs between the Mokelumne's small contribution to the Delta under an unimpaired flow scenario and the much larger impact to survival of embryos in the freshwater environment, the unimpaired flow alternative is simply not worth it. If fish can't survive the egg stage in the Mokelumne River, there's nothing to protect through the Delta.	
573	6	Next slide, please [see letter SDU-0350 for slides]. So as part of our JSA responsibility for habitat restoration, we've really taken a holistic approach on how we do restoration on the river. It not only includes site-specific spawning habitat restoration, but really the restoration is designed to reinitiate natural sediment transport, restore geomorphic processes, and improve overall ecosystem health and function. We have been creating suitable rearing habitat, that side-channel habitat in floodplains, James Pearson just spoke about that in early implementation, along with screening riparian diversions to improve juvenile survival and out-migration success. And all of these are programs that will be expanded under the VA opportunity. Next slide. So we strongly believe the Mokelumne JSA can be a model for VA success. The Lower Mokelumne River Partnership continues to provide leadership for the successful implementation of the JSA and will continue to provide tributary governance under the VA, so our agency partners will still be contributing to tributary and system-wide decision making. And so, for this reason, we don't see the Vas as an experiment. We've been working collaboratively with these agencies for over 25 years and it has been working and it can continue to work. The history of collaborative science and data sharing that we	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		have had in the Mokelumne River will be elevated to the VA system-wide assessments, using hypothesis-driven monitoring to achieve program goals through the VA Science Committee. And to date, we've seen significant improvements from managing flow and habitat combined. And the VAs will build on that by ensuring more habitat and dedicated blocks of water to be deployed by our tributary governance to meet the fish needs.	
573	7	[See letter SDU-0350 for slides referenced] A one-size-fits-all unimpaired flow does not work for the diversity of conditions in the Sacramento/Delta watershed. We don't want to lose the ability to properly manage the Mokelumne freshwater environment through an unimpaired flow scenario that depletes our cold-water pool, reduces egg survival. We think the VAs strike a better balance without risking our fishery. Next slide. So this graphic shows how some of these actions have resulted in real results for the Mokelumne River. This year, as has already been stated, we have more than 25,000 salmon in the river and we're still counting. The changes over time have included flow modifications, adaptive managements of flow timing and volume, improvements in habitat, better managing our cold-water pool, both to meet our regulatory requirements but also the criteria for spawning and incubation for salmon in our system. The hatchery is certainly a big support in these successes, but we have not only seen an increase in fish numbers, but we've also seen an increase in the natural production proportion of Chinook, from about 10 percent pre-2010 to a current 10-year average of about 20 percent. So that seems like a real success to me. And in years like this, when we have 25,000 fish in the river, we get to really improve that number even better, we fill the habitat in the river, meet the hatchery goals, and support all the needs for the fishery. Next slide. So as we transition to -- from the JSA success story to concerns over unimpaired flow, I'm going to just touch one more time on a	As described in Staff Report Section 5.4.2.4, Implementation, the inflow requirements would include adaptive implementation measures that would allow implementation to be tailored to each tributary. Please see Common Response 1.3, Revised Proposed Plan Amendments regarding the regulatory pathway implementation of the inflow objective. Please also see Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, for information on the scope of the water temperature analysis and constraints that would result from the combination of carryover storage and higher flow requirement.

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		slide about fisheries impacts, and then I'm going to hand it over to Mike Togolini. But to be clear, you know, we feel like these impacts would occur whether unimpaired flow is implemented now or if it's implemented in eight years as part of another action.	
573	8	Next slide. [see letter SDU-0350 for slides] So as I touched on previously, as a fisheries biologist, I really believe that the unimpaired flow alternative could actually be harmful to the fish in the Mokelumne River. Temperature management has been a key component of our fisheries successes. We could no longer manage our cold-water pool or fall temperatures to ensure fish survival in an unimpaired flow scenario. And based on the analysis and modeling presented in the Staff Report, we believe the report did not adequately address this issue. The report contained no quantitative analysis of temperature impacts on the Mokelumne. Instead, it offered a narrative objective and suggested that the Mokelumne will be fine as long as we maintain 145,000 acre-feet in Camanche. We think that target is oversimplified, an oversimplified interpretation of our system and the associated modeling. We plan to address that in more detail in our written comments.	Please see the water temperature evaluations in Staff Report Section 7.6.2, Aquatic Biological Resources, and Section 13.7.6.2, Aquatic Biological Resources. Water temperature modeling was performed for several regulated rivers in the Sacramento/Delta region. The Staff Report describes that temperature-related effects in Sacramento/Delta regulated tributaries without temperature model results, such as the Mokelumne River, are expected to be similar to those that were modeled and that these effects could temporarily be significant. The regulatory pathway would require implementation of the narrative cold water habitat objective, and those requirements in combination with the flexibility built into the inflow requirements would be expected to generally improve water temperature conditions for native cold water fish. Also see Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, regarding modeling and implementation of the cold water habitat objective and carryover storage ranges. Additionally, see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, regarding modeling of carryover storage target ranges. In addition, the project has been revised in part to allow more water to be stored in reservoirs at the outset of Plan implementation, which would improve cold water habitat conditions. See Staff Report Chapter 13, Revised Proposed Plan Amendments, and Common Response 1.3, Revised Proposed Plan Amendments, for further information on regulatory pathway implementation of the inflow and cold water habitat objectives.
573	9	[see letter SDU-0350 for slides referenced] Now I'm going to focus and talk about the significant impacts the unimpaired flow alternatives would have on the East Bay communities. What I'm sharing with you are the results from the Staff Report.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		Oh, I'm sorry, next slide. There we go. First, there would be an unacceptable dramatic impact to East Bay MUD's water supply. This chart shows the rationing that East Bay MUD would experience under the 55 percent unimpaired flow alternative. Again, this chart is based on the modeling in the Staff Report. Out of 94 years modeled, there would be 90 years with greater than 25 percent rationing and 45 years with at least 50 percent rationing. The maximum cutback would be 88 percent. This level of extreme rationing is not acceptable for the East Bay. Next slide, please. Even the 35 percent unimpaired flow alternative would result in unacceptable reductions in our supply with significant rationing in almost every year. In many cases, these high cutbacks would -- could persist for multiple years, making it very difficult for us to recover our storage. It's important to note that the long-term conservation framework will not reduce demand enough to offset any of these expected losses in supply. Even if the State Board accepts the proposal to extend and increase the long-term framework targets out to 2035, we would only need to achieve an additional five percent reduction in demand to comply with that framework, far less than the results in these unimpaired flow alternatives.	Please see Common Response 7.20, Utilities and Service Systems, for information on how the draft Staff Report municipal water availability, alternative water supplies, and feasibility of potential response actions to reduced surface water supply. Please also refer to Common Response 8.1, Economic Analysis and Other Considerations, for economic analysis and estimates of potential effects on municipal water providers.
573	10	Next slide. [see letter SDU-0350 for slides] The Staff Report suggests agencies can just develop other water supplies but it overstates the feasibility of this approach. Projects like recycled water or desalination can take decades to develop. There are also physical constraints on East Bay MUD's system that make it challenging to move or store these alternative supplies. EBMUD has already invested heavily in water conservation, there is no more low-hanging fruit, so achieving additional conservation will be more expensive than in the past. The Staff Report assumes that we can achieve additional	The environmental and economic analyses presented in the Staff Report do not assume that municipal water suppliers will adopt any specific strategies in response to the Sacramento/Delta update to the Bay-Delta Plan. The analysis presented in Section 8.5, Municipal Water Supply Economic Effects, identifies costs that are estimated as a range representing the extent to which municipal providers may rely on demand management measures and use reserve supplies, if available, versus the cost of acquiring additional water supplies to fully replaced the reduction in the Sacramento/Delta water supply. The analysis includes a Lower Bound and an Upper Bound. A water provider's actual cost most likely would fall between the lower and upper bound.

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		conservation at no cost. We looked at brackish desalination, but putting a plant in the Delta would require water rights that could be curtailed. Next slide, please. As you can see here, the costs associated with developing new supplies would be extremely high. This would force us to increase rates, which would disproportionately impact low-income customers in disadvantaged communities. As Clifford mentioned, approximately 19 percent of East Bay MUD's customers live in a disadvantaged community. The Staff Report did not address rate impacts to urban disadvantaged communities like ours.	Please refer to Common Response 6.3, Water Supply and Other Water Management Actions, and Common Response 8.1, Economic Analysis and Other Considerations, for more information on water supply replacement economics, costs and feasibility of other water supplies, further discussion on municipal water rate, and potential funding sources for municipal water conservation and alternative water supplies.
573	11	Next slide. [see letter SDU-0350 for slides] The unimpaired flow alternatives would also have significant broad economic impacts. East Bay MUD hired economist David L. Sunding to evaluate the regional economic impacts that could result from the unimpaired flow alternatives. Sunding found that the annual cost of the 55 percent unimpaired flow scenario would be \$181 million in direct impacts to East Bay MUD customers, 42,000 jobs lost in our service area, \$7.5 billion in business losses, and \$69.6 million in EBMUD revenue losses. Droughts would make the situation much worse.	Please see Common Response 8.1, Economic Analysis and Other Considerations, for responses to comments regarding the third-party economic analysis submitted with EBMUD's comments on the 2023 draft Staff Report (Sunding and Browne 2022).
573	12	Next slide. [see letter SDU-0350 for slides] The unimpaired flow alternatives would make it impossible to meet the state's housing goals. Our regional housing needs allocation includes 138,040 new housing units in Alameda and Contra Costa counties, and East Bay MUD's own analysis suggests over 180,000 new units by 2050. We cannot supply these new units if there are significant water shortages every year.	Please see Common Response 1.2, Water Quality Control Planning Process, for a discussion on the factors to be considered in establishing water quality objectives, including the need for developing housing. The impacts on housing were analyzed in Section 7.16, Population and Housing. That analysis is fully supported by substantial evidence. In addition, the project is revised as described in Common Response 1.3, Revised Proposed Plan Amendments. In addition to the proposed Plan amendments, which remain part of the project as the regulatory pathway, the revised proposed Plan amendments include water supply adjustments and relaxations

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			to carryover storage requirements for existing water right holders at the outset of plan implementation to reduce water supply impacts and allow more water to be stored in reservoirs. The revised proposed Plan amendments also provide for a VA pathway for an eight-year term with the possibility of extension that reduces the required flow contributions for VA water rights.
573	13	Next slide. [see letter SDU-0350 for slides] What about other alternatives? All the percent of unimpaired flow alternatives would have significant impacts to water supply, disadvantaged communities, the economy, and housing. The true drought modules also potentially provide additional unacceptable results for East Bay MUD. Lastly, we're concerned by how the Staff Report assumes that unimpaired flow would be implemented as a backstop after the voluntary agreements. Unimpaired flow would still have the same negative impacts on fish and the East Bay if implemented in year nine as if it were implemented in the first year. We understand the Board's desire for meaningful backstop if the VAs do not meet their success criteria, and we look forward to working with you to further develop what that could look like.	Please see Chapter 7, Environmental Analysis, for the analysis of impacts of the proposed Plan amendments and other non-VA alternatives.
573	14	Next slide. [see letter SDU-0350 for slides] Now let's talk about the voluntary agreements. Next slide. The VAs would benefit the Mokelumne River. We designed our proposal to build on the success of our current program by adding needed habitat and providing flows while protecting the cold-water pool. The VAs would also benefit the Delta by making additional flows available, particularly in the spring. The VA parties are working with the State Board on detailed accounting to ensure that we meet our flow and habitat obligations. The VAs include a commitment to using and advancing the best available science, not just additional data gathering, but synthesis, peer review, discussion, and collaboration.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.

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		Lastly, the VAs would provide a more balanced solution that would improve conditions in the Delta while still supporting water for other beneficial uses like municipal supply and supporting affordability, housing, hydropower, and groundwater sustainability.	
573	15	If you can go to the last slide? [see letter SDU-0350 for slides] So in conclusion, the Mokelumne River Joint Settlement Agreement program is a proven model of the good that can be done through a collaborative science-based program that considers both flow and habitat improvements. We've been doing this for the past 25 years and it's been successful. The VAs would follow a similar model. However, the unimpaired flow alternatives as presented in the Staff Report would be harmful to the fish and the East Bay community. The VAs would support the Delta without jeopardizing the state's progress in other areas like housing, affordability, and groundwater sustainability. East Bay MUD is committed to working with the state and stakeholders on the process to find a lasting solution that's protective of the environment and the diverse communities that we serve.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project.
573	16	Board Member Firestone: But just to understand the overall points that you made that, you know, as we've discussed the last few panels, with temperature and unimpaired flows, the idea is not -- is to that we need to address those impacts through the implementation plan, which as we talked about, isn't, you know, developed yet, to make sure that there aren't -- that we are mitigating those and that would mean, you know, keeping more in storage for cold-water pool. When you are looking, have you all looked at what that scenario would look like for you in terms of what the -- you know, if we, if the adjustments were made to address temperature, what that would mean for you in terms of water supply impacts, so that just to get a sense of – Chan: Yeah, let me just quickly start, and I'll pass it off to Michelle.	A portion of this comment is from a member of the State Water Board or State Water Board staff. Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise specific environmental impacts of the project, or do not raise specific economic effects of the project. The Staff Report acknowledges that temperature management is frequently a concern below reservoirs on many tributaries throughout summer and fall for the protection of salmon, especially during droughts and critically dry periods. The cold water habitat objective is proposed as a narrative because managing for temperature depends on the unique circumstances of each tributary. See Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, regarding implementation of

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		I mean, we heard some of the flexibility that you spoke of today. We can only react to what's in the Staff Report, which is what you're hearing today. You know, if there's further clarification on how that block of water can be moved, I heard Chair Esquivel talk about that block of water could be even moved to the fall, you know, that would move us closer to what we're currently doing. But again, we can only react to what's in the Staff Report, and that's what we're hearing today. And I'd like to give Michelle an opportunity to speak as well. Workman: Yeah, so when I think about that, what I think about is the diversity, again, in every river system. And so it's impossible for you guys to understand the nuances of every system. It's too much detail. So one of the details about the Mokelumne is that we actually have less storage in Pardee and Camanche combined than our average annual runoff. So in many years, we're releasing flood flows anyway. And so I feel like it's still a constraint and it would be, you know, something like the devil's in the details and how we could work that out because we just don't have a lot of storage. And I think this year is a good example of how managing temperature is difficult on the Mokelumne. We're following a really wet year. We had a lot of water, but it's been a really warm fall. And one of the other things besides storage that drives temperature for fish is ambient conditions. So the river is either warmed or cooled by ambient conditions. And this year, the river remained being warmed by ambient conditions until almost Thanksgiving. So we didn't get optimal spawning temperatures this year, even though it was a big water year. And so I think just taking into consideration the other factors that play into not only temperature management, but how the fish perceive the water once it is there, have to be rolled into that.	the cold water habitat objective. Please also see the response to comment 573-8.

